

Planck 2018 Results: Cosmological Parameter Tables

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Abstract

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

1 Introduction

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

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

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

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

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

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

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

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

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

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

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

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

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17.12	base_w_plikHM.TT_lowl_lowE_BAO_post_lensing_zre6p5	297
17.13	base_w_plikHM.TTTEEE_lowl_lowE_BAO	298
17.14	base_w_plikHM.TTTEEE_lowl_lowE_BAO_post_lensing	299
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17.20	base_w_plikHM.TT_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5	305
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17.22	base_w_plikHM.TTTEEE_lowl_lowE_BAO_Pantheon18_post_lensing	307
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18.10	base_w_wa_plikHM_TT_lowl_lowE_BAO_Pantheon18_post_lensing	319
18.11	base_w_wa_plikHM_TT_lowl_lowE_BAO_Pantheon18_post_zre6p5	320
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18.13	base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18	322
18.14	base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_lensing	323
18.15	base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_zre6p5	324
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19.14	base_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5	339
19.15	base_yhe_plikHM_TTTEEE_lowl_lowE_post_lensing_zre6p5	340
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2 Baseline model

2.1 base_plikHM-TT_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02213	$0.02212^{+0.00059}_{-0.00055}$	$\sigma_8 \Omega_m^{0.25}$	0.6116	$0.611^{+0.030}_{-0.031}$	$H(0.15)$	72.23	$72.3^{+2.1}_{-2.0}$
$\Omega_c h^2$	0.1207	$0.1206^{+0.0054}_{-0.0054}$	$\sigma_8/h^{0.5}$	0.9938	$0.993^{+0.041}_{-0.042}$	$D_M(0.15)$	647.8	648^{+21}_{-21}
$100\theta_{MC}$	1.04075	$1.0408^{+0.0012}_{-0.0013}$	$r_{drag} h$	98.40	$98.5^{+4.3}_{-4.1}$	$H(0.38)$	82.50	$82.5^{+1.5}_{-1.4}$
τ	0.0523	$0.052^{+0.022}_{-0.021}$	$\langle d^2 \rangle^{1/2}$	2.454	$2.454^{+0.096}_{-0.098}$	$D_M(0.38)$	1542.6	1542^{+42}_{-41}
$\ln(10^{10} A_s)$	3.0413	$3.040^{+0.044}_{-0.044}$	z_{re}	7.54	$7.5^{+2.2}_{-2.3}$	$H(0.51)$	89.31	$89.3^{+1.2}_{-1.1}$
n_s	0.9635	$0.963^{+0.015}_{-0.014}$	$10^9 A_s$	2.093	$2.092^{+0.094}_{-0.091}$	$D_M(0.51)$	1996.8	1997^{+48}_{-49}
y_{cal}	1.0005	$1.0004^{+0.0065}_{-0.0064}$	$10^9 A_s e^{-2\tau}$	1.8853	$1.884^{+0.035}_{-0.036}$	$H(0.61)$	95.00	$95.01^{+0.98}_{-0.87}$
A_{217}^{CIB}	48.5	48^{+20}_{-20}	D_{40}	1231.7	1234^{+39}_{-40}	$D_M(0.61)$	2322	2322^{+52}_{-52}
$\xi^{tSZ \times CIB}$	0.32	—	D_{220}	5710	5713^{+110}_{-110}	$H(2.33)$	236.75	$236.7^{+3.3}_{-3.3}$
A_{143}^{tSZ}	7.0	—	D_{810}	2538.2	2536^{+36}_{-35}	$D_M(2.33)$	5777.8	5778^{+41}_{-44}
A_{100}^{PS}	255	263^{+70}_{-70}	D_{1420}	815.5	814^{+13}_{-13}	$f\sigma_8(0.15)$	0.4642	$0.464^{+0.031}_{-0.032}$
A_{143}^{PS}	49.8	49^{+20}_{-20}	D_{2000}	229.94	$229.5^{+4.8}_{-4.6}$	$\sigma_8(0.15)$	0.7500	$0.749^{+0.019}_{-0.020}$
$A_{143 \times 217}^{PS}$	47.3	44^{+20}_{-20}	$n_{s,0.002}$	0.9635	$0.963^{+0.015}_{-0.014}$	$f\sigma_8(0.38)$	0.4804	$0.480^{+0.024}_{-0.025}$
A_{217}^{PS}	119.9	115^{+30}_{-30}	Y_P	0.245295	$0.24529^{+0.00023}_{-0.00026}$	$\sigma_8(0.38)$	0.6638	$0.663^{+0.016}_{-0.016}$
A^{kSZ}	0.0	—	Y_P^{BBN}	0.246621	$0.24661^{+0.00023}_{-0.00026}$	$f\sigma_8(0.51)$	0.4779	$0.477^{+0.021}_{-0.022}$
A_{100}^{dustTT}	8.86	$8.9^{+4.7}_{-4.7}$	$10^5 D/H$	2.632	$2.63^{+0.11}_{-0.11}$	$\sigma_8(0.51)$	0.6208	$0.620^{+0.014}_{-0.015}$
A_{143}^{dustTT}	10.80	$10.7^{+4.7}_{-4.7}$	Age/Gyr	13.830	$13.830^{+0.094}_{-0.097}$	$f\sigma_8(0.61)$	0.4722	$0.472^{+0.018}_{-0.019}$
$A_{143 \times 217}^{dustTT}$	19.4	$18.3^{+8.6}_{-8.4}$	z_*	1090.29	$1090.3^{+1.0}_{-1.1}$	$\sigma_8(0.61)$	0.5904	$0.590^{+0.013}_{-0.014}$
A_{217}^{dustTT}	94.8	93^{+20}_{-20}	r_*	144.44	$144.5^{+1.3}_{-1.3}$	$f\sigma_8(2.33)$	0.2973	$0.2971^{+0.0069}_{-0.0066}$
c_{100}	0.99965	$0.9996^{+0.0016}_{-0.0015}$	$100\theta_*$	1.04096	$1.0410^{+0.0012}_{-0.0012}$	$\sigma_8(2.33)$	0.3061	$0.3059^{+0.0074}_{-0.0069}$
c_{217}	0.99825	$0.9983^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.876	$13.88^{+0.12}_{-0.11}$	f_{2000}^{143}	30.5	31^{+8}_{-8}
H_0	66.86	$66.9^{+2.5}_{-2.4}$	z_{drag}	1059.44	$1059.4^{+1.2}_{-1.2}$	$f_{2000}^{143 \times 217}$	33.3	34^{+5}_{-5}
Ω_Λ	0.6791	$0.679^{+0.033}_{-0.035}$	r_{drag}	147.18	$147.2^{+1.3}_{-1.3}$	f_{2000}^{217}	107.8	$108.2^{+5.0}_{-5.0}$
Ω_m	0.3209	$0.321^{+0.035}_{-0.033}$	k_D	0.14058	$0.1405^{+0.0014}_{-0.0014}$	χ_{simall}^2	395.88	$397.0 (\nu: 1.5)$
$\Omega_m h^2$	0.1435	$0.1434^{+0.0052}_{-0.0052}$	$100\theta_D$	0.16105	$0.16107^{+0.00068}_{-0.00070}$	χ_{lowl}^2	23.60	$23.9 (\nu: 0.8)$
$\Omega_m h^3$	0.09591	$0.0959^{+0.0012}_{-0.0011}$	z_{eq}	3413	3411^{+120}_{-120}	χ_{plik}^2	758.7	$771.4 (\nu: 14.9)$
σ_8	0.8126	$0.812^{+0.022}_{-0.024}$	k_{eq}	0.010416	$0.01041^{+0.00038}_{-0.00038}$	χ_{prior}^2	1.4	$7.3 (\nu: 6.8)$
S_8	0.840	$0.840^{+0.063}_{-0.063}$	$100\theta_{eq}$	0.8106	$0.811^{+0.024}_{-0.022}$	χ_{CMB}^2	1178.2	$1192.3 (\nu: 15.1)$
$\sigma_8 \Omega_m^{0.5}$	0.4604	$0.460^{+0.035}_{-0.034}$	$100\theta_{s,eq}$	0.4482	$0.448^{+0.012}_{-0.011}$			

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

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

2.2 base_plikHM_TT_lowl_lowE_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02223	$0.02222^{+0.00053}_{-0.00050}$	$\sigma_8/h^{0.5}$	0.9814	$0.982^{+0.030}_{-0.030}$	$H(0.38)$	82.97	$82.96^{+0.94}_{-0.88}$
$\Omega_c h^2$	0.11898	$0.1190^{+0.0031}_{-0.0031}$	$r_{\text{drag}} h$	99.76	$99.8^{+2.4}_{-2.4}$	$D_M(0.38)$	1529.5	1530^{+24}_{-25}
$100\theta_{\text{MC}}$	1.04102	$1.0410^{+0.0011}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	2.425	$2.429^{+0.070}_{-0.072}$	$H(0.51)$	89.67	$89.66^{+0.78}_{-0.72}$
τ	0.0532	$0.054^{+0.022}_{-0.020}$	z_{re}	7.59	$7.6^{+2.1}_{-2.2}$	$D_M(0.51)$	1981.5	1982^{+28}_{-29}
$\ln(10^{10} A_s)$	3.0390	$3.040^{+0.045}_{-0.045}$	$10^9 A_s$	2.089	$2.091^{+0.096}_{-0.092}$	$H(0.61)$	95.27	$95.26^{+0.67}_{-0.61}$
n_s	0.9673	$0.966^{+0.011}_{-0.011}$	$10^9 A_s e^{-2\tau}$	1.8777	$1.877^{+0.030}_{-0.031}$	$D_M(0.61)$	2305.9	2306^{+30}_{-31}
y_{cal}	1.0004	$1.0005^{+0.0067}_{-0.0065}$	D_{40}	1223.2	1226^{+33}_{-34}	$H(2.33)$	235.75	$235.7^{+2.0}_{-2.0}$
A_{217}^{CIB}	49.2	48^{+20}_{-20}	D_{220}	5717	5721^{+99}_{-110}	$D_M(2.33)$	5766.2	5767^{+31}_{-33}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.26	—	D_{810}	2536.8	2536^{+36}_{-37}	$f\sigma_8(0.15)$	0.4542	$0.454^{+0.020}_{-0.020}$
A_{143}^{tSZ}	7.1	—	D_{1420}	816.3	815^{+13}_{-13}	$\sigma_8(0.15)$	0.7459	$0.746^{+0.018}_{-0.018}$
A_{100}^{PS}	255	264^{+70}_{-80}	D_{2000}	230.24	$229.9^{+4.5}_{-4.6}$	$f\sigma_8(0.38)$	0.4727	$0.473^{+0.017}_{-0.017}$
A_{143}^{PS}	48.1	48^{+20}_{-20}	$n_{s,0.002}$	0.9673	$0.966^{+0.011}_{-0.011}$	$\sigma_8(0.38)$	0.6613	$0.661^{+0.015}_{-0.015}$
$A_{143 \times 217}^{\text{PS}}$	44.9	43^{+20}_{-20}	Y_{P}	0.245336	$0.24533^{+0.00020}_{-0.00023}$	$f\sigma_8(0.51)$	0.4715	$0.472^{+0.015}_{-0.015}$
A_{217}^{PS}	118.4	114^{+30}_{-30}	$Y_{\text{P}}^{\text{BBN}}$	0.246663	$0.24666^{+0.00021}_{-0.00024}$	$\sigma_8(0.51)$	0.6190	$0.619^{+0.015}_{-0.014}$
A^{kSZ}	0.0	—	$10^5 \text{D}/\text{H}$	2.613	$2.615^{+0.096}_{-0.097}$	$f\sigma_8(0.61)$	0.4666	$0.467^{+0.014}_{-0.014}$
A_{100}^{dustTT}	8.85	$9.0^{+4.5}_{-4.6}$	Age/Gyr	13.805	$13.807^{+0.071}_{-0.074}$	$\sigma_8(0.61)$	0.5890	$0.589^{+0.013}_{-0.013}$
A_{143}^{dustTT}	10.85	$10.8^{+4.7}_{-4.6}$	z_*	1090.01	$1090.03^{+0.77}_{-0.77}$	$f\sigma_8(2.33)$	0.2970	$0.2971^{+0.0069}_{-0.0067}$
$A_{143 \times 217}^{\text{dustTT}}$	19.4	$18.3^{+8.6}_{-8.5}$	r_*	144.81	$144.82^{+0.83}_{-0.80}$	$\sigma_8(2.33)$	0.3063	$0.3063^{+0.0073}_{-0.0069}$
A_{217}^{dustTT}	94.4	93^{+20}_{-20}	$100\theta_*$	1.04121	$1.0412^{+0.0011}_{-0.0011}$	f_{2000}^{143}	30.3	31^{+8}_{-7}
c_{100}	0.99963	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.907	$13.909^{+0.083}_{-0.078}$	$f_{2000}^{143 \times 217}$	33.1	33^{+6}_{-5}
c_{217}	0.99826	$0.9983^{+0.0017}_{-0.0015}$	z_{drag}	1059.51	$1059.5^{+1.2}_{-1.1}$	f_{2000}^{217}	107.6	$107.9^{+5.1}_{-5.2}$
H_0	67.62	$67.6^{+1.5}_{-1.4}$	r_{drag}	147.52	$147.54^{+0.91}_{-0.86}$	χ_{simall}^2	395.89	$397.1 (\nu: 1.9)$
Ω_Λ	0.6898	$0.690^{+0.019}_{-0.019}$	k_{D}	0.14030	$0.1403^{+0.0011}_{-0.0012}$	χ_{lowl}^2	22.83	$23.09 (\nu: 0.4)$
Ω_{m}	0.3102	$0.310^{+0.019}_{-0.019}$	$100\theta_{\text{D}}$	0.16101	$0.16102^{+0.00068}_{-0.00067}$	χ_{plik}^2	760.1	$772.2 (\nu: 15.1)$
$\Omega_{\text{m}} h^2$	0.14185	$0.1418^{+0.0031}_{-0.0031}$	z_{eq}	3374	3374^{+74}_{-74}	$\chi_{6\text{DF}}^2$	0.022	$0.059 (\nu: 0.0)$
$\Omega_{\text{m}} h^3$	0.09593	$0.0959^{+0.0011}_{-0.0011}$	k_{eq}	0.010299	$0.01030^{+0.00022}_{-0.00022}$	χ_{MGS}^2	1.28	$1.35 (\nu: 0.1)$
σ_8	0.8071	$0.807^{+0.020}_{-0.020}$	$100\theta_{\text{eq}}$	0.8180	$0.818^{+0.014}_{-0.013}$	χ_{DR12BAO}^2	4.18	$4.8 (\nu: 1.3)$
S_8	0.8207	$0.821^{+0.038}_{-0.038}$	$100\theta_{\text{s,eq}}$	0.4519	$0.4520^{+0.0071}_{-0.0069}$	χ_{prior}^2	1.4	$7.4 (\nu: 6.9)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4495	$0.450^{+0.021}_{-0.021}$	$H(0.15)$	72.89	$72.9^{+1.3}_{-1.2}$	χ_{BAO}^2	5.49	$6.2 (\nu: 0.9)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6023	$0.602^{+0.020}_{-0.020}$	$D_M(0.15)$	641.2	641^{+12}_{-12}	χ_{CMB}^2	1178.8	$1192.4 (\nu: 15.4)$

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

χ_{eff}^2 : BAO - 6DF: 0.02 MGS: 1.28 DR12BAO: 4.18 CMB - simall_100x143.offlike5_EE_Aplanck_B: 395.89 commander_dx12_v3.2.29: 22.83 plik_rd12_HM_v22.TT: 760.10

2.3 base_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02212^{+0.00058}_{-0.00055}$	$\sigma_8 \Omega_m^{0.25}$	$0.612^{+0.030}_{-0.030}$	$H(0.15)$	$72.3^{+2.1}_{-2.0}$
$\Omega_c h^2$	$0.1206^{+0.0054}_{-0.0054}$	$\sigma_8/h^{0.5}$	$0.994^{+0.040}_{-0.041}$	$D_M(0.15)$	647^{+21}_{-20}
$100\theta_{MC}$	$1.0408^{+0.0012}_{-0.0013}$	$r_{drag}h$	$98.5^{+4.3}_{-4.0}$	$H(0.38)$	$82.5^{+1.5}_{-1.4}$
τ	$0.054^{+0.019}_{-0.013}$	$\langle d^2 \rangle^{1/2}$	$2.457^{+0.095}_{-0.097}$	$D_M(0.38)$	1542^{+41}_{-41}
$\ln(10^{10} A_s)$	$3.044^{+0.041}_{-0.030}$	z_{re}	< 9.46	$H(0.51)$	$89.3^{+1.2}_{-1.1}$
n_s	$0.963^{+0.015}_{-0.014}$	$10^9 A_s$	$2.098^{+0.088}_{-0.063}$	$D_M(0.51)$	1996^{+48}_{-48}
y_{cal}	$1.0004^{+0.0065}_{-0.0064}$	$10^9 A_s e^{-2\tau}$	$1.884^{+0.035}_{-0.036}$	$H(0.61)$	$95.02^{+0.98}_{-0.87}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{40}	1234^{+40}_{-40}	$D_M(0.61)$	2321^{+51}_{-52}
$\xi^{tSZ \times CIB}$	—	D_{220}	5713^{+100}_{-110}	$H(2.33)$	$236.7^{+3.3}_{-3.3}$
A_{143}^{tSZ}	—	D_{810}	2536^{+36}_{-35}	$D_M(2.33)$	5777^{+42}_{-43}
A_{100}^{PS}	263^{+70}_{-70}	D_{1420}	814^{+13}_{-13}	$f\sigma_8(0.15)$	$0.464^{+0.031}_{-0.032}$
A_{143}^{PS}	49^{+20}_{-20}	D_{2000}	$229.6^{+4.8}_{-4.6}$	$\sigma_8(0.15)$	$0.750^{+0.018}_{-0.018}$
$A_{143 \times 217}^{PS}$	44^{+20}_{-20}	$n_{s,0.002}$	$0.963^{+0.015}_{-0.014}$	$f\sigma_8(0.38)$	$0.480^{+0.024}_{-0.025}$
A_{217}^{PS}	115^{+30}_{-30}	Y_P	$0.24529^{+0.00023}_{-0.00026}$	$\sigma_8(0.38)$	$0.664^{+0.015}_{-0.013}$
A^{kSZ}	—	Y_P^{BBN}	$0.24661^{+0.00023}_{-0.00026}$	$f\sigma_8(0.51)$	$0.478^{+0.020}_{-0.022}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.7}$	$10^5 D/H$	$2.63^{+0.11}_{-0.11}$	$\sigma_8(0.51)$	$0.621^{+0.014}_{-0.011}$
A_{143}^{dustTT}	$10.7^{+4.6}_{-4.7}$	Age/Gyr	$13.829^{+0.094}_{-0.096}$	$f\sigma_8(0.61)$	$0.472^{+0.018}_{-0.019}$
$A_{143 \times 217}^{dustTT}$	$18.3^{+8.6}_{-8.5}$	z_*	$1090.3^{+1.0}_{-1.1}$	$\sigma_8(0.61)$	$0.591^{+0.013}_{-0.010}$
A_{217}^{dustTT}	93^{+20}_{-20}	r_*	$144.5^{+1.2}_{-1.2}$	$f\sigma_8(2.33)$	$0.2975^{+0.0065}_{-0.0047}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	$1.0410^{+0.0012}_{-0.0012}$	$\sigma_8(2.33)$	$0.3064^{+0.0070}_{-0.0047}$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	$13.88^{+0.12}_{-0.11}$	f_{2000}^{143}	31^{+8}_{-8}
H_0	$66.9^{+2.4}_{-2.3}$	z_{drag}	$1059.4^{+1.2}_{-1.2}$	$f_{2000}^{143 \times 217}$	34^{+5}_{-5}
Ω_Λ	$0.680^{+0.033}_{-0.035}$	r_{drag}	$147.2^{+1.3}_{-1.2}$	f_{2000}^{217}	$108.1^{+4.9}_{-5.0}$
Ω_m	$0.320^{+0.035}_{-0.033}$	k_D	$0.1405^{+0.0014}_{-0.0014}$	χ_{simall}^2	$396.9 (\nu: 1.5)$
$\Omega_m h^2$	$0.1433^{+0.0052}_{-0.0051}$	$100\theta_D$	$0.16107^{+0.00069}_{-0.00069}$	χ_{lowl}^2	$23.9 (\nu: 0.8)$
$\Omega_m h^3$	$0.0959^{+0.0012}_{-0.0012}$	z_{eq}	3410^{+120}_{-120}	χ_{plik}^2	$771.3 (\nu: 14.7)$
σ_8	$0.813^{+0.021}_{-0.022}$	k_{eq}	$0.01041^{+0.00038}_{-0.00037}$	χ_{prior}^2	$7.3 (\nu: 6.7)$
S_8	$0.840^{+0.063}_{-0.062}$	$100\theta_{eq}$	$0.811^{+0.024}_{-0.022}$	χ_{CMB}^2	$1192.0 (\nu: 14.8)$
$\sigma_8 \Omega_m^{0.5}$	$0.460^{+0.034}_{-0.034}$	$100\theta_{s,eq}$	$0.448^{+0.012}_{-0.011}$		

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

2.4 base_plikHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02222^{+0.00053}_{-0.00050}$	$\sigma_8/h^{0.5}$	$0.983^{+0.029}_{-0.028}$	$H(0.38)$	$82.97^{+0.93}_{-0.88}$
$\Omega_c h^2$	$0.1189^{+0.0031}_{-0.0031}$	$r_{\text{drag}} h$	$99.8^{+2.4}_{-2.4}$	$D_M(0.38)$	1530^{+24}_{-25}
$100\theta_{\text{MC}}$	$1.0410^{+0.0011}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	$2.431^{+0.069}_{-0.067}$	$H(0.51)$	$89.66^{+0.78}_{-0.72}$
τ	$0.055^{+0.020}_{-0.014}$	z_{re}	< 9.58	$D_M(0.51)$	1982^{+28}_{-29}
$\ln(10^{10} A_s)$	$3.043^{+0.043}_{-0.031}$	$10^9 A_s$	$2.097^{+0.092}_{-0.065}$	$H(0.61)$	$95.27^{+0.66}_{-0.62}$
n_s	$0.967^{+0.011}_{-0.011}$	$10^9 A_s e^{-2\tau}$	$1.877^{+0.030}_{-0.031}$	$D_M(0.61)$	2306^{+30}_{-32}
y_{cal}	$1.0005^{+0.0067}_{-0.0064}$	D_{40}	1226^{+33}_{-34}	$H(2.33)$	$235.7^{+2.0}_{-2.0}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{220}	5721^{+99}_{-110}	$D_M(2.33)$	5767^{+31}_{-32}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{810}	2536^{+36}_{-36}	$f\sigma_8(0.15)$	$0.455^{+0.020}_{-0.020}$
A_{143}^{tSZ}	—	D_{1420}	815^{+13}_{-13}	$\sigma_8(0.15)$	$0.747^{+0.018}_{-0.015}$
A_{100}^{PS}	263^{+70}_{-80}	D_{2000}	$230.0^{+4.5}_{-4.6}$	$f\sigma_8(0.38)$	$0.473^{+0.016}_{-0.016}$
A_{143}^{PS}	48^{+20}_{-20}	$n_{s,0.002}$	$0.967^{+0.011}_{-0.011}$	$\sigma_8(0.38)$	$0.662^{+0.015}_{-0.012}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	Y_{P}	$0.24533^{+0.00020}_{-0.00024}$	$f\sigma_8(0.51)$	$0.472^{+0.015}_{-0.014}$
A_{217}^{PS}	114^{+30}_{-30}	$Y_{\text{P}}^{\text{BBN}}$	$0.24666^{+0.00020}_{-0.00024}$	$\sigma_8(0.51)$	$0.620^{+0.014}_{-0.011}$
A^{kSZ}	—	$10^5 \text{D}/\text{H}$	$2.615^{+0.097}_{-0.096}$	$f\sigma_8(0.61)$	$0.467^{+0.014}_{-0.013}$
A_{100}^{dustTT}	$8.9^{+4.5}_{-4.6}$	Age/Gyr	$13.806^{+0.072}_{-0.073}$	$\sigma_8(0.61)$	$0.590^{+0.013}_{-0.010}$
A_{143}^{dustTT}	$10.8^{+4.8}_{-4.6}$	z_*	$1090.02^{+0.77}_{-0.77}$	$f\sigma_8(2.33)$	$0.2974^{+0.0067}_{-0.0048}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.4}_{-8.4}$	r_*	$144.82^{+0.83}_{-0.80}$	$\sigma_8(2.33)$	$0.3067^{+0.0070}_{-0.0050}$
A_{217}^{dustTT}	93^{+20}_{-20}	$100\theta_*$	$1.0412^{+0.0011}_{-0.0011}$	f_{2000}^{143}	31^{+8}_{-7}
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	$13.909^{+0.084}_{-0.079}$	$f_{2000}^{143 \times 217}$	33^{+6}_{-5}
c_{217}	$0.9983^{+0.0017}_{-0.0015}$	z_{drag}	$1059.5^{+1.1}_{-1.1}$	f_{2000}^{217}	$107.9^{+5.1}_{-5.2}$
H_0	$67.6^{+1.5}_{-1.4}$	r_{drag}	$147.54^{+0.91}_{-0.87}$	χ_{simall}^2	$397.1 (\nu: 1.9)$
Ω_Λ	$0.690^{+0.018}_{-0.019}$	k_{D}	$0.1403^{+0.0011}_{-0.0012}$	χ_{lowl}^2	$23.11 (\nu: 0.4)$
Ω_{m}	$0.310^{+0.019}_{-0.018}$	$100\theta_{\text{D}}$	$0.16101^{+0.00068}_{-0.00067}$	χ_{plik}^2	$772.0 (\nu: 14.8)$
$\Omega_{\text{m}} h^2$	$0.1418^{+0.0031}_{-0.0031}$	z_{eq}	3373^{+74}_{-73}	$\chi_{6\text{DF}}^2$	$0.058 (\nu: 0.0)$
$\Omega_{\text{m}} h^3$	$0.0959^{+0.0012}_{-0.0011}$	k_{eq}	$0.01030^{+0.00022}_{-0.00022}$	χ_{MGS}^2	$1.36 (\nu: 0.1)$
σ_8	$0.808^{+0.020}_{-0.017}$	$100\theta_{\text{eq}}$	$0.818^{+0.014}_{-0.013}$	χ_{DR12BAO}^2	$4.8 (\nu: 1.3)$
S_8	$0.822^{+0.038}_{-0.038}$	$100\theta_{\text{s,eq}}$	$0.4520^{+0.0071}_{-0.0069}$	χ_{prior}^2	$7.4 (\nu: 6.9)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.450^{+0.021}_{-0.021}$	$H(0.15)$	$72.9^{+1.2}_{-1.2}$	χ_{BAO}^2	$6.2 (\nu: 0.9)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.603^{+0.020}_{-0.020}$	$D_M(0.15)$	641^{+12}_{-12}	χ_{CMB}^2	$1192.2 (\nu: 15.0)$
$\bar{\chi}_{\text{eff}}^2 = 1205.76; R - 1 = 0.02069$					

2.5 base_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022377	$0.02236^{+0.00038}_{-0.00038}$	$\Omega_m h^3$	0.09636	$0.09633^{+0.00075}_{-0.00072}$	$100\theta_{\text{eq}}$	0.8128	$0.812^{+0.015}_{-0.015}$
$\Omega_c h^2$	0.12010	$0.1202^{+0.0036}_{-0.0035}$	σ_8	0.8120	$0.812^{+0.020}_{-0.019}$	$100\theta_{\text{s,eq}}$	0.4491	$0.4490^{+0.0077}_{-0.0075}$
$100\theta_{\text{MC}}$	1.04092	$1.04090^{+0.00078}_{-0.00080}$	S_8	0.8331	$0.834^{+0.042}_{-0.041}$	$H(0.15)$	72.65	$72.6^{+1.3}_{-1.3}$
τ	0.0543	$0.054^{+0.023}_{-0.020}$	$\sigma_8 \Omega_m^{0.5}$	0.4563	$0.457^{+0.023}_{-0.023}$	$D_{\text{M}}(0.15)$	643.7	644^{+14}_{-13}
$\ln(10^{10} A_s)$	3.0447	$3.045^{+0.045}_{-0.041}$	$\sigma_8 \Omega_m^{0.25}$	0.6087	$0.609^{+0.021}_{-0.021}$	$H(0.38)$	82.85	$82.82^{+0.98}_{-0.95}$
n_s	0.9659	$0.965^{+0.011}_{-0.011}$	$\sigma_8/h^{0.5}$	0.9896	$0.990^{+0.030}_{-0.030}$	$D_{\text{M}}(0.38)$	1534.0	1535^{+27}_{-27}
y_{cal}	1.0006	$1.0005^{+0.0063}_{-0.0064}$	$r_{\text{drag}} h$	99.00	$98.9^{+2.8}_{-2.7}$	$H(0.51)$	89.61	$89.59^{+0.78}_{-0.76}$
A_{217}^{CIB}	47.2	47^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.445	$2.448^{+0.072}_{-0.072}$	$D_{\text{M}}(0.51)$	1986.5	1988^{+31}_{-31}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.42	—	z_{re}	7.68	$7.7^{+2.2}_{-2.1}$	$H(0.61)$	95.27	$95.25^{+0.63}_{-0.60}$
A_{143}^{tSZ}	7.23	$5.5^{+4.3}_{-4.9}$	$10^9 A_s$	2.100	$2.101^{+0.097}_{-0.085}$	$D_{\text{M}}(0.61)$	2311.1	2312^{+34}_{-34}
A_{100}^{PS}	251	258^{+70}_{-70}	$10^9 A_s e^{-2\tau}$	1.8843	$1.884^{+0.031}_{-0.030}$	$H(2.33)$	236.64	$236.7^{+2.1}_{-2.1}$
A_{143}^{PS}	47.4	46^{+20}_{-20}	D_{40}	1229.3	1232^{+34}_{-32}	$D_{\text{M}}(2.33)$	5763.6	5765^{+28}_{-28}
$A_{143 \times 217}^{\text{PS}}$	47.3	42^{+20}_{-20}	D_{220}	5730	5731^{+98}_{-99}	$f\sigma_8(0.15)$	0.4605	$0.461^{+0.021}_{-0.021}$
A_{217}^{PS}	119.8	115^{+30}_{-30}	D_{810}	2541.1	2539^{+34}_{-35}	$\sigma_8(0.15)$	0.7499	$0.750^{+0.018}_{-0.016}$
A^{kSZ}	0.0	—	D_{1420}	818.3	817^{+12}_{-12}	$f\sigma_8(0.38)$	0.4779	$0.478^{+0.017}_{-0.017}$
A_{100}^{dustTT}	8.86	$8.9^{+4.7}_{-4.6}$	D_{2000}	231.26	$230.9^{+4.1}_{-4.0}$	$\sigma_8(0.38)$	0.6642	$0.664^{+0.015}_{-0.014}$
A_{143}^{dustTT}	11.10	$10.9^{+4.7}_{-4.5}$	$n_{\text{s},0.002}$	0.9659	$0.965^{+0.011}_{-0.011}$	$f\sigma_8(0.51)$	0.4760	$0.476^{+0.015}_{-0.015}$
$A_{143 \times 217}^{\text{dustTT}}$	19.8	$18.6^{+8.5}_{-8.7}$	Y_{P}	0.245398	$0.24539^{+0.00014}_{-0.00016}$	$\sigma_8(0.51)$	0.6214	$0.621^{+0.014}_{-0.013}$
A_{217}^{dustTT}	95.1	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246725	$0.24672^{+0.00014}_{-0.00016}$	$f\sigma_8(0.61)$	0.4707	$0.471^{+0.014}_{-0.014}$
A_{100}^{dustTE}	0.114	$0.114^{+0.10}_{-0.095}$	$10^5 \text{D}/\text{H}$	2.584	$2.588^{+0.073}_{-0.068}$	$\sigma_8(0.61)$	0.5912	$0.591^{+0.014}_{-0.012}$
$A_{100 \times 143}^{\text{dustTE}}$	0.134	$0.135^{+0.077}_{-0.077}$	Age/Gyr	13.797	$13.800^{+0.062}_{-0.062}$	$f\sigma_8(2.33)$	0.2979	$0.2978^{+0.0070}_{-0.0062}$
$A_{100 \times 217}^{\text{dustTE}}$	0.482	$0.48^{+0.21}_{-0.22}$	z_*	1089.92	$1089.95^{+0.72}_{-0.69}$	$\sigma_8(2.33)$	0.3069	$0.3068^{+0.0075}_{-0.0066}$
A_{143}^{dustTE}	0.224	$0.23^{+0.13}_{-0.13}$	r_*	144.40	$144.39^{+0.77}_{-0.77}$	f_{2000}^{143}	28.9	29^{+7}_{-7}
$A_{143 \times 217}^{\text{dustTE}}$	0.664	$0.67^{+0.21}_{-0.21}$	$100\theta_*$	1.04110	$1.04109^{+0.00076}_{-0.00079}$	$f_{2000}^{143 \times 217}$	32.04	32^{+5}_{-5}
A_{217}^{dustTE}	2.08	$2.09^{+0.69}_{-0.68}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.870	$13.869^{+0.072}_{-0.070}$	f_{2000}^{217}	106.69	$107.0^{+4.6}_{-4.5}$
c_{100}	0.99969	$0.9997^{+0.0016}_{-0.0016}$	z_{drag}	1059.97	$1059.93^{+0.77}_{-0.79}$	χ_{small}^2	396.05	$397.1 (\nu: 2.0)$
c_{217}	0.99816	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	147.06	$147.05^{+0.76}_{-0.74}$	χ_{lowl}^2	23.26	$23.55 (\nu: 0.5)$
H_0	67.32	$67.3^{+1.6}_{-1.6}$	k_{D}	0.14091	$0.14090^{+0.00080}_{-0.00079}$	χ_{plik}^2	2344.6	$2359.5 (\nu: 16.6)$
Ω_{Λ}	0.6842	$0.683^{+0.021}_{-0.023}$	$100\theta_{\text{D}}$	0.160744	$0.16077^{+0.00046}_{-0.00044}$	χ_{prior}^2	1.8	$11.6 (\nu: 10.3)$
Ω_{m}	0.3158	$0.317^{+0.023}_{-0.021}$	z_{eq}	3405	3407^{+80}_{-78}	χ_{CMB}^2	2764.0	$2780.2 (\nu: 16.6)$
$\Omega_{\text{m}} h^2$	0.14313	$0.1432^{+0.0033}_{-0.0033}$	k_{eq}	0.010392	$0.01040^{+0.00024}_{-0.00024}$			

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

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

2.6 base_plikHM_TTTEEE_lowl_lowE_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022432	$0.02242^{+0.00033}_{-0.00035}$	σ_8	0.8098	$0.810^{+0.019}_{-0.018}$	$H(0.15)$	72.97	$72.9^{+1.0}_{-0.97}$
$\Omega_c h^2$	0.11926	$0.1193^{+0.0026}_{-0.0026}$	S_8	0.8240	$0.825^{+0.032}_{-0.033}$	$D_M(0.15)$	640.5	$640.8^{+9.8}_{-9.9}$
$100\theta_{MC}$	1.04100	$1.04101^{+0.00074}_{-0.00079}$	$\sigma_8 \Omega_m^{0.5}$	0.4513	$0.452^{+0.018}_{-0.018}$	$H(0.38)$	83.07	$83.05^{+0.74}_{-0.71}$
τ	0.0553	$0.056^{+0.022}_{-0.019}$	$\sigma_8 \Omega_m^{0.25}$	0.6046	$0.605^{+0.019}_{-0.019}$	$D_M(0.38)$	1527.8	1528^{+20}_{-20}
$\ln(10^{10} A_s)$	3.0452	$3.046^{+0.045}_{-0.041}$	$\sigma_8/h^{0.5}$	0.9843	$0.985^{+0.027}_{-0.027}$	$H(0.51)$	89.78	$89.77^{+0.61}_{-0.57}$
n_s	0.9680	$0.9670^{+0.0095}_{-0.010}$	$r_{drag} h$	99.66	$99.6^{+2.1}_{-2.0}$	$D_M(0.51)$	1979.2	1980^{+23}_{-23}
y_{cal}	1.0007	$1.0006^{+0.0061}_{-0.0063}$	$\langle d^2 \rangle^{1/2}$	2.433	$2.436^{+0.064}_{-0.067}$	$H(0.61)$	95.401	$95.39^{+0.50}_{-0.47}$
A_{217}^{CIB}	46.7	47^{+20}_{-20}	z_{re}	7.76	$7.8^{+2.1}_{-2.1}$	$D_M(0.61)$	2303.2	2304^{+25}_{-25}
$\xi^{tSZ \times CIB}$	0.54	—	$10^9 A_s$	2.101	$2.103^{+0.096}_{-0.084}$	$H(2.33)$	236.14	$236.2^{+1.6}_{-1.5}$
A_{143}^{tSZ}	7.12	> 1.03	$10^9 A_s e^{-2\tau}$	1.8813	$1.880^{+0.028}_{-0.027}$	$D_M(2.33)$	5758.2	5759^{+23}_{-23}
A_{100}^{PS}	249	258^{+70}_{-70}	D_{40}	1225.2	1227^{+29}_{-29}	$f\sigma_8(0.15)$	0.4560	$0.456^{+0.017}_{-0.017}$
A_{143}^{PS}	48.6	45^{+20}_{-20}	D_{220}	5735	5735^{+94}_{-94}	$\sigma_8(0.15)$	0.7484	$0.748^{+0.018}_{-0.016}$
$A_{143 \times 217}^{PS}$	49.8	42^{+20}_{-20}	D_{810}	2541.5	2539^{+33}_{-34}	$f\sigma_8(0.38)$	0.4745	$0.475^{+0.015}_{-0.015}$
A_{217}^{PS}	120.4	115^{+20}_{-30}	D_{1420}	819.1	818^{+12}_{-12}	$\sigma_8(0.38)$	0.6635	$0.664^{+0.016}_{-0.014}$
A^{kSZ}	0.0	—	D_{2000}	231.58	$231.1^{+4.1}_{-3.9}$	$f\sigma_8(0.51)$	0.4732	$0.473^{+0.014}_{-0.014}$
A_{100}^{dustTT}	8.89	$8.9^{+5.0}_{-4.6}$	$n_{s,0.002}$	0.9680	$0.9670^{+0.0095}_{-0.010}$	$\sigma_8(0.51)$	0.6210	$0.621^{+0.015}_{-0.013}$
A_{143}^{dustTT}	11.01	$10.9^{+4.7}_{-4.4}$	Y_P	0.245420	$0.24541^{+0.00012}_{-0.00014}$	$f\sigma_8(0.61)$	0.4683	$0.468^{+0.013}_{-0.012}$
$A_{143 \times 217}^{dustTT}$	19.9	$18.6^{+8.8}_{-9.0}$	Y_P^{BBN}	0.246746	$0.24674^{+0.00012}_{-0.00014}$	$\sigma_8(0.61)$	0.5909	$0.591^{+0.014}_{-0.012}$
A_{217}^{dustTT}	95.2	94^{+20}_{-20}	$10^5 D/H$	2.574	$2.577^{+0.066}_{-0.060}$	$f\sigma_8(2.33)$	0.2980	$0.2979^{+0.0072}_{-0.0061}$
A_{100}^{dustTE}	0.114	$0.113^{+0.093}_{-0.091}$	Age/Gyr	13.786	$13.787^{+0.052}_{-0.050}$	$\sigma_8(2.33)$	0.3072	$0.3072^{+0.0077}_{-0.0063}$
$A_{100 \times 143}^{dustTE}$	0.135	$0.135^{+0.074}_{-0.080}$	z_*	1089.78	$1089.80^{+0.57}_{-0.54}$	f_{2000}^{143}	28.5	29^{+7}_{-7}
$A_{100 \times 217}^{dustTE}$	0.481	$0.48^{+0.21}_{-0.21}$	r_*	144.58	$144.57^{+0.59}_{-0.61}$	$f_{2000}^{143 \times 217}$	31.78	32^{+5}_{-5}
A_{143}^{dustTE}	0.225	$0.23^{+0.14}_{-0.14}$	$100\theta_*$	1.04118	$1.04119^{+0.00072}_{-0.00079}$	f_{2000}^{217}	106.39	$106.8^{+4.4}_{-4.4}$
$A_{143 \times 217}^{dustTE}$	0.666	$0.67^{+0.21}_{-0.20}$	$D_M(z_*)/\text{Gpc}$	13.886	$13.885^{+0.055}_{-0.059}$	χ_{small}^2	396.2	$397.3 (\nu: 2.4)$
A_{217}^{dustTE}	2.08	$2.09^{+0.68}_{-0.66}$	z_{drag}	1060.01	$1060.00^{+0.70}_{-0.75}$	χ_{lowl}^2	22.87	$23.13 (\nu: 0.3)$
c_{100}	0.99971	$0.9997^{+0.0016}_{-0.0017}$	r_{drag}	147.22	$147.22^{+0.61}_{-0.63}$	χ_{plik}^2	2345.5	$2359.6 (\nu: 17.0)$
c_{217}	0.99817	$0.9982^{+0.0016}_{-0.0016}$	k_D	0.14078	$0.14077^{+0.00074}_{-0.00072}$	χ_{6DF}^2	0.029	$0.057 (\nu: 0.0)$
H_0	67.69	$67.7^{+1.2}_{-1.1}$	$100\theta_D$	0.160709	$0.16073^{+0.00045}_{-0.00042}$	χ_{MGS}^2	1.22	$1.25 (\nu: 0.1)$
Ω_Λ	0.6894	$0.689^{+0.016}_{-0.016}$	z_{eq}	3386	3387^{+59}_{-58}	$\chi_{DR12BAO}^2$	4.41	$4.9 (\nu: 1.0)$
Ω_m	0.3106	$0.311^{+0.016}_{-0.016}$	k_{eq}	0.010334	$0.01034^{+0.00018}_{-0.00018}$	χ_{prior}^2	1.7	$11.6 (\nu: 10.4)$
$\Omega_m h^2$	0.14233	$0.1424^{+0.0025}_{-0.0024}$	$100\theta_{eq}$	0.8165	$0.816^{+0.011}_{-0.011}$	χ_{BAO}^2	5.66	$6.2 (\nu: 0.7)$
$\Omega_m h^3$	0.09635	$0.09634^{+0.00075}_{-0.00067}$	$100\theta_{s,eq}$	0.4510	$0.4509^{+0.0057}_{-0.0056}$	χ_{CMB}^2	2764.6	$2780.1 (\nu: 16.4)$

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

2.7 base_plikHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02236^{+0.00038}_{-0.00038}$	$\Omega_m h^3$	$0.09633^{+0.00076}_{-0.00071}$	$100\theta_{\text{eq}}$	$0.813^{+0.015}_{-0.015}$
$\Omega_c h^2$	$0.1202^{+0.0036}_{-0.0035}$	σ_8	$0.813^{+0.019}_{-0.017}$	$100\theta_{\text{s,eq}}$	$0.4490^{+0.0077}_{-0.0075}$
$100\theta_{\text{MC}}$	$1.04091^{+0.00078}_{-0.00080}$	S_8	$0.834^{+0.042}_{-0.041}$	$H(0.15)$	$72.6^{+1.3}_{-1.3}$
τ	$0.055^{+0.020}_{-0.014}$	$\sigma_8 \Omega_m^{0.5}$	$0.457^{+0.023}_{-0.023}$	$D_{\text{M}}(0.15)$	644^{+14}_{-13}
$\ln(10^{10} A_s)$	$3.047^{+0.044}_{-0.029}$	$\sigma_8 \Omega_m^{0.25}$	$0.609^{+0.021}_{-0.021}$	$H(0.38)$	$82.83^{+0.98}_{-0.95}$
n_s	$0.965^{+0.011}_{-0.011}$	$\sigma_8/h^{0.5}$	$0.991^{+0.030}_{-0.029}$	$D_{\text{M}}(0.38)$	1535^{+27}_{-27}
y_{cal}	$1.0005^{+0.0063}_{-0.0064}$	$r_{\text{drag}} h$	$99.0^{+2.8}_{-2.7}$	$H(0.51)$	$89.60^{+0.77}_{-0.76}$
A_{217}^{CIB}	47^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	$2.450^{+0.071}_{-0.069}$	$D_{\text{M}}(0.51)$	1987^{+31}_{-31}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	< 9.66	$H(0.61)$	$95.26^{+0.63}_{-0.60}$
A_{143}^{tSZ}	$5.5^{+4.3}_{-4.8}$	$10^9 A_s$	$2.105^{+0.094}_{-0.061}$	$D_{\text{M}}(0.61)$	2312^{+33}_{-34}
A_{100}^{PS}	258^{+70}_{-70}	$10^9 A_s e^{-2\tau}$	$1.884^{+0.030}_{-0.030}$	$H(2.33)$	$236.7^{+2.1}_{-2.1}$
A_{143}^{PS}	46^{+20}_{-20}	D_{40}	1232^{+34}_{-32}	$D_{\text{M}}(2.33)$	5764^{+28}_{-28}
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{220}	5731^{+98}_{-99}	$f\sigma_8(0.15)$	$0.461^{+0.021}_{-0.021}$
A_{217}^{PS}	115^{+30}_{-30}	D_{810}	2539^{+34}_{-35}	$\sigma_8(0.15)$	$0.750^{+0.017}_{-0.014}$
A^{kSZ}	—	D_{1420}	817^{+12}_{-12}	$f\sigma_8(0.38)$	$0.479^{+0.017}_{-0.017}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.6}$	D_{2000}	$230.9^{+4.1}_{-4.0}$	$\sigma_8(0.38)$	$0.665^{+0.015}_{-0.011}$
A_{143}^{dustTT}	$10.9^{+4.7}_{-4.5}$	$n_{\text{s},0.002}$	$0.965^{+0.011}_{-0.011}$	$f\sigma_8(0.51)$	$0.477^{+0.015}_{-0.015}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.5}_{-8.7}$	Y_{P}	$0.24539^{+0.00014}_{-0.00016}$	$\sigma_8(0.51)$	$0.622^{+0.014}_{-0.010}$
A_{217}^{dustTT}	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24672^{+0.00014}_{-0.00016}$	$f\sigma_8(0.61)$	$0.471^{+0.014}_{-0.013}$
A_{100}^{dustTE}	$0.114^{+0.10}_{-0.096}$	10^5D/H	$2.587^{+0.072}_{-0.068}$	$\sigma_8(0.61)$	$0.592^{+0.013}_{-0.0095}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.077}_{-0.077}$	Age/Gyr	$13.799^{+0.062}_{-0.061}$	$f\sigma_8(2.33)$	$0.2981^{+0.0068}_{-0.0046}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.21}$	z_*	$1089.94^{+0.71}_{-0.69}$	$\sigma_8(2.33)$	$0.3071^{+0.0073}_{-0.0048}$
A_{143}^{dustTE}	$0.23^{+0.13}_{-0.14}$	r_*	$144.40^{+0.76}_{-0.76}$	f_{2000}^{143}	29^{+7}_{-7}
$A_{143 \times 217}^{\text{dustTE}}$	$0.67^{+0.21}_{-0.21}$	$100\theta_*$	$1.04109^{+0.00076}_{-0.00078}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
A_{217}^{dustTE}	$2.09^{+0.70}_{-0.69}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.870^{+0.072}_{-0.070}$	f_{2000}^{217}	$106.9^{+4.6}_{-4.5}$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	z_{drag}	$1059.93^{+0.77}_{-0.76}$	χ_{simall}^2	$397.1 (\nu: 2.1)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	$147.06^{+0.76}_{-0.75}$	χ_{lowl}^2	$23.56 (\nu: 0.5)$
H_0	$67.3^{+1.6}_{-1.5}$	k_{D}	$0.14090^{+0.00080}_{-0.00079}$	χ_{plik}^2	$2359.3 (\nu: 16.1)$
Ω_{Λ}	$0.684^{+0.021}_{-0.023}$	$100\theta_{\text{D}}$	$0.16076^{+0.00046}_{-0.00044}$	χ_{prior}^2	$11.6 (\nu: 10.3)$
Ω_{m}	$0.316^{+0.023}_{-0.021}$	z_{eq}	3406^{+79}_{-78}	χ_{CMB}^2	$2779.9 (\nu: 16.1)$
$\Omega_{\text{m}} h^2$	$0.1432^{+0.0033}_{-0.0033}$	k_{eq}	$0.01040^{+0.00024}_{-0.00024}$		

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

2.8 base_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02242^{+0.00033}_{-0.00035}$	σ_8	$0.810^{+0.019}_{-0.016}$	$H(0.15)$	$73.0^{+1.0}_{-0.97}$
$\Omega_c h^2$	$0.1193^{+0.0026}_{-0.0026}$	S_8	$0.825^{+0.032}_{-0.033}$	$D_M(0.15)$	$640.7^{+9.8}_{-9.8}$
$100\theta_{MC}$	$1.04101^{+0.00074}_{-0.00079}$	$\sigma_8 \Omega_m^{0.5}$	$0.452^{+0.018}_{-0.018}$	$H(0.38)$	$83.06^{+0.73}_{-0.71}$
τ	$0.057^{+0.020}_{-0.015}$	$\sigma_8 \Omega_m^{0.25}$	$0.605^{+0.018}_{-0.018}$	$D_M(0.38)$	1528^{+19}_{-20}
$\ln(10^{10} A_s)$	$3.047^{+0.042}_{-0.032}$	$\sigma_8/h^{0.5}$	$0.985^{+0.027}_{-0.025}$	$H(0.51)$	$89.78^{+0.60}_{-0.57}$
n_s	$0.9670^{+0.0096}_{-0.010}$	$r_{\text{drag}} h$	$99.6^{+2.1}_{-2.0}$	$D_M(0.51)$	1980^{+23}_{-23}
y_{cal}	$1.0006^{+0.0061}_{-0.0064}$	$\langle d^2 \rangle^{1/2}$	$2.437^{+0.063}_{-0.058}$	$H(0.61)$	$95.39^{+0.50}_{-0.47}$
A_{217}^{CIB}	47^{+20}_{-20}	z_{re}	< 9.68	$D_M(0.61)$	2304^{+25}_{-25}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s$	$2.106^{+0.089}_{-0.068}$	$H(2.33)$	$236.2^{+1.6}_{-1.5}$
A_{143}^{tSZ}	> 1.07	$10^9 A_s e^{-2\tau}$	$1.880^{+0.028}_{-0.027}$	$D_M(2.33)$	5759^{+22}_{-22}
A_{100}^{PS}	258^{+70}_{-70}	D_{40}	1227^{+29}_{-29}	$f\sigma_8(0.15)$	$0.457^{+0.017}_{-0.017}$
A_{143}^{PS}	45^{+20}_{-20}	D_{220}	5735^{+92}_{-94}	$\sigma_8(0.15)$	$0.749^{+0.017}_{-0.014}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{810}	2539^{+33}_{-35}	$f\sigma_8(0.38)$	$0.475^{+0.015}_{-0.014}$
A_{217}^{PS}	115^{+20}_{-30}	D_{1420}	818^{+12}_{-12}	$\sigma_8(0.38)$	$0.664^{+0.015}_{-0.011}$
A^{kSZ}	—	D_{2000}	$231.1^{+4.1}_{-3.9}$	$f\sigma_8(0.51)$	$0.474^{+0.013}_{-0.013}$
A_{100}^{dustTT}	$8.9^{+5.0}_{-4.6}$	$n_{s,0.002}$	$0.9670^{+0.0096}_{-0.010}$	$\sigma_8(0.51)$	$0.621^{+0.015}_{-0.010}$
A_{143}^{dustTT}	$10.9^{+4.7}_{-4.4}$	Y_P	$0.24541^{+0.00012}_{-0.00014}$	$f\sigma_8(0.61)$	$0.469^{+0.012}_{-0.012}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.8}_{-8.9}$	Y_P^{BBN}	$0.24674^{+0.00012}_{-0.00014}$	$\sigma_8(0.61)$	$0.591^{+0.014}_{-0.0094}$
A_{217}^{dustTT}	94^{+20}_{-20}	$10^5 D/H$	$2.577^{+0.066}_{-0.060}$	$f\sigma_8(2.33)$	$0.2982^{+0.0070}_{-0.0047}$
A_{100}^{dustTE}	$0.114^{+0.094}_{-0.091}$	Age/Gyr	$13.787^{+0.051}_{-0.050}$	$\sigma_8(2.33)$	$0.3074^{+0.0075}_{-0.0049}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.074}_{-0.080}$	z_*	$1089.80^{+0.57}_{-0.56}$	f_{2000}^{143}	29^{+7}_{-7}
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.21}_{-0.21}$	r_*	$144.57^{+0.58}_{-0.61}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$100\theta_*$	$1.04119^{+0.00072}_{-0.00077}$	f_{2000}^{217}	$106.8^{+4.5}_{-4.4}$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.20}$	$D_M(z_*)/\text{Gpc}$	$13.886^{+0.056}_{-0.059}$	χ_{simall}^2	$397.3 (\nu: 2.5)$
A_{217}^{dustTE}	$2.09^{+0.67}_{-0.66}$	z_{drag}	$1060.00^{+0.73}_{-0.76}$	χ_{lowl}^2	$23.14 (\nu: 0.3)$
c_{100}	$0.9997^{+0.0016}_{-0.0017}$	r_{drag}	$147.22^{+0.61}_{-0.63}$	χ_{plik}^2	$2359.5 (\nu: 16.4)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	k_D	$0.14077^{+0.00074}_{-0.00070}$	$\chi_{6\text{DF}}^2$	$0.056 (\nu: 0.0)$
H_0	$67.7^{+1.2}_{-1.1}$	$100\theta_D$	$0.16072^{+0.00044}_{-0.00041}$	χ_{MGS}^2	$1.26 (\nu: 0.1)$
Ω_Λ	$0.689^{+0.015}_{-0.016}$	z_{eq}	3387^{+59}_{-58}	χ_{DR12BAO}^2	$4.9 (\nu: 1.0)$
Ω_m	$0.311^{+0.016}_{-0.015}$	k_{eq}	$0.01034^{+0.00018}_{-0.00018}$	χ_{prior}^2	$11.6 (\nu: 10.4)$
$\Omega_m h^2$	$0.1424^{+0.0025}_{-0.0024}$	$100\theta_{\text{eq}}$	$0.816^{+0.011}_{-0.011}$	χ_{BAO}^2	$6.2 (\nu: 0.7)$
$\Omega_m h^3$	$0.09634^{+0.00075}_{-0.00067}$	$100\theta_{s,\text{eq}}$	$0.4509^{+0.0057}_{-0.0056}$	χ_{CMB}^2	$2779.9 (\nu: 15.7)$

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

2.9 base_plikHM_TT_lowl_lowE_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02217	$0.02214^{+0.00053}_{-0.00051}$	$\sigma_8 \Omega_m^{0.25}$	0.6085	$0.609^{+0.019}_{-0.020}$	$H(0.15)$	72.46	$72.4^{+1.6}_{-1.5}$
$\Omega_c h^2$	0.12010	$0.1202^{+0.0040}_{-0.0040}$	$\sigma_8/h^{0.5}$	0.9896	$0.990^{+0.027}_{-0.027}$	$D_M(0.15)$	645.5	646^{+16}_{-16}
$100\theta_{MC}$	1.04083	$1.0408^{+0.0012}_{-0.0011}$	$r_{drag}h$	98.86	$98.8^{+3.2}_{-3.1}$	$H(0.38)$	82.67	$82.6^{+1.2}_{-1.1}$
τ	0.0527	$0.052^{+0.021}_{-0.021}$	$\langle d^2 \rangle^{1/2}$	2.443	$2.447^{+0.062}_{-0.065}$	$D_M(0.38)$	1538.0	1539^{+31}_{-32}
$\ln(10^{10} A_s)$	3.0404	$3.040^{+0.040}_{-0.040}$	z_{re}	7.55	$7.5^{+2.0}_{-2.3}$	$H(0.51)$	89.44	$89.40^{+0.96}_{-0.90}$
n_s	0.9653	$0.963^{+0.013}_{-0.012}$	$10^9 A_s$	2.091	$2.091^{+0.086}_{-0.081}$	$D_M(0.51)$	1991.4	1993^{+37}_{-38}
y_{cal}	1.0003	$1.0005^{+0.0063}_{-0.0062}$	$10^9 A_s e^{-2\tau}$	1.8823	$1.882^{+0.028}_{-0.028}$	$H(0.61)$	95.10	$95.06^{+0.79}_{-0.74}$
A_{217}^{CIB}	47.9	48^{+20}_{-20}	D_{40}	1227.4	1232^{+32}_{-31}	$D_M(0.61)$	2316.6	2318^{+40}_{-41}
$\xi^{tSZ \times CIB}$	0.44	—	D_{220}	5710	5716^{+100}_{-100}	$H(2.33)$	236.43	$236.4^{+2.4}_{-2.4}$
A_{143}^{tSZ}	6.9	—	D_{810}	2537.7	2536^{+33}_{-34}	$D_M(2.33)$	5773.5	5775^{+36}_{-37}
A_{100}^{PS}	254	264^{+70}_{-70}	D_{1420}	816.0	815^{+13}_{-13}	$f\sigma_8(0.15)$	0.4608	$0.461^{+0.021}_{-0.021}$
A_{143}^{PS}	51.1	49^{+20}_{-20}	D_{2000}	230.18	$229.6^{+4.7}_{-4.7}$	$\sigma_8(0.15)$	0.7486	$0.748^{+0.015}_{-0.014}$
$A_{143 \times 217}^{PS}$	49.9	43^{+20}_{-20}	$n_{s,0.002}$	0.9653	$0.963^{+0.013}_{-0.012}$	$f\sigma_8(0.38)$	0.4778	$0.478^{+0.016}_{-0.016}$
A_{217}^{PS}	120.7	115^{+30}_{-30}	Y_P	0.245315	$0.24530^{+0.00021}_{-0.00024}$	$\sigma_8(0.38)$	0.6630	$0.663^{+0.013}_{-0.013}$
A^{kSZ}	0.0	—	Y_P^{BBN}	0.246641	$0.24662^{+0.00021}_{-0.00025}$	$f\sigma_8(0.51)$	0.4757	$0.476^{+0.013}_{-0.014}$
A_{100}^{dustTT}	8.86	$8.9^{+4.7}_{-4.6}$	$10^5 D/H$	2.623	$2.630^{+0.099}_{-0.098}$	$\sigma_8(0.51)$	0.6202	$0.620^{+0.012}_{-0.012}$
A_{143}^{dustTT}	10.80	$10.7^{+4.6}_{-4.7}$	Age/Gyr	13.821	$13.825^{+0.081}_{-0.083}$	$f\sigma_8(0.61)$	0.4703	$0.470^{+0.012}_{-0.012}$
$A_{143 \times 217}^{dustTT}$	19.5	$18.3^{+8.6}_{-8.6}$	z_*	1090.18	$1090.23^{+0.89}_{-0.88}$	$\sigma_8(0.61)$	0.5900	$0.590^{+0.012}_{-0.011}$
A_{217}^{dustTT}	94.8	93^{+20}_{-20}	r_*	144.55	$144.56^{+0.95}_{-0.94}$	$f\sigma_8(2.33)$	0.2972	$0.2970^{+0.0063}_{-0.0061}$
c_{100}	0.99966	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	1.04103	$1.0410^{+0.0012}_{-0.0011}$	$\sigma_8(2.33)$	0.3062	$0.3059^{+0.0069}_{-0.0068}$
c_{217}	0.99826	$0.9983^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.886	$13.886^{+0.089}_{-0.087}$	f_{2000}^{143}	30.2	31^{+8}_{-8}
H_0	67.12	$67.1^{+1.9}_{-1.8}$	z_{drag}	1059.47	$1059.4^{+1.2}_{-1.1}$	$f_{2000}^{143 \times 217}$	33.1	34^{+5}_{-5}
Ω_Λ	0.6828	$0.682^{+0.025}_{-0.026}$	r_{drag}	147.28	$147.30^{+0.98}_{-0.97}$	f_{2000}^{217}	107.51	$108.2^{+4.8}_{-5.0}$
Ω_m	0.3172	$0.318^{+0.026}_{-0.025}$	k_D	0.14051	$0.1405^{+0.0012}_{-0.0012}$	$\chi_{lensing}^2$	8.90	$9.45 (\nu: 0.4)$
$\Omega_m h^2$	0.14292	$0.1430^{+0.0038}_{-0.0038}$	$100\theta_D$	0.16101	$0.16106^{+0.00065}_{-0.00066}$	χ_{small}^2	395.86	$396.9 (\nu: 1.3)$
$\Omega_m h^3$	0.09594	$0.0959^{+0.0012}_{-0.0011}$	z_{eq}	3400	3401^{+90}_{-91}	χ_{lowl}^2	23.23	$23.7 (\nu: 0.5)$
σ_8	0.8108	$0.810^{+0.016}_{-0.016}$	k_{eq}	0.010377	$0.01038^{+0.00028}_{-0.00028}$	χ_{plik}^2	759.3	$771.1 (\nu: 13.6)$
S_8	0.8337	$0.834^{+0.041}_{-0.041}$	$100\theta_{eq}$	0.8131	$0.813^{+0.018}_{-0.017}$	χ_{prior}^2	1.3	$7.3 (\nu: 6.7)$
$\sigma_8 \Omega_m^{0.5}$	0.4566	$0.457^{+0.023}_{-0.023}$	$100\theta_{s,eq}$	0.4494	$0.4493^{+0.0090}_{-0.0087}$	χ_{CMB}^2	1187.3	$1201.1 (\nu: 14.9)$

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

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

2.10 base_plikHM_TT_lowl_lowE_lensing_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022224	$0.02221^{+0.00049}_{-0.00047}$	$r_{\text{drag}} h$	99.65	$99.6^{+2.3}_{-2.1}$	$H(0.51)$	89.63	$89.63^{+0.72}_{-0.68}$
$\Omega_c h^2$	0.11909	$0.1191^{+0.0028}_{-0.0029}$	$\langle d^2 \rangle^{1/2}$	2.431	$2.436^{+0.055}_{-0.056}$	$D_M(0.51)$	1982.8	1983^{+26}_{-27}
$100\theta_{\text{MC}}$	1.04093	$1.0410^{+0.0011}_{-0.0011}$	z_{re}	7.71	$7.8^{+1.8}_{-2.0}$	$H(0.61)$	95.24	$95.24^{+0.64}_{-0.59}$
τ	0.0544	$0.055^{+0.019}_{-0.019}$	$10^9 A_s$	2.095	$2.099^{+0.084}_{-0.075}$	$D_M(0.61)$	2307.4	2308^{+28}_{-29}
$\ln(10^{10} A_s)$	3.0421	$3.044^{+0.039}_{-0.036}$	$10^9 A_s e^{-2\tau}$	1.8788	$1.879^{+0.027}_{-0.026}$	$H(2.33)$	235.81	$235.8^{+1.8}_{-1.8}$
n_s	0.9669	$0.966^{+0.011}_{-0.010}$	D_{40}	1225.0	1228^{+32}_{-29}	$D_M(2.33)$	5767.6	5768^{+30}_{-30}
y_{cal}	1.0005	$1.0007^{+0.0067}_{-0.0063}$	D_{220}	5720	5724^{+99}_{-96}	$f\sigma_8(0.15)$	0.4555	$0.456^{+0.015}_{-0.016}$
A_{217}^{CIB}	48.5	48^{+20}_{-20}	D_{810}	2537.5	2537^{+35}_{-34}	$\sigma_8(0.15)$	0.7471	$0.748^{+0.015}_{-0.015}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.33	—	D_{1420}	816.4	816^{+13}_{-13}	$f\sigma_8(0.38)$	0.4739	$0.474^{+0.013}_{-0.013}$
A_{143}^{tSZ}	7.0	—	D_{2000}	230.29	$230.0^{+4.6}_{-4.5}$	$\sigma_8(0.38)$	0.6623	$0.663^{+0.013}_{-0.013}$
A_{100}^{PS}	253	263^{+70}_{-70}	$n_{\text{s},0.002}$	0.9669	$0.966^{+0.011}_{-0.010}$	$f\sigma_8(0.51)$	0.4726	$0.473^{+0.012}_{-0.012}$
A_{143}^{PS}	49.0	49^{+20}_{-20}	Y_{P}	0.245336	$0.24533^{+0.00019}_{-0.00022}$	$\sigma_8(0.51)$	0.6198	$0.620^{+0.012}_{-0.012}$
$A_{143 \times 217}^{\text{PS}}$	46.8	43^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246662	$0.24665^{+0.00019}_{-0.00022}$	$f\sigma_8(0.61)$	0.4676	$0.468^{+0.011}_{-0.011}$
A_{217}^{PS}	119.3	115^{+30}_{-30}	$10^5 D/H$	2.613	$2.617^{+0.091}_{-0.090}$	$\sigma_8(0.61)$	0.5898	$0.590^{+0.012}_{-0.011}$
A^{kSZ}	0.0	—	Age/Gyr	13.808	$13.809^{+0.069}_{-0.067}$	$f\sigma_8(2.33)$	0.2974	$0.2976^{+0.0060}_{-0.0056}$
A_{100}^{dustTT}	8.84	$8.9^{+4.7}_{-4.7}$	z_*	1090.03	$1090.05^{+0.71}_{-0.71}$	$\sigma_8(2.33)$	0.3066	$0.3068^{+0.0063}_{-0.0061}$
A_{143}^{dustTT}	10.77	$10.7^{+4.5}_{-4.6}$	r_*	144.78	$144.78^{+0.75}_{-0.73}$	f_{2000}^{143}	30.1	31^{+8}_{-7}
$A_{143 \times 217}^{\text{dustTT}}$	19.4	$18.3^{+8.9}_{-8.6}$	$100\theta_*$	1.04113	$1.0412^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33.0	33^{+5}_{-5}
A_{217}^{dustTT}	94.5	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.906	$13.906^{+0.072}_{-0.071}$	f_{2000}^{217}	107.49	$107.9^{+4.7}_{-5.0}$
c_{100}	0.99966	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	1059.51	$1059.5^{+1.1}_{-1.1}$	χ_{lensing}^2	8.87	$9.26 (\nu: 0.2)$
c_{217}	0.99822	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	147.50	$147.50^{+0.82}_{-0.79}$	χ_{small}^2	396.09	$397.1 (\nu: 1.7)$
H_0	67.56	$67.5^{+1.3}_{-1.2}$	k_{D}	0.14033	$0.1403^{+0.0011}_{-0.0011}$	χ_{lowl}^2	22.96	$23.24 (\nu: 0.4)$
Ω_Λ	0.6890	$0.689^{+0.017}_{-0.017}$	$100\theta_{\text{D}}$	0.16099	$0.16102^{+0.00065}_{-0.00068}$	χ_{plik}^2	759.8	$771.6 (\nu: 13.7)$
Ω_{m}	0.3110	$0.311^{+0.017}_{-0.017}$	z_{eq}	3377	3378^{+64}_{-66}	$\chi_{6\text{DF}}^2$	0.029	$0.060 (\nu: 0.0)$
$\Omega_{\text{m}} h^2$	0.14196	$0.1420^{+0.0027}_{-0.0028}$	k_{eq}	0.010307	$0.01031^{+0.00020}_{-0.00020}$	χ_{MGS}^2	1.22	$1.27 (\nu: 0.1)$
$\Omega_{\text{m}} h^3$	0.09590	$0.0959^{+0.0012}_{-0.0011}$	$100\theta_{\text{eq}}$	0.8174	$0.817^{+0.012}_{-0.012}$	χ_{DR12BAO}^2	4.37	$4.9 (\nu: 1.2)$
σ_8	0.8085	$0.809^{+0.016}_{-0.016}$	$100\theta_{\text{s,eq}}$	0.4517	$0.4516^{+0.0063}_{-0.0060}$	χ_{prior}^2	1.3	$7.3 (\nu: 6.6)$
S_8	0.8232	$0.824^{+0.030}_{-0.030}$	$H(0.15)$	72.83	$72.8^{+1.2}_{-1.1}$	χ_{CMB}^2	1187.7	$1201.2 (\nu: 14.7)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4509	$0.451^{+0.017}_{-0.017}$	$D_M(0.15)$	641.7	642^{+11}_{-11}	χ_{BAO}^2	5.62	$6.2 (\nu: 0.8)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6038	$0.604^{+0.016}_{-0.016}$	$H(0.38)$	82.93	$82.92^{+0.89}_{-0.81}$			
$\sigma_8/h^{0.5}$	0.9836	$0.985^{+0.023}_{-0.024}$	$D_M(0.38)$	1530.6	1531^{+22}_{-23}			

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

χ_{eff}^2 : BAO - 6DF: 0.03 MGS: 1.22 DR12BAO: 4.37 CMB - smicadx12_Dec5.ftl_mv2_ndclpp_p.teb_consext8: 8.88 small_100x143_offlike5_EE_Aplanck_B: 396.09 commander_dx12.v3.2.29: 22.96 plik_rd12_HM.v22_TT: 759.80

2.11 base_plikHM_TT_lowl_lowE_lensing_post_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02219	$0.02217^{+0.00052}_{-0.00050}$	$\sigma_8/h^{0.5}$	0.9871	$0.987^{+0.025}_{-0.026}$	$H(0.38)$	82.76	$82.8^{+1.1}_{-1.0}$
$\Omega_c h^2$	0.11977	$0.1197^{+0.0036}_{-0.0037}$	$r_{\text{drag}} h$	99.13	$99.2^{+3.0}_{-2.8}$	$D_M(0.38)$	1535.4	1536^{+29}_{-29}
$100\theta_{\text{MC}}$	1.04089	$1.0409^{+0.0012}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	2.439	$2.442^{+0.061}_{-0.061}$	$H(0.51)$	89.51	$89.50^{+0.90}_{-0.83}$
τ	0.0527	$0.054^{+0.021}_{-0.020}$	z_{re}	7.55	$7.6^{+2.0}_{-2.2}$	$D_M(0.51)$	1988.4	1989^{+34}_{-35}
$\ln(10^{10} A_s)$	3.0404	$3.042^{+0.040}_{-0.038}$	$10^9 A_s$	2.091	$2.094^{+0.085}_{-0.079}$	$H(0.61)$	95.15	$95.14^{+0.75}_{-0.68}$
n_s	0.9654	$0.965^{+0.012}_{-0.012}$	$10^9 A_s e^{-2\tau}$	1.8820	$1.881^{+0.028}_{-0.027}$	$D_M(0.61)$	2313.3	2314^{+36}_{-37}
y_{cal}	1.0006	$1.0006^{+0.0065}_{-0.0063}$	D_{40}	1228.3	1230^{+31}_{-31}	$H(2.33)$	236.23	$236.2^{+2.3}_{-2.3}$
A_{217}^{CIB}	49.8	48^{+20}_{-20}	D_{220}	5719	5720^{+99}_{-100}	$D_M(2.33)$	5771.1	5772^{+33}_{-36}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.14	—	D_{810}	2538.4	2537^{+35}_{-34}	$f\sigma_8(0.15)$	0.4588	$0.459^{+0.019}_{-0.019}$
A_{143}^{tSZ}	7.1	—	D_{1420}	816.2	815^{+13}_{-13}	$\sigma_8(0.15)$	0.7478	$0.748^{+0.015}_{-0.014}$
A_{100}^{PS}	256	263^{+70}_{-70}	D_{2000}	230.19	$229.8^{+4.6}_{-4.6}$	$f\sigma_8(0.38)$	0.4763	$0.476^{+0.015}_{-0.015}$
A_{143}^{PS}	46.5	49^{+20}_{-20}	$n_{s,0.002}$	0.9654	$0.965^{+0.012}_{-0.012}$	$\sigma_8(0.38)$	0.6625	$0.663^{+0.013}_{-0.012}$
$A_{143 \times 217}^{\text{PS}}$	42.0	43^{+20}_{-20}	Y_P	0.245322	$0.24531^{+0.00020}_{-0.00024}$	$f\sigma_8(0.51)$	0.4745	$0.475^{+0.013}_{-0.013}$
A_{217}^{PS}	117.3	115^{+30}_{-30}	Y_P^{BBN}	0.246648	$0.24664^{+0.00020}_{-0.00024}$	$\sigma_8(0.51)$	0.6198	$0.620^{+0.012}_{-0.012}$
A^{kSZ}	0.0	—	$10^5 \text{D}/\text{H}$	2.620	$2.624^{+0.097}_{-0.095}$	$f\sigma_8(0.61)$	0.4692	$0.469^{+0.012}_{-0.012}$
A_{100}^{dustTT}	8.87	$8.9^{+4.7}_{-4.6}$	Age/Gyr	13.815	$13.818^{+0.076}_{-0.079}$	$\sigma_8(0.61)$	0.5897	$0.590^{+0.012}_{-0.011}$
A_{143}^{dustTT}	10.79	$10.7^{+4.5}_{-4.6}$	z_*	1090.13	$1090.15^{+0.84}_{-0.81}$	$f\sigma_8(2.33)$	0.2972	$0.2973^{+0.0062}_{-0.0060}$
$A_{143 \times 217}^{\text{dustTT}}$	19.0	$18.3^{+8.9}_{-8.6}$	r_*	144.63	$144.65^{+0.90}_{-0.87}$	$\sigma_8(2.33)$	0.3062	$0.3063^{+0.0068}_{-0.0066}$
A_{217}^{dustTT}	94.0	93^{+20}_{-20}	$100\theta_*$	1.04110	$1.0411^{+0.0012}_{-0.0011}$	f_{2000}^{143}	30.4	31^{+8}_{-8}
c_{100}	0.99962	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.892	$13.895^{+0.085}_{-0.083}$	$f_{2000}^{143 \times 217}$	33.2	33^{+5}_{-5}
c_{217}	0.99824	$0.9983^{+0.0016}_{-0.0016}$	z_{drag}	1059.51	$1059.5^{+1.1}_{-1.1}$	f_{2000}^{217}	107.72	$108.0^{+4.7}_{-5.0}$
H_0	67.28	$67.3^{+1.7}_{-1.6}$	r_{drag}	147.35	$147.39^{+0.94}_{-0.91}$	χ_{lensing}^2	8.84	$9.35 (\nu: 0.3)$
Ω_Λ	0.6849	$0.685^{+0.023}_{-0.023}$	k_D	0.14045	$0.1404^{+0.0011}_{-0.0011}$	χ_{small}^2	395.87	$397.0 (\nu: 1.5)$
Ω_m	0.3151	$0.315^{+0.023}_{-0.023}$	$100\theta_D$	0.16101	$0.16104^{+0.00065}_{-0.00066}$	χ_{lowl}^2	23.23	$23.48 (\nu: 0.5)$
$\Omega_m h^2$	0.14261	$0.1425^{+0.0035}_{-0.0035}$	z_{eq}	3392	3391^{+84}_{-84}	χ_{plik}^2	759.1	$771.3 (\nu: 13.7)$
$\Omega_m h^3$	0.09594	$0.0959^{+0.0012}_{-0.0011}$	k_{eq}	0.010354	$0.01035^{+0.00026}_{-0.00026}$	χ_{JLA}^2	1035.26	$1035.42 (\nu: 0.2)$
σ_8	0.8097	$0.810^{+0.016}_{-0.016}$	$100\theta_{\text{eq}}$	0.8145	$0.815^{+0.016}_{-0.015}$	χ_{prior}^2	1.6	$7.3 (\nu: 6.7)$
S_8	0.8298	$0.830^{+0.038}_{-0.038}$	$100\theta_{s,\text{eq}}$	0.4502	$0.4503^{+0.0084}_{-0.0079}$	χ_{CMB}^2	1187.1	$1201.1 (\nu: 14.8)$
$\sigma_8 \Omega_m^{0.5}$	0.4545	$0.455^{+0.021}_{-0.021}$	$H(0.15)$	72.59	$72.6^{+1.5}_{-1.4}$			
$\sigma_8 \Omega_m^{0.25}$	0.6066	$0.607^{+0.018}_{-0.019}$	$D_M(0.15)$	644.1	644^{+14}_{-15}			

Best-fit $\chi_{\text{eff}}^2 = 2223.87$; $\bar{\chi}_{\text{eff}}^2 = 2243.81$; $R - 1 = 0.01128$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consect8: 8.84 small_100x143_offlike5_EE_Aplanck_B: 395.87 commander_dx12_v3.2.29: 23.23 plik_rd12_HM.v22.TT: 759.12 SN - JLA Pantheon18: 1035.26

2.12 base_plikHM_TT_lowl_lowE_lensing_post_BAO_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022241	$0.02222^{+0.00048}_{-0.00047}$	$r_{\text{drag}} h$	99.87	$99.8^{+2.2}_{-2.0}$	$H(0.51)$	89.70	$89.66^{+0.70}_{-0.66}$
$\Omega_c h^2$	0.11884	$0.1190^{+0.0027}_{-0.0027}$	$\langle d^2 \rangle^{1/2}$	2.430	$2.434^{+0.055}_{-0.055}$	$D_M(0.51)$	1980.2	1982^{+25}_{-26}
$100\theta_{\text{MC}}$	1.04103	$1.0410^{+0.0011}_{-0.0011}$	z_{re}	7.86	$7.8^{+1.8}_{-2.0}$	$H(0.61)$	95.30	$95.26^{+0.62}_{-0.58}$
τ	0.0560	$0.056^{+0.019}_{-0.019}$	$10^9 A_s$	2.101	$2.100^{+0.083}_{-0.075}$	$D_M(0.61)$	2304.5	2306^{+27}_{-28}
$\ln(10^{10} A_s)$	3.0450	$3.044^{+0.039}_{-0.036}$	$10^9 A_s e^{-2\tau}$	1.8783	$1.879^{+0.027}_{-0.026}$	$H(2.33)$	235.68	$235.7^{+1.7}_{-1.8}$
n_s	0.9679	$0.966^{+0.010}_{-0.010}$	D_{40}	1223.6	1227^{+32}_{-29}	$D_M(2.33)$	5765.0	5767^{+29}_{-30}
y_{cal}	1.0007	$1.0008^{+0.0067}_{-0.0063}$	D_{220}	5721	5725^{+100}_{-95}	$f\sigma_8(0.15)$	0.4548	$0.455^{+0.015}_{-0.015}$
A_{217}^{CIB}	48.6	48^{+20}_{-20}	D_{810}	2538.4	2537^{+35}_{-33}	$\sigma_8(0.15)$	0.7479	$0.748^{+0.015}_{-0.014}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.30	—	D_{1420}	817.0	816^{+13}_{-13}	$f\sigma_8(0.38)$	0.4736	$0.474^{+0.013}_{-0.013}$
A_{143}^{tSZ}	7.1	—	D_{2000}	230.54	$230.1^{+4.6}_{-4.5}$	$\sigma_8(0.38)$	0.6632	$0.663^{+0.013}_{-0.013}$
A_{100}^{PS}	253	263^{+70}_{-70}	$n_{\text{s},0.002}$	0.9679	$0.966^{+0.010}_{-0.010}$	$f\sigma_8(0.51)$	0.4724	$0.473^{+0.011}_{-0.012}$
A_{143}^{PS}	48.1	49^{+20}_{-20}	Y_{P}	0.245343	$0.24533^{+0.00019}_{-0.00022}$	$\sigma_8(0.51)$	0.6207	$0.620^{+0.012}_{-0.012}$
$A_{143 \times 217}^{\text{PS}}$	45.8	43^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246669	$0.24666^{+0.00019}_{-0.00022}$	$f\sigma_8(0.61)$	0.4676	$0.468^{+0.011}_{-0.011}$
A_{217}^{PS}	119.0	115^{+30}_{-30}	$10^5 D/H$	2.610	$2.615^{+0.090}_{-0.088}$	$\sigma_8(0.61)$	0.5907	$0.590^{+0.012}_{-0.011}$
A^{kSZ}	0.0	—	Age/Gyr	13.802	$13.806^{+0.068}_{-0.068}$	$f\sigma_8(2.33)$	0.2979	$0.2977^{+0.0060}_{-0.0056}$
A_{100}^{dustTT}	8.88	$8.9^{+4.7}_{-4.7}$	z_*	1089.98	$1090.02^{+0.69}_{-0.70}$	$\sigma_8(2.33)$	0.3072	$0.3069^{+0.0063}_{-0.0059}$
A_{143}^{dustTT}	10.81	$10.7^{+4.5}_{-4.6}$	r_*	144.83	$144.81^{+0.73}_{-0.70}$	f_{2000}^{143}	30.0	31^{+8}_{-8}
$A_{143 \times 217}^{\text{dustTT}}$	19.4	$18.3^{+8.9}_{-8.6}$	$100\theta_*$	1.04123	$1.0412^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	32.9	33^{+5}_{-5}
A_{217}^{dustTT}	94.7	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.909	$13.908^{+0.072}_{-0.070}$	f_{2000}^{217}	107.50	$107.9^{+4.7}_{-5.0}$
c_{100}	0.99963	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	1059.55	$1059.5^{+1.1}_{-1.1}$	χ_{lensing}^2	8.88	$9.27 (\nu: 0.3)$
c_{217}	0.99826	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	147.54	$147.53^{+0.80}_{-0.79}$	χ_{small}^2	396.37	$397.2 (\nu: 1.8)$
H_0	67.69	$67.6^{+1.3}_{-1.2}$	k_{D}	0.14029	$0.1403^{+0.0011}_{-0.0011}$	χ_{lowl}^2	22.81	$23.17 (\nu: 0.4)$
Ω_Λ	0.6907	$0.690^{+0.016}_{-0.016}$	$100\theta_{\text{D}}$	0.16099	$0.16102^{+0.00064}_{-0.00068}$	χ_{plik}^2	759.8	$771.7 (\nu: 13.7)$
Ω_{m}	0.3093	$0.310^{+0.016}_{-0.016}$	z_{eq}	3372	3374^{+62}_{-63}	χ_{JLA}^2	1034.95	$1035.08 (\nu: 0.0)$
$\Omega_{\text{m}} h^2$	0.14173	$0.1418^{+0.0026}_{-0.0026}$	k_{eq}	0.010290	$0.01030^{+0.00019}_{-0.00019}$	$\chi_{6\text{DF}}^2$	0.016	$0.049 (\nu: 0.0)$
$\Omega_{\text{m}} h^3$	0.09594	$0.0959^{+0.0012}_{-0.0011}$	$100\theta_{\text{eq}}$	0.8185	$0.818^{+0.012}_{-0.011}$	χ_{MGS}^2	1.34	$1.33 (\nu: 0.1)$
σ_8	0.8091	$0.809^{+0.016}_{-0.016}$	$100\theta_{\text{s,eq}}$	0.4522	$0.4520^{+0.0061}_{-0.0059}$	χ_{DR12BAO}^2	4.03	$4.6 (\nu: 0.9)$
S_8	0.8216	$0.823^{+0.029}_{-0.029}$	$H(0.15)$	72.94	$72.9^{+1.1}_{-1.0}$	χ_{prior}^2	1.5	$7.3 (\nu: 6.6)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4500	$0.451^{+0.016}_{-0.016}$	$D_M(0.15)$	640.6	641^{+10}_{-11}	χ_{CMB}^2	1187.9	$1201.4 (\nu: 14.7)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6034	$0.604^{+0.016}_{-0.016}$	$H(0.38)$	83.01	$82.96^{+0.84}_{-0.79}$	χ_{BAO}^2	5.39	$6.0 (\nu: 0.6)$
$\sigma_8/h^{0.5}$	0.9835	$0.984^{+0.023}_{-0.023}$	$D_M(0.38)$	1528.3	1530^{+21}_{-22}			

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

χ_{eff}^2 : BAO - 6DF: 0.02 MGS: 1.34 DR12BAO: 4.03 CMB - smicadx12_Dec5.ftl_mv2_ndclpp_p.teb_consext8: 8.88 small_100x143.offlike5_EE_Aplanck_B: 396.37 commander_dx12.v3.2.29: 22.81 plik_rd12_HM.v22_TT: 759.79 SN - JLA Pantheon18: 1034.95

2.13 base_plikHM_TT_lowl_lowE_lensing_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02215^{+0.00053}_{-0.00051}$	$\sigma_8 \Omega_m^{0.25}$	$0.609^{+0.019}_{-0.020}$	$H(0.15)$	$72.5^{+1.6}_{-1.4}$
$\Omega_c h^2$	$0.1201^{+0.0038}_{-0.0039}$	$\sigma_8/h^{0.5}$	$0.990^{+0.026}_{-0.027}$	$D_M(0.15)$	646^{+15}_{-16}
$100\theta_{MC}$	$1.0408^{+0.0012}_{-0.0012}$	$r_{drag}h$	$98.9^{+3.1}_{-2.9}$	$H(0.38)$	$82.7^{+1.2}_{-1.1}$
τ	$0.054^{+0.018}_{-0.013}$	$\langle d^2 \rangle^{1/2}$	$2.449^{+0.062}_{-0.063}$	$D_M(0.38)$	1538^{+30}_{-32}
$\ln(10^{10} A_s)$	$3.043^{+0.038}_{-0.028}$	z_{re}	< 9.39	$H(0.51)$	$89.43^{+0.95}_{-0.85}$
n_s	$0.964^{+0.012}_{-0.012}$	$10^9 A_s$	$2.096^{+0.082}_{-0.057}$	$D_M(0.51)$	1992^{+35}_{-37}
y_{cal}	$1.0005^{+0.0063}_{-0.0062}$	$10^9 A_s e^{-2\tau}$	$1.882^{+0.028}_{-0.027}$	$H(0.61)$	$95.08^{+0.79}_{-0.71}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{40}	1232^{+32}_{-32}	$D_M(0.61)$	2317^{+38}_{-40}
$\xi^{tSZ \times CIB}$	—	D_{220}	5716^{+100}_{-100}	$H(2.33)$	$236.4^{+2.3}_{-2.4}$
A_{143}^{tSZ}	—	D_{810}	2536^{+33}_{-33}	$D_M(2.33)$	5775^{+35}_{-37}
A_{100}^{PS}	264^{+70}_{-70}	D_{1420}	815^{+13}_{-13}	$f\sigma_8(0.15)$	$0.461^{+0.020}_{-0.021}$
A_{143}^{PS}	49^{+20}_{-20}	D_{2000}	$229.6^{+4.6}_{-4.7}$	$\sigma_8(0.15)$	$0.749^{+0.014}_{-0.013}$
$A_{143 \times 217}^{PS}$	43^{+20}_{-20}	$n_{s,0.002}$	$0.964^{+0.012}_{-0.012}$	$f\sigma_8(0.38)$	$0.478^{+0.015}_{-0.016}$
A_{217}^{PS}	115^{+30}_{-30}	Y_P	$0.24530^{+0.00021}_{-0.00024}$	$\sigma_8(0.38)$	$0.663^{+0.012}_{-0.010}$
A^{kSZ}	—	Y_P^{BBN}	$0.24663^{+0.00021}_{-0.00024}$	$f\sigma_8(0.51)$	$0.476^{+0.013}_{-0.014}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.6}$	$10^5 D/H$	$2.628^{+0.099}_{-0.097}$	$\sigma_8(0.51)$	$0.620^{+0.012}_{-0.0095}$
A_{143}^{dustTT}	$10.7^{+4.6}_{-4.7}$	Age/Gyr	$13.823^{+0.079}_{-0.082}$	$f\sigma_8(0.61)$	$0.471^{+0.012}_{-0.012}$
$A_{143 \times 217}^{dustTT}$	$18.2^{+8.6}_{-8.6}$	z_*	$1090.21^{+0.86}_{-0.87}$	$\sigma_8(0.61)$	$0.590^{+0.011}_{-0.0090}$
A_{217}^{dustTT}	93^{+20}_{-20}	r_*	$144.59^{+0.93}_{-0.92}$	$f\sigma_8(2.33)$	$0.2974^{+0.0060}_{-0.0045}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	$1.0410^{+0.0012}_{-0.0011}$	$\sigma_8(2.33)$	$0.3064^{+0.0065}_{-0.0048}$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	$13.889^{+0.088}_{-0.086}$	f_{2000}^{143}	31^{+8}_{-8}
H_0	$67.1^{+1.8}_{-1.7}$	z_{drag}	$1059.4^{+1.2}_{-1.1}$	$f_{2000}^{143 \times 217}$	34^{+5}_{-5}
Ω_Λ	$0.683^{+0.024}_{-0.024}$	r_{drag}	$147.32^{+0.96}_{-0.96}$	f_{2000}^{217}	$108.1^{+4.8}_{-4.9}$
Ω_m	$0.317^{+0.024}_{-0.024}$	k_D	$0.1404^{+0.0012}_{-0.0012}$	$\chi^2_{lensing}$	$9.42 (\nu: 0.4)$
$\Omega_m h^2$	$0.1429^{+0.0037}_{-0.0037}$	$100\theta_D$	$0.16106^{+0.00064}_{-0.00067}$	χ^2_{simall}	$396.8 (\nu: 1.3)$
$\Omega_m h^3$	$0.0959^{+0.0012}_{-0.0011}$	z_{eq}	3398^{+87}_{-89}	χ^2_{lowl}	$23.7 (\nu: 0.5)$
σ_8	$0.811^{+0.016}_{-0.015}$	k_{eq}	$0.01037^{+0.00027}_{-0.00027}$	χ^2_{plik}	$771.0 (\nu: 13.7)$
S_8	$0.834^{+0.041}_{-0.042}$	$100\theta_{eq}$	$0.813^{+0.017}_{-0.016}$	χ^2_{prior}	$7.3 (\nu: 6.6)$
$\sigma_8 \Omega_m^{0.5}$	$0.457^{+0.022}_{-0.023}$	$100\theta_{s,eq}$	$0.4496^{+0.0088}_{-0.0082}$	χ^2_{CMB}	$1200.9 (\nu: 14.7)$

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

2.14 base_plikHM_TT_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02221^{+0.00049}_{-0.00047}$	$r_{\text{drag}} h$	$99.7^{+2.2}_{-2.1}$	$H(0.51)$	$89.63^{+0.72}_{-0.67}$
$\Omega_c h^2$	$0.1191^{+0.0027}_{-0.0028}$	$\langle d^2 \rangle^{1/2}$	$2.437^{+0.054}_{-0.053}$	$D_M(0.51)$	1983^{+25}_{-27}
$100\theta_{\text{MC}}$	$1.0410^{+0.0011}_{-0.0011}$	z_{re}	< 9.49	$H(0.61)$	$95.24^{+0.63}_{-0.59}$
τ	$0.056^{+0.018}_{-0.014}$	$10^9 A_s$	$2.101^{+0.081}_{-0.063}$	$D_M(0.61)$	2307^{+27}_{-29}
$\ln(10^{10} A_s)$	$3.045^{+0.038}_{-0.030}$	$10^9 A_s e^{-2\tau}$	$1.879^{+0.027}_{-0.026}$	$H(2.33)$	$235.8^{+1.8}_{-1.8}$
n_s	$0.966^{+0.011}_{-0.010}$	D_{40}	1228^{+32}_{-29}	$D_M(2.33)$	5768^{+30}_{-30}
y_{cal}	$1.0007^{+0.0066}_{-0.0062}$	D_{220}	5724^{+100}_{-96}	$f\sigma_8(0.15)$	$0.456^{+0.015}_{-0.016}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2537^{+35}_{-34}	$\sigma_8(0.15)$	$0.748^{+0.015}_{-0.013}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	816^{+13}_{-13}	$f\sigma_8(0.38)$	$0.475^{+0.013}_{-0.013}$
A_{143}^{tSZ}	—	D_{2000}	$230.0^{+4.6}_{-4.5}$	$\sigma_8(0.38)$	$0.663^{+0.013}_{-0.011}$
A_{100}^{PS}	263^{+70}_{-70}	$n_{\text{s},0.002}$	$0.966^{+0.011}_{-0.010}$	$f\sigma_8(0.51)$	$0.473^{+0.012}_{-0.012}$
A_{143}^{PS}	49^{+20}_{-20}	Y_{P}	$0.24533^{+0.00019}_{-0.00022}$	$\sigma_8(0.51)$	$0.621^{+0.012}_{-0.010}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24665^{+0.00019}_{-0.00022}$	$f\sigma_8(0.61)$	$0.468^{+0.011}_{-0.011}$
A_{217}^{PS}	115^{+30}_{-30}	10^5D/H	$2.616^{+0.091}_{-0.090}$	$\sigma_8(0.61)$	$0.591^{+0.011}_{-0.0095}$
A^{kSZ}	—	Age/Gyr	$13.808^{+0.069}_{-0.069}$	$f\sigma_8(2.33)$	$0.2978^{+0.0058}_{-0.0047}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.7}$	z_*	$1090.05^{+0.70}_{-0.71}$	$\sigma_8(2.33)$	$0.3070^{+0.0062}_{-0.0050}$
A_{143}^{dustTT}	$10.7^{+4.5}_{-4.6}$	r_*	$144.79^{+0.75}_{-0.72}$	f_{2000}^{143}	31^{+8}_{-7}
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.9}_{-8.6}$	$100\theta_*$	$1.0412^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
A_{217}^{dustTT}	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	$13.906^{+0.074}_{-0.071}$	f_{2000}^{217}	$107.9^{+4.7}_{-5.0}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	$1059.5^{+1.1}_{-1.1}$	χ_{lensing}^2	$9.22 (\nu: 0.2)$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	$147.51^{+0.82}_{-0.79}$	χ_{simall}^2	$397.1 (\nu: 1.7)$
H_0	$67.6^{+1.3}_{-1.2}$	k_{D}	$0.1403^{+0.0011}_{-0.0011}$	χ_{lowl}^2	$23.24 (\nu: 0.4)$
Ω_Λ	$0.689^{+0.017}_{-0.017}$	$100\theta_{\text{D}}$	$0.16102^{+0.00064}_{-0.00068}$	χ_{plik}^2	$771.5 (\nu: 13.6)$
Ω_{m}	$0.311^{+0.017}_{-0.017}$	z_{eq}	3377^{+63}_{-66}	$\chi_{6\text{DF}}^2$	$0.057 (\nu: 0.0)$
$\Omega_{\text{m}} h^2$	$0.1420^{+0.0026}_{-0.0027}$	k_{eq}	$0.01031^{+0.00019}_{-0.00020}$	χ_{MGS}^2	$1.28 (\nu: 0.1)$
$\Omega_{\text{m}} h^3$	$0.0959^{+0.0011}_{-0.0011}$	$100\theta_{\text{eq}}$	$0.817^{+0.012}_{-0.012}$	χ_{DR12BAO}^2	$4.8 (\nu: 1.1)$
σ_8	$0.810^{+0.016}_{-0.015}$	$100\theta_{\text{s,eq}}$	$0.4517^{+0.0063}_{-0.0059}$	χ_{prior}^2	$7.3 (\nu: 6.6)$
S_8	$0.824^{+0.030}_{-0.030}$	$H(0.15)$	$72.8^{+1.2}_{-1.1}$	χ_{CMB}^2	$1201.1 (\nu: 14.5)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.452^{+0.017}_{-0.017}$	$D_M(0.15)$	642^{+11}_{-11}	χ_{BAO}^2	$6.2 (\nu: 0.7)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.605^{+0.016}_{-0.016}$	$H(0.38)$	$82.93^{+0.88}_{-0.80}$		
$\sigma_8/h^{0.5}$	$0.985^{+0.023}_{-0.023}$	$D_M(0.38)$	1531^{+21}_{-23}		

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

2.15 base_plikHM_TT_lowl_lowE_lensing_post_Pantheon18_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02218^{+0.00051}_{-0.00049}$	$\sigma_8/h^{0.5}$	$0.988^{+0.025}_{-0.026}$	$H(0.38)$	$82.8^{+1.1}_{-1.0}$
$\Omega_c h^2$	$0.1196^{+0.0035}_{-0.0037}$	$r_{\text{drag}} h$	$99.2^{+3.0}_{-2.7}$	$D_M(0.38)$	1535^{+28}_{-29}
$100\theta_{\text{MC}}$	$1.0409^{+0.0012}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	$2.443^{+0.061}_{-0.059}$	$H(0.51)$	$89.52^{+0.89}_{-0.81}$
τ	$0.055^{+0.018}_{-0.013}$	z_{re}	< 9.46	$D_M(0.51)$	1988^{+33}_{-34}
$\ln(10^{10} A_s)$	$3.044^{+0.038}_{-0.029}$	$10^9 A_s$	$2.099^{+0.082}_{-0.060}$	$H(0.61)$	$95.15^{+0.74}_{-0.67}$
n_s	$0.965^{+0.012}_{-0.011}$	$10^9 A_s e^{-2\tau}$	$1.881^{+0.027}_{-0.027}$	$D_M(0.61)$	2313^{+35}_{-37}
y_{cal}	$1.0006^{+0.0065}_{-0.0063}$	D_{40}	1230^{+31}_{-31}	$H(2.33)$	$236.1^{+2.2}_{-2.3}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{220}	5720^{+100}_{-100}	$D_M(2.33)$	5771^{+33}_{-35}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{810}	2536^{+35}_{-34}	$f\sigma_8(0.15)$	$0.459^{+0.019}_{-0.019}$
A_{143}^{tSZ}	—	D_{1420}	815^{+13}_{-13}	$\sigma_8(0.15)$	$0.749^{+0.014}_{-0.013}$
A_{100}^{PS}	263^{+70}_{-70}	D_{2000}	$229.8^{+4.6}_{-4.5}$	$f\sigma_8(0.38)$	$0.476^{+0.015}_{-0.015}$
A_{143}^{PS}	49^{+20}_{-20}	$n_{s,0.002}$	$0.965^{+0.012}_{-0.011}$	$\sigma_8(0.38)$	$0.663^{+0.013}_{-0.011}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	Y_{P}	$0.24531^{+0.00020}_{-0.00024}$	$f\sigma_8(0.51)$	$0.475^{+0.013}_{-0.013}$
A_{217}^{PS}	115^{+30}_{-30}	$Y_{\text{P}}^{\text{BBN}}$	$0.24664^{+0.00020}_{-0.00024}$	$\sigma_8(0.51)$	$0.621^{+0.012}_{-0.0098}$
A^{kSZ}	—	$10^5 \text{D}/\text{H}$	$2.623^{+0.096}_{-0.094}$	$f\sigma_8(0.61)$	$0.470^{+0.011}_{-0.012}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.7}$	Age/Gyr	$13.817^{+0.076}_{-0.078}$	$\sigma_8(0.61)$	$0.590^{+0.011}_{-0.0092}$
A_{143}^{dustTT}	$10.7^{+4.5}_{-4.6}$	z_*	$1090.14^{+0.80}_{-0.80}$	$f\sigma_8(2.33)$	$0.2976^{+0.0059}_{-0.0046}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.9}_{-8.6}$	r_*	$144.67^{+0.89}_{-0.86}$	$\sigma_8(2.33)$	$0.3066^{+0.0065}_{-0.0050}$
A_{217}^{dustTT}	93^{+20}_{-20}	$100\theta_*$	$1.0411^{+0.0012}_{-0.0011}$	f_{2000}^{143}	31^{+8}_{-8}
c_{100}	$0.9996^{+0.0017}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	$13.896^{+0.084}_{-0.082}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	z_{drag}	$1059.5^{+1.2}_{-1.1}$	f_{2000}^{217}	$108.0^{+4.7}_{-5.0}$
H_0	$67.3^{+1.7}_{-1.6}$	r_{drag}	$147.40^{+0.93}_{-0.90}$	χ_{lensing}^2	$9.32 (\nu: 0.3)$
Ω_Λ	$0.685^{+0.023}_{-0.022}$	k_{D}	$0.1404^{+0.0011}_{-0.0011}$	χ_{simall}^2	$396.9 (\nu: 1.5)$
Ω_{m}	$0.315^{+0.022}_{-0.023}$	$100\theta_{\text{D}}$	$0.16104^{+0.00065}_{-0.00068}$	χ_{lowl}^2	$23.47 (\nu: 0.5)$
$\Omega_{\text{m}} h^2$	$0.1425^{+0.0034}_{-0.0036}$	z_{eq}	3389^{+82}_{-85}	χ_{plik}^2	$771.2 (\nu: 13.7)$
$\Omega_{\text{m}} h^3$	$0.0959^{+0.0012}_{-0.0011}$	k_{eq}	$0.01034^{+0.00025}_{-0.00026}$	χ_{JLA}^2	$1035.38 (\nu: 0.2)$
σ_8	$0.810^{+0.016}_{-0.014}$	$100\theta_{\text{eq}}$	$0.815^{+0.016}_{-0.015}$	χ_{prior}^2	$7.3 (\nu: 6.7)$
S_8	$0.830^{+0.038}_{-0.039}$	$100\theta_{\text{s,eq}}$	$0.4505^{+0.0083}_{-0.0077}$	χ_{CMB}^2	$1200.9 (\nu: 14.6)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.455^{+0.021}_{-0.021}$	$H(0.15)$	$72.6^{+1.5}_{-1.4}$		
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.607^{+0.018}_{-0.018}$	$D_M(0.15)$	644^{+14}_{-14}		

$$\bar{\chi}_{\text{eff}}^2 = 2243.62; R - 1 = 0.01253$$

2.16 base_plikHM_TT_lowl_lowE_lensing_post_BAO_Pantheon18_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02222^{+0.00048}_{-0.00046}$	$r_{\text{drag}} h$	$99.8^{+2.2}_{-2.0}$	$H(0.51)$	$89.67^{+0.70}_{-0.66}$
$\Omega_c h^2$	$0.1190^{+0.0026}_{-0.0027}$	$\langle d^2 \rangle^{1/2}$	$2.435^{+0.054}_{-0.054}$	$D_M(0.51)$	1982^{+24}_{-26}
$100\theta_{\text{MC}}$	$1.0410^{+0.0011}_{-0.0011}$	z_{re}	< 9.50	$H(0.61)$	$95.27^{+0.62}_{-0.57}$
τ	$0.056^{+0.018}_{-0.015}$	$10^9 A_s$	$2.102^{+0.080}_{-0.064}$	$D_M(0.61)$	2306^{+26}_{-28}
$\ln(10^{10} A_s)$	$3.046^{+0.037}_{-0.031}$	$10^9 A_s e^{-2\tau}$	$1.878^{+0.027}_{-0.026}$	$H(2.33)$	$235.7^{+1.7}_{-1.8}$
n_s	$0.966^{+0.011}_{-0.010}$	D_{40}	1227^{+32}_{-29}	$D_M(2.33)$	5767^{+29}_{-30}
y_{cal}	$1.0008^{+0.0066}_{-0.0063}$	D_{220}	5725^{+100}_{-95}	$f\sigma_8(0.15)$	$0.455^{+0.015}_{-0.015}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2537^{+35}_{-33}	$\sigma_8(0.15)$	$0.748^{+0.015}_{-0.013}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	816^{+13}_{-13}	$f\sigma_8(0.38)$	$0.474^{+0.013}_{-0.013}$
A_{143}^{tSZ}	—	D_{2000}	$230.1^{+4.6}_{-4.5}$	$\sigma_8(0.38)$	$0.663^{+0.013}_{-0.011}$
A_{100}^{PS}	263^{+70}_{-70}	$n_{\text{s},0.002}$	$0.966^{+0.011}_{-0.010}$	$f\sigma_8(0.51)$	$0.473^{+0.011}_{-0.011}$
A_{143}^{PS}	48^{+20}_{-20}	Y_{P}	$0.24533^{+0.00019}_{-0.00022}$	$\sigma_8(0.51)$	$0.621^{+0.012}_{-0.010}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24666^{+0.00019}_{-0.00022}$	$f\sigma_8(0.61)$	$0.468^{+0.011}_{-0.011}$
A_{217}^{PS}	115^{+30}_{-30}	10^5D/H	$2.614^{+0.089}_{-0.088}$	$\sigma_8(0.61)$	$0.591^{+0.011}_{-0.0095}$
A^{kSZ}	—	Age/Gyr	$13.806^{+0.067}_{-0.068}$	$f\sigma_8(2.33)$	$0.2979^{+0.0058}_{-0.0047}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.7}$	z_*	$1090.02^{+0.69}_{-0.69}$	$\sigma_8(2.33)$	$0.3071^{+0.0061}_{-0.0050}$
A_{143}^{dustTT}	$10.7^{+4.5}_{-4.7}$	r_*	$144.82^{+0.73}_{-0.70}$	f_{2000}^{143}	31^{+8}_{-8}
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.9}_{-8.6}$	$100\theta_*$	$1.0412^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
A_{217}^{dustTT}	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	$13.909^{+0.073}_{-0.069}$	f_{2000}^{217}	$107.9^{+4.8}_{-4.9}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	$1059.5^{+1.1}_{-1.1}$	χ_{lensing}^2	$9.23 (\nu: 0.2)$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	$147.54^{+0.80}_{-0.79}$	χ_{simall}^2	$397.2 (\nu: 1.8)$
H_0	$67.6^{+1.3}_{-1.2}$	k_{D}	$0.1403^{+0.0011}_{-0.0011}$	χ_{lowl}^2	$23.18 (\nu: 0.4)$
Ω_{Λ}	$0.690^{+0.016}_{-0.016}$	$100\theta_{\text{D}}$	$0.16101^{+0.00065}_{-0.00068}$	χ_{plik}^2	$771.6 (\nu: 13.6)$
Ω_{m}	$0.310^{+0.016}_{-0.016}$	z_{eq}	3374^{+62}_{-62}	χ_{JLA}^2	$1035.07 (\nu: 0.0)$
$\Omega_{\text{m}} h^2$	$0.1418^{+0.0026}_{-0.0026}$	k_{eq}	$0.01030^{+0.00019}_{-0.00019}$	$\chi_{6\text{DF}}^2$	$0.048 (\nu: 0.0)$
$\Omega_{\text{m}} h^3$	$0.0959^{+0.0011}_{-0.0011}$	$100\theta_{\text{eq}}$	$0.818^{+0.012}_{-0.011}$	χ_{MGS}^2	$1.34 (\nu: 0.1)$
σ_8	$0.809^{+0.016}_{-0.015}$	$100\theta_{\text{s,eq}}$	$0.4520^{+0.0061}_{-0.0058}$	χ_{DR12BAO}^2	$4.6 (\nu: 0.9)$
S_8	$0.823^{+0.029}_{-0.029}$	$H(0.15)$	$72.9^{+1.1}_{-1.0}$	χ_{prior}^2	$7.3 (\nu: 6.6)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.451^{+0.016}_{-0.016}$	$D_M(0.15)$	641^{+10}_{-11}	χ_{CMB}^2	$1201.2 (\nu: 14.5)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.604^{+0.016}_{-0.015}$	$H(0.38)$	$82.97^{+0.84}_{-0.78}$	χ_{BAO}^2	$6.0 (\nu: 0.5)$
$\sigma_8/h^{0.5}$	$0.984^{+0.022}_{-0.023}$	$D_M(0.38)$	1530^{+21}_{-22}		

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

2.17 base_plikHM_TTTEEE_lowl_lowE_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022383	$0.02237^{+0.00038}_{-0.00037}$	$\Omega_m h^3$	0.09636	$0.09633^{+0.00073}_{-0.00083}$	$100\theta_{\text{eq}}$	0.8128	$0.813^{+0.013}_{-0.013}$
$\Omega_c h^2$	0.12011	$0.1200^{+0.0031}_{-0.0031}$	σ_8	0.8120	$0.811^{+0.016}_{-0.015}$	$100\theta_{\text{s,eq}}$	0.4491	$0.4494^{+0.0067}_{-0.0066}$
$100\theta_{\text{MC}}$	1.04091	$1.04092^{+0.00079}_{-0.00084}$	S_8	0.8331	$0.832^{+0.033}_{-0.033}$	$H(0.15)$	72.65	$72.7^{+1.2}_{-1.2}$
τ	0.0543	$0.054^{+0.019}_{-0.019}$	$\sigma_8 \Omega_m^{0.5}$	0.4563	$0.455^{+0.018}_{-0.018}$	$D_{\text{M}}(0.15)$	643.7	643^{+12}_{-12}
$\ln(10^{10} A_s)$	3.0448	$3.044^{+0.037}_{-0.036}$	$\sigma_8 \Omega_m^{0.25}$	0.6087	$0.608^{+0.016}_{-0.017}$	$H(0.38)$	82.85	$82.87^{+0.89}_{-0.85}$
n_s	0.9660	$0.965^{+0.011}_{-0.011}$	$\sigma_8/h^{0.5}$	0.9897	$0.988^{+0.023}_{-0.024}$	$D_{\text{M}}(0.38)$	1534.0	1533^{+24}_{-24}
y_{cal}	1.0004	$1.0006^{+0.0063}_{-0.0063}$	$r_{\text{drag}} h$	99.00	$99.1^{+2.4}_{-2.4}$	$H(0.51)$	89.61	$89.63^{+0.72}_{-0.68}$
A_{217}^{CIB}	46.1	47^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.445	$2.446^{+0.056}_{-0.058}$	$D_{\text{M}}(0.51)$	1986.5	1986^{+28}_{-28}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.66	—	z_{re}	7.68	$7.7^{+1.8}_{-2.1}$	$H(0.61)$	95.27	$95.28^{+0.59}_{-0.55}$
A_{143}^{tSZ}	7.08	$5.4^{+4.3}_{-4.9}$	$10^9 A_s$	2.101	$2.100^{+0.079}_{-0.075}$	$D_{\text{M}}(0.61)$	2311.0	2310^{+30}_{-30}
A_{100}^{PS}	248	260^{+70}_{-70}	$10^9 A_s e^{-2\tau}$	1.8843	$1.883^{+0.027}_{-0.027}$	$H(2.33)$	236.64	$236.6^{+1.8}_{-1.8}$
A_{143}^{PS}	50.7	46^{+20}_{-20}	D_{40}	1229.0	1232^{+29}_{-31}	$D_{\text{M}}(2.33)$	5763.6	5763^{+26}_{-27}
$A_{143 \times 217}^{\text{PS}}$	53.3	42^{+20}_{-20}	D_{220}	5730	5736^{+100}_{-99}	$f\sigma_8(0.15)$	0.4606	$0.460^{+0.017}_{-0.017}$
A_{217}^{PS}	121.9	115^{+30}_{-30}	D_{810}	2541.3	2539^{+33}_{-33}	$\sigma_8(0.15)$	0.7499	$0.749^{+0.014}_{-0.014}$
A^{kSZ}	0.0	—	D_{1420}	818.4	817^{+12}_{-12}	$f\sigma_8(0.38)$	0.4780	$0.477^{+0.013}_{-0.014}$
A_{100}^{dustTT}	8.80	$8.9^{+4.7}_{-4.7}$	D_{2000}	231.33	$230.9^{+3.9}_{-4.0}$	$\sigma_8(0.38)$	0.6643	$0.664^{+0.013}_{-0.012}$
A_{143}^{dustTT}	11.01	$10.9^{+4.5}_{-4.4}$	$n_{\text{s},0.002}$	0.9660	$0.965^{+0.011}_{-0.011}$	$f\sigma_8(0.51)$	0.4761	$0.475^{+0.012}_{-0.012}$
$A_{143 \times 217}^{\text{dustTT}}$	20.2	$18.6^{+8.3}_{-8.3}$	Y_{P}	0.245401	$0.24539^{+0.00014}_{-0.00015}$	$\sigma_8(0.51)$	0.6214	$0.621^{+0.012}_{-0.011}$
A_{217}^{dustTT}	95.5	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246727	$0.24672^{+0.00014}_{-0.00015}$	$f\sigma_8(0.61)$	0.4707	$0.470^{+0.011}_{-0.011}$
A_{100}^{dustTE}	0.114	$0.114^{+0.099}_{-0.093}$	$10^5 D/H$	2.583	$2.585^{+0.070}_{-0.069}$	$\sigma_8(0.61)$	0.5912	$0.591^{+0.011}_{-0.011}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.135^{+0.075}_{-0.076}$	Age/Gyr	13.797	$13.797^{+0.058}_{-0.060}$	$f\sigma_8(2.33)$	0.2979	$0.2977^{+0.0058}_{-0.0055}$
$A_{100 \times 217}^{\text{dustTE}}$	0.479	$0.48^{+0.22}_{-0.22}$	z_*	1089.91	$1089.92^{+0.64}_{-0.67}$	$\sigma_8(2.33)$	0.3070	$0.3068^{+0.0063}_{-0.0060}$
A_{143}^{dustTE}	0.225	$0.23^{+0.14}_{-0.14}$	r_*	144.39	$144.43^{+0.67}_{-0.69}$	f_{2000}^{143}	28.6	30^{+7}_{-7}
$A_{143 \times 217}^{\text{dustTE}}$	0.665	$0.67^{+0.21}_{-0.21}$	$100\theta_*$	1.04109	$1.04110^{+0.00078}_{-0.00083}$	$f_{2000}^{143 \times 217}$	31.97	32^{+5}_{-5}
A_{217}^{dustTE}	2.08	$2.09^{+0.72}_{-0.69}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.870	$13.873^{+0.064}_{-0.063}$	f_{2000}^{217}	106.46	$107.1^{+4.5}_{-4.7}$
c_{100}	0.99974	$0.9997^{+0.0016}_{-0.0016}$	z_{drag}	1059.97	$1059.94^{+0.79}_{-0.77}$	χ_{lensing}^2	8.87	$9.23 (\nu: 0.2)$
c_{217}	0.99819	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	147.05	$147.09^{+0.68}_{-0.68}$	χ_{small}^2	396.05	$397.0 (\nu: 1.4)$
H_0	67.32	$67.4^{+1.4}_{-1.4}$	k_{D}	0.14092	$0.14087^{+0.00076}_{-0.00079}$	χ_{lowl}^2	23.25	$23.53 (\nu: 0.4)$
Ω_{Λ}	0.6842	$0.685^{+0.018}_{-0.019}$	$100\theta_{\text{D}}$	0.160734	$0.16076^{+0.00044}_{-0.00045}$	χ_{plik}^2	2344.9	$2359.4 (\nu: 16.3)$
Ω_{m}	0.3158	$0.315^{+0.019}_{-0.018}$	z_{eq}	3405	3402^{+69}_{-68}	χ_{prior}^2	1.5	$11.5 (\nu: 9.9)$
$\Omega_{\text{m}} h^2$	0.14314	$0.1430^{+0.0029}_{-0.0028}$	k_{eq}	0.010393	$0.01038^{+0.00021}_{-0.00021}$	χ_{CMB}^2	2773.1	$2789.2 (\nu: 16.9)$

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

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.87 small_100x143_offlike5_EE_Aplanck_B: 396.05 commander_dx12_v3.2_29: 23.25 plik_rd12_HM_v22b_TTTEEE: 2344.93

2.18 base_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022447	$0.02242^{+0.00034}_{-0.00035}$	S_8	0.8253	$0.825^{+0.027}_{-0.027}$	$H(0.38)$	83.08	$83.05^{+0.71}_{-0.68}$
$\Omega_c h^2$	0.11928	$0.1193^{+0.0024}_{-0.0023}$	$\sigma_8 \Omega_m^{0.5}$	0.4520	$0.452^{+0.015}_{-0.015}$	$D_M(0.38)$	1527.5	1528^{+19}_{-19}
$100\theta_{MC}$	1.04101	$1.04101^{+0.00076}_{-0.00080}$	$\sigma_8 \Omega_m^{0.25}$	0.6055	$0.605^{+0.015}_{-0.014}$	$H(0.51)$	89.80	$89.77^{+0.57}_{-0.56}$
τ	0.0568	$0.056^{+0.019}_{-0.018}$	$\sigma_8/h^{0.5}$	0.9857	$0.985^{+0.022}_{-0.022}$	$D_M(0.51)$	1978.9	1980^{+22}_{-22}
$\ln(10^{10} A_s)$	3.0480	$3.047^{+0.037}_{-0.034}$	$r_{\text{drag}} h$	99.66	$99.6^{+1.8}_{-1.8}$	$H(0.61)$	95.414	$95.39^{+0.47}_{-0.47}$
n_s	0.9682	$0.9665^{+0.0098}_{-0.0098}$	$\langle d^2 \rangle^{1/2}$	2.436	$2.438^{+0.054}_{-0.053}$	$D_M(0.61)$	2302.9	2304^{+24}_{-24}
y_{cal}	1.0005	$1.0008^{+0.0062}_{-0.0061}$	z_{re}	7.90	$7.8^{+1.8}_{-1.9}$	$H(2.33)$	236.17	$236.2^{+1.4}_{-1.4}$
A_{217}^{CIB}	45.6	47^{+20}_{-20}	$10^9 A_s$	2.107	$2.105^{+0.078}_{-0.071}$	$D_M(2.33)$	5757.5	5759^{+23}_{-22}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.71	—	$10^9 A_s e^{-2\tau}$	1.8811	$1.881^{+0.027}_{-0.026}$	$f\sigma_8(0.15)$	0.4567	$0.456^{+0.014}_{-0.014}$
A_{143}^{tSZ}	7.06	> 0.816	D_{40}	1225.0	1229^{+29}_{-31}	$\sigma_8(0.15)$	0.7495	$0.749^{+0.015}_{-0.014}$
A_{100}^{PS}	247	259^{+70}_{-70}	D_{220}	5734	5741^{+100}_{-98}	$f\sigma_8(0.38)$	0.4752	$0.475^{+0.012}_{-0.012}$
A_{143}^{PS}	50.6	46^{+20}_{-20}	D_{810}	2541.2	2540^{+33}_{-33}	$\sigma_8(0.38)$	0.6645	$0.664^{+0.013}_{-0.012}$
$A_{143 \times 217}^{\text{PS}}$	54.1	42^{+20}_{-20}	D_{1420}	819.2	818^{+12}_{-12}	$f\sigma_8(0.51)$	0.4739	$0.474^{+0.011}_{-0.011}$
A_{217}^{PS}	122.3	115^{+20}_{-30}	D_{2000}	231.67	$231.1^{+3.8}_{-3.9}$	$\sigma_8(0.51)$	0.6219	$0.621^{+0.012}_{-0.011}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9682	$0.9665^{+0.0098}_{-0.0098}$	$f\sigma_8(0.61)$	0.4690	$0.469^{+0.010}_{-0.010}$
A_{100}^{dustTT}	8.78	$8.9^{+4.4}_{-4.7}$	Y_P	0.245425	$0.24541^{+0.00013}_{-0.00014}$	$\sigma_8(0.61)$	0.5918	$0.591^{+0.012}_{-0.011}$
A_{143}^{dustTT}	10.97	$10.9^{+4.5}_{-4.3}$	Y_P^{BBN}	0.246752	$0.24674^{+0.00013}_{-0.00014}$	$f\sigma_8(2.33)$	0.2984	$0.2980^{+0.0058}_{-0.0054}$
$A_{143 \times 217}^{\text{dustTT}}$	20.0	$18.5^{+8.4}_{-8.6}$	$10^5 D/H$	2.571	$2.576^{+0.065}_{-0.061}$	$\sigma_8(2.33)$	0.3077	$0.3073^{+0.0060}_{-0.0058}$
A_{217}^{dustTT}	95.3	93^{+20}_{-20}	Age/Gyr	13.784	$13.787^{+0.053}_{-0.050}$	f_{2000}^{143}	28.2	29^{+7}_{-7}
A_{100}^{dustTE}	0.114	$0.114^{+0.10}_{-0.092}$	z_*	1089.76	$1089.80^{+0.55}_{-0.56}$	$f_{2000}^{143 \times 217}$	31.63	32^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.135^{+0.073}_{-0.076}$	r_*	144.56	$144.57^{+0.56}_{-0.55}$	f_{2000}^{217}	106.20	$106.9^{+4.3}_{-4.9}$
$A_{100 \times 217}^{\text{dustTE}}$	0.483	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	1.04119	$1.04119^{+0.00074}_{-0.00079}$	χ_{lensing}^2	8.73	$9.10 (\nu: 0.2)$
A_{143}^{dustTE}	0.224	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.884	$13.885^{+0.054}_{-0.053}$	χ_{small}^2	396.52	$397.2 (\nu: 1.7)$
$A_{143 \times 217}^{\text{dustTE}}$	0.664	$0.67^{+0.20}_{-0.21}$	z_{drag}	1060.05	$1060.01^{+0.73}_{-0.80}$	χ_{lowl}^2	22.90	$23.25 (\nu: 0.3)$
A_{217}^{dustTE}	2.08	$2.08^{+0.69}_{-0.71}$	r_{drag}	147.20	$147.21^{+0.58}_{-0.58}$	χ_{plik}^2	2345.3	$2359.6 (\nu: 16.9)$
c_{100}	0.99973	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14081	$0.14078^{+0.00069}_{-0.00077}$	$\chi_{6\text{DF}}^2$	0.029	$0.053 (\nu: 0.0)$
c_{217}	0.99817	$0.9982^{+0.0016}_{-0.0017}$	$100\theta_D$	0.160690	$0.16072^{+0.00045}_{-0.00043}$	χ_{MGS}^2	1.22	$1.24 (\nu: 0.1)$
H_0	67.70	$67.7^{+1.1}_{-1.1}$	z_{eq}	3387	3387^{+53}_{-52}	χ_{DR12BAO}^2	4.42	$4.8 (\nu: 0.9)$
Ω_Λ	0.6894	$0.689^{+0.014}_{-0.015}$	k_{eq}	0.010337	$0.01034^{+0.00016}_{-0.00016}$	χ_{prior}^2	1.6	$11.5 (\nu: 10.1)$
Ω_m	0.3106	$0.311^{+0.015}_{-0.014}$	$100\theta_{\text{eq}}$	0.8163	$0.816^{+0.010}_{-0.0099}$	χ_{CMB}^2	2773.5	$2789.2 (\nu: 17.2)$
$\Omega_m h^2$	0.14237	$0.1424^{+0.0022}_{-0.0022}$	$100\theta_{s,\text{eq}}$	0.4509	$0.4509^{+0.0051}_{-0.0051}$	χ_{BAO}^2	5.67	$6.1 (\nu: 0.5)$
$\Omega_m h^3$	0.09639	$0.09635^{+0.00074}_{-0.00084}$	$H(0.15)$	72.98	$72.94^{+0.94}_{-0.92}$			
σ_8	0.8110	$0.810^{+0.016}_{-0.015}$	$D_M(0.15)$	640.4	$640.8^{+9.2}_{-9.3}$			

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

χ_{eff}^2 : BAO - 6DF: 0.03 MGS: 1.22 DR12BAO: 4.42 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.73 small_100x143_offlike5_EE_Aplanck_B: 396.52 commander_dx12.v3.2.29: 22.90 plik_rd12_HM_v22b_TTTEEE: 2345.32

2.19 base_plikHM_TTTEEE_lowl_lowE_lensing_post_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022400	$0.02239^{+0.00036}_{-0.00035}$	σ_8	0.8112	$0.811^{+0.016}_{-0.015}$	$H(0.15)$	72.77	$72.8^{+1.1}_{-1.1}$
$\Omega_c h^2$	0.11977	$0.1197^{+0.0030}_{-0.0028}$	S_8	0.8296	$0.829^{+0.032}_{-0.031}$	$D_M(0.15)$	642.4	642^{+11}_{-11}
$100\theta_{MC}$	1.04094	$1.04095^{+0.00080}_{-0.00083}$	$\sigma_8 \Omega_m^{0.5}$	0.4544	$0.454^{+0.017}_{-0.017}$	$H(0.38)$	82.93	$82.94^{+0.85}_{-0.83}$
τ	0.0549	$0.055^{+0.019}_{-0.019}$	$\sigma_8 \Omega_m^{0.25}$	0.6071	$0.607^{+0.016}_{-0.016}$	$D_M(0.38)$	1531.6	1531^{+23}_{-23}
$\ln(10^{10} A_s)$	3.0453	$3.045^{+0.037}_{-0.036}$	$\sigma_8/h^{0.5}$	0.9876	$0.987^{+0.023}_{-0.023}$	$H(0.51)$	89.68	$89.68^{+0.68}_{-0.66}$
n_s	0.9664	$0.966^{+0.011}_{-0.011}$	$r_{\text{drag}} h$	99.25	$99.3^{+2.3}_{-2.3}$	$D_M(0.51)$	1983.7	1984^{+27}_{-27}
y_{cal}	1.0006	$1.0007^{+0.0062}_{-0.0063}$	$\langle d^2 \rangle^{1/2}$	2.441	$2.443^{+0.055}_{-0.056}$	$H(0.61)$	95.32	$95.32^{+0.55}_{-0.54}$
A_{217}^{CIB}	47.2	47^{+20}_{-20}	z_{re}	7.73	$7.7^{+1.8}_{-2.0}$	$D_M(0.61)$	2308.0	2308^{+29}_{-29}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.45	—	$10^9 A_s$	2.102	$2.102^{+0.078}_{-0.075}$	$H(2.33)$	236.44	$236.4^{+1.8}_{-1.7}$
A_{143}^{tSZ}	7.20	$5.4^{+4.4}_{-4.9}$	$10^9 A_s e^{-2\tau}$	1.8832	$1.883^{+0.027}_{-0.026}$	$D_M(2.33)$	5761.6	5762^{+25}_{-25}
A_{100}^{PS}	250	259^{+70}_{-70}	D_{40}	1228.7	1231^{+30}_{-31}	$f\sigma_8(0.15)$	0.4588	$0.458^{+0.016}_{-0.016}$
A_{143}^{PS}	47.7	46^{+20}_{-20}	D_{220}	5735	5738^{+100}_{-97}	$\sigma_8(0.15)$	0.7493	$0.749^{+0.014}_{-0.014}$
$A_{143 \times 217}^{\text{PS}}$	47.9	42^{+20}_{-20}	D_{810}	2541.2	2540^{+33}_{-33}	$f\sigma_8(0.38)$	0.4766	$0.476^{+0.013}_{-0.013}$
A_{217}^{PS}	119.7	115^{+30}_{-30}	D_{1420}	818.5	817^{+12}_{-12}	$\sigma_8(0.38)$	0.6640	$0.664^{+0.013}_{-0.012}$
A^{kSZ}	0.0	—	D_{2000}	231.33	$231.0^{+3.9}_{-4.0}$	$f\sigma_8(0.51)$	0.4750	$0.475^{+0.011}_{-0.012}$
A_{100}^{dustTT}	8.83	$8.9^{+4.4}_{-4.7}$	$n_{\text{s},0.002}$	0.9664	$0.966^{+0.011}_{-0.011}$	$\sigma_8(0.51)$	0.6213	$0.621^{+0.012}_{-0.011}$
A_{143}^{dustTT}	11.02	$10.9^{+4.5}_{-4.3}$	Y_{P}	0.245407	$0.24540^{+0.00014}_{-0.00014}$	$f\sigma_8(0.61)$	0.4698	$0.470^{+0.010}_{-0.011}$
$A_{143 \times 217}^{\text{dustTT}}$	19.8	$18.5^{+8.3}_{-8.5}$	$Y_{\text{P}}^{\text{BBN}}$	0.246734	$0.24673^{+0.00014}_{-0.00014}$	$\sigma_8(0.61)$	0.5911	$0.591^{+0.011}_{-0.011}$
A_{217}^{dustTT}	95.0	93^{+20}_{-20}	$10^5 D/H$	2.580	$2.582^{+0.067}_{-0.065}$	$f\sigma_8(2.33)$	0.2979	$0.2978^{+0.0058}_{-0.0056}$
A_{100}^{dustTE}	0.114	$0.114^{+0.10}_{-0.092}$	Age/Gyr	13.793	$13.793^{+0.057}_{-0.057}$	$\sigma_8(2.33)$	0.3071	$0.3070^{+0.0062}_{-0.0060}$
$A_{100 \times 143}^{\text{dustTE}}$	0.134	$0.135^{+0.073}_{-0.078}$	z_*	1089.86	$1089.87^{+0.63}_{-0.63}$	f_{2000}^{143}	28.8	30^{+7}_{-7}
$A_{100 \times 217}^{\text{dustTE}}$	0.482	$0.48^{+0.22}_{-0.23}$	r_*	144.47	$144.48^{+0.64}_{-0.65}$	$f_{2000}^{143 \times 217}$	31.98	32^{+5}_{-5}
A_{143}^{dustTE}	0.223	$0.23^{+0.14}_{-0.14}$	$100\theta_*$	1.04112	$1.04113^{+0.00079}_{-0.00082}$	f_{2000}^{217}	106.61	$107.0^{+4.3}_{-4.9}$
$A_{143 \times 217}^{\text{dustTE}}$	0.664	$0.67^{+0.20}_{-0.21}$	$D_M(z_*)/\text{Gpc}$	13.876	$13.877^{+0.060}_{-0.061}$	χ_{lensing}^2	8.77	$9.17 (\nu: 0.2)$
A_{217}^{dustTE}	2.08	$2.08^{+0.69}_{-0.69}$	z_{drag}	1059.97	$1059.97^{+0.77}_{-0.76}$	χ_{simall}^2	396.16	$397.1 (\nu: 1.5)$
c_{100}	0.99973	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	147.12	$147.14^{+0.65}_{-0.65}$	χ_{lowl}^2	23.18	$23.42 (\nu: 0.4)$
c_{217}	0.99817	$0.9982^{+0.0016}_{-0.0016}$	k_{D}	0.14086	$0.14084^{+0.00073}_{-0.00081}$	χ_{plik}^2	2344.9	$2359.5 (\nu: 16.8)$
H_0	67.46	$67.5^{+1.3}_{-1.3}$	$100\theta_{\text{D}}$	0.160728	$0.16074^{+0.00045}_{-0.00044}$	χ_{JLA}^2	1035.18	$1035.27 (\nu: 0.1)$
Ω_{Λ}	0.6862	$0.686^{+0.017}_{-0.019}$	z_{eq}	3397	3396^{+66}_{-64}	χ_{prior}^2	1.7	$11.5 (\nu: 10.0)$
Ω_{m}	0.3138	$0.314^{+0.019}_{-0.017}$	k_{eq}	0.010369	$0.01037^{+0.00020}_{-0.00019}$	χ_{CMB}^2	2773.0	$2789.2 (\nu: 17.2)$
$\Omega_{\text{m}} h^2$	0.14282	$0.1428^{+0.0028}_{-0.0027}$	$100\theta_{\text{eq}}$	0.8142	$0.814^{+0.012}_{-0.012}$			
$\Omega_{\text{m}} h^3$	0.09635	$0.09633^{+0.00075}_{-0.00084}$	$100\theta_{\text{s,eq}}$	0.4499	$0.4500^{+0.0062}_{-0.0063}$			

Best-fit $\chi_{\text{eff}}^2 = 3809.84$; $\bar{\chi}_{\text{eff}}^2 = 3835.97$; $R - 1 = 0.01281$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.77 simall_100x143_offlike5_EE_Aplanck_B: 396.16 commander_dx12_v3.2_29: 23.18 plik_rd12_HM_v22b_TTTEEE: 2344.85 SN - JLA Pantheon18: 1035.18

2.20 base_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022451	$0.02243^{+0.00034}_{-0.00035}$	S_8	0.8237	$0.824^{+0.026}_{-0.026}$	$H(0.38)$	83.12	$83.09^{+0.70}_{-0.67}$
$\Omega_c h^2$	0.11913	$0.1192^{+0.0023}_{-0.0023}$	$\sigma_8 \Omega_m^{0.5}$	0.4511	$0.451^{+0.014}_{-0.014}$	$D_M(0.38)$	1526.6	1527^{+18}_{-18}
$100\theta_{MC}$	1.04102	$1.04102^{+0.00075}_{-0.00081}$	$\sigma_8 \Omega_m^{0.25}$	0.6047	$0.605^{+0.015}_{-0.014}$	$H(0.51)$	89.82	$89.80^{+0.56}_{-0.54}$
τ	0.0568	$0.056^{+0.018}_{-0.018}$	$\sigma_8/h^{0.5}$	0.9847	$0.984^{+0.022}_{-0.022}$	$D_M(0.51)$	1977.8	1979^{+21}_{-22}
$\ln(10^{10} A_s)$	3.0482	$3.047^{+0.036}_{-0.034}$	$r_{drag} h$	99.77	$99.7^{+1.8}_{-1.8}$	$H(0.61)$	95.431	$95.41^{+0.47}_{-0.46}$
n_s	0.9682	$0.9668^{+0.0097}_{-0.0096}$	$\langle d^2 \rangle^{1/2}$	2.434	$2.437^{+0.053}_{-0.052}$	$D_M(0.61)$	2301.7	2303^{+23}_{-24}
y_{cal}	1.0008	$1.0008^{+0.0062}_{-0.0061}$	z_{re}	7.90	$7.8^{+1.7}_{-1.8}$	$H(2.33)$	236.07	$236.1^{+1.4}_{-1.4}$
A_{217}^{CIB}	46.6	47^{+20}_{-20}	$10^9 A_s$	2.108	$2.105^{+0.078}_{-0.072}$	$D_M(2.33)$	5756.9	5758^{+23}_{-22}
$\xi^{tSZ \times CIB}$	0.56	—	$10^9 A_s e^{-2\tau}$	1.8813	$1.881^{+0.027}_{-0.027}$	$f\sigma_8(0.15)$	0.4559	$0.456^{+0.014}_{-0.014}$
A_{143}^{tSZ}	7.16	> 0.815	D_{40}	1225.7	1229^{+29}_{-30}	$\sigma_8(0.15)$	0.7492	$0.749^{+0.015}_{-0.014}$
A_{100}^{PS}	249	259^{+70}_{-70}	D_{220}	5739	5741^{+100}_{-98}	$f\sigma_8(0.38)$	0.4746	$0.475^{+0.012}_{-0.012}$
A_{143}^{PS}	48.8	46^{+20}_{-20}	D_{810}	2542.0	2540^{+33}_{-33}	$\sigma_8(0.38)$	0.6643	$0.664^{+0.013}_{-0.012}$
$A_{143 \times 217}^{PS}$	50.4	42^{+20}_{-20}	D_{1420}	819.4	818^{+11}_{-12}	$f\sigma_8(0.51)$	0.4734	$0.473^{+0.011}_{-0.011}$
A_{217}^{PS}	120.6	115^{+20}_{-30}	D_{2000}	231.70	$231.2^{+3.7}_{-3.9}$	$\sigma_8(0.51)$	0.6218	$0.621^{+0.012}_{-0.011}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9682	$0.9668^{+0.0097}_{-0.0096}$	$f\sigma_8(0.61)$	0.4686	$0.468^{+0.010}_{-0.010}$
A_{100}^{dustTT}	8.84	$8.9^{+4.4}_{-4.7}$	Y_P	0.245427	$0.24542^{+0.00013}_{-0.00014}$	$\sigma_8(0.61)$	0.5917	$0.591^{+0.012}_{-0.011}$
A_{143}^{dustTT}	11.02	$10.9^{+4.5}_{-4.3}$	Y_P^{BBN}	0.246753	$0.24674^{+0.00013}_{-0.00014}$	$f\sigma_8(2.33)$	0.2984	$0.2981^{+0.0058}_{-0.0054}$
$A_{143 \times 217}^{dustTT}$	19.9	$18.5^{+8.4}_{-8.6}$	$10^5 D/H$	2.571	$2.575^{+0.066}_{-0.061}$	$\sigma_8(2.33)$	0.3077	$0.3074^{+0.0060}_{-0.0057}$
A_{217}^{dustTT}	95.2	93^{+20}_{-20}	Age/Gyr	13.783	$13.785^{+0.053}_{-0.050}$	f_{2000}^{143}	28.5	29^{+7}_{-7}
A_{100}^{dustTE}	0.114	$0.114^{+0.10}_{-0.092}$	z_*	1089.74	$1089.78^{+0.53}_{-0.54}$	$f_{2000}^{143 \times 217}$	31.78	32^{+5}_{-5}
$A_{100 \times 143}^{dustTE}$	0.134	$0.135^{+0.073}_{-0.076}$	r_*	144.59	$144.59^{+0.55}_{-0.54}$	f_{2000}^{217}	106.41	$106.9^{+4.4}_{-4.9}$
$A_{100 \times 217}^{dustTE}$	0.484	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	1.04120	$1.04120^{+0.00075}_{-0.00079}$	$\chi_{lensing}^2$	8.72	$9.10 (\nu: 0.2)$
A_{143}^{dustTE}	0.224	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.887	$13.887^{+0.054}_{-0.052}$	χ_{small}^2	396.52	$397.2 (\nu: 1.8)$
$A_{143 \times 217}^{dustTE}$	0.665	$0.67^{+0.20}_{-0.21}$	z_{drag}	1060.05	$1060.02^{+0.75}_{-0.77}$	χ_{lowl}^2	22.88	$23.20 (\nu: 0.3)$
A_{217}^{dustTE}	2.08	$2.08^{+0.69}_{-0.72}$	r_{drag}	147.23	$147.23^{+0.57}_{-0.57}$	χ_{plik}^2	2345.3	$2359.7 (\nu: 17.0)$
c_{100}	0.99971	$0.9997^{+0.0016}_{-0.0015}$	k_D	0.14078	$0.14076^{+0.00069}_{-0.00075}$	χ_{JLA}^2	1034.97	$1035.06 (\nu: 0.0)$
c_{217}	0.99819	$0.9982^{+0.0016}_{-0.0017}$	$100\theta_D$	0.160690	$0.16072^{+0.00044}_{-0.00043}$	χ_{6DF}^2	0.022	$0.046 (\nu: 0.0)$
H_0	67.76	$67.7^{+1.1}_{-1.0}$	z_{eq}	3383	3385^{+52}_{-51}	χ_{MGS}^2	1.28	$1.29 (\nu: 0.1)$
Ω_Λ	0.6902	$0.690^{+0.014}_{-0.014}$	k_{eq}	0.010326	$0.01033^{+0.00016}_{-0.00016}$	$\chi_{DR12BAO}^2$	4.24	$4.7 (\nu: 0.7)$
Ω_m	0.3098	$0.310^{+0.014}_{-0.014}$	$100\theta_{eq}$	0.8170	$0.8167^{+0.0097}_{-0.0097}$	χ_{prior}^2	1.8	$11.5 (\nu: 10.1)$
$\Omega_m h^2$	0.14222	$0.1423^{+0.0022}_{-0.0021}$	$100\theta_{s,eq}$	0.4513	$0.4511^{+0.0050}_{-0.0050}$	χ_{CMB}^2	2773.4	$2789.3 (\nu: 17.2)$
$\Omega_m h^3$	0.09637	$0.09635^{+0.00074}_{-0.00083}$	$H(0.15)$	73.03	$72.99^{+0.93}_{-0.89}$	χ_{BAO}^2	5.55	$6.00 (\nu: 0.4)$
σ_8	0.8106	$0.810^{+0.016}_{-0.015}$	$D_M(0.15)$	639.9	$640.3^{+8.9}_{-9.1}$			

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

χ_{eff}^2 : BAO - 6DF: 0.02 MGS: 1.28 DR12BAO: 4.24 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.72 small_100x143_offlike5_EE_Aplanck_B: 396.52 commander_dx12.v3.2.29: 22.88 plik_rd12_HM_v22b_TTTEEE: 2345.27 SN - JLA Pantheon18: 1034.97

2.21 base_plikHM_TTTEEE_lowl_lowE_lensing_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02238^{+0.00038}_{-0.00037}$	$\Omega_m h^3$	$0.09633^{+0.00074}_{-0.00083}$	$100\theta_{\text{eq}}$	$0.814^{+0.013}_{-0.013}$
$\Omega_c h^2$	$0.1199^{+0.0030}_{-0.0030}$	σ_8	$0.812^{+0.015}_{-0.014}$	$100\theta_{\text{s,eq}}$	$0.4495^{+0.0066}_{-0.0065}$
$100\theta_{\text{MC}}$	$1.04092^{+0.00079}_{-0.00084}$	S_8	$0.832^{+0.033}_{-0.033}$	$H(0.15)$	$72.7^{+1.2}_{-1.2}$
τ	$0.055^{+0.018}_{-0.013}$	$\sigma_8 \Omega_m^{0.5}$	$0.455^{+0.018}_{-0.018}$	$D_{\text{M}}(0.15)$	643^{+12}_{-12}
$\ln(10^{10} A_s)$	$3.046^{+0.036}_{-0.028}$	$\sigma_8 \Omega_m^{0.25}$	$0.608^{+0.016}_{-0.017}$	$H(0.38)$	$82.88^{+0.89}_{-0.85}$
n_s	$0.965^{+0.011}_{-0.011}$	$\sigma_8/h^{0.5}$	$0.989^{+0.023}_{-0.023}$	$D_{\text{M}}(0.38)$	1533^{+24}_{-24}
y_{cal}	$1.0006^{+0.0063}_{-0.0062}$	$r_{\text{drag}} h$	$99.1^{+2.4}_{-2.4}$	$H(0.51)$	$89.64^{+0.71}_{-0.67}$
A_{217}^{CIB}	47^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	$2.447^{+0.055}_{-0.056}$	$D_{\text{M}}(0.51)$	1985^{+27}_{-28}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	< 9.36	$H(0.61)$	$95.29^{+0.58}_{-0.55}$
A_{143}^{tSZ}	$5.4^{+4.5}_{-4.6}$	$10^9 A_s$	$2.103^{+0.077}_{-0.058}$	$D_{\text{M}}(0.61)$	2310^{+30}_{-30}
A_{100}^{PS}	259^{+70}_{-70}	$10^9 A_s e^{-2\tau}$	$1.883^{+0.027}_{-0.027}$	$H(2.33)$	$236.5^{+1.8}_{-1.8}$
A_{143}^{PS}	46^{+20}_{-20}	D_{40}	1232^{+29}_{-30}	$D_{\text{M}}(2.33)$	5763^{+26}_{-27}
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{220}	5735^{+100}_{-99}	$f\sigma_8(0.15)$	$0.460^{+0.017}_{-0.017}$
A_{217}^{PS}	115^{+30}_{-30}	D_{810}	2539^{+34}_{-33}	$\sigma_8(0.15)$	$0.750^{+0.014}_{-0.012}$
A^{kSZ}	—	D_{1420}	817^{+12}_{-12}	$f\sigma_8(0.38)$	$0.477^{+0.013}_{-0.014}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.7}$	D_{2000}	$230.9^{+3.9}_{-4.1}$	$\sigma_8(0.38)$	$0.664^{+0.012}_{-0.0098}$
A_{143}^{dustTT}	$10.9^{+4.5}_{-4.4}$	$n_{\text{s},0.002}$	$0.965^{+0.011}_{-0.011}$	$f\sigma_8(0.51)$	$0.476^{+0.012}_{-0.012}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.3}_{-8.3}$	Y_{P}	$0.24540^{+0.00014}_{-0.00015}$	$\sigma_8(0.51)$	$0.621^{+0.011}_{-0.0091}$
A_{217}^{dustTT}	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24672^{+0.00014}_{-0.00015}$	$f\sigma_8(0.61)$	$0.470^{+0.011}_{-0.011}$
A_{100}^{dustTE}	$0.114^{+0.099}_{-0.093}$	10^5D/H	$2.585^{+0.070}_{-0.068}$	$\sigma_8(0.61)$	$0.591^{+0.011}_{-0.0086}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.075}_{-0.076}$	Age/Gyr	$13.796^{+0.058}_{-0.060}$	$f\sigma_8(2.33)$	$0.2979^{+0.0056}_{-0.0043}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	z_*	$1089.91^{+0.64}_{-0.67}$	$\sigma_8(2.33)$	$0.3070^{+0.0061}_{-0.0046}$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	r_*	$144.44^{+0.66}_{-0.69}$	f_{2000}^{143}	30^{+7}_{-7}
$A_{143 \times 217}^{\text{dustTE}}$	$0.67^{+0.21}_{-0.21}$	$100\theta_*$	$1.04110^{+0.00077}_{-0.00083}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
A_{217}^{dustTE}	$2.09^{+0.72}_{-0.69}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.874^{+0.063}_{-0.063}$	f_{2000}^{217}	$107.0^{+4.5}_{-4.6}$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	z_{drag}	$1059.95^{+0.78}_{-0.78}$	χ_{lensing}^2	$9.22 (\nu: 0.2)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	$147.10^{+0.68}_{-0.68}$	χ_{simall}^2	$397.0 (\nu: 1.4)$
H_0	$67.4^{+1.4}_{-1.4}$	k_{D}	$0.14086^{+0.00076}_{-0.00079}$	χ_{lowl}^2	$23.53 (\nu: 0.4)$
Ω_{Λ}	$0.685^{+0.018}_{-0.019}$	$100\theta_{\text{D}}$	$0.16075^{+0.00044}_{-0.00045}$	χ_{plik}^2	$2359.3 (\nu: 16.3)$
Ω_{m}	$0.315^{+0.019}_{-0.018}$	z_{eq}	3401^{+69}_{-67}	χ_{prior}^2	$11.5 (\nu: 10.0)$
$\Omega_{\text{m}} h^2$	$0.1430^{+0.0029}_{-0.0028}$	k_{eq}	$0.01038^{+0.00021}_{-0.00020}$	χ_{CMB}^2	$2789.0 (\nu: 16.6)$

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

2.22 base_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02242^{+0.00034}_{-0.00035}$	S_8	$0.825^{+0.027}_{-0.027}$	$H(0.38)$	$83.06^{+0.71}_{-0.68}$
$\Omega_c h^2$	$0.1193^{+0.0023}_{-0.0024}$	$\sigma_8 \Omega_m^{0.5}$	$0.452^{+0.015}_{-0.015}$	$D_M(0.38)$	1528^{+18}_{-19}
$100\theta_{MC}$	$1.04101^{+0.00076}_{-0.00080}$	$\sigma_8 \Omega_m^{0.25}$	$0.605^{+0.015}_{-0.014}$	$H(0.51)$	$89.78^{+0.57}_{-0.55}$
τ	$0.057^{+0.017}_{-0.014}$	$\sigma_8/h^{0.5}$	$0.985^{+0.021}_{-0.021}$	$D_M(0.51)$	1980^{+22}_{-22}
$\ln(10^{10} A_s)$	$3.048^{+0.036}_{-0.029}$	$r_{\text{drag}} h$	$99.6^{+1.8}_{-1.8}$	$H(0.61)$	$95.39^{+0.48}_{-0.47}$
n_s	$0.9666^{+0.0097}_{-0.0097}$	$\langle d^2 \rangle^{1/2}$	$2.439^{+0.054}_{-0.052}$	$D_M(0.61)$	2304^{+23}_{-24}
y_{cal}	$1.0007^{+0.0062}_{-0.0061}$	z_{re}	< 9.48	$H(2.33)$	$236.2^{+1.4}_{-1.4}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.106^{+0.076}_{-0.061}$	$D_M(2.33)$	5759^{+23}_{-22}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.881^{+0.027}_{-0.026}$	$f\sigma_8(0.15)$	$0.457^{+0.014}_{-0.014}$
A_{143}^{tSZ}	> 0.817	D_{40}	1229^{+29}_{-31}	$\sigma_8(0.15)$	$0.749^{+0.015}_{-0.012}$
A_{100}^{PS}	259^{+70}_{-70}	D_{220}	5740^{+100}_{-99}	$f\sigma_8(0.38)$	$0.475^{+0.012}_{-0.012}$
A_{143}^{PS}	46^{+20}_{-20}	D_{810}	2540^{+33}_{-33}	$\sigma_8(0.38)$	$0.664^{+0.013}_{-0.010}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	818^{+11}_{-12}	$f\sigma_8(0.51)$	$0.474^{+0.011}_{-0.011}$
A_{217}^{PS}	115^{+20}_{-30}	D_{2000}	$231.1^{+3.7}_{-3.9}$	$\sigma_8(0.51)$	$0.621^{+0.012}_{-0.0096}$
A^{kSZ}	—	$n_{s,0.002}$	$0.9666^{+0.0097}_{-0.0097}$	$f\sigma_8(0.61)$	$0.469^{+0.010}_{-0.0099}$
A_{100}^{dustTT}	$8.9^{+4.4}_{-4.7}$	Y_P	$0.24541^{+0.00013}_{-0.00014}$	$\sigma_8(0.61)$	$0.591^{+0.011}_{-0.0092}$
A_{143}^{dustTT}	$10.9^{+4.5}_{-4.3}$	Y_P^{BBN}	$0.24674^{+0.00013}_{-0.00014}$	$f\sigma_8(2.33)$	$0.2982^{+0.0057}_{-0.0046}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.5^{+8.3}_{-8.7}$	$10^5 D/H$	$2.576^{+0.065}_{-0.061}$	$\sigma_8(2.33)$	$0.3074^{+0.0059}_{-0.0048}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.786^{+0.053}_{-0.050}$	f_{2000}^{143}	29^{+7}_{-7}
A_{100}^{dustTE}	$0.114^{+0.10}_{-0.092}$	z_*	$1089.79^{+0.55}_{-0.56}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.073}_{-0.077}$	r_*	$144.57^{+0.56}_{-0.55}$	f_{2000}^{217}	$106.9^{+4.3}_{-4.9}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	$1.04119^{+0.00074}_{-0.00079}$	χ_{lensing}^2	$9.08 (\nu: 0.2)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.885^{+0.054}_{-0.053}$	χ_{simall}^2	$397.2 (\nu: 1.7)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.67^{+0.20}_{-0.21}$	z_{drag}	$1060.01^{+0.72}_{-0.76}$	χ_{lowl}^2	$23.25 (\nu: 0.3)$
A_{217}^{dustTE}	$2.08^{+0.69}_{-0.71}$	r_{drag}	$147.22^{+0.58}_{-0.57}$	χ_{plik}^2	$2359.5 (\nu: 16.8)$
c_{100}	$0.9997^{+0.0016}_{-0.0015}$	k_D	$0.14078^{+0.00069}_{-0.00076}$	$\chi_{6\text{DF}}^2$	$0.052 (\nu: 0.0)$
c_{217}	$0.9982^{+0.0016}_{-0.0017}$	$100\theta_D$	$0.16072^{+0.00045}_{-0.00043}$	χ_{MGS}^2	$1.25 (\nu: 0.1)$
H_0	$67.7^{+1.1}_{-1.1}$	z_{eq}	3387^{+53}_{-52}	χ_{DR12BAO}^2	$4.8 (\nu: 0.8)$
Ω_Λ	$0.689^{+0.014}_{-0.014}$	k_{eq}	$0.01034^{+0.00016}_{-0.00016}$	χ_{prior}^2	$11.5 (\nu: 10.1)$
Ω_m	$0.311^{+0.014}_{-0.014}$	$100\theta_{\text{eq}}$	$0.816^{+0.010}_{-0.0098}$	χ_{CMB}^2	$2789.1 (\nu: 16.9)$
$\Omega_m h^2$	$0.1424^{+0.0022}_{-0.0022}$	$100\theta_{s,\text{eq}}$	$0.4509^{+0.0051}_{-0.0050}$	χ_{BAO}^2	$6.1 (\nu: 0.5)$
$\Omega_m h^3$	$0.09635^{+0.00074}_{-0.00082}$	$H(0.15)$	$72.95^{+0.95}_{-0.92}$		
σ_8	$0.811^{+0.016}_{-0.014}$	$D_M(0.15)$	$640.7^{+9.2}_{-9.2}$		

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

2.23 base_plikHM_TTTEEE_lowl_lowE_lensing_post_Pantheon18_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02240^{+0.00036}_{-0.00036}$	σ_8	$0.811^{+0.015}_{-0.014}$	$H(0.15)$	$72.8^{+1.1}_{-1.1}$
$\Omega_c h^2$	$0.1197^{+0.0029}_{-0.0028}$	S_8	$0.829^{+0.032}_{-0.031}$	$D_M(0.15)$	642^{+11}_{-11}
$100\theta_{MC}$	$1.04095^{+0.00079}_{-0.00082}$	$\sigma_8 \Omega_m^{0.5}$	$0.454^{+0.017}_{-0.017}$	$H(0.38)$	$82.95^{+0.84}_{-0.81}$
τ	$0.056^{+0.018}_{-0.014}$	$\sigma_8 \Omega_m^{0.25}$	$0.607^{+0.016}_{-0.016}$	$D_M(0.38)$	1531^{+22}_{-23}
$\ln(10^{10} A_s)$	$3.047^{+0.036}_{-0.028}$	$\sigma_8/h^{0.5}$	$0.987^{+0.022}_{-0.023}$	$H(0.51)$	$89.69^{+0.68}_{-0.65}$
n_s	$0.966^{+0.011}_{-0.011}$	$r_{\text{drag}} h$	$99.3^{+2.3}_{-2.2}$	$D_M(0.51)$	1983^{+26}_{-27}
y_{cal}	$1.0007^{+0.0063}_{-0.0062}$	$\langle d^2 \rangle^{1/2}$	$2.444^{+0.054}_{-0.056}$	$H(0.61)$	$95.33^{+0.55}_{-0.53}$
A_{217}^{CIB}	47^{+20}_{-20}	z_{re}	< 9.40	$D_M(0.61)$	2307^{+28}_{-29}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s$	$2.105^{+0.077}_{-0.059}$	$H(2.33)$	$236.4^{+1.7}_{-1.7}$
A_{143}^{tSZ}	$5.4^{+4.6}_{-4.6}$	$10^9 A_s e^{-2\tau}$	$1.882^{+0.027}_{-0.026}$	$D_M(2.33)$	5761^{+26}_{-25}
A_{100}^{PS}	259^{+70}_{-70}	D_{40}	1231^{+30}_{-31}	$f\sigma_8(0.15)$	$0.459^{+0.016}_{-0.016}$
A_{143}^{PS}	46^{+20}_{-20}	D_{220}	5737^{+100}_{-97}	$\sigma_8(0.15)$	$0.749^{+0.014}_{-0.012}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{810}	2539^{+33}_{-33}	$f\sigma_8(0.38)$	$0.476^{+0.013}_{-0.013}$
A_{217}^{PS}	115^{+30}_{-30}	D_{1420}	817^{+12}_{-12}	$\sigma_8(0.38)$	$0.664^{+0.013}_{-0.0098}$
A^{kSZ}	—	D_{2000}	$231.0^{+3.9}_{-4.0}$	$f\sigma_8(0.51)$	$0.475^{+0.011}_{-0.012}$
A_{100}^{dustTT}	$8.9^{+4.4}_{-4.7}$	$n_{s,0.002}$	$0.966^{+0.011}_{-0.011}$	$\sigma_8(0.51)$	$0.621^{+0.012}_{-0.0092}$
A_{143}^{dustTT}	$10.9^{+4.5}_{-4.3}$	Y_P	$0.24540^{+0.00013}_{-0.00015}$	$f\sigma_8(0.61)$	$0.470^{+0.010}_{-0.010}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.5^{+8.3}_{-8.6}$	Y_P^{BBN}	$0.24673^{+0.00014}_{-0.00015}$	$\sigma_8(0.61)$	$0.591^{+0.011}_{-0.0087}$
A_{217}^{dustTT}	94^{+20}_{-20}	$10^5 D/H$	$2.581^{+0.067}_{-0.065}$	$f\sigma_8(2.33)$	$0.2980^{+0.0057}_{-0.0044}$
A_{100}^{dustTE}	$0.114^{+0.10}_{-0.092}$	Age/Gyr	$13.793^{+0.058}_{-0.057}$	$\sigma_8(2.33)$	$0.3072^{+0.0060}_{-0.0047}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.073}_{-0.079}$	z_*	$1089.86^{+0.62}_{-0.63}$	f_{2000}^{143}	29^{+7}_{-7}
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.23}$	r_*	$144.49^{+0.64}_{-0.65}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$100\theta_*$	$1.04113^{+0.00078}_{-0.00081}$	f_{2000}^{217}	$107.0^{+4.3}_{-4.9}$
$A_{143 \times 217}^{\text{dustTE}}$	$0.67^{+0.20}_{-0.21}$	$D_M(z_*)/\text{Gpc}$	$13.878^{+0.060}_{-0.061}$	χ_{lensing}^2	$9.16 (\nu: 0.2)$
A_{217}^{dustTE}	$2.08^{+0.69}_{-0.71}$	z_{drag}	$1059.97^{+0.76}_{-0.77}$	χ_{simall}^2	$397.1 (\nu: 1.5)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	$147.14^{+0.64}_{-0.66}$	χ_{lowl}^2	$23.42 (\nu: 0.4)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	k_D	$0.14083^{+0.00072}_{-0.00081}$	χ_{plik}^2	$2359.4 (\nu: 16.8)$
H_0	$67.5^{+1.3}_{-1.3}$	$100\theta_D$	$0.16074^{+0.00045}_{-0.00044}$	χ_{JLA}^2	$1035.25 (\nu: 0.1)$
Ω_Λ	$0.687^{+0.017}_{-0.018}$	z_{eq}	3396^{+65}_{-63}	χ_{prior}^2	$11.5 (\nu: 10.0)$
Ω_m	$0.313^{+0.018}_{-0.017}$	k_{eq}	$0.01036^{+0.00020}_{-0.00019}$	χ_{CMB}^2	$2789.0 (\nu: 17.0)$
$\Omega_m h^2$	$0.1427^{+0.0027}_{-0.0026}$	$100\theta_{\text{eq}}$	$0.815^{+0.012}_{-0.012}$		
$\Omega_m h^3$	$0.09634^{+0.00075}_{-0.00084}$	$100\theta_{s,\text{eq}}$	$0.4501^{+0.0063}_{-0.0062}$		

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

2.24 base_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO_Pantheon18_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02243^{+0.00034}_{-0.00035}$	S_8	$0.824^{+0.026}_{-0.026}$	$H(0.38)$	$83.09^{+0.69}_{-0.66}$
$\Omega_c h^2$	$0.1192^{+0.0023}_{-0.0023}$	$\sigma_8 \Omega_m^{0.5}$	$0.451^{+0.014}_{-0.014}$	$D_M(0.38)$	1527^{+18}_{-18}
$100\theta_{MC}$	$1.04103^{+0.00076}_{-0.00080}$	$\sigma_8 \Omega_m^{0.25}$	$0.605^{+0.014}_{-0.014}$	$H(0.51)$	$89.80^{+0.56}_{-0.54}$
τ	$0.057^{+0.018}_{-0.014}$	$\sigma_8/h^{0.5}$	$0.985^{+0.022}_{-0.021}$	$D_M(0.51)$	1979^{+21}_{-22}
$\ln(10^{10} A_s)$	$3.048^{+0.035}_{-0.030}$	$r_{\text{drag}} h$	$99.7^{+1.8}_{-1.8}$	$H(0.61)$	$95.41^{+0.47}_{-0.46}$
n_s	$0.9668^{+0.0096}_{-0.0096}$	$\langle d^2 \rangle^{1/2}$	$2.438^{+0.053}_{-0.052}$	$D_M(0.61)$	2303^{+23}_{-24}
y_{cal}	$1.0008^{+0.0062}_{-0.0061}$	z_{re}	< 9.50	$H(2.33)$	$236.1^{+1.4}_{-1.4}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.107^{+0.076}_{-0.062}$	$D_M(2.33)$	5758^{+23}_{-22}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.881^{+0.027}_{-0.027}$	$f\sigma_8(0.15)$	$0.456^{+0.014}_{-0.014}$
A_{143}^{tSZ}	> 0.817	D_{40}	1229^{+29}_{-30}	$\sigma_8(0.15)$	$0.749^{+0.015}_{-0.013}$
A_{100}^{PS}	259^{+70}_{-70}	D_{220}	5741^{+100}_{-98}	$f\sigma_8(0.38)$	$0.475^{+0.012}_{-0.011}$
A_{143}^{PS}	46^{+20}_{-20}	D_{810}	2540^{+33}_{-33}	$\sigma_8(0.38)$	$0.664^{+0.013}_{-0.011}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	818^{+11}_{-12}	$f\sigma_8(0.51)$	$0.473^{+0.011}_{-0.010}$
A_{217}^{PS}	115^{+20}_{-30}	D_{2000}	$231.2^{+3.7}_{-4.0}$	$\sigma_8(0.51)$	$0.621^{+0.012}_{-0.0098}$
A^{kSZ}	—	$n_{s,0.002}$	$0.9668^{+0.0096}_{-0.0096}$	$f\sigma_8(0.61)$	$0.469^{+0.010}_{-0.0097}$
A_{100}^{dustTT}	$8.9^{+4.4}_{-4.7}$	Y_P	$0.24542^{+0.00013}_{-0.00014}$	$\sigma_8(0.61)$	$0.591^{+0.011}_{-0.0092}$
A_{143}^{dustTT}	$10.9^{+4.5}_{-4.3}$	Y_P^{BBN}	$0.24674^{+0.00013}_{-0.00014}$	$f\sigma_8(2.33)$	$0.2982^{+0.0057}_{-0.0047}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.5^{+8.4}_{-8.6}$	$10^5 D/H$	$2.575^{+0.066}_{-0.061}$	$\sigma_8(2.33)$	$0.3075^{+0.0059}_{-0.0049}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.785^{+0.053}_{-0.049}$	f_{2000}^{143}	29^{+7}_{-7}
A_{100}^{dustTE}	$0.114^{+0.10}_{-0.092}$	z_*	$1089.77^{+0.53}_{-0.54}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.073}_{-0.076}$	r_*	$144.59^{+0.55}_{-0.54}$	f_{2000}^{217}	$106.9^{+4.4}_{-4.9}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	$1.04120^{+0.00074}_{-0.00078}$	χ_{lensing}^2	$9.07 (\nu: 0.2)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.887^{+0.054}_{-0.052}$	χ_{simall}^2	$397.2 (\nu: 1.8)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.67^{+0.20}_{-0.21}$	z_{drag}	$1060.02^{+0.75}_{-0.78}$	χ_{lowl}^2	$23.21 (\nu: 0.3)$
A_{217}^{dustTE}	$2.08^{+0.69}_{-0.72}$	r_{drag}	$147.23^{+0.57}_{-0.56}$	χ_{plik}^2	$2359.6 (\nu: 16.9)$
c_{100}	$0.9997^{+0.0016}_{-0.0015}$	k_D	$0.14076^{+0.00069}_{-0.00075}$	χ_{JLA}^2	$1035.05 (\nu: 0.0)$
c_{217}	$0.9982^{+0.0016}_{-0.0017}$	$100\theta_D$	$0.16072^{+0.00044}_{-0.00043}$	$\chi_{6\text{DF}}^2$	$0.045 (\nu: 0.0)$
H_0	$67.7^{+1.1}_{-1.0}$	z_{eq}	3385^{+51}_{-51}	χ_{MGS}^2	$1.30 (\nu: 0.1)$
Ω_Λ	$0.690^{+0.014}_{-0.014}$	k_{eq}	$0.01033^{+0.00016}_{-0.00016}$	χ_{DR12BAO}^2	$4.6 (\nu: 0.7)$
Ω_m	$0.310^{+0.014}_{-0.014}$	$100\theta_{\text{eq}}$	$0.8167^{+0.0096}_{-0.0095}$	χ_{prior}^2	$11.5 (\nu: 10.2)$
$\Omega_m h^2$	$0.1423^{+0.0022}_{-0.0022}$	$100\theta_{s,\text{eq}}$	$0.4511^{+0.0050}_{-0.0049}$	χ_{CMB}^2	$2789.2 (\nu: 17.0)$
$\Omega_m h^3$	$0.09635^{+0.00074}_{-0.00081}$	$H(0.15)$	$72.99^{+0.93}_{-0.89}$	χ_{BAO}^2	$5.98 (\nu: 0.4)$
σ_8	$0.810^{+0.016}_{-0.014}$	$D_M(0.15)$	$640.3^{+8.9}_{-9.0}$		

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

2.25 base_plikHM_TTTEEE_lowl_lowE_DES

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022524	$0.02252^{+0.00036}_{-0.00036}$	$\Delta z_{\text{l,DES}}^1$	0.0030	$0.004^{+0.019}_{-0.019}$	z_{drag}	1060.16	$1060.12^{+0.76}_{-0.76}$
$\Omega_c h^2$	0.11811	$0.1179^{+0.0028}_{-0.0027}$	$\Delta z_{\text{l,DES}}^2$	0.0007	$0.001^{+0.017}_{-0.017}$	r_{drag}	147.42	$147.49^{+0.65}_{-0.64}$
$100\theta_{\text{MC}}$	1.04112	$1.04112^{+0.00078}_{-0.00076}$	$\Delta z_{\text{l,DES}}^3$	0.0035	$0.003^{+0.017}_{-0.017}$	k_{D}	0.14064	$0.14056^{+0.00075}_{-0.00075}$
τ	0.0552	$0.055^{+0.022}_{-0.022}$	$\Delta z_{\text{l,DES}}^4$	0.0007	$0.001^{+0.023}_{-0.023}$	$100\theta_{\text{D}}$	0.160639	$0.16066^{+0.00045}_{-0.00044}$
$\ln(10^{10} A_{\text{s}})$	3.0416	$3.039^{+0.043}_{-0.043}$	$\Delta z_{\text{l,DES}}^5$	-0.0004	$-0.001^{+0.025}_{-0.025}$	z_{eq}	3361	3355^{+62}_{-62}
n_{s}	0.9700	$0.9696^{+0.0099}_{-0.010}$	$\Delta z_{\text{s,DES}}^1$	0.0007	$-0.003^{+0.036}_{-0.036}$	k_{eq}	0.010257	$0.01024^{+0.00019}_{-0.00019}$
y_{cal}	1.0004	$1.0005^{+0.0064}_{-0.0064}$	$\Delta z_{\text{s,DES}}^2$	-0.0301	$-0.031^{+0.028}_{-0.028}$	$100\theta_{\text{eq}}$	0.8214	$0.822^{+0.012}_{-0.012}$
A_{217}^{CIB}	47.6	47^{+20}_{-20}	$\Delta z_{\text{s,DES}}^3$	0.0029	$0.004^{+0.025}_{-0.024}$	$100\theta_{\text{s,eq}}$	0.4535	$0.4540^{+0.0062}_{-0.0060}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.44	—	$\Delta z_{\text{s,DES}}^4$	-0.0301	$-0.030^{+0.046}_{-0.046}$	$H(0.15)$	73.42	$73.5^{+1.1}_{-1.1}$
A_{143}^{tSZ}	7.25	> 0.907	H_0	68.21	$68.3^{+1.3}_{-1.2}$	$D_{\text{M}}(0.15)$	636.1	635^{+11}_{-10}
A_{100}^{PS}	249	259^{+70}_{-70}	Ω_{Λ}	0.6964	$0.698^{+0.016}_{-0.017}$	$H(0.38)$	83.40	$83.44^{+0.81}_{-0.78}$
A_{143}^{PS}	46.7	45^{+20}_{-20}	Ω_{m}	0.3036	$0.302^{+0.017}_{-0.016}$	$D_{\text{M}}(0.38)$	1518.9	1518^{+21}_{-21}
$A_{143 \times 217}^{\text{PS}}$	46.9	41^{+20}_{-20}	$\Omega_{\text{m}} h^2$	0.14128	$0.1410^{+0.0026}_{-0.0026}$	$H(0.51)$	90.04	$90.07^{+0.66}_{-0.63}$
A_{217}^{PS}	118.5	114^{+30}_{-30}	$\Omega_{\text{m}} h^3$	0.09638	$0.09632^{+0.00075}_{-0.00075}$	$D_{\text{M}}(0.51)$	1968.9	1967^{+25}_{-25}
A^{kSZ}	0.0	—	σ_8	0.8048	$0.803^{+0.018}_{-0.018}$	$H(0.61)$	95.60	$95.62^{+0.54}_{-0.52}$
A_{100}^{dustTT}	8.78	$8.9^{+4.7}_{-4.6}$	S_8	0.8097	$0.806^{+0.032}_{-0.031}$	$D_{\text{M}}(0.61)$	2292.1	2291^{+27}_{-27}
A_{143}^{dustTT}	11.04	$11.0^{+4.6}_{-4.6}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4435	$0.442^{+0.018}_{-0.017}$	$H(2.33)$	235.49	$235.3^{+1.7}_{-1.7}$
$A_{143 \times 217}^{\text{dustTT}}$	19.8	$18.7^{+8.5}_{-8.5}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5974	$0.595^{+0.018}_{-0.017}$	$D_{\text{M}}(2.33)$	5750.0	5750^{+24}_{-25}
A_{217}^{dustTT}	94.7	94^{+20}_{-20}	$\sigma_8/h^{0.5}$	0.9745	$0.972^{+0.026}_{-0.025}$	$f\sigma_8(0.15)$	0.4487	$0.447^{+0.017}_{-0.016}$
A_{100}^{dustTE}	0.115	$0.114^{+0.10}_{-0.094}$	$r_{\text{drag}} h$	100.56	$100.7^{+2.2}_{-2.1}$	$\sigma_8(0.15)$	0.7445	$0.743^{+0.016}_{-0.016}$
$A_{100 \times 143}^{\text{dustTE}}$	0.134	$0.135^{+0.076}_{-0.074}$	$\langle d^2 \rangle^{1/2}$	2.412	$2.408^{+0.063}_{-0.059}$	$f\sigma_8(0.38)$	0.4686	$0.467^{+0.014}_{-0.014}$
$A_{100 \times 217}^{\text{dustTE}}$	0.482	$0.48^{+0.22}_{-0.21}$	z_{re}	7.71	$7.6^{+2.0}_{-2.3}$	$\sigma_8(0.38)$	0.6608	$0.660^{+0.014}_{-0.014}$
A_{143}^{dustTE}	0.223	$0.22^{+0.14}_{-0.14}$	$10^9 A_{\text{s}}$	2.094	$2.090^{+0.092}_{-0.089}$	$f\sigma_8(0.51)$	0.4682	$0.467^{+0.013}_{-0.012}$
$A_{143 \times 217}^{\text{dustTE}}$	0.665	$0.66^{+0.20}_{-0.21}$	$10^9 A_{\text{s}} e^{-2\tau}$	1.8750	$1.873^{+0.029}_{-0.028}$	$\sigma_8(0.51)$	0.6187	$0.618^{+0.014}_{-0.013}$
A_{217}^{dustTE}	2.07	$2.06^{+0.69}_{-0.69}$	D_{40}	1220.3	1221^{+31}_{-30}	$f\sigma_8(0.61)$	0.4639	$0.463^{+0.012}_{-0.012}$
c_{100}	0.99970	$0.9997^{+0.0016}_{-0.0016}$	D_{220}	5741	5744^{+100}_{-100}	$\sigma_8(0.61)$	0.5890	$0.588^{+0.013}_{-0.013}$
c_{217}	0.99819	$0.9982^{+0.0016}_{-0.0016}$	D_{810}	2538.6	2537^{+35}_{-35}	$f\sigma_8(2.33)$	0.2973	$0.2968^{+0.0066}_{-0.0064}$
b_{DES}^1	1.506	$1.51^{+0.18}_{-0.19}$	D_{1420}	818.9	818^{+13}_{-13}	$\sigma_8(2.33)$	0.3068	$0.3064^{+0.0070}_{-0.0068}$
b_{DES}^2	1.710	$1.71^{+0.13}_{-0.13}$	D_{2000}	231.56	$231.2^{+4.1}_{-4.1}$	f_{2000}^{143}	28.5	29^{+7}_{-7}
b_{DES}^3	1.697	$1.70^{+0.11}_{-0.11}$	$n_{\text{s},0.002}$	0.9700	$0.9696^{+0.0099}_{-0.010}$	$f_{2000}^{143 \times 217}$	31.72	32^{+5}_{-5}
b_{DES}^4	2.058	$2.06^{+0.13}_{-0.13}$	Y_{P}	0.245453	$0.24545^{+0.00014}_{-0.00014}$	f_{2000}^{217}	106.29	$106.7^{+4.7}_{-4.6}$
b_{DES}^5	2.161	$2.16^{+0.19}_{-0.20}$	$Y_{\text{P}}^{\text{BBN}}$	0.246780	$0.24678^{+0.00014}_{-0.00014}$	χ_{simall}^2	396.08	$397.0 (\nu: 1.6)$
m_{DES}^1	0.013	$0.012^{+0.058}_{-0.059}$	$10^5 \text{D}/\text{H}$	2.558	$2.559^{+0.067}_{-0.064}$	χ_{lowl}^2	22.49	$22.59 (\nu: 0.3)$
m_{DES}^2	0.014	$0.012^{+0.058}_{-0.058}$	Age/Gyr	13.768	$13.767^{+0.055}_{-0.055}$	χ_{plik}^2	2348.0	$2363.4 (\nu: 20.7)$
m_{DES}^3	-0.003	$-0.002^{+0.052}_{-0.050}$	z_*	1089.56	$1089.55^{+0.60}_{-0.58}$	χ_{DES}^2	509.2	$518.0 (\nu: 11.8)$
m_{DES}^4	0.002	$0.003^{+0.053}_{-0.053}$	r_*	144.80	$144.87^{+0.65}_{-0.63}$	χ_{prior}^2	4.0	$25 (\nu: 23.0)$
$A_{\text{IA,DES}}$	0.434	$0.47^{+0.47}_{-0.39}$	$100\theta_*$	1.04129	$1.04129^{+0.00077}_{-0.00076}$	χ_{CMB}^2	2766.6	$2783.0 (\nu: 20.0)$
$\alpha_{\text{IA,DES}}$	-2.5	—	$D_{\text{M}}(z_*)/\text{Gpc}$	13.906	$13.912^{+0.061}_{-0.060}$			

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

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

2.26 base_plikHM_TTTEEE_lowl_lowE_DES_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022502	$0.02251^{+0.00035}_{-0.00035}$	$\Delta z_{\text{l,DES}}^2$	0.0005	$0.001^{+0.017}_{-0.017}$	k_D	0.14059	$0.14057^{+0.00073}_{-0.00073}$
$\Omega_c h^2$	0.11810	$0.1180^{+0.0023}_{-0.0023}$	$\Delta z_{\text{l,DES}}^3$	0.0034	$0.003^{+0.017}_{-0.017}$	$100\theta_D$	0.160668	$0.16066^{+0.00045}_{-0.00044}$
$100\theta_{\text{MC}}$	1.04112	$1.04111^{+0.00074}_{-0.00074}$	$\Delta z_{\text{l,DES}}^4$	0.0008	$0.000^{+0.023}_{-0.023}$	z_{eq}	3360	3358^{+52}_{-52}
τ	0.0552	$0.054^{+0.021}_{-0.021}$	$\Delta z_{\text{l,DES}}^5$	-0.0003	$0.000^{+0.026}_{-0.024}$	k_{eq}	0.010255	$0.01025^{+0.00016}_{-0.00016}$
$\ln(10^{10} A_s)$	3.0412	$3.039^{+0.043}_{-0.044}$	$\Delta z_{\text{s,DES}}^1$	0.0007	$-0.003^{+0.037}_{-0.037}$	$100\theta_{\text{eq}}$	0.8214	$0.822^{+0.010}_{-0.0096}$
n_s	0.9699	$0.9693^{+0.0093}_{-0.0095}$	$\Delta z_{\text{s,DES}}^2$	-0.0301	$-0.031^{+0.028}_{-0.028}$	$100\theta_{\text{s,eq}}$	0.4535	$0.4537^{+0.0051}_{-0.0050}$
y_{cal}	1.0003	$1.0004^{+0.0063}_{-0.0063}$	$\Delta z_{\text{s,DES}}^3$	0.0033	$0.004^{+0.025}_{-0.024}$	$H(0.15)$	73.40	$73.43^{+0.91}_{-0.85}$
A_{217}^{CIB}	48.1	47^{+20}_{-20}	$\Delta z_{\text{s,DES}}^4$	-0.0300	$-0.030^{+0.047}_{-0.049}$	$D_{\text{M}}(0.15)$	636.2	$635.9^{+8.4}_{-8.8}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.34	—	H_0	68.20	$68.2^{+1.1}_{-0.99}$	$H(0.38)$	83.38	$83.40^{+0.68}_{-0.63}$
A_{143}^{tSZ}	7.33	> 0.877	Ω_{Λ}	0.6963	$0.697^{+0.013}_{-0.013}$	$D_{\text{M}}(0.38)$	1519.2	1519^{+17}_{-18}
A_{100}^{PS}	251	258^{+70}_{-70}	Ω_{m}	0.3037	$0.303^{+0.013}_{-0.013}$	$H(0.51)$	90.02	$90.04^{+0.56}_{-0.52}$
A_{143}^{PS}	45.5	45^{+20}_{-20}	$\Omega_{\text{m}} h^2$	0.14125	$0.1412^{+0.0022}_{-0.0022}$	$D_{\text{M}}(0.51)$	1969.3	1969^{+20}_{-21}
$A_{143 \times 217}^{\text{PS}}$	44.5	41^{+20}_{-20}	$\Omega_{\text{m}} h^3$	0.09633	$0.09632^{+0.00074}_{-0.00075}$	$H(0.61)$	95.582	$95.59^{+0.47}_{-0.45}$
A_{217}^{PS}	117.7	114^{+30}_{-30}	σ_8	0.8046	$0.803^{+0.018}_{-0.018}$	$D_{\text{M}}(0.61)$	2292.5	2292^{+22}_{-23}
A^{kSZ}	0.0	—	S_8	0.8095	$0.808^{+0.028}_{-0.027}$	$H(2.33)$	235.46	$235.4^{+1.4}_{-1.4}$
A_{100}^{dustTT}	8.86	$8.9^{+4.7}_{-4.6}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4434	$0.442^{+0.015}_{-0.015}$	$D_{\text{M}}(2.33)$	5750.9	5751^{+22}_{-22}
A_{143}^{dustTT}	11.12	$10.9^{+4.6}_{-4.7}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5973	$0.596^{+0.016}_{-0.016}$	$f\sigma_8(0.15)$	0.4486	$0.448^{+0.015}_{-0.014}$
$A_{143 \times 217}^{\text{dustTT}}$	19.8	$18.7^{+8.4}_{-8.6}$	$\sigma_8/h^{0.5}$	0.9743	$0.972^{+0.024}_{-0.024}$	$\sigma_8(0.15)$	0.7443	$0.743^{+0.016}_{-0.016}$
A_{217}^{dustTT}	94.9	94^{+20}_{-20}	$r_{\text{drag}} h$	100.56	$100.6^{+1.8}_{-1.7}$	$f\sigma_8(0.38)$	0.4685	$0.468^{+0.013}_{-0.013}$
A_{100}^{dustTE}	0.113	$0.115^{+0.099}_{-0.092}$	$\langle d^2 \rangle^{1/2}$	2.412	$2.410^{+0.057}_{-0.058}$	$\sigma_8(0.38)$	0.6606	$0.660^{+0.014}_{-0.015}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.135^{+0.075}_{-0.075}$	z_{re}	7.71	$7.6^{+2.0}_{-2.3}$	$f\sigma_8(0.51)$	0.4681	$0.467^{+0.012}_{-0.012}$
$A_{100 \times 217}^{\text{dustTE}}$	0.481	$0.48^{+0.22}_{-0.21}$	$10^9 A_s$	2.093	$2.089^{+0.092}_{-0.091}$	$\sigma_8(0.51)$	0.6186	$0.618^{+0.013}_{-0.014}$
A_{143}^{dustTE}	0.224	$0.22^{+0.14}_{-0.14}$	$10^9 A_s e^{-2\tau}$	1.8741	$1.874^{+0.028}_{-0.027}$	$f\sigma_8(0.61)$	0.4638	$0.463^{+0.011}_{-0.011}$
$A_{143 \times 217}^{\text{dustTE}}$	0.660	$0.66^{+0.21}_{-0.21}$	D_{40}	1219.9	1222^{+30}_{-29}	$\sigma_8(0.61)$	0.5888	$0.588^{+0.013}_{-0.013}$
A_{217}^{dustTE}	2.06	$2.07^{+0.68}_{-0.69}$	D_{220}	5738	5743^{+99}_{-100}	$f\sigma_8(2.33)$	0.2972	$0.2968^{+0.0065}_{-0.0066}$
c_{100}	0.99969	$0.9997^{+0.0016}_{-0.0016}$	D_{810}	2537.2	2537^{+36}_{-35}	$\sigma_8(2.33)$	0.3067	$0.3063^{+0.0069}_{-0.0069}$
c_{217}	0.99821	$0.9982^{+0.0017}_{-0.0016}$	D_{1420}	818.3	818^{+12}_{-12}	f_{2000}^{143}	28.7	29^{+7}_{-7}
b_{DES}^1	1.508	$1.51^{+0.18}_{-0.20}$	D_{2000}	231.33	$231.1^{+4.1}_{-4.1}$	$f_{2000}^{143 \times 217}$	31.86	32^{+5}_{-5}
b_{DES}^2	1.709	$1.71^{+0.14}_{-0.13}$	$n_{\text{s},0.002}$	0.9699	$0.9693^{+0.0093}_{-0.0095}$	f_{2000}^{217}	106.48	$106.8^{+4.7}_{-4.5}$
b_{DES}^3	1.697	$1.70^{+0.11}_{-0.12}$	Y_{P}	0.245445	$0.24545^{+0.00013}_{-0.00014}$	χ_{simall}^2	396.08	$397.0 (\nu: 1.5)$
b_{DES}^4	2.058	$2.06^{+0.14}_{-0.14}$	$Y_{\text{P}}^{\text{BBN}}$	0.246772	$0.24677^{+0.00013}_{-0.00014}$	χ_{lowl}^2	22.50	$22.63 (\nu: 0.3)$
b_{DES}^5	2.162	$2.16^{+0.20}_{-0.20}$	$10^5 \text{D}/\text{H}$	2.562	$2.561^{+0.066}_{-0.062}$	χ_{plik}^2	2347.8	$2362.9 (\nu: 19.2)$
m_{DES}^1	0.013	$0.011^{+0.058}_{-0.059}$	Age/Gyr	13.770	$13.769^{+0.050}_{-0.050}$	$\chi_{6\text{DF}}^2$	0.000	$0.021 (\nu: 0.0)$
m_{DES}^2	0.014	$0.012^{+0.059}_{-0.057}$	z_*	1089.59	$1089.57^{+0.54}_{-0.52}$	χ_{MGS}^2	1.75	$1.84 (\nu: 0.1)$
m_{DES}^3	-0.0024	$-0.003^{+0.050}_{-0.049}$	r_*	144.82	$144.84^{+0.56}_{-0.55}$	χ_{DR12BAO}^2	3.46	$3.74 (\nu: 0.1)$
m_{DES}^4	0.003	$0.003^{+0.053}_{-0.053}$	$100\theta_*$	1.04129	$1.04128^{+0.00074}_{-0.00073}$	χ_{DES}^2	509.3	$518.2 (\nu: 11.7)$
$A_{\text{IA,DES}}$	0.444	$0.47^{+0.47}_{-0.38}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.908	$13.910^{+0.054}_{-0.054}$	χ_{prior}^2	4.0	$25 (\nu: 22.7)$
$\alpha_{\text{IA,DES}}$	-2.4	—	z_{drag}	1060.09	$1060.11^{+0.74}_{-0.75}$	χ_{BAO}^2	5.21	$5.60 (\nu: 0.1)$
$\Delta z_{\text{l,DES}}^1$	0.0029	$0.004^{+0.019}_{-0.019}$	r_{drag}	147.45	$147.47^{+0.59}_{-0.60}$	χ_{CMB}^2	2766.4	$2782.5 (\nu: 18.8)$

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

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

2.27 base_plikHM_TTTEEE_lowl_lowE_DES_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022522	$0.02251^{+0.00036}_{-0.00036}$	$\alpha_{\text{IA,DES}}$	-2.6	—	$100\theta_*$	1.04124	$1.04127^{+0.00076}_{-0.00075}$
$\Omega_c h^2$	0.11831	$0.1181^{+0.0026}_{-0.0026}$	$\Delta z_{\text{l,DES}}^1$	0.0029	$0.004^{+0.019}_{-0.019}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.902	$13.907^{+0.057}_{-0.059}$
$100\theta_{\text{MC}}$	1.04107	$1.04109^{+0.00075}_{-0.00076}$	$\Delta z_{\text{l,DES}}^2$	0.0005	$0.001^{+0.017}_{-0.017}$	z_{drag}	1060.16	$1060.13^{+0.76}_{-0.77}$
τ	0.0560	$0.057^{+0.020}_{-0.020}$	$\Delta z_{\text{l,DES}}^3$	0.0035	$0.003^{+0.017}_{-0.017}$	r_{drag}	147.37	$147.43^{+0.63}_{-0.62}$
$\ln(10^{10} A_{\text{s}})$	3.0441	$3.046^{+0.039}_{-0.038}$	$\Delta z_{\text{l,DES}}^4$	0.0008	$0.000^{+0.023}_{-0.023}$	k_{D}	0.14069	$0.14062^{+0.00072}_{-0.00074}$
n_{s}	0.9691	$0.9688^{+0.0099}_{-0.010}$	$\Delta z_{\text{l,DES}}^5$	-0.0009	$-0.001^{+0.025}_{-0.024}$	$100\theta_{\text{D}}$	0.160626	$0.16065^{+0.00046}_{-0.00045}$
y_{cal}	1.0006	$1.0007^{+0.0063}_{-0.0063}$	$\Delta z_{\text{s,DES}}^1$	0.0007	$-0.003^{+0.037}_{-0.038}$	z_{eq}	3365	3361^{+59}_{-59}
A_{217}^{CIB}	47.3	47^{+20}_{-20}	$\Delta z_{\text{s,DES}}^2$	-0.0303	$-0.031^{+0.028}_{-0.028}$	k_{eq}	0.010272	$0.01026^{+0.00018}_{-0.00018}$
$\xi^{\text{tSZ}} \times \text{CIB}$	0.40	—	$\Delta z_{\text{s,DES}}^3$	0.0030	$0.003^{+0.025}_{-0.024}$	$100\theta_{\text{eq}}$	0.8205	$0.821^{+0.011}_{-0.011}$
A_{143}^{tSZ}	7.26	> 0.883	$\Delta z_{\text{s,DES}}^4$	-0.0310	$-0.031^{+0.047}_{-0.049}$	$100\theta_{\text{s,eq}}$	0.4530	$0.4534^{+0.0059}_{-0.0056}$
A_{100}^{PS}	250	258^{+70}_{-70}	H_0	68.13	$68.2^{+1.2}_{-1.1}$	$H(0.15)$	73.34	$73.4^{+1.0}_{-0.98}$
A_{143}^{PS}	46.2	45^{+20}_{-20}	Ω_{Λ}	0.6952	$0.696^{+0.015}_{-0.015}$	$D_{\text{M}}(0.15)$	636.8	$636.3^{+9.7}_{-10}$
$A_{143 \times 217}^{\text{PS}}$	46.0	42^{+20}_{-20}	Ω_{m}	0.3048	$0.304^{+0.015}_{-0.015}$	$H(0.38)$	83.34	$83.38^{+0.77}_{-0.72}$
A_{217}^{PS}	118.9	115^{+30}_{-30}	$\Omega_{\text{m}} h^2$	0.14148	$0.1413^{+0.0025}_{-0.0025}$	$D_{\text{M}}(0.38)$	1520.4	1519^{+19}_{-20}
A^{kSZ}	0.0	—	$\Omega_{\text{m}} h^3$	0.09638	$0.09634^{+0.00073}_{-0.00075}$	$H(0.51)$	90.00	$90.02^{+0.62}_{-0.58}$
A_{100}^{dustTT}	8.85	$8.9^{+4.7}_{-4.6}$	σ_8	0.8062	$0.806^{+0.015}_{-0.015}$	$D_{\text{M}}(0.51)$	1970.6	1969^{+23}_{-24}
A_{143}^{dustTT}	11.06	$10.9^{+4.6}_{-4.7}$	S_8	0.8126	$0.811^{+0.027}_{-0.027}$	$H(0.61)$	95.568	$95.58^{+0.52}_{-0.47}$
$A_{143 \times 217}^{\text{dustTT}}$	19.8	$18.6^{+8.5}_{-8.4}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4451	$0.444^{+0.015}_{-0.015}$	$D_{\text{M}}(0.61)$	2293.9	2293^{+25}_{-26}
A_{217}^{dustTT}	95.0	94^{+20}_{-20}	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5990	$0.599^{+0.015}_{-0.014}$	$H(2.33)$	235.61	$235.5^{+1.6}_{-1.6}$
A_{100}^{dustTE}	0.113	$0.115^{+0.098}_{-0.092}$	$\sigma_8/h^{0.5}$	0.9767	$0.976^{+0.021}_{-0.021}$	$D_{\text{M}}(2.33)$	5751.2	5751^{+23}_{-24}
$A_{100 \times 143}^{\text{dustTE}}$	0.134	$0.135^{+0.075}_{-0.075}$	$r_{\text{drag}} h$	100.40	$100.5^{+2.1}_{-2.0}$	$f\sigma_8(0.15)$	0.4502	$0.450^{+0.014}_{-0.014}$
$A_{100 \times 217}^{\text{dustTE}}$	0.484	$0.48^{+0.21}_{-0.22}$	$\langle d^2 \rangle^{1/2}$	2.419	$2.420^{+0.051}_{-0.050}$	$\sigma_8(0.15)$	0.7456	$0.746^{+0.014}_{-0.013}$
A_{143}^{dustTE}	0.223	$0.22^{+0.14}_{-0.14}$	z_{re}	7.79	$7.9^{+1.9}_{-2.0}$	$f\sigma_8(0.38)$	0.4699	$0.470^{+0.012}_{-0.012}$
$A_{143 \times 217}^{\text{dustTE}}$	0.663	$0.66^{+0.21}_{-0.21}$	$10^9 A_{\text{s}}$	2.099	$2.102^{+0.083}_{-0.079}$	$\sigma_8(0.38)$	0.6617	$0.662^{+0.013}_{-0.012}$
A_{217}^{dustTE}	2.07	$2.07^{+0.69}_{-0.69}$	$10^9 A_{\text{s}} e^{-2\tau}$	1.8768	$1.876^{+0.028}_{-0.027}$	$f\sigma_8(0.51)$	0.4693	$0.469^{+0.011}_{-0.010}$
c_{100}	0.99971	$0.9997^{+0.0016}_{-0.0016}$	D_{40}	1223.3	1225^{+29}_{-28}	$\sigma_8(0.51)$	0.6195	$0.620^{+0.012}_{-0.011}$
c_{217}	0.99818	$0.9982^{+0.0017}_{-0.0017}$	D_{220}	5747	5749^{+99}_{-99}	$f\sigma_8(0.61)$	0.4649	$0.465^{+0.010}_{-0.0097}$
b_{DES}^1	1.508	$1.50^{+0.18}_{-0.20}$	D_{810}	2539.5	2539^{+35}_{-34}	$\sigma_8(0.61)$	0.5897	$0.590^{+0.012}_{-0.011}$
b_{DES}^2	1.706	$1.70^{+0.14}_{-0.13}$	D_{1420}	818.9	818^{+12}_{-12}	$f\sigma_8(2.33)$	0.2976	$0.2977^{+0.0060}_{-0.0057}$
b_{DES}^3	1.694	$1.69^{+0.11}_{-0.12}$	D_{2000}	231.55	$231.3^{+4.0}_{-4.1}$	$\sigma_8(2.33)$	0.3071	$0.3073^{+0.0064}_{-0.0062}$
b_{DES}^4	2.055	$2.05^{+0.14}_{-0.13}$	$n_{\text{s},0.002}$	0.9691	$0.9688^{+0.0099}_{-0.010}$	χ_{lensing}^2	9.04	$9.44 (\nu: 0.5)$
b_{DES}^5	2.159	$2.15^{+0.19}_{-0.20}$	Y_{P}	0.245452	$0.24545^{+0.00014}_{-0.00014}$	χ_{small}^2	396.23	$397.3 (\nu: 2.0)$
m_{DES}^1	0.014	$0.012^{+0.057}_{-0.060}$	$Y_{\text{P}}^{\text{BBN}}$	0.246779	$0.24677^{+0.00014}_{-0.00014}$	χ_{lowl}^2	22.70	$22.82 (\nu: 0.3)$
m_{DES}^2	0.014	$0.012^{+0.059}_{-0.056}$	$10^5 \text{D}/\text{H}$	2.558	$2.560^{+0.067}_{-0.065}$	χ_{plik}^2	2347.2	$2361.9 (\nu: 18.1)$
m_{DES}^3	-0.004	$-0.004^{+0.051}_{-0.049}$	Age/Gyr	13.770	$13.770^{+0.052}_{-0.054}$	χ_{DES}^2	509.5	$518.5 (\nu: 12.5)$
m_{DES}^4	0.002	$0.001^{+0.053}_{-0.053}$	z_*	1089.58	$1089.58^{+0.57}_{-0.59}$	χ_{prior}^2	4.2	$25 (\nu: 22.7)$
$A_{\text{IA,DES}}$	0.439	$0.47^{+0.46}_{-0.38}$	r_*	144.75	$144.81^{+0.61}_{-0.60}$	χ_{CMB}^2	2775.1	$2791.5 (\nu: 20.0)$

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

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 9.04 small_100x143_offlike5_EE_Aplanck_B: 396.23 commander_dx12_v3.2_29: 22.70 plik_rd12_HM_v22b_TTTEEE: 2347.17 WL - DES_1YR_final: 509.51

2.28 base_plikHM_TTTEEE_lowl_lowE_DES_post_BAO_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022513	$0.02251^{+0.00035}_{-0.00035}$	$\Delta z_{\text{l,DES}}^2$	0.0005	$0.001^{+0.017}_{-0.017}$	k_D	0.14065	$0.14062^{+0.00070}_{-0.00072}$
$\Omega_c h^2$	0.11824	$0.1182^{+0.0022}_{-0.0021}$	$\Delta z_{\text{l,DES}}^3$	0.0034	$0.003^{+0.017}_{-0.017}$	$100\theta_D$	0.160643	$0.16066^{+0.00045}_{-0.00044}$
$100\theta_{\text{MC}}$	1.04108	$1.04109^{+0.00074}_{-0.00074}$	$\Delta z_{\text{l,DES}}^4$	0.0005	$0.000^{+0.023}_{-0.023}$	z_{eq}	3363.5	3362^{+50}_{-49}
τ	0.0561	$0.057^{+0.020}_{-0.019}$	$\Delta z_{\text{l,DES}}^5$	-0.0005	$-0.001^{+0.025}_{-0.024}$	k_{eq}	0.010266	$0.01026^{+0.00015}_{-0.00015}$
$\ln(10^{10} A_s)$	3.0444	$3.045^{+0.039}_{-0.037}$	$\Delta z_{\text{s,DES}}^1$	0.00099	$-0.003^{+0.037}_{-0.038}$	$100\theta_{\text{eq}}$	0.8208	$0.8211^{+0.0094}_{-0.0092}$
n_s	0.9694	$0.9687^{+0.0093}_{-0.0095}$	$\Delta z_{\text{s,DES}}^2$	-0.0301	$-0.031^{+0.028}_{-0.028}$	$100\theta_{\text{s,eq}}$	0.45320	$0.4534^{+0.0048}_{-0.0047}$
y_{cal}	1.0007	$1.0007^{+0.0063}_{-0.0063}$	$\Delta z_{\text{s,DES}}^3$	0.0029	$0.003^{+0.025}_{-0.024}$	$H(0.15)$	73.36	$73.37^{+0.88}_{-0.81}$
A_{217}^{CIB}	47.5	47^{+20}_{-20}	$\Delta z_{\text{s,DES}}^4$	-0.0310	$-0.031^{+0.046}_{-0.049}$	$D_{\text{M}}(0.15)$	636.6	$636.5^{+8.0}_{-8.4}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.39	—	H_0	68.15	$68.2^{+1.0}_{-0.95}$	$H(0.38)$	83.35	$83.36^{+0.66}_{-0.61}$
A_{143}^{tSZ}	7.28	> 0.894	Ω_{Λ}	0.6955	$0.696^{+0.013}_{-0.013}$	$D_{\text{M}}(0.38)$	1520.1	1520^{+16}_{-17}
A_{100}^{PS}	251	258^{+70}_{-70}	Ω_{m}	0.3045	$0.304^{+0.013}_{-0.013}$	$H(0.51)$	90.00	$90.01^{+0.54}_{-0.50}$
A_{143}^{PS}	46.4	45^{+20}_{-20}	$\Omega_{\text{m}} h^2$	0.14140	$0.1413^{+0.0021}_{-0.0020}$	$D_{\text{M}}(0.51)$	1970.2	1970^{+19}_{-20}
$A_{143 \times 217}^{\text{PS}}$	46.1	42^{+20}_{-20}	$\Omega_{\text{m}} h^3$	0.09636	$0.09634^{+0.00073}_{-0.00075}$	$H(0.61)$	95.570	$95.57^{+0.46}_{-0.43}$
A_{217}^{PS}	118.9	115^{+30}_{-30}	σ_8	0.8062	$0.806^{+0.015}_{-0.015}$	$D_{\text{M}}(0.61)$	2293.5	2293^{+21}_{-22}
A^{kSZ}	0.0	—	S_8	0.8121	$0.812^{+0.024}_{-0.024}$	$H(2.33)$	235.56	$235.5^{+1.4}_{-1.3}$
A_{100}^{dustTT}	8.88	$8.9^{+4.7}_{-4.6}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4448	$0.445^{+0.013}_{-0.013}$	$D_{\text{M}}(2.33)$	5751.2	5751^{+21}_{-22}
A_{143}^{dustTT}	11.06	$10.9^{+4.6}_{-4.7}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5988	$0.599^{+0.014}_{-0.013}$	$f\sigma_8(0.15)$	0.4500	$0.450^{+0.013}_{-0.012}$
$A_{143 \times 217}^{\text{dustTT}}$	19.7	$18.6^{+8.4}_{-8.4}$	$\sigma_8/h^{0.5}$	0.9766	$0.976^{+0.021}_{-0.020}$	$\sigma_8(0.15)$	0.7456	$0.746^{+0.014}_{-0.013}$
A_{217}^{dustTT}	94.9	94^{+20}_{-20}	$r_{\text{drag}} h$	100.45	$100.5^{+1.7}_{-1.7}$	$f\sigma_8(0.38)$	0.4698	$0.470^{+0.011}_{-0.011}$
A_{100}^{dustTE}	0.114	$0.115^{+0.098}_{-0.092}$	$\langle d^2 \rangle^{1/2}$	2.4181	$2.420^{+0.049}_{-0.048}$	$\sigma_8(0.38)$	0.6617	$0.662^{+0.013}_{-0.012}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.134^{+0.075}_{-0.075}$	z_{re}	7.80	$7.9^{+1.9}_{-2.0}$	$f\sigma_8(0.51)$	0.4692	$0.469^{+0.010}_{-0.0098}$
$A_{100 \times 217}^{\text{dustTE}}$	0.481	$0.48^{+0.21}_{-0.22}$	$10^9 A_s$	2.100	$2.102^{+0.083}_{-0.077}$	$\sigma_8(0.51)$	0.6196	$0.620^{+0.012}_{-0.011}$
A_{143}^{dustTE}	0.223	$0.22^{+0.14}_{-0.14}$	$10^9 A_s e^{-2\tau}$	1.8768	$1.876^{+0.027}_{-0.027}$	$f\sigma_8(0.61)$	0.4648	$0.4647^{+0.0096}_{-0.0092}$
$A_{143 \times 217}^{\text{dustTE}}$	0.660	$0.66^{+0.21}_{-0.21}$	D_{40}	1222.9	1225^{+29}_{-28}	$\sigma_8(0.61)$	0.5898	$0.590^{+0.012}_{-0.011}$
A_{217}^{dustTE}	2.07	$2.07^{+0.68}_{-0.68}$	D_{220}	5746	5749^{+98}_{-99}	$f\sigma_8(2.33)$	0.2976	$0.2977^{+0.0060}_{-0.0057}$
c_{100}	0.99974	$0.9997^{+0.0016}_{-0.0016}$	D_{810}	2539.8	2539^{+35}_{-34}	$\sigma_8(2.33)$	0.3072	$0.3072^{+0.0064}_{-0.0060}$
c_{217}	0.99817	$0.9982^{+0.0017}_{-0.0017}$	D_{1420}	819.0	818^{+12}_{-12}	χ^2_{lensing}	9.08	$9.40 (\nu: 0.4)$
b_{DES}^1	1.507	$1.50^{+0.18}_{-0.20}$	D_{2000}	231.57	$231.3^{+4.0}_{-4.1}$	χ^2_{small}	396.28	$397.3 (\nu: 1.9)$
b_{DES}^2	1.704	$1.70^{+0.14}_{-0.13}$	$n_{\text{s},0.002}$	0.9694	$0.9687^{+0.0093}_{-0.0095}$	χ^2_{lowl}	22.65	$22.83 (\nu: 0.3)$
b_{DES}^3	1.695	$1.69^{+0.11}_{-0.11}$	Y_{P}	0.245449	$0.24545^{+0.00013}_{-0.00014}$	χ^2_{plik}	2347.3	$2361.7 (\nu: 17.5)$
b_{DES}^4	2.055	$2.05^{+0.14}_{-0.13}$	$Y_{\text{P}}^{\text{BBN}}$	0.246776	$0.24677^{+0.00013}_{-0.00014}$	$\chi^2_{6\text{DF}}$	0.000	$0.018 (\nu: 0.0)$
b_{DES}^5	2.158	$2.15^{+0.19}_{-0.19}$	$10^5 \text{D}/\text{H}$	2.560	$2.561^{+0.066}_{-0.062}$	χ^2_{MGS}	1.68	$1.76 (\nu: 0.1)$
m_{DES}^1	0.014	$0.012^{+0.057}_{-0.060}$	Age/Gyr	13.7707	$13.771^{+0.049}_{-0.050}$	χ^2_{DR12BAO}	3.52	$3.78 (\nu: 0.1)$
m_{DES}^2	0.014	$0.012^{+0.060}_{-0.056}$	z_*	1089.59	$1089.59^{+0.53}_{-0.52}$	χ^2_{DES}	509.4	$518.5 (\nu: 12.2)$
m_{DES}^3	-0.0044	$-0.004^{+0.050}_{-0.048}$	r_*	144.78	$144.80^{+0.53}_{-0.53}$	χ^2_{prior}	4.2	$25 (\nu: 22.8)$
m_{DES}^4	0.001	$0.001^{+0.053}_{-0.053}$	$100\theta_*$	1.04125	$1.04126^{+0.00073}_{-0.00073}$	χ^2_{CMB}	2775.3	$2791.2 (\nu: 18.9)$
$A_{\text{IA,DES}}$	0.437	$0.47^{+0.46}_{-0.38}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.904	$13.906^{+0.051}_{-0.053}$	χ^2_{BAO}	5.20	$5.55 (\nu: 0.1)$
$\alpha_{\text{IA,DES}}$	-2.6	—	z_{drag}	1060.12	$1060.12^{+0.76}_{-0.76}$			
$\Delta z_{\text{l,DES}}^1$	0.0031	$0.004^{+0.019}_{-0.019}$	r_{drag}	147.40	$147.42^{+0.56}_{-0.57}$			

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

χ^2_{eff} : BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 3.52 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 9.08 small_100x143.offlike5_EE_Aplanck_B: 396.28 commander_dx12_v3_2_29: 22.65 plik_rd12_HM_v22b_TTTEEE: 2347.27 WL - DES_1YR_final: 509.38

2.29 base_plikHM_TTTEEE_lowl_lowE_DES_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02252^{+0.00036}_{-0.00036}$	$\Delta z_{\text{l,DES}}^1$	$0.004^{+0.019}_{-0.019}$	z_{drag}	$1060.13^{+0.76}_{-0.77}$
$\Omega_c h^2$	$0.1178^{+0.0027}_{-0.0027}$	$\Delta z_{\text{l,DES}}^2$	$0.001^{+0.017}_{-0.017}$	r_{drag}	$147.50^{+0.65}_{-0.64}$
$100\theta_{\text{MC}}$	$1.04112^{+0.00077}_{-0.00077}$	$\Delta z_{\text{l,DES}}^3$	$0.003^{+0.017}_{-0.017}$	k_{D}	$0.14055^{+0.00076}_{-0.00075}$
τ	$0.056^{+0.019}_{-0.013}$	$\Delta z_{\text{l,DES}}^4$	$0.001^{+0.023}_{-0.023}$	$100\theta_{\text{D}}$	$0.16065^{+0.00045}_{-0.00044}$
$\ln(10^{10} A_{\text{s}})$	$3.042^{+0.042}_{-0.030}$	$\Delta z_{\text{l,DES}}^5$	$-0.001^{+0.025}_{-0.025}$	z_{eq}	3354^{+61}_{-62}
n_{s}	$0.9697^{+0.0098}_{-0.010}$	$\Delta z_{\text{s,DES}}^1$	$-0.003^{+0.037}_{-0.036}$	k_{eq}	$0.01024^{+0.00019}_{-0.00019}$
y_{cal}	$1.0005^{+0.0064}_{-0.0064}$	$\Delta z_{\text{s,DES}}^2$	$-0.031^{+0.028}_{-0.028}$	$100\theta_{\text{eq}}$	$0.823^{+0.012}_{-0.012}$
A_{217}^{CIB}	47^{+20}_{-20}	$\Delta z_{\text{s,DES}}^3$	$0.004^{+0.025}_{-0.024}$	$100\theta_{\text{s,eq}}$	$0.4541^{+0.0061}_{-0.0059}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$\Delta z_{\text{s,DES}}^4$	$-0.030^{+0.047}_{-0.046}$	$H(0.15)$	$73.5^{+1.1}_{-1.0}$
A_{143}^{tSZ}	> 0.900	H_0	$68.3^{+1.2}_{-1.2}$	$D_{\text{M}}(0.15)$	635^{+10}_{-10}
A_{100}^{PS}	258^{+70}_{-70}	Ω_{Λ}	$0.698^{+0.016}_{-0.016}$	$H(0.38)$	$83.45^{+0.81}_{-0.77}$
A_{143}^{PS}	45^{+20}_{-20}	Ω_{m}	$0.302^{+0.016}_{-0.016}$	$D_{\text{M}}(0.38)$	1517^{+21}_{-21}
$A_{143 \times 217}^{\text{PS}}$	41^{+20}_{-20}	$\Omega_{\text{m}} h^2$	$0.1410^{+0.0026}_{-0.0026}$	$H(0.51)$	$90.08^{+0.65}_{-0.62}$
A_{217}^{PS}	114^{+30}_{-30}	$\Omega_{\text{m}} h^3$	$0.09632^{+0.00075}_{-0.00075}$	$D_{\text{M}}(0.51)$	1967^{+24}_{-25}
A^{kSZ}	—	σ_8	$0.804^{+0.017}_{-0.015}$	$H(0.61)$	$95.63^{+0.54}_{-0.51}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.6}$	S_8	$0.807^{+0.032}_{-0.031}$	$D_{\text{M}}(0.61)$	2290^{+26}_{-27}
A_{143}^{dustTT}	$11.0^{+4.6}_{-4.6}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.442^{+0.017}_{-0.017}$	$H(2.33)$	$235.3^{+1.6}_{-1.7}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.7^{+8.6}_{-8.5}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.596^{+0.017}_{-0.016}$	$D_{\text{M}}(2.33)$	5749^{+24}_{-25}
A_{217}^{dustTT}	94^{+20}_{-20}	$\sigma_8/h^{0.5}$	$0.973^{+0.025}_{-0.023}$	$f\sigma_8(0.15)$	$0.447^{+0.016}_{-0.016}$
A_{100}^{dustTE}	$0.114^{+0.10}_{-0.094}$	$r_{\text{drag}} h$	$100.8^{+2.1}_{-2.1}$	$\sigma_8(0.15)$	$0.744^{+0.016}_{-0.013}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.075}_{-0.074}$	$\langle d^2 \rangle^{1/2}$	$2.410^{+0.061}_{-0.056}$	$f\sigma_8(0.38)$	$0.467^{+0.014}_{-0.013}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.21}$	z_{re}	< 9.49	$\sigma_8(0.38)$	$0.660^{+0.014}_{-0.011}$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$10^9 A_{\text{s}}$	$2.095^{+0.089}_{-0.062}$	$f\sigma_8(0.51)$	$0.467^{+0.013}_{-0.012}$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.20}_{-0.21}$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.873^{+0.029}_{-0.028}$	$\sigma_8(0.51)$	$0.618^{+0.013}_{-0.0099}$
A_{217}^{dustTE}	$2.06^{+0.70}_{-0.69}$	D_{40}	1221^{+31}_{-30}	$f\sigma_8(0.61)$	$0.463^{+0.012}_{-0.011}$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	D_{220}	5744^{+100}_{-100}	$\sigma_8(0.61)$	$0.589^{+0.012}_{-0.0093}$
c_{217}	$0.9982^{+0.0017}_{-0.0016}$	D_{810}	2536^{+35}_{-35}	$f\sigma_8(2.33)$	$0.2972^{+0.0063}_{-0.0046}$
b_{DES}^1	$1.51^{+0.19}_{-0.19}$	D_{1420}	818^{+13}_{-12}	$\sigma_8(2.33)$	$0.3068^{+0.0067}_{-0.0047}$
b_{DES}^2	$1.71^{+0.13}_{-0.13}$	D_{2000}	$231.2^{+4.1}_{-4.1}$	f_{2000}^{143}	29^{+7}_{-7}
b_{DES}^3	$1.70^{+0.11}_{-0.11}$	$n_{\text{s},0.002}$	$0.9697^{+0.0098}_{-0.010}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
b_{DES}^4	$2.06^{+0.13}_{-0.13}$	Y_{P}	$0.24545^{+0.00014}_{-0.00014}$	f_{2000}^{217}	$106.7^{+4.7}_{-4.6}$
b_{DES}^5	$2.16^{+0.19}_{-0.20}$	$Y_{\text{P}}^{\text{BBN}}$	$0.24678^{+0.00014}_{-0.00014}$	χ_{simall}^2	$397.0 (\nu: 1.6)$
m_{DES}^1	$0.012^{+0.059}_{-0.059}$	10^5D/H	$2.558^{+0.067}_{-0.064}$	χ_{lowl}^2	$22.59 (\nu: 0.3)$
m_{DES}^2	$0.012^{+0.058}_{-0.058}$	Age/Gyr	$13.767^{+0.055}_{-0.055}$	χ_{plik}^2	$2363.2 (\nu: 20.6)$
m_{DES}^3	$-0.003^{+0.052}_{-0.050}$	z_*	$1089.54^{+0.59}_{-0.57}$	χ_{DES}^2	$518.0 (\nu: 11.8)$
m_{DES}^4	$0.003^{+0.053}_{-0.053}$	r_*	$144.88^{+0.64}_{-0.62}$	χ_{prior}^2	$25 (\nu: 23.0)$
$A_{\text{IA,DES}}$	$0.47^{+0.47}_{-0.39}$	$100\theta_*$	$1.04130^{+0.00076}_{-0.00076}$	χ_{CMB}^2	$2782.8 (\nu: 19.7)$
$\alpha_{\text{IA,DES}}$	—	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.913^{+0.061}_{-0.060}$		

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

2.30 base_plikHM_TTTEEE_lowl_lowE_DES_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02251^{+0.00035}_{-0.00036}$	$\Delta z_{\text{l,DES}}^2$	$0.001^{+0.017}_{-0.017}$	k_{D}	$0.14057^{+0.00073}_{-0.00073}$
$\Omega_c h^2$	$0.1180^{+0.0022}_{-0.0023}$	$\Delta z_{\text{l,DES}}^3$	$0.003^{+0.017}_{-0.017}$	$100\theta_{\text{D}}$	$0.16066^{+0.00045}_{-0.00044}$
$100\theta_{\text{MC}}$	$1.04111^{+0.00074}_{-0.00075}$	$\Delta z_{\text{l,DES}}^4$	$0.000^{+0.023}_{-0.023}$	z_{eq}	3357^{+51}_{-52}
τ	$0.056^{+0.018}_{-0.013}$	$\Delta z_{\text{l,DES}}^5$	$0.000^{+0.025}_{-0.024}$	k_{eq}	$0.01025^{+0.00016}_{-0.00016}$
$\ln(10^{10} A_{\text{s}})$	$3.042^{+0.041}_{-0.030}$	$\Delta z_{\text{s,DES}}^1$	$-0.003^{+0.037}_{-0.037}$	$100\theta_{\text{eq}}$	$0.822^{+0.010}_{-0.0096}$
n_{s}	$0.9694^{+0.0092}_{-0.0095}$	$\Delta z_{\text{s,DES}}^2$	$-0.031^{+0.028}_{-0.028}$	$100\theta_{\text{s,eq}}$	$0.4538^{+0.0051}_{-0.0049}$
y_{cal}	$1.0004^{+0.0063}_{-0.0063}$	$\Delta z_{\text{s,DES}}^3$	$0.004^{+0.025}_{-0.024}$	$H(0.15)$	$73.44^{+0.91}_{-0.85}$
A_{217}^{CIB}	47^{+20}_{-20}	$\Delta z_{\text{s,DES}}^4$	$-0.030^{+0.047}_{-0.048}$	$D_{\text{M}}(0.15)$	$635.8^{+8.3}_{-8.7}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	H_0	$68.3^{+1.0}_{-0.98}$	$H(0.38)$	$83.41^{+0.68}_{-0.63}$
A_{143}^{tSZ}	> 0.889	Ω_{Λ}	$0.697^{+0.013}_{-0.013}$	$D_{\text{M}}(0.38)$	1518^{+17}_{-18}
A_{100}^{PS}	258^{+70}_{-70}	Ω_{m}	$0.303^{+0.013}_{-0.013}$	$H(0.51)$	$90.04^{+0.56}_{-0.52}$
A_{143}^{PS}	45^{+20}_{-20}	$\Omega_{\text{m}} h^2$	$0.1411^{+0.0021}_{-0.0022}$	$D_{\text{M}}(0.51)$	1968^{+20}_{-21}
$A_{143 \times 217}^{\text{PS}}$	41^{+20}_{-20}	$\Omega_{\text{m}} h^3$	$0.09632^{+0.00075}_{-0.00076}$	$H(0.61)$	$95.60^{+0.47}_{-0.44}$
A_{217}^{PS}	114^{+30}_{-30}	σ_8	$0.804^{+0.017}_{-0.014}$	$D_{\text{M}}(0.61)$	2291^{+21}_{-22}
A^{kSZ}	—	S_8	$0.808^{+0.028}_{-0.026}$	$H(2.33)$	$235.4^{+1.4}_{-1.4}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.6}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.443^{+0.015}_{-0.014}$	$D_{\text{M}}(2.33)$	5750^{+22}_{-22}
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.7}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.597^{+0.016}_{-0.014}$	$f\sigma_8(0.15)$	$0.448^{+0.014}_{-0.014}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.7^{+8.5}_{-8.4}$	$\sigma_8/h^{0.5}$	$0.973^{+0.024}_{-0.021}$	$\sigma_8(0.15)$	$0.744^{+0.016}_{-0.012}$
A_{217}^{dustTT}	94^{+20}_{-20}	$r_{\text{drag}} h$	$100.7^{+1.8}_{-1.7}$	$f\sigma_8(0.38)$	$0.468^{+0.013}_{-0.012}$
A_{100}^{dustTE}	$0.115^{+0.098}_{-0.092}$	$\langle d^2 \rangle^{1/2}$	$2.412^{+0.056}_{-0.052}$	$\sigma_8(0.38)$	$0.660^{+0.014}_{-0.010}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.075}_{-0.075}$	z_{re}	< 9.43	$f\sigma_8(0.51)$	$0.468^{+0.012}_{-0.011}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.21}$	$10^9 A_{\text{s}}$	$2.094^{+0.087}_{-0.061}$	$\sigma_8(0.51)$	$0.618^{+0.013}_{-0.0096}$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.874^{+0.028}_{-0.027}$	$f\sigma_8(0.61)$	$0.463^{+0.011}_{-0.0096}$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	D_{40}	1222^{+30}_{-29}	$\sigma_8(0.61)$	$0.589^{+0.012}_{-0.0091}$
A_{217}^{dustTE}	$2.07^{+0.69}_{-0.69}$	D_{220}	5743^{+100}_{-100}	$f\sigma_8(2.33)$	$0.2971^{+0.0062}_{-0.0045}$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	D_{810}	2537^{+36}_{-35}	$\sigma_8(2.33)$	$0.3067^{+0.0066}_{-0.0046}$
c_{217}	$0.9982^{+0.0017}_{-0.0016}$	D_{1420}	818^{+12}_{-12}	f_{2000}^{143}	29^{+7}_{-7}
b_{DES}^1	$1.51^{+0.18}_{-0.20}$	D_{2000}	$231.1^{+4.0}_{-4.0}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
b_{DES}^2	$1.71^{+0.14}_{-0.13}$	$n_{\text{s},0.002}$	$0.9694^{+0.0092}_{-0.0095}$	f_{2000}^{217}	$106.7^{+4.7}_{-4.5}$
b_{DES}^3	$1.70^{+0.11}_{-0.12}$	Y_{P}	$0.24545^{+0.00013}_{-0.00014}$	χ_{simall}^2	$396.9 (\nu: 1.5)$
b_{DES}^4	$2.06^{+0.14}_{-0.14}$	$Y_{\text{P}}^{\text{BBN}}$	$0.24677^{+0.00013}_{-0.00014}$	χ_{lowl}^2	$22.64 (\nu: 0.3)$
b_{DES}^5	$2.16^{+0.19}_{-0.19}$	10^5D/H	$2.560^{+0.066}_{-0.062}$	χ_{plik}^2	$2362.7 (\nu: 19.1)$
m_{DES}^1	$0.012^{+0.058}_{-0.060}$	Age/Gyr	$13.769^{+0.049}_{-0.050}$	$\chi_{6\text{DF}}^2$	$0.021 (\nu: 0.0)$
m_{DES}^2	$0.012^{+0.059}_{-0.057}$	z_*	$1089.57^{+0.54}_{-0.52}$	χ_{MGS}^2	$1.85 (\nu: 0.1)$
m_{DES}^3	$-0.003^{+0.050}_{-0.049}$	r_*	$144.85^{+0.56}_{-0.56}$	χ_{DR12BAO}^2	$3.73 (\nu: 0.1)$
m_{DES}^4	$0.002^{+0.054}_{-0.053}$	$100\theta_*$	$1.04128^{+0.00073}_{-0.00074}$	χ_{DES}^2	$518.2 (\nu: 11.8)$
$A_{\text{IA,DES}}$	$0.47^{+0.47}_{-0.38}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.911^{+0.054}_{-0.054}$	χ_{prior}^2	$25 (\nu: 22.8)$
$\alpha_{\text{IA,DES}}$	—	z_{drag}	$1060.11^{+0.77}_{-0.75}$	χ_{BAO}^2	$5.60 (\nu: 0.1)$
$\Delta z_{\text{l,DES}}^1$	$0.004^{+0.019}_{-0.019}$	r_{drag}	$147.47^{+0.59}_{-0.60}$	χ_{CMB}^2	$2782.2 (\nu: 18.4)$

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

2.31 base_plikHM_TTTEEE_lowl_lowE_DES_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02251^{+0.00036}_{-0.00036}$	$\Delta z_{\text{l,DES}}^1$	$0.004^{+0.019}_{-0.019}$	z_{drag}	$1060.13^{+0.79}_{-0.77}$
$\Omega_c h^2$	$0.1181^{+0.0025}_{-0.0026}$	$\Delta z_{\text{l,DES}}^2$	$0.001^{+0.017}_{-0.017}$	r_{drag}	$147.43^{+0.63}_{-0.62}$
$100\theta_{\text{MC}}$	$1.04110^{+0.00076}_{-0.00076}$	$\Delta z_{\text{l,DES}}^3$	$0.003^{+0.017}_{-0.017}$	k_{D}	$0.14061^{+0.00072}_{-0.00074}$
τ	$0.057^{+0.019}_{-0.015}$	$\Delta z_{\text{l,DES}}^4$	$0.000^{+0.023}_{-0.023}$	$100\theta_{\text{D}}$	$0.16065^{+0.00046}_{-0.00044}$
$\ln(10^{10} A_{\text{s}})$	$3.047^{+0.038}_{-0.030}$	$\Delta z_{\text{l,DES}}^5$	$-0.001^{+0.025}_{-0.024}$	z_{eq}	3360^{+56}_{-58}
n_{s}	$0.9689^{+0.0098}_{-0.0099}$	$\Delta z_{\text{s,DES}}^1$	$-0.003^{+0.037}_{-0.038}$	k_{eq}	$0.01026^{+0.00017}_{-0.00018}$
y_{cal}	$1.0007^{+0.0063}_{-0.0063}$	$\Delta z_{\text{s,DES}}^2$	$-0.031^{+0.028}_{-0.028}$	$100\theta_{\text{eq}}$	$0.821^{+0.011}_{-0.011}$
A_{217}^{CIB}	47^{+20}_{-20}	$\Delta z_{\text{s,DES}}^3$	$0.003^{+0.025}_{-0.024}$	$100\theta_{\text{s,eq}}$	$0.4535^{+0.0058}_{-0.0054}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$\Delta z_{\text{s,DES}}^4$	$-0.031^{+0.046}_{-0.049}$	$H(0.15)$	$73.4^{+1.0}_{-0.96}$
A_{143}^{tSZ}	> 0.889	H_0	$68.2^{+1.2}_{-1.1}$	$D_{\text{M}}(0.15)$	$636.2^{+9.5}_{-9.9}$
A_{100}^{PS}	258^{+70}_{-70}	Ω_{Λ}	$0.696^{+0.015}_{-0.015}$	$H(0.38)$	$83.38^{+0.77}_{-0.71}$
A_{143}^{PS}	45^{+20}_{-20}	Ω_{m}	$0.304^{+0.015}_{-0.015}$	$D_{\text{M}}(0.38)$	1519^{+19}_{-20}
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	$\Omega_{\text{m}} h^2$	$0.1413^{+0.0024}_{-0.0024}$	$H(0.51)$	$90.03^{+0.62}_{-0.57}$
A_{217}^{PS}	115^{+30}_{-30}	$\Omega_{\text{m}} h^3$	$0.09634^{+0.00073}_{-0.00076}$	$D_{\text{M}}(0.51)$	1969^{+22}_{-24}
A^{kSZ}	—	σ_8	$0.806^{+0.015}_{-0.013}$	$H(0.61)$	$95.59^{+0.51}_{-0.47}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.6}$	S_8	$0.811^{+0.027}_{-0.027}$	$D_{\text{M}}(0.61)$	2292^{+24}_{-26}
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.7}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.444^{+0.015}_{-0.015}$	$H(2.33)$	$235.5^{+1.5}_{-1.5}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.5}_{-8.3}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.599^{+0.014}_{-0.014}$	$D_{\text{M}}(2.33)$	5751^{+23}_{-24}
A_{217}^{dustTT}	94^{+20}_{-20}	$\sigma_8/h^{0.5}$	$0.977^{+0.021}_{-0.020}$	$f\sigma_8(0.15)$	$0.450^{+0.014}_{-0.014}$
A_{100}^{dustTE}	$0.115^{+0.098}_{-0.092}$	$r_{\text{drag}} h$	$100.6^{+2.1}_{-1.9}$	$\sigma_8(0.15)$	$0.746^{+0.014}_{-0.012}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134^{+0.075}_{-0.074}$	$\langle d^2 \rangle^{1/2}$	$2.420^{+0.051}_{-0.049}$	$f\sigma_8(0.38)$	$0.470^{+0.012}_{-0.011}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.21}_{-0.22}$	z_{re}	< 9.60	$\sigma_8(0.38)$	$0.662^{+0.012}_{-0.010}$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$10^9 A_{\text{s}}$	$2.105^{+0.081}_{-0.062}$	$f\sigma_8(0.51)$	$0.469^{+0.011}_{-0.010}$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.876^{+0.027}_{-0.027}$	$\sigma_8(0.51)$	$0.620^{+0.012}_{-0.0095}$
A_{217}^{dustTE}	$2.07^{+0.69}_{-0.69}$	D_{40}	1224^{+29}_{-28}	$f\sigma_8(0.61)$	$0.465^{+0.010}_{-0.0092}$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	D_{220}	5749^{+100}_{-99}	$\sigma_8(0.61)$	$0.590^{+0.011}_{-0.0091}$
c_{217}	$0.9982^{+0.0017}_{-0.0017}$	D_{810}	2539^{+35}_{-34}	$f\sigma_8(2.33)$	$0.2979^{+0.0059}_{-0.0047}$
b_{DES}^1	$1.50^{+0.19}_{-0.20}$	D_{1420}	818^{+12}_{-12}	$\sigma_8(2.33)$	$0.3075^{+0.0063}_{-0.0049}$
b_{DES}^2	$1.70^{+0.14}_{-0.13}$	D_{2000}	$231.3^{+4.0}_{-4.1}$	f_{2000}^{143}	29^{+7}_{-7}
b_{DES}^3	$1.69^{+0.11}_{-0.11}$	$n_{\text{s},0.002}$	$0.9689^{+0.0098}_{-0.0099}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
b_{DES}^4	$2.05^{+0.13}_{-0.13}$	Y_{P}	$0.24545^{+0.00014}_{-0.00014}$	f_{2000}^{217}	$106.7^{+4.6}_{-4.5}$
b_{DES}^5	$2.15^{+0.19}_{-0.19}$	$Y_{\text{P}}^{\text{BBN}}$	$0.24678^{+0.00014}_{-0.00014}$	χ_{lensing}^2	$9.39 (\nu: 0.4)$
m_{DES}^1	$0.012^{+0.057}_{-0.061}$	10^5D/H	$2.560^{+0.068}_{-0.064}$	χ_{simall}^2	$397.3 (\nu: 2.1)$
m_{DES}^2	$0.012^{+0.060}_{-0.056}$	Age/Gyr	$13.770^{+0.052}_{-0.053}$	χ_{lowl}^2	$22.82 (\nu: 0.3)$
m_{DES}^3	$-0.004^{+0.051}_{-0.049}$	z_*	$1089.58^{+0.57}_{-0.59}$	χ_{plik}^2	$2361.8 (\nu: 18.1)$
m_{DES}^4	$0.002^{+0.053}_{-0.054}$	r_*	$144.81^{+0.61}_{-0.60}$	χ_{DES}^2	$518.4 (\nu: 12.5)$
$A_{\text{IA,DES}}$	$0.47^{+0.46}_{-0.38}$	$100\theta_*$	$1.04127^{+0.00075}_{-0.00075}$	χ_{prior}^2	$25 (\nu: 22.8)$
$\alpha_{\text{IA,DES}}$	—	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.907^{+0.057}_{-0.057}$	χ_{CMB}^2	$2791.4 (\nu: 19.9)$

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

2.32 base_plikHM_TTTEEE_lowl_lowE_DES_post_BAO_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02251^{+0.00035}_{-0.00036}$	$\Delta z_{\text{l,DES}}^3$	$0.003^{+0.017}_{-0.017}$	z_{eq}	3361^{+49}_{-48}
$\Omega_c h^2$	$0.1182^{+0.0021}_{-0.0021}$	$\Delta z_{\text{l,DES}}^4$	$0.000^{+0.023}_{-0.023}$	k_{eq}	$0.01026^{+0.00015}_{-0.00015}$
$100\theta_{\text{MC}}$	$1.04109^{+0.00073}_{-0.00074}$	$\Delta z_{\text{l,DES}}^5$	$-0.001^{+0.025}_{-0.024}$	$100\theta_{\text{eq}}$	$0.8212^{+0.0093}_{-0.0091}$
τ	$0.057^{+0.018}_{-0.014}$	$\Delta z_{\text{s,DES}}^1$	$-0.003^{+0.037}_{-0.038}$	$100\theta_{\text{s,eq}}$	$0.4534^{+0.0048}_{-0.0047}$
$\ln(10^{10} A_s)$	$3.046^{+0.038}_{-0.029}$	$\Delta z_{\text{s,DES}}^2$	$-0.031^{+0.028}_{-0.028}$	$H(0.15)$	$73.38^{+0.87}_{-0.81}$
n_s	$0.9688^{+0.0093}_{-0.0094}$	$\Delta z_{\text{s,DES}}^3$	$0.003^{+0.025}_{-0.024}$	$D_{\text{M}}(0.15)$	$636.4^{+7.9}_{-8.4}$
y_{cal}	$1.0007^{+0.0063}_{-0.0063}$	$\Delta z_{\text{s,DES}}^4$	$-0.031^{+0.046}_{-0.049}$	$H(0.38)$	$83.37^{+0.66}_{-0.61}$
A_{217}^{CIB}	47^{+20}_{-20}	H_0	$68.2^{+1.0}_{-0.93}$	$D_{\text{M}}(0.38)$	1520^{+16}_{-17}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Ω_{Λ}	$0.696^{+0.013}_{-0.013}$	$H(0.51)$	$90.01^{+0.54}_{-0.50}$
A_{143}^{tSZ}	> 0.924	Ω_{m}	$0.304^{+0.013}_{-0.013}$	$D_{\text{M}}(0.51)$	1970^{+19}_{-20}
A_{100}^{PS}	258^{+70}_{-70}	$\Omega_{\text{m}} h^2$	$0.1413^{+0.0020}_{-0.0020}$	$H(0.61)$	$95.58^{+0.46}_{-0.43}$
A_{143}^{PS}	45^{+20}_{-20}	$\Omega_{\text{m}} h^3$	$0.09634^{+0.00073}_{-0.00075}$	$D_{\text{M}}(0.61)$	2293^{+21}_{-22}
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	σ_8	$0.806^{+0.015}_{-0.013}$	$H(2.33)$	$235.5^{+1.3}_{-1.3}$
A_{217}^{PS}	115^{+30}_{-30}	S_8	$0.812^{+0.024}_{-0.024}$	$D_{\text{M}}(2.33)$	5751^{+21}_{-22}
A^{kSZ}	—	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.445^{+0.013}_{-0.013}$	$f\sigma_8(0.15)$	$0.450^{+0.012}_{-0.012}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.6}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.599^{+0.013}_{-0.013}$	$\sigma_8(0.15)$	$0.746^{+0.014}_{-0.012}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.7}$	$\sigma_8/h^{0.5}$	$0.977^{+0.020}_{-0.019}$	$f\sigma_8(0.38)$	$0.470^{+0.011}_{-0.010}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.4}_{-8.3}$	$r_{\text{drag}} h$	$100.5^{+1.7}_{-1.6}$	$\sigma_8(0.38)$	$0.662^{+0.012}_{-0.010}$
A_{217}^{dustTT}	94^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	$2.421^{+0.048}_{-0.045}$	$f\sigma_8(0.51)$	$0.469^{+0.010}_{-0.0094}$
A_{100}^{dustTE}	$0.115^{+0.098}_{-0.092}$	z_{re}	< 9.56	$\sigma_8(0.51)$	$0.620^{+0.012}_{-0.0094}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134^{+0.075}_{-0.075}$	$10^9 A_s$	$2.104^{+0.081}_{-0.061}$	$f\sigma_8(0.61)$	$0.4649^{+0.0095}_{-0.0087}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.21}_{-0.21}$	$10^9 A_s e^{-2\tau}$	$1.876^{+0.027}_{-0.027}$	$\sigma_8(0.61)$	$0.590^{+0.011}_{-0.0091}$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	D_{40}	1225^{+29}_{-28}	$f\sigma_8(2.33)$	$0.2978^{+0.0059}_{-0.0046}$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	D_{220}	5749^{+98}_{-98}	$\sigma_8(2.33)$	$0.3074^{+0.0062}_{-0.0048}$
A_{217}^{dustTE}	$2.07^{+0.68}_{-0.68}$	D_{810}	2539^{+35}_{-34}	f_{2000}^{143}	29^{+7}_{-7}
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	D_{1420}	818^{+12}_{-12}	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
c_{217}	$0.9982^{+0.0017}_{-0.0017}$	D_{2000}	$231.3^{+3.9}_{-4.1}$	f_{2000}^{217}	$106.7^{+4.7}_{-4.5}$
b_{DES}^1	$1.50^{+0.18}_{-0.20}$	$n_{\text{s},0.002}$	$0.9688^{+0.0093}_{-0.0094}$	χ_{lensing}^2	$9.35 (\nu: 0.4)$
b_{DES}^2	$1.70^{+0.14}_{-0.13}$	Y_{P}	$0.24545^{+0.00013}_{-0.00014}$	χ_{simall}^2	$397.3 (\nu: 1.9)$
b_{DES}^3	$1.69^{+0.11}_{-0.11}$	$Y_{\text{P}}^{\text{BBN}}$	$0.24677^{+0.00013}_{-0.00014}$	χ_{lowl}^2	$22.83 (\nu: 0.3)$
b_{DES}^4	$2.05^{+0.14}_{-0.13}$	10^5D/H	$2.561^{+0.066}_{-0.062}$	χ_{plik}^2	$2361.6 (\nu: 17.5)$
b_{DES}^5	$2.15^{+0.19}_{-0.19}$	Age/Gyr	$13.770^{+0.049}_{-0.050}$	$\chi_{6\text{DF}}^2$	$0.018 (\nu: 0.0)$
m_{DES}^1	$0.012^{+0.057}_{-0.061}$	z_*	$1089.59^{+0.53}_{-0.52}$	χ_{MGS}^2	$1.77 (\nu: 0.1)$
m_{DES}^2	$0.012^{+0.060}_{-0.056}$	r_*	$144.80^{+0.52}_{-0.52}$	χ_{DR12BAO}^2	$3.77 (\nu: 0.1)$
m_{DES}^3	$-0.004^{+0.050}_{-0.048}$	$100\theta_*$	$1.04126^{+0.00073}_{-0.00073}$	χ_{DES}^2	$518.5 (\nu: 12.2)$
m_{DES}^4	$0.001^{+0.053}_{-0.053}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.906^{+0.051}_{-0.053}$	χ_{prior}^2	$25 (\nu: 22.8)$
$A_{\text{IA,DES}}$	$0.47^{+0.46}_{-0.38}$	z_{drag}	$1060.12^{+0.76}_{-0.76}$	χ_{CMB}^2	$2791.1 (\nu: 18.6)$
$\alpha_{\text{IA,DES}}$	—	r_{drag}	$147.43^{+0.56}_{-0.57}$	χ_{BAO}^2	$5.55 (\nu: 0.1)$
$\Delta z_{\text{l,DES}}^1$	$0.004^{+0.019}_{-0.019}$	k_{D}	$0.14062^{+0.00070}_{-0.00072}$		
$\Delta z_{\text{l,DES}}^2$	$0.001^{+0.017}_{-0.017}$	$100\theta_{\text{D}}$	$0.16065^{+0.00046}_{-0.00044}$		

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

2.33 base_plikHM_TTTEEE_lowl_lowE_DESlens

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022441	$0.02244^{+0.00035}_{-0.00036}$	$\Delta z_{s,\text{DES}}^3$	0.0048	$0.004^{+0.026}_{-0.027}$	z_{eq}	3384	3380^{+64}_{-66}
$\Omega_c h^2$	0.11918	$0.1190^{+0.0028}_{-0.0029}$	$\Delta z_{s,\text{DES}}^4$	-0.022	$-0.022^{+0.052}_{-0.052}$	k_{eq}	0.010329	$0.01032^{+0.00020}_{-0.00020}$
$100\theta_{\text{MC}}$	1.04099	$1.04103^{+0.00076}_{-0.00076}$	H_0	67.72	$67.8^{+1.3}_{-1.3}$	$100\theta_{\text{eq}}$	0.8168	$0.818^{+0.013}_{-0.012}$
τ	0.0533	$0.053^{+0.021}_{-0.020}$	Ω_{Λ}	0.6898	$0.691^{+0.017}_{-0.017}$	$100\theta_{s,\text{eq}}$	0.4511	$0.4516^{+0.0065}_{-0.0062}$
$\ln(10^{10} A_s)$	3.0403	$3.040^{+0.043}_{-0.040}$	Ω_m	0.3102	$0.309^{+0.017}_{-0.017}$	$H(0.15)$	72.99	$73.1^{+1.2}_{-1.1}$
n_s	0.9678	$0.967^{+0.010}_{-0.010}$	$\Omega_m h^2$	0.14226	$0.1421^{+0.0027}_{-0.0028}$	$D_M(0.15)$	640.2	640^{+11}_{-11}
y_{cal}	1.0005	$1.0005^{+0.0063}_{-0.0062}$	$\Omega_m h^3$	0.09635	$0.09633^{+0.00074}_{-0.00075}$	$H(0.38)$	83.09	$83.13^{+0.86}_{-0.79}$
A_{217}^{CIB}	47.0	47^{+20}_{-20}	σ_8	0.8075	$0.807^{+0.017}_{-0.017}$	$D_M(0.38)$	1527.2	1526^{+22}_{-23}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.44	—	S_8	0.8211	$0.819^{+0.032}_{-0.033}$	$H(0.51)$	89.80	$89.83^{+0.69}_{-0.63}$
A_{143}^{tSZ}	7.23	$5.5^{+4.5}_{-4.6}$	$\sigma_8 \Omega_m^{0.5}$	0.4497	$0.449^{+0.018}_{-0.018}$	$D_M(0.51)$	1978.6	1977^{+26}_{-27}
A_{100}^{PS}	250	259^{+70}_{-70}	$\sigma_8 \Omega_m^{0.25}$	0.6026	$0.601^{+0.017}_{-0.017}$	$H(0.61)$	95.41	$95.44^{+0.56}_{-0.53}$
A_{143}^{PS}	47.3	45^{+20}_{-20}	$\sigma_8/h^{0.5}$	0.9812	$0.980^{+0.025}_{-0.025}$	$D_M(0.61)$	2302.5	2301^{+27}_{-29}
$A_{143 \times 217}^{\text{PS}}$	47.5	42^{+20}_{-20}	$r_{\text{drag}} h$	99.71	$99.9^{+2.3}_{-2.2}$	$H(2.33)$	236.09	$236.0^{+1.7}_{-1.8}$
A_{217}^{PS}	119.8	115^{+30}_{-30}	$\langle d^2 \rangle^{1/2}$	2.426	$2.425^{+0.062}_{-0.061}$	$D_M(2.33)$	5757.8	5757^{+25}_{-26}
A^{kSZ}	0.0	—	z_{re}	7.55	$7.5^{+2.0}_{-2.2}$	$f\sigma_8(0.15)$	0.4544	$0.453^{+0.017}_{-0.017}$
A_{100}^{dustTT}	8.81	$8.9^{+4.6}_{-4.7}$	$10^9 A_s$	2.091	$2.091^{+0.091}_{-0.082}$	$\sigma_8(0.15)$	0.7463	$0.746^{+0.016}_{-0.015}$
A_{143}^{dustTT}	11.08	$10.9^{+4.6}_{-4.6}$	$10^9 A_s e^{-2\tau}$	1.8797	$1.879^{+0.028}_{-0.026}$	$f\sigma_8(0.38)$	0.4730	$0.472^{+0.014}_{-0.014}$
$A_{143 \times 217}^{\text{dustTT}}$	19.9	$18.6^{+8.3}_{-8.6}$	D_{40}	1224.4	1226^{+31}_{-29}	$\sigma_8(0.38)$	0.6617	$0.661^{+0.014}_{-0.013}$
A_{217}^{dustTT}	95.2	94^{+20}_{-20}	D_{220}	5734	5737^{+100}_{-94}	$f\sigma_8(0.51)$	0.4717	$0.471^{+0.012}_{-0.012}$
A_{100}^{dustTE}	0.114	$0.114^{+0.099}_{-0.098}$	D_{810}	2539.7	2538^{+34}_{-33}	$\sigma_8(0.51)$	0.6193	$0.619^{+0.013}_{-0.012}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.135^{+0.079}_{-0.075}$	D_{1420}	818.5	818^{+12}_{-12}	$f\sigma_8(0.61)$	0.4669	$0.466^{+0.012}_{-0.011}$
$A_{100 \times 217}^{\text{dustTE}}$	0.483	$0.48^{+0.22}_{-0.21}$	D_{2000}	231.35	$231.0^{+4.1}_{-3.9}$	$\sigma_8(0.61)$	0.5893	$0.589^{+0.013}_{-0.012}$
A_{143}^{dustTE}	0.225	$0.22^{+0.14}_{-0.14}$	$n_{s,0.002}$	0.9678	$0.967^{+0.010}_{-0.010}$	$f\sigma_8(2.33)$	0.2972	$0.2970^{+0.0067}_{-0.0060}$
$A_{143 \times 217}^{\text{dustTE}}$	0.664	$0.66^{+0.21}_{-0.21}$	Y_{P}	0.245423	$0.24542^{+0.00013}_{-0.00014}$	$\sigma_8(2.33)$	0.3064	$0.3063^{+0.0071}_{-0.0064}$
A_{217}^{dustTE}	2.07	$2.08^{+0.68}_{-0.70}$	$Y_{\text{P}}^{\text{BBN}}$	0.246749	$0.24675^{+0.00013}_{-0.00014}$	f_{2000}^{143}	28.7	29^{+7}_{-7}
c_{100}	0.99972	$0.9997^{+0.0015}_{-0.0016}$	10^5D/H	2.572	$2.574^{+0.067}_{-0.063}$	$f_{2000}^{143 \times 217}$	31.88	32^{+5}_{-5}
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0016}$	Age/Gyr	13.785	$13.783^{+0.055}_{-0.057}$	f_{2000}^{217}	106.55	$106.9^{+4.5}_{-4.6}$
m_{DES}^1	0.015	$0.014^{+0.060}_{-0.058}$	z_*	1089.76	$1089.75^{+0.60}_{-0.62}$	χ_{small}^2	395.86	$396.9 (\nu: 1.4)$
m_{DES}^2	0.012	$0.012^{+0.057}_{-0.057}$	r_*	144.59	$144.64^{+0.66}_{-0.65}$	χ_{lowl}^2	22.84	$22.99 (\nu: 0.3)$
m_{DES}^3	-0.007	$-0.008^{+0.052}_{-0.051}$	$100\theta_*$	1.04117	$1.04121^{+0.00076}_{-0.00075}$	χ_{plik}^2	2346.0	$2360.9 (\nu: 17.6)$
m_{DES}^4	0.013	$0.011^{+0.054}_{-0.054}$	$D_M(z_*)/\text{Gpc}$	13.887	$13.891^{+0.063}_{-0.062}$	χ_{DES}^2	229.2	$232.0 (\nu: 3.2)$
$A_{\text{IA,DES}}$	1.44	$1.2^{+1.2}_{-1.1}$	z_{drag}	1060.05	$1060.02^{+0.75}_{-0.77}$	χ_{prior}^2	2.8	$19.5 (\nu: 18.0)$
$\alpha_{\text{IA,DES}}$	2.49	> -3.98	r_{drag}	147.23	$147.28^{+0.69}_{-0.66}$	χ_{CMB}^2	2764.7	$2780.7 (\nu: 17.3)$
$\Delta z_{s,\text{DES}}^1$	0.0046	$0.005^{+0.037}_{-0.037}$	k_{D}	0.14077	$0.14072^{+0.00075}_{-0.00080}$			
$\Delta z_{s,\text{DES}}^2$	-0.0203	$-0.021^{+0.029}_{-0.030}$	$100\theta_{\text{D}}$	0.160699	$0.16072^{+0.00044}_{-0.00042}$			

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

χ_{eff}^2 : CMB - small_100x143_offlike5_EE_Aplanck_B: 395.86 commander_dx12_v3.2_29: 22.84 plik_rd12_HM_v22b_TTTEEE: 2346.01 WL - DES_1YR_final: 229.20

2.34 base_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022468	$0.02245^{+0.00034}_{-0.00034}$	$\Delta z_{s,DES}^4$	-0.021	$-0.022^{+0.053}_{-0.052}$	$100\theta_{eq}$	0.8182	$0.819^{+0.010}_{-0.0098}$
$\Omega_c h^2$	0.11885	$0.1187^{+0.0023}_{-0.0023}$	H_0	67.89	$67.9^{+1.1}_{-1.0}$	$100\theta_{s,eq}$	0.4519	$0.4521^{+0.0052}_{-0.0050}$
$100\theta_{MC}$	1.04107	$1.04107^{+0.00075}_{-0.00073}$	Ω_Λ	0.6920	$0.692^{+0.014}_{-0.014}$	$H(0.15)$	73.14	$73.16^{+0.92}_{-0.89}$
τ	0.0548	$0.054^{+0.021}_{-0.020}$	Ω_m	0.3080	$0.308^{+0.014}_{-0.014}$	$D_M(0.15)$	638.8	$638.6^{+8.8}_{-8.9}$
$\ln(10^{10} A_s)$	3.0430	$3.041^{+0.043}_{-0.039}$	$\Omega_m h^2$	0.14197	$0.1418^{+0.0022}_{-0.0022}$	$H(0.38)$	83.20	$83.21^{+0.69}_{-0.65}$
n_s	0.9690	$0.9680^{+0.0094}_{-0.0093}$	$\Omega_m h^3$	0.09638	$0.09633^{+0.00074}_{-0.00074}$	$D_M(0.38)$	1524.4	1524^{+18}_{-18}
y_{cal}	1.0006	$1.0006^{+0.0063}_{-0.0060}$	σ_8	0.8078	$0.806^{+0.017}_{-0.016}$	$H(0.51)$	89.88	$89.89^{+0.57}_{-0.53}$
A_{217}^{CIB}	46.7	47^{+20}_{-20}	S_8	0.8185	$0.816^{+0.028}_{-0.028}$	$D_M(0.51)$	1975.3	1975^{+21}_{-21}
$\xi^{tSZ \times CIB}$	0.56	—	$\sigma_8 \Omega_m^{0.5}$	0.4483	$0.447^{+0.015}_{-0.015}$	$H(0.61)$	95.479	$95.48^{+0.48}_{-0.44}$
A_{143}^{tSZ}	7.23	> 0.879	$\sigma_8 \Omega_m^{0.25}$	0.6018	$0.600^{+0.016}_{-0.015}$	$D_M(0.61)$	2299.0	2299^{+22}_{-23}
A_{100}^{PS}	248	259^{+70}_{-70}	$\sigma_8/h^{0.5}$	0.9804	$0.978^{+0.024}_{-0.022}$	$H(2.33)$	235.92	$235.8^{+1.4}_{-1.4}$
A_{143}^{PS}	48.6	45^{+20}_{-20}	$r_{drag} h$	99.99	$100.1^{+1.8}_{-1.8}$	$D_M(2.33)$	5754.8	5755^{+22}_{-22}
$A_{143 \times 217}^{PS}$	50.4	42^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.424	$2.422^{+0.058}_{-0.055}$	$f\sigma_8(0.15)$	0.4532	$0.452^{+0.015}_{-0.014}$
A_{217}^{PS}	120.2	114^{+30}_{-30}	z_{re}	7.70	$7.6^{+2.0}_{-2.1}$	$\sigma_8(0.15)$	0.7468	$0.745^{+0.016}_{-0.014}$
A^{kSZ}	0.0	—	$10^9 A_s$	2.097	$2.092^{+0.092}_{-0.079}$	$f\sigma_8(0.38)$	0.4722	$0.471^{+0.013}_{-0.012}$
A_{100}^{dustTT}	8.84	$8.9^{+4.6}_{-4.9}$	$10^9 A_s e^{-2\tau}$	1.8790	$1.878^{+0.028}_{-0.026}$	$\sigma_8(0.38)$	0.6623	$0.661^{+0.014}_{-0.013}$
A_{143}^{dustTT}	11.04	$10.9^{+4.6}_{-4.7}$	D_{40}	1222.6	1225^{+31}_{-28}	$f\sigma_8(0.51)$	0.4712	$0.470^{+0.012}_{-0.011}$
$A_{143 \times 217}^{dustTT}$	20.1	$18.6^{+8.2}_{-8.5}$	D_{220}	5736	5739^{+100}_{-95}	$\sigma_8(0.51)$	0.6200	$0.619^{+0.014}_{-0.012}$
A_{217}^{dustTT}	95.2	94^{+20}_{-20}	D_{810}	2540.5	2538^{+35}_{-32}	$f\sigma_8(0.61)$	0.4666	$0.466^{+0.011}_{-0.011}$
A_{100}^{dustTE}	0.114	$0.114^{+0.099}_{-0.099}$	D_{1420}	819.2	818^{+12}_{-12}	$\sigma_8(0.61)$	0.5900	$0.589^{+0.013}_{-0.011}$
$A_{100 \times 143}^{dustTE}$	0.135	$0.135^{+0.080}_{-0.078}$	D_{2000}	231.64	$231.1^{+4.1}_{-3.8}$	$f\sigma_8(2.33)$	0.2976	$0.2972^{+0.0067}_{-0.0058}$
$A_{100 \times 217}^{dustTE}$	0.479	$0.48^{+0.21}_{-0.21}$	$n_{s,0.002}$	0.9690	$0.9680^{+0.0094}_{-0.0093}$	$\sigma_8(2.33)$	0.3070	$0.3065^{+0.0070}_{-0.0063}$
A_{143}^{dustTE}	0.224	$0.22^{+0.14}_{-0.14}$	Y_P	0.245433	$0.24543^{+0.00013}_{-0.00013}$	f_{2000}^{143}	28.4	29^{+7}_{-7}
$A_{143 \times 217}^{dustTE}$	0.660	$0.66^{+0.21}_{-0.21}$	Y_P^{BBN}	0.246760	$0.24675^{+0.00013}_{-0.00014}$	$f_{2000}^{143 \times 217}$	31.74	32^{+5}_{-5}
A_{217}^{dustTE}	2.07	$2.07^{+0.69}_{-0.69}$	$10^5 D/H$	2.568	$2.571^{+0.063}_{-0.060}$	f_{2000}^{217}	106.29	$106.8^{+4.5}_{-4.3}$
c_{100}	0.99973	$0.9997^{+0.0016}_{-0.0016}$	Age/Gyr	13.778	$13.779^{+0.050}_{-0.050}$	χ_{small}^2	396.05	$396.9 (\nu: 1.5)$
c_{217}	0.99818	$0.9982^{+0.0015}_{-0.0015}$	z_*	1089.70	$1089.71^{+0.55}_{-0.53}$	χ_{lowl}^2	22.68	$22.87 (\nu: 0.3)$
m_{DES}^1	0.014	$0.014^{+0.059}_{-0.058}$	r_*	144.65	$144.69^{+0.57}_{-0.54}$	χ_{plik}^2	2346.4	$2361.0 (\nu: 17.4)$
m_{DES}^2	0.013	$0.012^{+0.057}_{-0.059}$	$100\theta_*$	1.04125	$1.04124^{+0.00074}_{-0.00073}$	χ_{6DF}^2	0.010	$0.028 (\nu: 0.0)$
m_{DES}^3	-0.006	$-0.007^{+0.053}_{-0.051}$	$D_M(z_*)/\text{Gpc}$	13.892	$13.896^{+0.056}_{-0.052}$	χ_{MGS}^2	1.41	$1.50 (\nu: 0.1)$
m_{DES}^4	0.013	$0.012^{+0.053}_{-0.053}$	z_{drag}	1060.09	$1060.04^{+0.73}_{-0.75}$	$\chi_{DR12BAO}^2$	3.94	$4.18 (\nu: 0.4)$
$A_{IA,DES}$	1.42	$1.2^{+1.3}_{-1.1}$	r_{drag}	147.29	$147.33^{+0.60}_{-0.57}$	χ_{DES}^2	229.1	$231.9 (\nu: 2.9)$
$\alpha_{IA,DES}$	2.58	> -3.86	k_D	0.14074	$0.14068^{+0.00072}_{-0.00076}$	χ_{prior}^2	2.6	$19.4 (\nu: 18.0)$
$\Delta z_{s,DES}^1$	0.0046	$0.004^{+0.038}_{-0.036}$	$100\theta_D$	0.160683	$0.16071^{+0.00043}_{-0.00041}$	χ_{BAO}^2	5.35	$5.71 (\nu: 0.2)$
$\Delta z_{s,DES}^2$	-0.0207	$-0.021^{+0.030}_{-0.030}$	z_{eq}	3377	3374^{+53}_{-53}	χ_{CMB}^2	2765.1	$2780.8 (\nu: 17.0)$
$\Delta z_{s,DES}^3$	0.0053	$0.005^{+0.026}_{-0.027}$	k_{eq}	0.010307	$0.01030^{+0.00016}_{-0.00016}$			

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

2.35 base_plikHM_TTTEEE_lowl_lowE_DESlens_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022454	$0.02244^{+0.00035}_{-0.00035}$	$\Delta z_{s,\text{DES}}^3$	0.0047	$0.004^{+0.025}_{-0.027}$	z_{eq}	3384	3383^{+61}_{-61}
$\Omega_c h^2$	0.11916	$0.1191^{+0.0027}_{-0.0027}$	$\Delta z_{s,\text{DES}}^4$	-0.022	$-0.023^{+0.053}_{-0.052}$	k_{eq}	0.010328	$0.01033^{+0.00019}_{-0.00018}$
$100\theta_{\text{MC}}$	1.04100	$1.04102^{+0.00078}_{-0.00076}$	H_0	67.75	$67.8^{+1.3}_{-1.2}$	$100\theta_{\text{eq}}$	0.8168	$0.817^{+0.012}_{-0.011}$
τ	0.0554	$0.055^{+0.020}_{-0.019}$	Ω_{Λ}	0.6900	$0.690^{+0.016}_{-0.016}$	$100\theta_{s,\text{eq}}$	0.4512	$0.4513^{+0.0060}_{-0.0059}$
$\ln(10^{10} A_s)$	3.0447	$3.043^{+0.039}_{-0.038}$	Ω_m	0.3100	$0.310^{+0.016}_{-0.016}$	$H(0.15)$	73.01	$73.0^{+1.1}_{-1.0}$
n_s	0.9683	$0.967^{+0.010}_{-0.010}$	$\Omega_m h^2$	0.14225	$0.1422^{+0.0026}_{-0.0025}$	$D_M(0.15)$	640.0	640^{+10}_{-11}
y_{cal}	1.0004	$1.0007^{+0.0063}_{-0.0061}$	$\Omega_m h^3$	0.09637	$0.09634^{+0.00073}_{-0.00074}$	$H(0.38)$	83.11	$83.11^{+0.81}_{-0.74}$
A_{217}^{CIB}	46.0	47^{+20}_{-20}	σ_8	0.8093	$0.808^{+0.015}_{-0.014}$	$D_M(0.38)$	1526.8	1527^{+20}_{-21}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.62	—	S_8	0.8226	$0.821^{+0.028}_{-0.028}$	$H(0.51)$	89.81	$89.81^{+0.67}_{-0.60}$
A_{143}^{tSZ}	7.17	> 0.902	$\sigma_8 \Omega_m^{0.5}$	0.4505	$0.450^{+0.015}_{-0.015}$	$D_M(0.51)$	1978.1	1978^{+24}_{-25}
A_{100}^{PS}	247	259^{+70}_{-70}	$\sigma_8 \Omega_m^{0.25}$	0.6038	$0.603^{+0.014}_{-0.014}$	$H(0.61)$	95.43	$95.42^{+0.55}_{-0.49}$
A_{143}^{PS}	49.3	45^{+20}_{-20}	$\sigma_8/h^{0.5}$	0.9832	$0.982^{+0.021}_{-0.021}$	$D_M(0.61)$	2302.0	2302^{+25}_{-27}
$A_{143 \times 217}^{\text{PS}}$	52.0	42^{+20}_{-20}	$r_{\text{drag}} h$	99.74	$99.8^{+2.2}_{-2.1}$	$H(2.33)$	236.09	$236.1^{+1.6}_{-1.6}$
A_{217}^{PS}	121.4	115^{+30}_{-30}	$\langle d^2 \rangle^{1/2}$	2.430	$2.431^{+0.051}_{-0.050}$	$D_M(2.33)$	5757.1	5757^{+24}_{-25}
A^{kSZ}	0.0	—	z_{re}	7.76	$7.7^{+1.9}_{-2.0}$	$f\sigma_8(0.15)$	0.4553	$0.455^{+0.014}_{-0.014}$
A_{100}^{dustTT}	8.78	$8.9^{+4.7}_{-4.9}$	$10^9 A_s$	2.100	$2.097^{+0.083}_{-0.078}$	$\sigma_8(0.15)$	0.7480	$0.747^{+0.014}_{-0.013}$
A_{143}^{dustTT}	11.01	$10.9^{+4.7}_{-4.7}$	$10^9 A_s e^{-2\tau}$	1.8802	$1.880^{+0.027}_{-0.025}$	$f\sigma_8(0.38)$	0.4739	$0.473^{+0.012}_{-0.012}$
$A_{143 \times 217}^{\text{dustTT}}$	20.1	$18.6^{+8.2}_{-8.4}$	D_{40}	1224.4	1228^{+30}_{-29}	$\sigma_8(0.38)$	0.6632	$0.662^{+0.013}_{-0.012}$
A_{217}^{dustTT}	95.4	94^{+20}_{-20}	D_{220}	5735	5741^{+99}_{-97}	$f\sigma_8(0.51)$	0.4727	$0.472^{+0.010}_{-0.010}$
A_{100}^{dustTE}	0.114	$0.113^{+0.098}_{-0.099}$	D_{810}	2540.5	2539^{+35}_{-32}	$\sigma_8(0.51)$	0.6207	$0.620^{+0.012}_{-0.011}$
$A_{100 \times 143}^{\text{dustTE}}$	0.134	$0.135^{+0.080}_{-0.078}$	D_{1420}	819.0	818^{+13}_{-12}	$f\sigma_8(0.61)$	0.4679	$0.4672^{+0.0098}_{-0.0096}$
$A_{100 \times 217}^{\text{dustTE}}$	0.482	$0.48^{+0.21}_{-0.21}$	D_{2000}	231.57	$231.1^{+4.3}_{-3.9}$	$\sigma_8(0.61)$	0.5906	$0.590^{+0.012}_{-0.011}$
A_{143}^{dustTE}	0.223	$0.22^{+0.14}_{-0.14}$	$n_{s,0.002}$	0.9683	$0.967^{+0.010}_{-0.010}$	$f\sigma_8(2.33)$	0.2979	$0.2975^{+0.0061}_{-0.0056}$
$A_{143 \times 217}^{\text{dustTE}}$	0.662	$0.66^{+0.21}_{-0.20}$	Y_{P}	0.245428	$0.24542^{+0.00013}_{-0.00014}$	$\sigma_8(2.33)$	0.3072	$0.3068^{+0.0067}_{-0.0060}$
A_{217}^{dustTE}	2.08	$2.07^{+0.69}_{-0.68}$	$Y_{\text{P}}^{\text{BBN}}$	0.246754	$0.24675^{+0.00013}_{-0.00014}$	f_{2000}^{143}	28.2	29^{+7}_{-7}
c_{100}	0.99975	$0.9997^{+0.0015}_{-0.0016}$	$10^5 \text{D}/\text{H}$	2.570	$2.574^{+0.066}_{-0.063}$	$f_{2000}^{143 \times 217}$	31.68	32^{+5}_{-5}
c_{217}	0.99817	$0.9982^{+0.0015}_{-0.0015}$	Age/Gyr	13.783	$13.784^{+0.054}_{-0.056}$	f_{2000}^{217}	106.24	$106.9^{+4.5}_{-4.4}$
m_{DES}^1	0.014	$0.014^{+0.059}_{-0.058}$	z_*	1089.74	$1089.76^{+0.59}_{-0.60}$	χ_{lensing}^2	8.77	$9.16 (\nu: 0.2)$
m_{DES}^2	0.012	$0.012^{+0.061}_{-0.056}$	r_*	144.59	$144.61^{+0.63}_{-0.62}$	χ_{small}^2	396.20	$397.0 (\nu: 1.5)$
m_{DES}^3	-0.007	$-0.009^{+0.053}_{-0.052}$	$100\theta_*$	1.04118	$1.04120^{+0.00078}_{-0.00074}$	χ_{lowl}^2	22.85	$23.12 (\nu: 0.3)$
m_{DES}^4	0.012	$0.010^{+0.053}_{-0.053}$	$D_M(z_*)/\text{Gpc}$	13.887	$13.889^{+0.060}_{-0.059}$	χ_{plik}^2	2345.8	$2360.1 (\nu: 16.3)$
$A_{\text{IA,DES}}$	1.45	$1.3^{+1.3}_{-1.1}$	z_{drag}	1060.09	$1060.03^{+0.75}_{-0.74}$	χ_{DES}^2	229.3	$232.1 (\nu: 3.3)$
$\alpha_{\text{IA,DES}}$	2.50	> -3.86	r_{drag}	147.22	$147.25^{+0.64}_{-0.63}$	χ_{prior}^2	2.6	$19.7 (\nu: 18.2)$
$\Delta z_{s,\text{DES}}^1$	0.0045	$0.005^{+0.037}_{-0.037}$	k_{D}	0.14079	$0.14075^{+0.00070}_{-0.00076}$	χ_{CMB}^2	2773.6	$2789.4 (\nu: 17.2)$
$\Delta z_{s,\text{DES}}^2$	-0.0204	$-0.021^{+0.029}_{-0.030}$	$100\theta_{\text{D}}$	0.160683	$0.16071^{+0.00044}_{-0.00042}$			

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

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.77 small_100x143_offlike5_EE_Aplanck_B: 396.20 commander_dx12_v3.2_29: 22.85 plik_rd12_HM_v22b.TTTEEE: 2345.76 WL - DES_1YR_final: 229.30

2.36 base_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022468	$0.02246^{+0.00033}_{-0.00034}$	$\Delta z_{s,DES}^4$	-0.021	$-0.022^{+0.052}_{-0.052}$	$100\theta_{eq}$	0.8183	$0.8182^{+0.0094}_{-0.0094}$
$\Omega_c h^2$	0.11882	$0.1188^{+0.0022}_{-0.0022}$	H_0	67.89	$67.9^{+1.0}_{-0.99}$	$100\theta_{s,eq}$	0.45193	$0.4519^{+0.0049}_{-0.0048}$
$100\theta_{MC}$	1.04103	$1.04106^{+0.00075}_{-0.00074}$	Ω_Λ	0.6921	$0.692^{+0.013}_{-0.013}$	$H(0.15)$	73.14	$73.13^{+0.90}_{-0.85}$
τ	0.0555	$0.056^{+0.019}_{-0.018}$	Ω_m	0.3079	$0.308^{+0.013}_{-0.013}$	$D_M(0.15)$	638.8	$638.9^{+8.5}_{-8.8}$
$\ln(10^{10} A_s)$	3.0444	$3.044^{+0.040}_{-0.036}$	$\Omega_m h^2$	0.14193	$0.1419^{+0.0021}_{-0.0021}$	$H(0.38)$	83.19	$83.19^{+0.68}_{-0.63}$
n_s	0.9688	$0.9676^{+0.0095}_{-0.0093}$	$\Omega_m h^3$	0.09635	$0.09635^{+0.00073}_{-0.00073}$	$D_M(0.38)$	1524.4	1525^{+17}_{-18}
y_{cal}	1.0006	$1.0008^{+0.0062}_{-0.0061}$	σ_8	0.8081	$0.808^{+0.015}_{-0.014}$	$H(0.51)$	89.88	$89.87^{+0.55}_{-0.52}$
A_{217}^{CIB}	46.6	47^{+20}_{-20}	S_8	0.8187	$0.819^{+0.024}_{-0.024}$	$D_M(0.51)$	1975.3	1976^{+20}_{-21}
$\xi^{tSZ \times CIB}$	0.49	—	$\sigma_8 \Omega_m^{0.5}$	0.4484	$0.448^{+0.013}_{-0.013}$	$H(0.61)$	95.473	$95.47^{+0.47}_{-0.44}$
A_{143}^{tSZ}	7.30	> 0.890	$\sigma_8 \Omega_m^{0.25}$	0.6020	$0.602^{+0.014}_{-0.013}$	$D_M(0.61)$	2299.0	2299^{+21}_{-23}
A_{100}^{PS}	248	259^{+70}_{-70}	$\sigma_8/h^{0.5}$	0.9808	$0.981^{+0.020}_{-0.019}$	$H(2.33)$	235.89	$235.9^{+1.3}_{-1.4}$
A_{143}^{PS}	47.4	45^{+20}_{-20}	$r_{drag} h$	99.997	$99.99^{+1.7}_{-1.7}$	$D_M(2.33)$	5755.2	5755^{+22}_{-22}
$A_{143 \times 217}^{PS}$	48.7	42^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.4254	$2.428^{+0.050}_{-0.048}$	$f\sigma_8(0.15)$	0.4533	$0.453^{+0.013}_{-0.013}$
A_{217}^{PS}	120.2	115^{+30}_{-30}	z_{re}	7.77	$7.8^{+1.8}_{-1.9}$	$\sigma_8(0.15)$	0.7471	$0.747^{+0.014}_{-0.013}$
A^{kSZ}	0.0	—	$10^9 A_s$	2.100	$2.100^{+0.084}_{-0.075}$	$f\sigma_8(0.38)$	0.4724	$0.472^{+0.011}_{-0.011}$
A_{100}^{dustTT}	8.86	$8.9^{+4.6}_{-4.9}$	$10^9 A_s e^{-2\tau}$	1.8789	$1.879^{+0.027}_{-0.025}$	$\sigma_8(0.38)$	0.6626	$0.662^{+0.013}_{-0.012}$
A_{143}^{dustTT}	11.04	$10.9^{+4.7}_{-4.7}$	D_{40}	1223.4	1227^{+29}_{-28}	$f\sigma_8(0.51)$	0.4714	$0.471^{+0.010}_{-0.0097}$
$A_{143 \times 217}^{dustTT}$	20.0	$18.6^{+8.3}_{-8.4}$	D_{220}	5738	5743^{+98}_{-96}	$\sigma_8(0.51)$	0.6203	$0.620^{+0.012}_{-0.011}$
A_{217}^{dustTT}	95.3	94^{+20}_{-20}	D_{810}	2540.4	2540^{+34}_{-32}	$f\sigma_8(0.61)$	0.4667	$0.4667^{+0.0093}_{-0.0091}$
A_{100}^{dustTE}	0.114	$0.113^{+0.098}_{-0.10}$	D_{1420}	819.1	818^{+12}_{-12}	$\sigma_8(0.61)$	0.5903	$0.590^{+0.012}_{-0.011}$
$A_{100 \times 143}^{dustTE}$	0.134	$0.135^{+0.080}_{-0.078}$	D_{2000}	231.59	$231.2^{+4.2}_{-3.8}$	$f\sigma_8(2.33)$	0.2978	$0.2977^{+0.0062}_{-0.0055}$
$A_{100 \times 217}^{dustTE}$	0.480	$0.48^{+0.21}_{-0.21}$	$n_{s,0.002}$	0.9688	$0.9676^{+0.0095}_{-0.0093}$	$\sigma_8(2.33)$	0.3071	$0.3071^{+0.0066}_{-0.0059}$
A_{143}^{dustTE}	0.224	$0.22^{+0.14}_{-0.14}$	Y_P	0.245433	$0.24543^{+0.00012}_{-0.00014}$	f_{2000}^{143}	28.4	29^{+7}_{-7}
$A_{143 \times 217}^{dustTE}$	0.664	$0.66^{+0.21}_{-0.21}$	Y_P^{BBN}	0.246760	$0.24675^{+0.00013}_{-0.00014}$	$f_{2000}^{143 \times 217}$	31.70	32^{+5}_{-5}
A_{217}^{dustTE}	2.08	$2.07^{+0.68}_{-0.68}$	$10^5 D/H$	2.568	$2.570^{+0.063}_{-0.060}$	f_{2000}^{217}	106.38	$106.8^{+4.6}_{-4.3}$
c_{100}	0.99974	$0.9997^{+0.0016}_{-0.0016}$	Age/Gyr	13.779	$13.780^{+0.050}_{-0.050}$	$\chi^2_{lensing}$	8.85	$9.17 (\nu: 0.2)$
c_{217}	0.99818	$0.9982^{+0.0015}_{-0.0015}$	z_*	1089.69	$1089.71^{+0.54}_{-0.53}$	χ^2_{small}	396.20	$397.1 (\nu: 1.6)$
m_{DES}^1	0.014	$0.014^{+0.059}_{-0.058}$	r_*	144.66	$144.66^{+0.55}_{-0.52}$	χ^2_{lowl}	22.73	$23.01 (\nu: 0.3)$
m_{DES}^2	0.012	$0.012^{+0.059}_{-0.058}$	$100\theta_*$	1.04121	$1.04124^{+0.00075}_{-0.00073}$	χ^2_{plik}	2346.1	$2360.3 (\nu: 16.3)$
m_{DES}^3	-0.006	$-0.008^{+0.052}_{-0.051}$	$D_M(z_*)/\text{Gpc}$	13.894	$13.894^{+0.053}_{-0.050}$	χ^2_{6DF}	0.010	$0.030 (\nu: 0.0)$
m_{DES}^4	0.013	$0.011^{+0.053}_{-0.053}$	z_{drag}	1060.09	$1060.05^{+0.72}_{-0.73}$	χ^2_{MGS}	1.41	$1.45 (\nu: 0.1)$
$A_{IA,DES}$	1.42	$1.2^{+1.3}_{-1.1}$	r_{drag}	147.29	$147.30^{+0.58}_{-0.54}$	$\chi^2_{DR12BAO}$	3.93	$4.24 (\nu: 0.4)$
$\alpha_{IA,DES}$	2.57	> -3.88	k_D	0.14073	$0.14071^{+0.00070}_{-0.00076}$	χ^2_{DES}	229.1	$231.9 (\nu: 3.0)$
$\Delta z_{s,DES}^1$	0.0049	$0.005^{+0.038}_{-0.036}$	$100\theta_D$	0.160678	$0.16070^{+0.00044}_{-0.00041}$	χ^2_{prior}	2.7	$19.5 (\nu: 18.1)$
$\Delta z_{s,DES}^2$	-0.0205	$-0.021^{+0.029}_{-0.030}$	z_{eq}	3376	3377^{+50}_{-51}	χ^2_{CMB}	2773.9	$2789.5 (\nu: 17.1)$
$\Delta z_{s,DES}^3$	0.0055	$0.005^{+0.025}_{-0.028}$	k_{eq}	0.010305	$0.01031^{+0.00015}_{-0.00015}$	χ^2_{BAO}	5.35	$5.73 (\nu: 0.2)$

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

2.37 base_plikHM_TTTEEE_lowl_lowE_DESlens_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02244^{+0.00036}_{-0.00035}$	$\Delta z_{\text{s,DES}}^3$	$0.004^{+0.027}_{-0.027}$	z_{eq}	3379^{+64}_{-66}
$\Omega_c h^2$	$0.1190^{+0.0028}_{-0.0029}$	$\Delta z_{\text{s,DES}}^4$	$-0.023^{+0.052}_{-0.052}$	k_{eq}	$0.01031^{+0.00019}_{-0.00020}$
$100\theta_{\text{MC}}$	$1.04104^{+0.00076}_{-0.00077}$	H_0	$67.8^{+1.3}_{-1.2}$	$100\theta_{\text{eq}}$	$0.818^{+0.012}_{-0.012}$
τ	$0.055^{+0.019}_{-0.013}$	Ω_{Λ}	$0.691^{+0.017}_{-0.017}$	$100\theta_{\text{s,eq}}$	$0.4517^{+0.0065}_{-0.0061}$
$\ln(10^{10} A_{\text{s}})$	$3.042^{+0.041}_{-0.028}$	Ω_{m}	$0.309^{+0.017}_{-0.017}$	$H(0.15)$	$73.1^{+1.1}_{-1.0}$
n_{s}	$0.968^{+0.010}_{-0.010}$	$\Omega_{\text{m}} h^2$	$0.1420^{+0.0027}_{-0.0028}$	$D_{\text{M}}(0.15)$	639^{+10}_{-11}
y_{cal}	$1.0005^{+0.0063}_{-0.0062}$	$\Omega_{\text{m}} h^3$	$0.09633^{+0.00074}_{-0.00074}$	$H(0.38)$	$83.15^{+0.85}_{-0.77}$
A_{217}^{CIB}	47^{+20}_{-20}	σ_8	$0.807^{+0.017}_{-0.014}$	$D_{\text{M}}(0.38)$	1526^{+21}_{-23}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	S_8	$0.819^{+0.032}_{-0.033}$	$H(0.51)$	$89.84^{+0.68}_{-0.62}$
A_{143}^{tSZ}	$5.5^{+4.5}_{-4.6}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.449^{+0.018}_{-0.018}$	$D_{\text{M}}(0.51)$	1977^{+25}_{-27}
A_{100}^{PS}	258^{+70}_{-70}	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.602^{+0.017}_{-0.017}$	$H(0.61)$	$95.45^{+0.56}_{-0.51}$
A_{143}^{PS}	45^{+20}_{-20}	$\sigma_8/h^{0.5}$	$0.981^{+0.024}_{-0.024}$	$D_{\text{M}}(0.61)$	2301^{+27}_{-29}
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	$r_{\text{drag}} h$	$99.9^{+2.3}_{-2.1}$	$H(2.33)$	$236.0^{+1.7}_{-1.8}$
A_{217}^{PS}	115^{+30}_{-30}	$\langle d^2 \rangle^{1/2}$	$2.427^{+0.060}_{-0.056}$	$D_{\text{M}}(2.33)$	5757^{+24}_{-25}
A^{kSZ}	—	z_{re}	< 9.39	$f\sigma_8(0.15)$	$0.454^{+0.016}_{-0.017}$
A_{100}^{dustTT}	$8.9^{+4.6}_{-4.7}$	$10^9 A_{\text{s}}$	$2.096^{+0.087}_{-0.058}$	$\sigma_8(0.15)$	$0.746^{+0.016}_{-0.012}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.6}$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.878^{+0.028}_{-0.026}$	$f\sigma_8(0.38)$	$0.472^{+0.014}_{-0.014}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.3}_{-8.6}$	D_{40}	1226^{+31}_{-29}	$\sigma_8(0.38)$	$0.662^{+0.014}_{-0.010}$
A_{217}^{dustTT}	94^{+20}_{-20}	D_{220}	5737^{+100}_{-94}	$f\sigma_8(0.51)$	$0.471^{+0.012}_{-0.012}$
A_{100}^{dustTE}	$0.113^{+0.099}_{-0.098}$	D_{810}	2538^{+34}_{-33}	$\sigma_8(0.51)$	$0.620^{+0.013}_{-0.0092}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.080}_{-0.075}$	D_{1420}	818^{+12}_{-12}	$f\sigma_8(0.61)$	$0.467^{+0.011}_{-0.011}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	D_{2000}	$231.1^{+4.1}_{-3.9}$	$\sigma_8(0.61)$	$0.590^{+0.012}_{-0.0087}$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$n_{\text{s},0.002}$	$0.968^{+0.010}_{-0.010}$	$f\sigma_8(2.33)$	$0.2974^{+0.0064}_{-0.0043}$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	Y_{P}	$0.24542^{+0.00013}_{-0.00014}$	$\sigma_8(2.33)$	$0.3067^{+0.0068}_{-0.0045}$
A_{217}^{dustTE}	$2.08^{+0.68}_{-0.70}$	$Y_{\text{P}}^{\text{BBN}}$	$0.24675^{+0.00013}_{-0.00014}$	f_{2000}^{143}	29^{+7}_{-7}
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	10^5D/H	$2.573^{+0.066}_{-0.063}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	Age/Gyr	$13.782^{+0.055}_{-0.057}$	f_{2000}^{217}	$106.8^{+4.5}_{-4.6}$
m_{DES}^1	$0.014^{+0.059}_{-0.058}$	z_*	$1089.74^{+0.59}_{-0.61}$	χ_{simall}^2	$396.8 (\nu: 1.4)$
m_{DES}^2	$0.012^{+0.057}_{-0.057}$	r_*	$144.65^{+0.66}_{-0.65}$	χ_{lowl}^2	$22.99 (\nu: 0.3)$
m_{DES}^3	$-0.008^{+0.053}_{-0.051}$	$100\theta_*$	$1.04122^{+0.00076}_{-0.00076}$	χ_{plik}^2	$2360.7 (\nu: 17.4)$
m_{DES}^4	$0.011^{+0.054}_{-0.054}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.892^{+0.063}_{-0.062}$	χ_{DES}^2	$232.1 (\nu: 3.2)$
$A_{\text{IA,DES}}$	$1.2^{+1.2}_{-1.2}$	z_{drag}	$1060.02^{+0.75}_{-0.74}$	χ_{prior}^2	$19.5 (\nu: 18.1)$
$\alpha_{\text{IA,DES}}$	> -4.00	r_{drag}	$147.29^{+0.69}_{-0.66}$	χ_{CMB}^2	$2780.5 (\nu: 16.9)$
$\Delta z_{\text{s,DES}}^1$	$0.005^{+0.038}_{-0.037}$	k_{D}	$0.14071^{+0.00075}_{-0.00080}$		
$\Delta z_{\text{s,DES}}^2$	$-0.021^{+0.030}_{-0.030}$	$100\theta_{\text{D}}$	$0.16071^{+0.00044}_{-0.00042}$		

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

2.38 base_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02246^{+0.00033}_{-0.00034}$	$\Delta z_{s,\text{DES}}^4$	$-0.022^{+0.053}_{-0.053}$	$100\theta_{\text{eq}}$	$0.819^{+0.010}_{-0.0098}$
$\Omega_c h^2$	$0.1187^{+0.0023}_{-0.0023}$	H_0	$67.9^{+1.1}_{-1.0}$	$100\theta_{s,\text{eq}}$	$0.4522^{+0.0052}_{-0.0050}$
$100\theta_{\text{MC}}$	$1.04107^{+0.00075}_{-0.00074}$	Ω_Λ	$0.693^{+0.014}_{-0.014}$	$H(0.15)$	$73.17^{+0.92}_{-0.87}$
τ	$0.055^{+0.019}_{-0.013}$	Ω_m	$0.307^{+0.014}_{-0.014}$	$D_{\text{M}}(0.15)$	$638.5^{+8.7}_{-8.8}$
$\ln(10^{10} A_s)$	$3.043^{+0.042}_{-0.029}$	$\Omega_m h^2$	$0.1418^{+0.0022}_{-0.0022}$	$H(0.38)$	$83.21^{+0.69}_{-0.64}$
n_s	$0.9681^{+0.0093}_{-0.0092}$	$\Omega_m h^3$	$0.09633^{+0.00074}_{-0.00073}$	$D_{\text{M}}(0.38)$	1524^{+17}_{-18}
y_{cal}	$1.0006^{+0.0063}_{-0.0060}$	σ_8	$0.807^{+0.017}_{-0.014}$	$H(0.51)$	$89.89^{+0.57}_{-0.53}$
A_{217}^{CIB}	47^{+20}_{-20}	S_8	$0.817^{+0.028}_{-0.027}$	$D_{\text{M}}(0.51)$	1975^{+20}_{-21}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$\sigma_8 \Omega_m^{0.5}$	$0.447^{+0.015}_{-0.015}$	$H(0.61)$	$95.48^{+0.48}_{-0.44}$
A_{143}^{tSZ}	> 0.881	$\sigma_8 \Omega_m^{0.25}$	$0.601^{+0.015}_{-0.015}$	$D_{\text{M}}(0.61)$	2298^{+22}_{-23}
A_{100}^{PS}	258^{+70}_{-70}	$\sigma_8/h^{0.5}$	$0.979^{+0.023}_{-0.022}$	$H(2.33)$	$235.8^{+1.4}_{-1.4}$
A_{143}^{PS}	45^{+20}_{-20}	$r_{\text{drag}} h$	$100.1^{+1.8}_{-1.8}$	$D_{\text{M}}(2.33)$	5755^{+22}_{-22}
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	$2.424^{+0.057}_{-0.052}$	$f\sigma_8(0.15)$	$0.452^{+0.015}_{-0.014}$
A_{217}^{PS}	114^{+30}_{-30}	z_{re}	< 9.42	$\sigma_8(0.15)$	$0.746^{+0.015}_{-0.012}$
A^{kSZ}	—	$10^9 A_s$	$2.097^{+0.090}_{-0.059}$	$f\sigma_8(0.38)$	$0.471^{+0.012}_{-0.012}$
A_{100}^{dustTT}	$8.9^{+4.6}_{-4.9}$	$10^9 A_s e^{-2\tau}$	$1.877^{+0.027}_{-0.025}$	$\sigma_8(0.38)$	$0.662^{+0.014}_{-0.010}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.7}$	D_{40}	1225^{+31}_{-27}	$f\sigma_8(0.51)$	$0.471^{+0.012}_{-0.011}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.2}_{-8.3}$	D_{220}	5739^{+99}_{-95}	$\sigma_8(0.51)$	$0.620^{+0.013}_{-0.0094}$
A_{217}^{dustTT}	94^{+20}_{-20}	D_{810}	2538^{+34}_{-32}	$f\sigma_8(0.61)$	$0.466^{+0.011}_{-0.010}$
A_{100}^{dustTE}	$0.113^{+0.098}_{-0.10}$	D_{1420}	818^{+12}_{-12}	$\sigma_8(0.61)$	$0.590^{+0.013}_{-0.0089}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.080}_{-0.078}$	D_{2000}	$231.2^{+4.0}_{-3.8}$	$f\sigma_8(2.33)$	$0.2975^{+0.0064}_{-0.0044}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.21}_{-0.21}$	$n_{s,0.002}$	$0.9681^{+0.0093}_{-0.0092}$	$\sigma_8(2.33)$	$0.3069^{+0.0068}_{-0.0046}$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	Y_{P}	$0.24543^{+0.00013}_{-0.00014}$	f_{2000}^{143}	29^{+7}_{-7}
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	$Y_{\text{P}}^{\text{BBN}}$	$0.24675^{+0.00013}_{-0.00014}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
A_{217}^{dustTE}	$2.07^{+0.68}_{-0.69}$	$10^5 \text{D}/\text{H}$	$2.570^{+0.063}_{-0.060}$	f_{2000}^{217}	$106.8^{+4.5}_{-4.3}$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	Age/Gyr	$13.779^{+0.050}_{-0.050}$	χ_{simall}^2	$396.9 (\nu: 1.5)$
c_{217}	$0.9982^{+0.0015}_{-0.0015}$	z_*	$1089.70^{+0.54}_{-0.53}$	χ_{lowl}^2	$22.88 (\nu: 0.3)$
m_{DES}^1	$0.014^{+0.059}_{-0.058}$	r_*	$144.70^{+0.57}_{-0.54}$	χ_{plik}^2	$2360.8 (\nu: 17.1)$
m_{DES}^2	$0.012^{+0.057}_{-0.059}$	$100\theta_*$	$1.04125^{+0.00074}_{-0.00074}$	$\chi_{6\text{DF}}^2$	$0.027 (\nu: 0.0)$
m_{DES}^3	$-0.007^{+0.053}_{-0.051}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.897^{+0.055}_{-0.052}$	χ_{MGS}^2	$1.51 (\nu: 0.1)$
m_{DES}^4	$0.011^{+0.053}_{-0.053}$	z_{drag}	$1060.04^{+0.73}_{-0.76}$	χ_{DR12BAO}^2	$4.15 (\nu: 0.4)$
$A_{\text{IA,DES}}$	$1.2^{+1.3}_{-1.1}$	r_{drag}	$147.34^{+0.60}_{-0.57}$	χ_{DES}^2	$231.9 (\nu: 2.9)$
$\alpha_{\text{IA,DES}}$	> -3.89	k_{D}	$0.14067^{+0.00072}_{-0.00076}$	χ_{prior}^2	$19.4 (\nu: 18.0)$
$\Delta z_{s,\text{DES}}^1$	$0.004^{+0.038}_{-0.036}$	$100\theta_{\text{D}}$	$0.16071^{+0.00044}_{-0.00041}$	χ_{BAO}^2	$5.69 (\nu: 0.2)$
$\Delta z_{s,\text{DES}}^2$	$-0.021^{+0.030}_{-0.030}$	z_{eq}	3374^{+52}_{-53}	χ_{CMB}^2	$2780.5 (\nu: 16.5)$
$\Delta z_{s,\text{DES}}^3$	$0.005^{+0.026}_{-0.028}$	k_{eq}	$0.01030^{+0.00016}_{-0.00016}$		

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

2.39 base_plikHM_TTTEEE_lowl_lowE_DESlens_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02244^{+0.00036}_{-0.00035}$	$\Delta z_{\text{s,DES}}^3$	$0.004^{+0.025}_{-0.027}$	z_{eq}	3382^{+60}_{-60}
$\Omega_c h^2$	$0.1191^{+0.0026}_{-0.0027}$	$\Delta z_{\text{s,DES}}^4$	$-0.023^{+0.053}_{-0.052}$	k_{eq}	$0.01032^{+0.00018}_{-0.00018}$
$100\theta_{\text{MC}}$	$1.04103^{+0.00078}_{-0.00076}$	H_0	$67.8^{+1.2}_{-1.2}$	$100\theta_{\text{eq}}$	$0.817^{+0.012}_{-0.011}$
τ	$0.055^{+0.018}_{-0.014}$	Ω_{Λ}	$0.690^{+0.016}_{-0.016}$	$100\theta_{\text{s,eq}}$	$0.4514^{+0.0059}_{-0.0057}$
$\ln(10^{10} A_{\text{s}})$	$3.045^{+0.039}_{-0.028}$	Ω_{m}	$0.310^{+0.016}_{-0.016}$	$H(0.15)$	$73.0^{+1.1}_{-0.99}$
n_{s}	$0.967^{+0.010}_{-0.0097}$	$\Omega_{\text{m}} h^2$	$0.1422^{+0.0025}_{-0.0025}$	$D_{\text{M}}(0.15)$	640^{+10}_{-10}
y_{cal}	$1.0006^{+0.0063}_{-0.0061}$	$\Omega_{\text{m}} h^3$	$0.09634^{+0.00074}_{-0.00074}$	$H(0.38)$	$83.12^{+0.80}_{-0.72}$
A_{217}^{CIB}	47^{+20}_{-20}	σ_8	$0.809^{+0.015}_{-0.013}$	$D_{\text{M}}(0.38)$	1526^{+20}_{-21}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	S_8	$0.821^{+0.028}_{-0.028}$	$H(0.51)$	$89.82^{+0.66}_{-0.59}$
A_{143}^{tSZ}	> 0.909	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.450^{+0.015}_{-0.015}$	$D_{\text{M}}(0.51)$	1978^{+23}_{-25}
A_{100}^{PS}	259^{+70}_{-70}	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.603^{+0.014}_{-0.014}$	$H(0.61)$	$95.43^{+0.55}_{-0.49}$
A_{143}^{PS}	45^{+20}_{-20}	$\sigma_8/h^{0.5}$	$0.982^{+0.021}_{-0.020}$	$D_{\text{M}}(0.61)$	2302^{+25}_{-27}
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	$r_{\text{drag}} h$	$99.8^{+2.1}_{-2.0}$	$H(2.33)$	$236.0^{+1.6}_{-1.6}$
A_{217}^{PS}	115^{+30}_{-30}	$\langle d^2 \rangle^{1/2}$	$2.432^{+0.051}_{-0.048}$	$D_{\text{M}}(2.33)$	5757^{+24}_{-25}
A^{kSZ}	—	z_{re}	< 9.42	$f\sigma_8(0.15)$	$0.455^{+0.014}_{-0.014}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.8}$	$10^9 A_{\text{s}}$	$2.100^{+0.083}_{-0.058}$	$\sigma_8(0.15)$	$0.747^{+0.014}_{-0.011}$
A_{143}^{dustTT}	$10.9^{+4.7}_{-4.7}$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.880^{+0.027}_{-0.025}$	$f\sigma_8(0.38)$	$0.473^{+0.012}_{-0.012}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.2}_{-8.4}$	D_{40}	1228^{+30}_{-28}	$\sigma_8(0.38)$	$0.663^{+0.012}_{-0.0096}$
A_{217}^{dustTT}	94^{+20}_{-20}	D_{220}	5741^{+98}_{-96}	$f\sigma_8(0.51)$	$0.472^{+0.010}_{-0.010}$
A_{100}^{dustTE}	$0.113^{+0.098}_{-0.10}$	D_{810}	2539^{+34}_{-32}	$\sigma_8(0.51)$	$0.620^{+0.012}_{-0.0089}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.080}_{-0.078}$	D_{1420}	818^{+12}_{-12}	$f\sigma_8(0.61)$	$0.4674^{+0.0097}_{-0.0093}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.21}_{-0.21}$	D_{2000}	$231.1^{+4.2}_{-3.9}$	$\sigma_8(0.61)$	$0.590^{+0.012}_{-0.0084}$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$n_{\text{s},0.002}$	$0.967^{+0.010}_{-0.0097}$	$f\sigma_8(2.33)$	$0.2977^{+0.0061}_{-0.0043}$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	Y_{P}	$0.24542^{+0.00013}_{-0.00014}$	$\sigma_8(2.33)$	$0.3070^{+0.0065}_{-0.0046}$
A_{217}^{dustTE}	$2.07^{+0.68}_{-0.68}$	$Y_{\text{P}}^{\text{BBN}}$	$0.24675^{+0.00013}_{-0.00014}$	f_{2000}^{143}	29^{+7}_{-7}
c_{100}	$0.9997^{+0.0015}_{-0.0016}$	10^5D/H	$2.573^{+0.066}_{-0.064}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
c_{217}	$0.9982^{+0.0015}_{-0.0015}$	Age/Gyr	$13.783^{+0.054}_{-0.055}$	f_{2000}^{217}	$106.9^{+4.5}_{-4.4}$
m_{DES}^1	$0.014^{+0.059}_{-0.059}$	z_*	$1089.75^{+0.58}_{-0.61}$	χ_{lensing}^2	$9.12 (\nu: 0.2)$
m_{DES}^2	$0.012^{+0.059}_{-0.057}$	r_*	$144.62^{+0.62}_{-0.61}$	χ_{simall}^2	$396.9 (\nu: 1.5)$
m_{DES}^3	$-0.009^{+0.053}_{-0.052}$	$100\theta_*$	$1.04120^{+0.00078}_{-0.00075}$	χ_{lowl}^2	$23.12 (\nu: 0.3)$
m_{DES}^4	$0.010^{+0.053}_{-0.053}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.890^{+0.059}_{-0.060}$	χ_{plik}^2	$2360.0 (\nu: 16.1)$
$A_{\text{IA,DES}}$	$1.3^{+1.2}_{-1.1}$	z_{drag}	$1060.03^{+0.74}_{-0.75}$	χ_{DES}^2	$232.1 (\nu: 3.2)$
$\alpha_{\text{IA,DES}}$	> -3.88	r_{drag}	$147.26^{+0.63}_{-0.62}$	χ_{prior}^2	$19.6 (\nu: 18.4)$
$\Delta z_{\text{s,DES}}^1$	$0.005^{+0.038}_{-0.037}$	k_{D}	$0.14074^{+0.00071}_{-0.00075}$	χ_{CMB}^2	$2789.2 (\nu: 16.7)$
$\Delta z_{\text{s,DES}}^2$	$-0.021^{+0.029}_{-0.030}$	$100\theta_{\text{D}}$	$0.16071^{+0.00044}_{-0.00042}$		

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

2.40 base_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02246^{+0.00033}_{-0.00034}$	$\Delta z_{s,\text{DES}}^4$	$-0.022^{+0.052}_{-0.053}$	$100\theta_{\text{eq}}$	$0.8184^{+0.0094}_{-0.0093}$
$\Omega_c h^2$	$0.1188^{+0.0022}_{-0.0022}$	H_0	$67.9^{+1.0}_{-0.97}$	$100\theta_{s,\text{eq}}$	$0.4520^{+0.0048}_{-0.0047}$
$100\theta_{\text{MC}}$	$1.04106^{+0.00075}_{-0.00074}$	Ω_Λ	$0.692^{+0.013}_{-0.013}$	$H(0.15)$	$73.14^{+0.90}_{-0.83}$
τ	$0.056^{+0.018}_{-0.014}$	Ω_m	$0.308^{+0.013}_{-0.013}$	$D_M(0.15)$	$638.8^{+8.3}_{-8.7}$
$\ln(10^{10} A_s)$	$3.046^{+0.039}_{-0.029}$	$\Omega_m h^2$	$0.1419^{+0.0021}_{-0.0021}$	$H(0.38)$	$83.19^{+0.68}_{-0.62}$
n_s	$0.9677^{+0.0095}_{-0.0092}$	$\Omega_m h^3$	$0.09635^{+0.00074}_{-0.00074}$	$D_M(0.38)$	1524^{+17}_{-18}
y_{cal}	$1.0007^{+0.0062}_{-0.0061}$	σ_8	$0.808^{+0.015}_{-0.013}$	$H(0.51)$	$89.88^{+0.56}_{-0.51}$
A_{217}^{CIB}	47^{+20}_{-20}	S_8	$0.819^{+0.024}_{-0.024}$	$D_M(0.51)$	1975^{+20}_{-21}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$\sigma_8 \Omega_m^{0.5}$	$0.449^{+0.013}_{-0.013}$	$H(0.61)$	$95.47^{+0.46}_{-0.43}$
A_{143}^{tSZ}	> 0.902	$\sigma_8 \Omega_m^{0.25}$	$0.602^{+0.013}_{-0.013}$	$D_M(0.61)$	2299^{+21}_{-23}
A_{100}^{PS}	259^{+70}_{-70}	$\sigma_8/h^{0.5}$	$0.981^{+0.020}_{-0.019}$	$H(2.33)$	$235.9^{+1.3}_{-1.4}$
A_{143}^{PS}	45^{+20}_{-20}	$r_{\text{drag}} h$	$100.0^{+1.7}_{-1.7}$	$D_M(2.33)$	5755^{+22}_{-22}
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	$2.429^{+0.049}_{-0.046}$	$f\sigma_8(0.15)$	$0.453^{+0.013}_{-0.013}$
A_{217}^{PS}	115^{+30}_{-30}	z_{re}	< 9.44	$\sigma_8(0.15)$	$0.747^{+0.014}_{-0.011}$
A^{kSZ}	—	$10^9 A_s$	$2.102^{+0.083}_{-0.059}$	$f\sigma_8(0.38)$	$0.473^{+0.011}_{-0.011}$
A_{100}^{dustTT}	$8.9^{+4.6}_{-4.9}$	$10^9 A_s e^{-2\tau}$	$1.879^{+0.026}_{-0.024}$	$\sigma_8(0.38)$	$0.663^{+0.013}_{-0.0098}$
A_{143}^{dustTT}	$10.9^{+4.7}_{-4.7}$	D_{40}	1227^{+30}_{-28}	$f\sigma_8(0.51)$	$0.4715^{+0.0099}_{-0.0094}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.5^{+8.3}_{-8.4}$	D_{220}	5743^{+97}_{-95}	$\sigma_8(0.51)$	$0.620^{+0.012}_{-0.0091}$
A_{217}^{dustTT}	94^{+20}_{-20}	D_{810}	2539^{+34}_{-32}	$f\sigma_8(0.61)$	$0.4669^{+0.0093}_{-0.0087}$
A_{100}^{dustTE}	$0.113^{+0.098}_{-0.10}$	D_{1420}	818^{+12}_{-12}	$\sigma_8(0.61)$	$0.590^{+0.012}_{-0.0086}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.080}_{-0.078}$	D_{2000}	$231.2^{+4.2}_{-3.8}$	$f\sigma_8(2.33)$	$0.2979^{+0.0060}_{-0.0044}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.21}_{-0.21}$	$n_{s,0.002}$	$0.9677^{+0.0095}_{-0.0092}$	$\sigma_8(2.33)$	$0.3072^{+0.0064}_{-0.0047}$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	Y_{P}	$0.24543^{+0.00012}_{-0.00014}$	f_{2000}^{143}	29^{+7}_{-7}
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	$Y_{\text{P}}^{\text{BBN}}$	$0.24675^{+0.00013}_{-0.00014}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
A_{217}^{dustTE}	$2.07^{+0.68}_{-0.68}$	$10^5 \text{D}/\text{H}$	$2.570^{+0.064}_{-0.059}$	f_{2000}^{217}	$106.8^{+4.6}_{-4.3}$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	Age/Gyr	$13.779^{+0.049}_{-0.050}$	χ_{lensing}^2	$9.13 (\nu: 0.2)$
c_{217}	$0.9982^{+0.0015}_{-0.0015}$	z_*	$1089.71^{+0.53}_{-0.53}$	χ_{simall}^2	$397.1 (\nu: 1.7)$
m_{DES}^1	$0.014^{+0.059}_{-0.058}$	r_*	$144.67^{+0.55}_{-0.51}$	χ_{lowl}^2	$23.01 (\nu: 0.3)$
m_{DES}^2	$0.012^{+0.058}_{-0.058}$	$100\theta_*$	$1.04124^{+0.00075}_{-0.00073}$	χ_{plik}^2	$2360.2 (\nu: 16.2)$
m_{DES}^3	$-0.008^{+0.052}_{-0.051}$	$D_M(z_*)/\text{Gpc}$	$13.894^{+0.053}_{-0.049}$	$\chi_{6\text{DF}}^2$	$0.028 (\nu: 0.0)$
m_{DES}^4	$0.011^{+0.053}_{-0.053}$	z_{drag}	$1060.05^{+0.72}_{-0.73}$	χ_{MGS}^2	$1.46 (\nu: 0.1)$
$A_{\text{IA,DES}}$	$1.2^{+1.3}_{-1.1}$	r_{drag}	$147.31^{+0.58}_{-0.54}$	χ_{DR12BAO}^2	$4.21 (\nu: 0.4)$
$\alpha_{\text{IA,DES}}$	> -3.89	k_{D}	$0.14071^{+0.00069}_{-0.00075}$	χ_{DES}^2	$231.9 (\nu: 3.0)$
$\Delta z_{s,\text{DES}}^1$	$0.005^{+0.038}_{-0.036}$	$100\theta_{\text{D}}$	$0.16070^{+0.00044}_{-0.00041}$	χ_{prior}^2	$19.5 (\nu: 18.1)$
$\Delta z_{s,\text{DES}}^2$	$-0.021^{+0.029}_{-0.030}$	z_{eq}	3376^{+49}_{-50}	χ_{CMB}^2	$2789.4 (\nu: 16.8)$
$\Delta z_{s,\text{DES}}^3$	$0.005^{+0.025}_{-0.028}$	k_{eq}	$0.01030^{+0.00015}_{-0.00015}$	χ_{BAO}^2	$5.71 (\nu: 0.2)$

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

3 Alens

3.1 base_Alens_plikHM_TT_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02270	$0.02260^{+0.00075}_{-0.00073}$	$\sigma_8 \Omega_m^{0.5}$	0.4291	$0.432^{+0.041}_{-0.040}$	$100\theta_{s,eq}$	0.4579	$0.457^{+0.015}_{-0.014}$
$\Omega_c h^2$	0.1161	$0.1166^{+0.0063}_{-0.0064}$	$\sigma_8 \Omega_m^{0.25}$	0.5840	$0.586^{+0.037}_{-0.038}$	$H(0.15)$	74.25	$74.0^{+2.7}_{-2.5}$
$100\theta_{MC}$	1.04143	$1.0414^{+0.0014}_{-0.0013}$	$\sigma_8/h^{0.5}$	0.956	$0.958^{+0.052}_{-0.053}$	$D_M(0.15)$	628.1	630^{+25}_{-25}
τ	0.0519	$0.050^{+0.022}_{-0.027}$	$r_{drag}h$	102.2	$101.8^{+5.4}_{-5.0}$	$H(0.38)$	84.01	$83.8^{+2.1}_{-1.8}$
A_L	1.263	$1.24^{+0.26}_{-0.24}$	$\langle d^2 \rangle^{1/2}$	2.656	$2.64^{+0.19}_{-0.21}$	$D_M(0.38)$	1503	1507^{+50}_{-52}
$\ln(10^{10} A_s)$	3.030	$3.027^{+0.045}_{-0.058}$	z_{re}	7.30	$7.1^{+2.1}_{-3.1}$	$H(0.51)$	90.52	$90.4^{+1.7}_{-1.5}$
n_s	0.9769	$0.974^{+0.019}_{-0.018}$	$10^9 A_s$	2.070	$2.064^{+0.094}_{-0.12}$	$D_M(0.51)$	1950	1955^{+59}_{-61}
y_{cal}	0.9999	$1.0000^{+0.0064}_{-0.0063}$	$10^9 A_s e^{-2\tau}$	1.8656	$1.867^{+0.038}_{-0.037}$	$H(0.61)$	95.99	$95.9^{+1.4}_{-1.2}$
A_{217}^{CIB}	42.5	45^{+20}_{-20}	D_{40}	1203.3	1209^{+44}_{-44}	$D_M(0.61)$	2272	2277^{+63}_{-66}
$\xi^{tSZ \times CIB}$	0.999	—	D_{220}	5737	5736^{+110}_{-100}	$H(2.33)$	234.39	$234.6^{+3.7}_{-3.6}$
A_{143}^{tSZ}	6.83	$5.6^{+4.4}_{-4.6}$	D_{810}	2527.7	2527^{+36}_{-36}	$D_M(2.33)$	5733	5739^{+54}_{-60}
A_{100}^{PS}	238	250^{+70}_{-70}	D_{1420}	815.8	814^{+13}_{-13}	$f\sigma_8(0.15)$	0.4351	$0.437^{+0.038}_{-0.038}$
A_{143}^{PS}	48.5	42^{+20}_{-20}	D_{2000}	233.1	$232.3^{+5.3}_{-5.2}$	$\sigma_8(0.15)$	0.7364	$0.736^{+0.023}_{-0.025}$
$A_{143 \times 217}^{PS}$	56.6	41^{+20}_{-20}	$n_{s,0.002}$	0.9769	$0.974^{+0.019}_{-0.018}$	$f\sigma_8(0.38)$	0.4575	$0.459^{+0.031}_{-0.032}$
A_{217}^{PS}	123.0	115^{+20}_{-30}	Y_P	0.245516	$0.24549^{+0.00033}_{-0.00031}$	$\sigma_8(0.38)$	0.6550	$0.654^{+0.018}_{-0.021}$
A^{kSZ}	0.00	< 8.99	Y_P^{BBN}	0.246843	$0.24681^{+0.00033}_{-0.00031}$	$f\sigma_8(0.51)$	0.4584	$0.459^{+0.026}_{-0.028}$
A_{100}^{dustTT}	8.91	$8.9^{+4.8}_{-4.7}$	$10^5 D/H$	2.527	$2.54^{+0.14}_{-0.13}$	$\sigma_8(0.51)$	0.6139	$0.613^{+0.016}_{-0.019}$
A_{143}^{dustTT}	10.60	$10.5^{+4.6}_{-4.6}$	Age/Gyr	13.732	$13.74^{+0.12}_{-0.13}$	$f\sigma_8(0.61)$	0.4552	$0.456^{+0.024}_{-0.025}$
$A_{143 \times 217}^{dustTT}$	19.6	$17.9^{+8.3}_{-8.6}$	z_*	1089.18	$1089.3^{+1.4}_{-1.3}$	$\sigma_8(0.61)$	0.5847	$0.584^{+0.015}_{-0.018}$
A_{217}^{dustTT}	95.6	94^{+20}_{-20}	r_*	145.19	$145.1^{+1.4}_{-1.3}$	$f\sigma_8(2.33)$	0.2956	$0.2951^{+0.0069}_{-0.0087}$
c_{100}	0.99973	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	1.04157	$1.0416^{+0.0014}_{-0.0013}$	$\sigma_8(2.33)$	0.3057	$0.3050^{+0.0071}_{-0.0088}$
c_{217}	0.99813	$0.9982^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.939	$13.93^{+0.12}_{-0.12}$	f_{2000}^{143}	25.1	27^{+9}_{-9}
H_0	69.18	$68.9^{+3.1}_{-2.9}$	z_{drag}	1060.43	$1060.2^{+1.5}_{-1.4}$	$f_{2000}^{143 \times 217}$	29.2	30^{+6}_{-6}
Ω_Λ	0.7085	$0.705^{+0.037}_{-0.039}$	r_{drag}	147.75	$147.7^{+1.3}_{-1.3}$	f_{2000}^{217}	103.9	$105.0^{+5.8}_{-5.7}$
Ω_m	0.2915	$0.295^{+0.039}_{-0.037}$	k_D	0.14041	$0.1404^{+0.0014}_{-0.0013}$	χ_{simall}^2	395.66	$396.8 (\nu: 1.3)$
$\Omega_m h^2$	0.1395	$0.1399^{+0.0058}_{-0.0058}$	$100\theta_D$	0.16051	$0.16063^{+0.00081}_{-0.00077}$	χ_{lowl}^2	21.34	$21.8 (\nu: 0.6)$
$\Omega_m h^3$	0.09648	$0.0964^{+0.0013}_{-0.0013}$	z_{eq}	3318	3328^{+140}_{-140}	χ_{plik}^2	752.9	$767.3 (\nu: 15.4)$
σ_8	0.7948	$0.795^{+0.028}_{-0.030}$	k_{eq}	0.010126	$0.01016^{+0.00043}_{-0.00043}$	χ_{prior}^2	0.97	$7.1 (\nu: 6.2)$
S_8	0.783	$0.788^{+0.075}_{-0.074}$	$100\theta_{eq}$	0.8301	$0.828^{+0.029}_{-0.027}$	χ_{CMB}^2	1169.9	$1186.0 (\nu: 16.6)$

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

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.66 (Δ -0.21) commander_dx12.v3.2.29: 21.34 (Δ -2.26) plik_rd12_HM.v22.TT: 752.92 (Δ -5.83)

3.2 base_Alens_plikHM_TT_lowl_lowE_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02257	$0.02249^{+0.00058}_{-0.00056}$	$\sigma_8/h^{0.5}$	0.9675	$0.967^{+0.033}_{-0.035}$	$D_M(0.38)$	1515.3	1517^{+26}_{-26}
$\Omega_c h^2$	0.11772	$0.1179^{+0.0033}_{-0.0033}$	$r_{\text{drag}} h$	100.91	$100.8^{+2.6}_{-2.6}$	$H(0.51)$	90.15	$90.08^{+0.88}_{-0.84}$
$100\theta_{\text{MC}}$	1.04123	$1.0412^{+0.0011}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	2.652	$2.63^{+0.19}_{-0.20}$	$D_M(0.51)$	1964.6	1967^{+31}_{-31}
τ	0.0507	$0.049^{+0.022}_{-0.027}$	z_{re}	7.24	$7.1^{+2.1}_{-3.1}$	$H(0.61)$	95.69	$95.62^{+0.76}_{-0.72}$
A_L	1.231	$1.21^{+0.21}_{-0.20}$	$10^9 A_s$	2.073	$2.066^{+0.092}_{-0.12}$	$D_M(0.61)$	2287.5	2290^{+34}_{-34}
$\ln(10^{10} A_s)$	3.032	$3.028^{+0.044}_{-0.060}$	$10^9 A_s e^{-2\tau}$	1.8731	$1.872^{+0.029}_{-0.029}$	$H(2.33)$	235.28	$235.3^{+2.1}_{-2.0}$
n_s	0.9730	$0.971^{+0.012}_{-0.012}$	D_{40}	1211.7	1215^{+33}_{-32}	$D_M(2.33)$	5745.9	5749^{+36}_{-37}
y_{cal}	1.0000	$0.99998^{+0.0064}_{-0.0063}$	D_{220}	5731	5730^{+110}_{-100}	$f\sigma_8(0.15)$	0.4444	$0.445^{+0.022}_{-0.022}$
A_{217}^{CIB}	42.8	45^{+20}_{-20}	D_{810}	2530.5	2528^{+35}_{-35}	$\sigma_8(0.15)$	0.7405	$0.739^{+0.019}_{-0.023}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.999	—	D_{1420}	815.5	814^{+13}_{-13}	$f\sigma_8(0.38)$	0.4648	$0.465^{+0.019}_{-0.019}$
A_{143}^{tSZ}	6.67	$5.6^{+4.4}_{-4.6}$	D_{2000}	232.70	$231.7^{+4.7}_{-4.5}$	$\sigma_8(0.38)$	0.6576	$0.656^{+0.016}_{-0.020}$
A_{100}^{PS}	240	251^{+70}_{-70}	$n_{s,0.002}$	0.9730	$0.971^{+0.012}_{-0.012}$	$f\sigma_8(0.51)$	0.4647	$0.464^{+0.017}_{-0.018}$
A_{143}^{PS}	50.3	43^{+20}_{-20}	Y_P	0.245468	$0.24544^{+0.00025}_{-0.00023}$	$\sigma_8(0.51)$	0.6159	$0.615^{+0.015}_{-0.018}$
$A_{143 \times 217}^{\text{PS}}$	57.4	42^{+20}_{-20}	Y_P^{BBN}	0.246795	$0.24677^{+0.00025}_{-0.00024}$	$f\sigma_8(0.61)$	0.4606	$0.460^{+0.015}_{-0.017}$
A_{217}^{PS}	123.5	115^{+20}_{-30}	$10^5 D/H$	2.550	$2.56^{+0.11}_{-0.10}$	$\sigma_8(0.61)$	0.5863	$0.585^{+0.014}_{-0.018}$
A^{kSZ}	0.00	< 9.15	Age/Gyr	13.759	$13.767^{+0.082}_{-0.084}$	$f\sigma_8(2.33)$	0.2960	$0.2954^{+0.0069}_{-0.0089}$
A_{100}^{dustTT}	8.85	$8.9^{+4.9}_{-4.8}$	z_*	1089.48	$1089.58^{+0.86}_{-0.84}$	$\sigma_8(2.33)$	0.3057	$0.3049^{+0.0069}_{-0.0091}$
A_{143}^{dustTT}	10.67	$10.5^{+4.4}_{-4.5}$	r_*	144.87	$144.89^{+0.83}_{-0.84}$	f_{2000}^{143}	25.9	27^{+8}_{-8}
$A_{143 \times 217}^{\text{dustTT}}$	19.7	$18.0^{+8.2}_{-8.6}$	$100\theta_*$	1.04139	$1.0414^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	29.8	31^{+6}_{-6}
A_{217}^{dustTT}	95.9	94^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.911	$13.913^{+0.082}_{-0.081}$	f_{2000}^{217}	104.4	$105.5^{+5.3}_{-5.3}$
c_{100}	0.99966	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	1060.24	$1060.1^{+1.2}_{-1.3}$	χ_{small}^2	395.68	$396.8 (\nu: 1.3)$
c_{217}	0.99814	$0.9982^{+0.0017}_{-0.0016}$	r_{drag}	147.48	$147.52^{+0.92}_{-0.91}$	χ_{lowl}^2	21.89	$22.23 (\nu: 0.3)$
H_0	68.43	$68.3^{+1.6}_{-1.5}$	k_D	0.14061	$0.1405^{+0.0012}_{-0.0012}$	χ_{plik}^2	752.7	$766.3 (\nu: 14.2)$
Ω_Λ	0.6990	$0.698^{+0.019}_{-0.020}$	$100\theta_D$	0.16061	$0.16071^{+0.00073}_{-0.00071}$	$\chi_{6\text{DF}}^2$	0.008	$0.046 (\nu: 0.0)$
Ω_m	0.3010	$0.302^{+0.020}_{-0.019}$	z_{eq}	3352	3354^{+75}_{-75}	χ_{MGS}^2	1.97	$1.95 (\nu: 0.2)$
$\Omega_m h^2$	0.14093	$0.1410^{+0.0031}_{-0.0031}$	k_{eq}	0.010232	$0.01024^{+0.00023}_{-0.00023}$	χ_{DR12BAO}^2	3.38	$4.05 (\nu: 0.5)$
$\Omega_m h^3$	0.09643	$0.0963^{+0.0013}_{-0.0013}$	$100\theta_{\text{eq}}$	0.8231	$0.823^{+0.015}_{-0.014}$	χ_{prior}^2	1.0	$7.1 (\nu: 6.3)$
σ_8	0.8003	$0.799^{+0.021}_{-0.026}$	$100\theta_{s,\text{eq}}$	0.4544	$0.4541^{+0.0074}_{-0.0072}$	χ_{BAO}^2	5.35	$6.0 (\nu: 0.7)$
S_8	0.8016	$0.802^{+0.043}_{-0.042}$	$H(0.15)$	73.60	$73.5^{+1.4}_{-1.3}$	χ_{CMB}^2	1170.2	$1185.3 (\nu: 15.6)$
$\sigma_8 \Omega_m^{0.5}$	0.4391	$0.439^{+0.024}_{-0.023}$	$D_M(0.15)$	634.3	635^{+13}_{-13}			
$\sigma_8 \Omega_m^{0.25}$	0.5928	$0.592^{+0.023}_{-0.023}$	$H(0.38)$	83.53	$83.5^{+1.0}_{-1.0}$			

Best-fit $\chi_{\text{eff}}^2 = 1176.61$; $\Delta\chi_{\text{eff}}^2 = -9.14$; $\bar{\chi}_{\text{eff}}^2 = 1198.50$; $\Delta\bar{\chi}_{\text{eff}}^2 = -7.53$; $R - 1 = 0.01593$

χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.01) MGS: 1.97 (Δ 0.69) DR12BAO: 3.38 (Δ -0.80) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.68 (Δ -0.21) commander_dx12_v3_2_29: 21.89 (Δ -0.93) plik_rd12_HM_v22_TT: 752.66 (Δ -7.44)

3.3 base_Alens_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02261^{+0.00075}_{-0.00072}$	$\sigma_8 \Omega_m^{0.5}$	$0.433^{+0.041}_{-0.041}$	$100\theta_{s,eq}$	$0.457^{+0.015}_{-0.014}$
$\Omega_c h^2$	$0.1166^{+0.0063}_{-0.0063}$	$\sigma_8 \Omega_m^{0.25}$	$0.587^{+0.037}_{-0.038}$	$H(0.15)$	$74.1^{+2.7}_{-2.5}$
$100\theta_{MC}$	$1.0414^{+0.0014}_{-0.0013}$	$\sigma_8/h^{0.5}$	$0.960^{+0.051}_{-0.052}$	$D_M(0.15)$	630^{+25}_{-25}
τ	$0.053^{+0.018}_{-0.011}$	$r_{drag}h$	$101.9^{+5.4}_{-5.0}$	$H(0.38)$	$83.9^{+2.1}_{-1.9}$
A_L	$1.24^{+0.26}_{-0.24}$	$\langle d^2 \rangle^{1/2}$	$2.64^{+0.19}_{-0.21}$	$D_M(0.38)$	1507^{+51}_{-51}
$\ln(10^{10} A_s)$	$3.033^{+0.039}_{-0.028}$	z_{re}	< 9.08	$H(0.51)$	$90.4^{+1.7}_{-1.5}$
n_s	$0.974^{+0.019}_{-0.018}$	$10^9 A_s$	$2.077^{+0.083}_{-0.058}$	$D_M(0.51)$	1955^{+59}_{-61}
y_{cal}	$1.0000^{+0.0065}_{-0.0063}$	$10^9 A_s e^{-2\tau}$	$1.867^{+0.038}_{-0.037}$	$H(0.61)$	$95.9^{+1.4}_{-1.2}$
A_{217}^{CIB}	45^{+20}_{-20}	D_{40}	1209^{+45}_{-45}	$D_M(0.61)$	2277^{+64}_{-66}
$\xi^{tSZ \times CIB}$	—	D_{220}	5736^{+110}_{-110}	$H(2.33)$	$234.6^{+3.7}_{-3.6}$
A_{143}^{tSZ}	> 1.04	D_{810}	2527^{+36}_{-36}	$D_M(2.33)$	5738^{+55}_{-60}
A_{100}^{PS}	250^{+70}_{-70}	D_{1420}	814^{+13}_{-13}	$f\sigma_8(0.15)$	$0.438^{+0.038}_{-0.039}$
A_{143}^{PS}	42^{+20}_{-20}	D_{2000}	$232.3^{+5.3}_{-5.1}$	$\sigma_8(0.15)$	$0.738^{+0.022}_{-0.022}$
$A_{143 \times 217}^{PS}$	41^{+20}_{-20}	$n_{s,0.002}$	$0.974^{+0.019}_{-0.018}$	$f\sigma_8(0.38)$	$0.460^{+0.030}_{-0.032}$
A_{217}^{PS}	115^{+20}_{-30}	Y_P	$0.24549^{+0.00033}_{-0.00031}$	$\sigma_8(0.38)$	$0.656^{+0.016}_{-0.016}$
A^{kSZ}	< 8.96	Y_P^{BBN}	$0.24681^{+0.00033}_{-0.00031}$	$f\sigma_8(0.51)$	$0.461^{+0.026}_{-0.028}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.7}$	$10^5 D/H$	$2.54^{+0.14}_{-0.13}$	$\sigma_8(0.51)$	$0.615^{+0.014}_{-0.013}$
A_{143}^{dustTT}	$10.5^{+4.6}_{-4.6}$	Age/Gyr	$13.74^{+0.12}_{-0.13}$	$f\sigma_8(0.61)$	$0.457^{+0.023}_{-0.025}$
$A_{143 \times 217}^{dustTT}$	$17.9^{+8.4}_{-8.5}$	z_*	$1089.3^{+1.4}_{-1.3}$	$\sigma_8(0.61)$	$0.586^{+0.013}_{-0.012}$
A_{217}^{dustTT}	94^{+20}_{-20}	r_*	$145.1^{+1.4}_{-1.3}$	$f\sigma_8(2.33)$	$0.2960^{+0.0062}_{-0.0049}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	$1.0416^{+0.0014}_{-0.0013}$	$\sigma_8(2.33)$	$0.3060^{+0.0063}_{-0.0044}$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	$13.94^{+0.12}_{-0.12}$	f_{2000}^{143}	27^{+9}_{-9}
H_0	$69.0^{+3.1}_{-3.0}$	z_{drag}	$1060.2^{+1.4}_{-1.4}$	$f_{2000}^{143 \times 217}$	30^{+6}_{-6}
Ω_Λ	$0.705^{+0.037}_{-0.039}$	r_{drag}	$147.7^{+1.3}_{-1.3}$	f_{2000}^{217}	$105.0^{+5.8}_{-5.7}$
Ω_m	$0.295^{+0.039}_{-0.037}$	k_D	$0.1404^{+0.0013}_{-0.0013}$	χ_{simall}^2	$396.4 (\nu: 0.6)$
$\Omega_m h^2$	$0.1398^{+0.0059}_{-0.0058}$	$100\theta_D$	$0.16063^{+0.00081}_{-0.00077}$	χ_{lowl}^2	$21.9 (\nu: 0.6)$
$\Omega_m h^3$	$0.0964^{+0.0013}_{-0.0013}$	z_{eq}	3326^{+140}_{-140}	χ_{plik}^2	$767.3 (\nu: 15.5)$
σ_8	$0.797^{+0.026}_{-0.028}$	k_{eq}	$0.01015^{+0.00043}_{-0.00042}$	χ_{prior}^2	$7.1 (\nu: 6.2)$
S_8	$0.790^{+0.075}_{-0.075}$	$100\theta_{eq}$	$0.828^{+0.029}_{-0.027}$	χ_{CMB}^2	$1185.5 (\nu: 16.1)$

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

3.4 base_Alens_plikHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02249^{+0.00057}_{-0.00056}$	$\sigma_8/h^{0.5}$	$0.970^{+0.032}_{-0.028}$	$D_M(0.38)$	1517^{+27}_{-27}
$\Omega_c h^2$	$0.1179^{+0.0033}_{-0.0033}$	$r_{\text{drag}} h$	$100.8^{+2.6}_{-2.6}$	$H(0.51)$	$90.08^{+0.88}_{-0.85}$
$100\theta_{\text{MC}}$	$1.0412^{+0.0011}_{-0.0010}$	$\langle d^2 \rangle^{1/2}$	$2.63^{+0.19}_{-0.20}$	$D_M(0.51)$	1967^{+31}_{-31}
τ	$0.053^{+0.017}_{-0.011}$	z_{re}	< 9.01	$H(0.61)$	$95.63^{+0.77}_{-0.72}$
A_L	$1.20^{+0.20}_{-0.20}$	$10^9 A_s$	$2.080^{+0.081}_{-0.055}$	$D_M(0.61)$	2290^{+34}_{-34}
$\ln(10^{10} A_s)$	$3.035^{+0.038}_{-0.027}$	$10^9 A_s e^{-2\tau}$	$1.872^{+0.029}_{-0.029}$	$H(2.33)$	$235.3^{+2.1}_{-2.0}$
n_s	$0.971^{+0.012}_{-0.012}$	D_{40}	1216^{+33}_{-31}	$D_M(2.33)$	5749^{+35}_{-37}
y_{cal}	$0.99999^{+0.0065}_{-0.0062}$	D_{220}	5729^{+110}_{-100}	$f\sigma_8(0.15)$	$0.446^{+0.022}_{-0.020}$
A_{217}^{CIB}	45^{+20}_{-20}	D_{810}	2528^{+33}_{-35}	$\sigma_8(0.15)$	$0.742^{+0.017}_{-0.014}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	814^{+13}_{-13}	$f\sigma_8(0.38)$	$0.466^{+0.018}_{-0.017}$
A_{143}^{tSZ}	$5.6^{+4.4}_{-4.6}$	D_{2000}	$231.8^{+4.8}_{-4.5}$	$\sigma_8(0.38)$	$0.659^{+0.014}_{-0.011}$
A_{100}^{PS}	251^{+80}_{-70}	$n_{s,0.002}$	$0.971^{+0.012}_{-0.012}$	$f\sigma_8(0.51)$	$0.466^{+0.016}_{-0.015}$
A_{143}^{PS}	43^{+20}_{-20}	Y_P	$0.24544^{+0.00024}_{-0.00023}$	$\sigma_8(0.51)$	$0.617^{+0.013}_{-0.0098}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	Y_P^{BBN}	$0.24677^{+0.00024}_{-0.00023}$	$f\sigma_8(0.61)$	$0.462^{+0.014}_{-0.013}$
A_{217}^{PS}	115^{+20}_{-30}	$10^5 D/H$	$2.56^{+0.11}_{-0.10}$	$\sigma_8(0.61)$	$0.587^{+0.012}_{-0.0090}$
A^{kSZ}	< 9.17	Age/Gyr	$13.767^{+0.080}_{-0.084}$	$f\sigma_8(2.33)$	$0.2964^{+0.0060}_{-0.0043}$
A_{100}^{dustTT}	$8.9^{+5.0}_{-4.8}$	z_*	$1089.58^{+0.86}_{-0.86}$	$\sigma_8(2.33)$	$0.3060^{+0.0061}_{-0.0044}$
A_{143}^{dustTT}	$10.5^{+4.5}_{-4.6}$	r_*	$144.89^{+0.83}_{-0.81}$	f_{2000}^{143}	27^{+8}_{-8}
$A_{143 \times 217}^{\text{dustTT}}$	$18.0^{+8.2}_{-8.5}$	$100\theta_*$	$1.0414^{+0.0011}_{-0.0010}$	$f_{2000}^{143 \times 217}$	31^{+6}_{-6}
A_{217}^{dustTT}	94^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	$13.913^{+0.082}_{-0.080}$	f_{2000}^{217}	$105.4^{+5.3}_{-5.3}$
c_{100}	$0.9996^{+0.0015}_{-0.0016}$	z_{drag}	$1060.1^{+1.2}_{-1.3}$	χ_{simall}^2	$396.4 (\nu: 0.6)$
c_{217}	$0.9982^{+0.0017}_{-0.0016}$	r_{drag}	$147.52^{+0.91}_{-0.87}$	χ_{lowl}^2	$22.29 (\nu: 0.3)$
H_0	$68.3^{+1.6}_{-1.5}$	k_D	$0.1405^{+0.0011}_{-0.0012}$	χ_{plik}^2	$766.2 (\nu: 14.3)$
Ω_Λ	$0.698^{+0.019}_{-0.020}$	$100\theta_D$	$0.16071^{+0.00073}_{-0.00069}$	$\chi_{6\text{DF}}^2$	$0.046 (\nu: 0.0)$
Ω_m	$0.302^{+0.020}_{-0.019}$	z_{eq}	3354^{+75}_{-75}	χ_{MGS}^2	$1.96 (\nu: 0.2)$
$\Omega_m h^2$	$0.1410^{+0.0031}_{-0.0031}$	k_{eq}	$0.01024^{+0.00023}_{-0.00023}$	χ_{DR12BAO}^2	$4.04 (\nu: 0.5)$
$\Omega_m h^3$	$0.0963^{+0.0013}_{-0.0012}$	$100\theta_{\text{eq}}$	$0.823^{+0.015}_{-0.014}$	χ_{prior}^2	$7.2 (\nu: 6.3)$
σ_8	$0.802^{+0.019}_{-0.016}$	$100\theta_{s,\text{eq}}$	$0.4542^{+0.0075}_{-0.0072}$	χ_{BAO}^2	$6.0 (\nu: 0.7)$
S_8	$0.805^{+0.042}_{-0.039}$	$H(0.15)$	$73.5^{+1.4}_{-1.3}$	χ_{CMB}^2	$1184.9 (\nu: 15.0)$
$\sigma_8 \Omega_m^{0.5}$	$0.441^{+0.023}_{-0.021}$	$D_M(0.15)$	635^{+13}_{-13}		
$\sigma_8 \Omega_m^{0.25}$	$0.594^{+0.022}_{-0.020}$	$H(0.38)$	$83.5^{+1.1}_{-1.0}$		

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

3.5 base_Alens_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022631	$0.02259^{+0.00045}_{-0.00044}$	$\Omega_m h^2$	0.14113	$0.1413^{+0.0038}_{-0.0036}$	k_{eq}	0.010247	$0.01026^{+0.00028}_{-0.00026}$
$\Omega_c h^2$	0.11786	$0.1181^{+0.0041}_{-0.0038}$	$\Omega_m h^3$	0.09656	$0.09650^{+0.00076}_{-0.00075}$	$100\theta_{\text{eq}}$	0.8224	$0.821^{+0.017}_{-0.017}$
$100\theta_{\text{MC}}$	1.04118	$1.04114^{+0.00088}_{-0.00082}$	σ_8	0.8010	$0.800^{+0.023}_{-0.026}$	$100\theta_{\text{s,eq}}$	0.4539	$0.4534^{+0.0085}_{-0.0089}$
τ	0.0511	$0.049^{+0.021}_{-0.029}$	S_8	0.8030	$0.804^{+0.050}_{-0.048}$	$H(0.15)$	73.60	$73.5^{+1.6}_{-1.6}$
A_L	1.191	$1.18^{+0.17}_{-0.16}$	$\sigma_8 \Omega_m^{0.5}$	0.4398	$0.440^{+0.028}_{-0.026}$	$D_M(0.15)$	634.4	636^{+15}_{-15}
$\ln(10^{10} A_s)$	3.033	$3.029^{+0.044}_{-0.058}$	$\sigma_8 \Omega_m^{0.25}$	0.5935	$0.593^{+0.026}_{-0.026}$	$H(0.38)$	83.54	$83.5^{+1.2}_{-1.1}$
n_s	0.9729	$0.971^{+0.012}_{-0.013}$	$\sigma_8/h^{0.5}$	0.9683	$0.968^{+0.037}_{-0.039}$	$D_M(0.38)$	1515.3	1518^{+31}_{-30}
y_{cal}	0.99999	$1.0000^{+0.0063}_{-0.0061}$	$r_{\text{drag}} h$	100.82	$100.6^{+3.1}_{-3.1}$	$H(0.51)$	90.17	$90.10^{+0.93}_{-0.90}$
A_{217}^{CIB}	42.2	45^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.612	$2.60^{+0.15}_{-0.16}$	$D_M(0.51)$	1964.6	1967^{+37}_{-35}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.999	—	z_{re}	7.27	$7.1^{+2.0}_{-3.4}$	$H(0.61)$	95.72	$95.66^{+0.76}_{-0.71}$
A_{143}^{tSZ}	6.93	> 1.29	$10^9 A_s$	2.076	$2.068^{+0.092}_{-0.12}$	$D_M(0.61)$	2287.3	2290^{+39}_{-38}
A_{100}^{PS}	237	249^{+70}_{-70}	$10^9 A_s e^{-2\tau}$	1.8743	$1.874^{+0.033}_{-0.030}$	$H(2.33)$	235.43	$235.6^{+2.4}_{-2.2}$
A_{143}^{PS}	49.1	42^{+20}_{-20}	D_{40}	1212.9	1217^{+35}_{-34}	$D_M(2.33)$	5744.0	5747^{+32}_{-33}
$A_{143 \times 217}^{\text{PS}}$	57.2	42^{+20}_{-20}	D_{220}	5737	5739^{+98}_{-96}	$f\sigma_8(0.15)$	0.4451	$0.446^{+0.026}_{-0.025}$
A_{217}^{PS}	124.1	116^{+30}_{-30}	D_{810}	2533.2	2531^{+35}_{-34}	$\sigma_8(0.15)$	0.7411	$0.740^{+0.019}_{-0.023}$
A^{kSZ}	0.00	< 8.71	D_{1420}	817.0	816^{+12}_{-12}	$f\sigma_8(0.38)$	0.4655	$0.465^{+0.021}_{-0.022}$
A_{100}^{dustTT}	8.72	$8.8^{+4.9}_{-4.7}$	D_{2000}	232.94	$232.2^{+4.1}_{-4.1}$	$\sigma_8(0.38)$	0.6580	$0.657^{+0.016}_{-0.020}$
A_{143}^{dustTT}	10.68	$10.6^{+4.6}_{-4.6}$	$n_{\text{s},0.002}$	0.9729	$0.971^{+0.012}_{-0.013}$	$f\sigma_8(0.51)$	0.4652	$0.465^{+0.019}_{-0.019}$
$A_{143 \times 217}^{\text{dustTT}}$	19.8	$18.1^{+8.4}_{-8.3}$	Y_{P}	0.245491	$0.24548^{+0.00019}_{-0.00017}$	$\sigma_8(0.51)$	0.6163	$0.615^{+0.014}_{-0.018}$
A_{217}^{dustTT}	95.7	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246818	$0.24680^{+0.00019}_{-0.00017}$	$f\sigma_8(0.61)$	0.4611	$0.461^{+0.017}_{-0.018}$
A_{100}^{dustTE}	0.112	$0.114^{+0.10}_{-0.095}$	$10^5 D/H$	2.539	$2.546^{+0.081}_{-0.080}$	$\sigma_8(0.61)$	0.5867	$0.585^{+0.014}_{-0.018}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.134^{+0.076}_{-0.077}$	Age/Gyr	13.754	$13.761^{+0.072}_{-0.073}$	$f\sigma_8(2.33)$	0.2962	$0.2954^{+0.0067}_{-0.0086}$
$A_{100 \times 217}^{\text{dustTE}}$	0.480	$0.48^{+0.22}_{-0.22}$	z_*	1089.41	$1089.48^{+0.82}_{-0.78}$	$\sigma_8(2.33)$	0.3058	$0.3050^{+0.0068}_{-0.0088}$
A_{143}^{dustTE}	0.224	$0.22^{+0.14}_{-0.14}$	r_*	144.79	$144.76^{+0.83}_{-0.86}$	f_{2000}^{143}	25.4	27^{+7}_{-7}
$A_{143 \times 217}^{\text{dustTE}}$	0.659	$0.66^{+0.20}_{-0.21}$	$100\theta_*$	1.04134	$1.04130^{+0.00086}_{-0.00081}$	$f_{2000}^{143 \times 217}$	29.5	30^{+5}_{-5}
A_{217}^{dustTE}	2.05	$2.05^{+0.70}_{-0.68}$	$D_M(z_*)/\text{Gpc}$	13.904	$13.902^{+0.078}_{-0.079}$	f_{2000}^{217}	104.23	$105.0^{+4.9}_{-4.8}$
c_{100}	0.99976	$0.9997^{+0.0015}_{-0.0016}$	z_{drag}	1060.39	$1060.30^{+0.85}_{-0.87}$	χ_{small}^2	395.7	$396.9 (\nu: 1.4)$
c_{217}	0.99810	$0.9981^{+0.0016}_{-0.0016}$	r_{drag}	147.37	$147.35^{+0.81}_{-0.82}$	χ_{lowl}^2	21.96	$22.32 (\nu: 0.4)$
H_0	68.42	$68.3^{+1.8}_{-1.8}$	k_{D}	0.14077	$0.14076^{+0.00085}_{-0.00082}$	χ_{plik}^2	2337.1	$2353.8 (\nu: 16.5)$
Ω_Λ	0.6985	$0.697^{+0.023}_{-0.025}$	$100\theta_{\text{D}}$	0.160510	$0.16056^{+0.00049}_{-0.00047}$	χ_{prior}^2	1.4	$11.3 (\nu: 9.5)$
Ω_{m}	0.3015	$0.303^{+0.025}_{-0.023}$	z_{eq}	3357	3362^{+91}_{-85}	χ_{CMB}^2	2754.7	$2773.0 (\nu: 17.8)$

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

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.67 (Δ -0.38) commander_dx12_v3_2_29: 21.96 (Δ -1.30) plik_rd12_HM_v22b_TTTEEE: 2337.11 (Δ -7.54)

3.6 base_Alens_plikHM_TTTEEE_lowl_lowE_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022617	$0.02258^{+0.00038}_{-0.00037}$	σ_8	0.8011	$0.800^{+0.020}_{-0.024}$	$D_M(0.15)$	635.1	636^{+11}_{-11}
$\Omega_c h^2$	0.11802	$0.1182^{+0.0028}_{-0.0028}$	S_8	0.8046	$0.805^{+0.036}_{-0.038}$	$H(0.38)$	83.49	$83.43^{+0.84}_{-0.80}$
$100\theta_{MC}$	1.04115	$1.04113^{+0.00078}_{-0.00075}$	$\sigma_8 \Omega_m^{0.5}$	0.4407	$0.441^{+0.020}_{-0.021}$	$D_M(0.38)$	1516.7	1518^{+22}_{-22}
τ	0.0507	$0.049^{+0.021}_{-0.029}$	$\sigma_8 \Omega_m^{0.25}$	0.5942	$0.594^{+0.020}_{-0.022}$	$H(0.51)$	90.13	$90.07^{+0.69}_{-0.64}$
A_L	1.185	$1.18^{+0.16}_{-0.15}$	$\sigma_8/h^{0.5}$	0.9691	$0.969^{+0.029}_{-0.033}$	$D_M(0.51)$	1966.2	1968^{+25}_{-26}
$\ln(10^{10} A_s)$	3.033	$3.029^{+0.046}_{-0.058}$	$r_{drag} h$	100.68	$100.5^{+2.2}_{-2.1}$	$H(0.61)$	95.68	$95.64^{+0.58}_{-0.53}$
n_s	0.9722	$0.9705^{+0.0099}_{-0.010}$	$\langle d^2 \rangle^{1/2}$	2.607	$2.60^{+0.15}_{-0.16}$	$D_M(0.61)$	2289.1	2291^{+27}_{-28}
y_{cal}	0.9999	$1.0000^{+0.0063}_{-0.0062}$	z_{re}	7.23	$7.0^{+2.1}_{-3.3}$	$H(2.33)$	235.52	$235.6^{+1.7}_{-1.7}$
A_{217}^{CIB}	42.4	45^{+20}_{-20}	$10^9 A_s$	2.075	$2.068^{+0.096}_{-0.12}$	$D_M(2.33)$	5745.5	5748^{+25}_{-26}
$\xi^{tSZ \times CIB}$	0.997	—	$10^9 A_s e^{-2\tau}$	1.8747	$1.875^{+0.029}_{-0.027}$	$f\sigma_8(0.15)$	0.4459	$0.446^{+0.019}_{-0.020}$
A_{143}^{tSZ}	6.86	> 1.31	D_{40}	1214.3	1217^{+31}_{-30}	$\sigma_8(0.15)$	0.7412	$0.740^{+0.018}_{-0.023}$
A_{100}^{PS}	238	249^{+70}_{-70}	D_{220}	5737	5738^{+97}_{-99}	$f\sigma_8(0.38)$	0.4660	$0.466^{+0.016}_{-0.018}$
A_{143}^{PS}	49.8	42^{+20}_{-20}	D_{810}	2533.0	2531^{+34}_{-34}	$\sigma_8(0.38)$	0.6580	$0.657^{+0.015}_{-0.020}$
$A_{143 \times 217}^{PS}$	57.6	42^{+20}_{-20}	D_{1420}	816.8	816^{+12}_{-11}	$f\sigma_8(0.51)$	0.4657	$0.465^{+0.015}_{-0.016}$
A_{217}^{PS}	124.3	116^{+20}_{-30}	D_{2000}	232.76	$232.2^{+3.9}_{-3.9}$	$\sigma_8(0.51)$	0.6161	$0.615^{+0.014}_{-0.019}$
A^{kSZ}	0.00	< 8.67	$n_{s,0.002}$	0.9722	$0.9705^{+0.0099}_{-0.010}$	$f\sigma_8(0.61)$	0.4615	$0.461^{+0.014}_{-0.015}$
A_{100}^{dustTT}	8.76	$8.8^{+4.9}_{-4.6}$	Y_P	0.245486	$0.24547^{+0.00016}_{-0.00014}$	$\sigma_8(0.61)$	0.5865	$0.585^{+0.014}_{-0.018}$
A_{143}^{dustTT}	10.62	$10.6^{+4.5}_{-4.6}$	Y_P^{BBN}	0.246813	$0.24680^{+0.00016}_{-0.00014}$	$f\sigma_8(2.33)$	0.2961	$0.2955^{+0.0066}_{-0.0086}$
$A_{143 \times 217}^{dustTT}$	19.7	$18.1^{+8.4}_{-8.4}$	$10^5 D/H$	2.541	$2.548^{+0.068}_{-0.068}$	$\sigma_8(2.33)$	0.3056	$0.3050^{+0.0068}_{-0.0089}$
A_{217}^{dustTT}	95.4	94^{+20}_{-20}	Age/Gyr	13.757	$13.763^{+0.056}_{-0.058}$	f_{2000}^{143}	25.8	27^{+7}_{-7}
A_{100}^{dustTE}	0.115	$0.114^{+0.10}_{-0.095}$	z_*	1089.44	$1089.50^{+0.63}_{-0.63}$	$f_{2000}^{143 \times 217}$	29.7	30^{+5}_{-5}
$A_{100 \times 143}^{dustTE}$	0.134	$0.135^{+0.072}_{-0.077}$	r_*	144.75	$144.74^{+0.63}_{-0.64}$	f_{2000}^{217}	104.44	$105.1^{+4.9}_{-4.6}$
$A_{100 \times 217}^{dustTE}$	0.480	$0.48^{+0.23}_{-0.22}$	$100\theta_*$	1.04130	$1.04129^{+0.00077}_{-0.00075}$	χ_{small}^2	395.67	$396.9 (\nu: 1.4)$
A_{143}^{dustTE}	0.220	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.901	$13.900^{+0.060}_{-0.062}$	χ_{lowl}^2	22.06	$22.34 (\nu: 0.3)$
$A_{143 \times 217}^{dustTE}$	0.659	$0.66^{+0.20}_{-0.21}$	z_{drag}	1060.35	$1060.29^{+0.79}_{-0.78}$	χ_{plik}^2	2337.1	$2353.2 (\nu: 15.5)$
A_{217}^{dustTE}	2.05	$2.06^{+0.69}_{-0.68}$	r_{drag}	147.34	$147.34^{+0.64}_{-0.66}$	χ_{6DF}^2	0.002	$0.030 (\nu: 0.0)$
c_{100}	0.99975	$0.9997^{+0.0016}_{-0.0015}$	k_D	0.14079	$0.14076^{+0.00077}_{-0.00075}$	χ_{MGS}^2	1.82	$1.79 (\nu: 0.1)$
c_{217}	0.99814	$0.9981^{+0.0016}_{-0.0017}$	$100\theta_D$	0.160519	$0.16056^{+0.00047}_{-0.00046}$	$\chi_{DR12BAO}^2$	3.43	$3.95 (\nu: 0.3)$
H_0	68.33	$68.2^{+1.3}_{-1.2}$	z_{eq}	3361	3364^{+63}_{-63}	χ_{prior}^2	1.3	$11.3 (\nu: 9.7)$
Ω_Λ	0.6974	$0.696^{+0.017}_{-0.017}$	k_{eq}	0.010258	$0.01027^{+0.00019}_{-0.00019}$	χ_{BAO}^2	5.25	$5.77 (\nu: 0.3)$
Ω_m	0.3026	$0.304^{+0.017}_{-0.017}$	$100\theta_{eq}$	0.8216	$0.821^{+0.012}_{-0.012}$	χ_{CMB}^2	2754.9	$2772.4 (\nu: 17.0)$
$\Omega_m h^2$	0.14128	$0.1414^{+0.0026}_{-0.0026}$	$100\theta_{s,eq}$	0.4535	$0.4532^{+0.0063}_{-0.0061}$			
$\Omega_m h^3$	0.09654	$0.09649^{+0.00076}_{-0.00074}$	$H(0.15)$	73.52	$73.4^{+1.1}_{-1.1}$			

Best-fit $\chi_{eff}^2 = 2761.40$; $\Delta\chi_{eff}^2 = -10.51$; $\bar{\chi}_{eff}^2 = 2789.54$; $\Delta\bar{\chi}_{eff}^2 = -8.37$; $R - 1 = 0.01310$

χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.03) MGS: 1.82 (Δ 0.60) DR12BAO: 3.43 (Δ -0.99) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.67 (Δ -0.54) commander_dx12_v3_2_29: 22.06 (Δ -0.81) plik_rd12_HM_v22b_TTTEEE: 2337.12 (Δ -8.38)

3.7 base_Alens_plikHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02259^{+0.00045}_{-0.00045}$	$\Omega_m h^2$	$0.1413^{+0.0039}_{-0.0035}$	k_{eq}	$0.01026^{+0.00028}_{-0.00026}$
$\Omega_c h^2$	$0.1181^{+0.0042}_{-0.0038}$	$\Omega_m h^3$	$0.09650^{+0.00076}_{-0.00075}$	$100\theta_{\text{eq}}$	$0.822^{+0.017}_{-0.018}$
$100\theta_{\text{MC}}$	$1.04114^{+0.00090}_{-0.00082}$	σ_8	$0.802^{+0.021}_{-0.018}$	$100\theta_{\text{s,eq}}$	$0.4535^{+0.0084}_{-0.0090}$
τ	$0.053^{+0.016}_{-0.010}$	S_8	$0.806^{+0.050}_{-0.045}$	$H(0.15)$	$73.5^{+1.5}_{-1.6}$
A_L	$1.17^{+0.17}_{-0.16}$	$\sigma_8 \Omega_m^{0.5}$	$0.442^{+0.027}_{-0.025}$	$D_M(0.15)$	635^{+16}_{-15}
$\ln(10^{10} A_s)$	$3.036^{+0.039}_{-0.026}$	$\sigma_8 \Omega_m^{0.25}$	$0.595^{+0.025}_{-0.023}$	$H(0.38)$	$83.5^{+1.2}_{-1.2}$
n_s	$0.971^{+0.012}_{-0.012}$	$\sigma_8/h^{0.5}$	$0.971^{+0.035}_{-0.033}$	$D_M(0.38)$	1518^{+32}_{-30}
y_{cal}	$1.0000^{+0.0064}_{-0.0061}$	$r_{\text{drag}} h$	$100.6^{+3.1}_{-3.2}$	$H(0.51)$	$90.10^{+0.93}_{-0.91}$
A_{217}^{CIB}	45^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	$2.60^{+0.15}_{-0.15}$	$D_M(0.51)$	1967^{+37}_{-35}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	< 8.98	$H(0.61)$	$95.66^{+0.75}_{-0.74}$
A_{143}^{tSZ}	> 1.34	$10^9 A_s$	$2.082^{+0.082}_{-0.054}$	$D_M(0.61)$	2290^{+40}_{-38}
A_{100}^{PS}	249^{+70}_{-70}	$10^9 A_s e^{-2\tau}$	$1.874^{+0.033}_{-0.030}$	$H(2.33)$	$235.5^{+2.4}_{-2.2}$
A_{143}^{PS}	42^{+20}_{-20}	D_{40}	1217^{+35}_{-34}	$D_M(2.33)$	5747^{+33}_{-33}
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{220}	5739^{+96}_{-97}	$f\sigma_8(0.15)$	$0.447^{+0.025}_{-0.023}$
A_{217}^{PS}	116^{+20}_{-30}	D_{810}	2531^{+36}_{-34}	$\sigma_8(0.15)$	$0.742^{+0.018}_{-0.015}$
A^{kSZ}	< 8.71	D_{1420}	816^{+12}_{-12}	$f\sigma_8(0.38)$	$0.467^{+0.020}_{-0.019}$
A_{100}^{dustTT}	$8.8^{+4.9}_{-4.7}$	D_{2000}	$232.2^{+3.9}_{-4.1}$	$\sigma_8(0.38)$	$0.659^{+0.014}_{-0.012}$
A_{143}^{dustTT}	$10.6^{+4.6}_{-4.6}$	$n_{\text{s},0.002}$	$0.971^{+0.012}_{-0.012}$	$f\sigma_8(0.51)$	$0.466^{+0.017}_{-0.017}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.1^{+8.4}_{-8.4}$	Y_{P}	$0.24548^{+0.00019}_{-0.00018}$	$\sigma_8(0.51)$	$0.617^{+0.013}_{-0.010}$
A_{217}^{dustTT}	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24680^{+0.00019}_{-0.00018}$	$f\sigma_8(0.61)$	$0.462^{+0.016}_{-0.015}$
A_{100}^{dustTE}	$0.114^{+0.099}_{-0.094}$	$10^5 \text{D}/\text{H}$	$2.546^{+0.083}_{-0.080}$	$\sigma_8(0.61)$	$0.587^{+0.012}_{-0.0093}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134^{+0.076}_{-0.077}$	Age/Gyr	$13.760^{+0.073}_{-0.073}$	$f\sigma_8(2.33)$	$0.2965^{+0.0059}_{-0.0042}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	z_*	$1089.48^{+0.84}_{-0.79}$	$\sigma_8(2.33)$	$0.3060^{+0.0059}_{-0.0040}$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	r_*	$144.76^{+0.83}_{-0.87}$	f_{2000}^{143}	27^{+7}_{-8}
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.20}_{-0.21}$	$100\theta_*$	$1.04130^{+0.00087}_{-0.00080}$	$f_{2000}^{143 \times 217}$	30^{+5}_{-5}
A_{217}^{dustTE}	$2.05^{+0.70}_{-0.67}$	$D_M(z_*)/\text{Gpc}$	$13.902^{+0.077}_{-0.079}$	f_{2000}^{217}	$105.0^{+4.9}_{-4.8}$
c_{100}	$0.9997^{+0.0015}_{-0.0015}$	z_{drag}	$1060.30^{+0.85}_{-0.87}$	χ_{small}^2	$396.4 (\nu: 0.6)$
c_{217}	$0.9981^{+0.0016}_{-0.0016}$	r_{drag}	$147.36^{+0.81}_{-0.83}$	χ_{lowl}^2	$22.38 (\nu: 0.4)$
H_0	$68.3^{+1.8}_{-1.9}$	k_{D}	$0.14075^{+0.00087}_{-0.00081}$	χ_{plik}^2	$2353.8 (\nu: 16.4)$
Ω_Λ	$0.697^{+0.022}_{-0.025}$	$100\theta_{\text{D}}$	$0.16056^{+0.00050}_{-0.00047}$	χ_{prior}^2	$11.3 (\nu: 9.5)$
Ω_{m}	$0.303^{+0.025}_{-0.022}$	z_{eq}	3361^{+93}_{-84}	χ_{CMB}^2	$2772.6 (\nu: 17.1)$

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

3.8 base_Alens_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02258^{+0.00038}_{-0.00037}$	σ_8	$0.803^{+0.018}_{-0.015}$	$D_M(0.15)$	636^{+11}_{-11}
$\Omega_c h^2$	$0.1182^{+0.0028}_{-0.0028}$	S_8	$0.808^{+0.035}_{-0.034}$	$H(0.38)$	$83.43^{+0.85}_{-0.81}$
$100\theta_{MC}$	$1.04113^{+0.00079}_{-0.00073}$	$\sigma_8 \Omega_m^{0.5}$	$0.442^{+0.019}_{-0.019}$	$D_M(0.38)$	1518^{+22}_{-22}
τ	$0.053^{+0.016}_{-0.010}$	$\sigma_8 \Omega_m^{0.25}$	$0.596^{+0.019}_{-0.018}$	$H(0.51)$	$90.07^{+0.69}_{-0.65}$
A_L	$1.17^{+0.15}_{-0.15}$	$\sigma_8/h^{0.5}$	$0.972^{+0.027}_{-0.025}$	$D_M(0.51)$	1968^{+26}_{-26}
$\ln(10^{10} A_s)$	$3.036^{+0.036}_{-0.027}$	$r_{drag} h$	$100.5^{+2.2}_{-2.2}$	$H(0.61)$	$95.64^{+0.58}_{-0.53}$
n_s	$0.971^{+0.010}_{-0.0099}$	$\langle d^2 \rangle^{1/2}$	$2.60^{+0.15}_{-0.15}$	$D_M(0.61)$	2291^{+28}_{-28}
y_{cal}	$1.0000^{+0.0063}_{-0.0061}$	z_{re}	< 9.00	$H(2.33)$	$235.6^{+1.7}_{-1.7}$
A_{217}^{CIB}	44^{+20}_{-20}	$10^9 A_s$	$2.083^{+0.076}_{-0.057}$	$D_M(2.33)$	5748^{+25}_{-26}
$\xi^{tSZ \times CIB}$	—	$10^9 A_s e^{-2\tau}$	$1.874^{+0.029}_{-0.027}$	$f\sigma_8(0.15)$	$0.448^{+0.018}_{-0.018}$
A_{143}^{tSZ}	> 1.28	D_{40}	1218^{+31}_{-31}	$\sigma_8(0.15)$	$0.743^{+0.016}_{-0.013}$
A_{100}^{PS}	250^{+70}_{-70}	D_{220}	5738^{+97}_{-99}	$f\sigma_8(0.38)$	$0.467^{+0.015}_{-0.015}$
A_{143}^{PS}	42^{+20}_{-20}	D_{810}	2531^{+34}_{-34}	$\sigma_8(0.38)$	$0.659^{+0.014}_{-0.010}$
$A_{143 \times 217}^{PS}$	42^{+20}_{-20}	D_{1420}	816^{+12}_{-11}	$f\sigma_8(0.51)$	$0.467^{+0.014}_{-0.013}$
A_{217}^{PS}	116^{+20}_{-30}	D_{2000}	$232.2^{+3.9}_{-3.9}$	$\sigma_8(0.51)$	$0.617^{+0.013}_{-0.0091}$
A^{kSZ}	< 8.57	$n_{s,0.002}$	$0.971^{+0.010}_{-0.0099}$	$f\sigma_8(0.61)$	$0.463^{+0.012}_{-0.012}$
A_{100}^{dustTT}	$8.8^{+4.9}_{-4.5}$	Y_P	$0.24547^{+0.00015}_{-0.00014}$	$\sigma_8(0.61)$	$0.587^{+0.012}_{-0.0083}$
A_{143}^{dustTT}	$10.6^{+4.5}_{-4.6}$	Y_P^{BBN}	$0.24680^{+0.00016}_{-0.00015}$	$f\sigma_8(2.33)$	$0.2965^{+0.0058}_{-0.0040}$
$A_{143 \times 217}^{dustTT}$	$18.2^{+8.5}_{-8.6}$	$10^5 D/H$	$2.548^{+0.069}_{-0.067}$	$\sigma_8(2.33)$	$0.3060^{+0.0056}_{-0.0043}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.762^{+0.057}_{-0.058}$	f_{2000}^{143}	27^{+7}_{-7}
A_{100}^{dustTE}	$0.114^{+0.10}_{-0.091}$	z_*	$1089.50^{+0.64}_{-0.62}$	$f_{2000}^{143 \times 217}$	30^{+5}_{-5}
$A_{100 \times 143}^{dustTE}$	$0.135^{+0.072}_{-0.079}$	r_*	$144.74^{+0.63}_{-0.63}$	f_{2000}^{217}	$105.1^{+4.8}_{-4.5}$
$A_{100 \times 217}^{dustTE}$	$0.48^{+0.23}_{-0.21}$	$100\theta_*$	$1.04129^{+0.00077}_{-0.00072}$	χ_{simall}^2	$396.4 (\nu: 0.6)$
A_{143}^{dustTE}	$0.22^{+0.13}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.900^{+0.061}_{-0.062}$	χ_{lowl}^2	$22.40 (\nu: 0.3)$
$A_{143 \times 217}^{dustTE}$	$0.66^{+0.20}_{-0.21}$	z_{drag}	$1060.29^{+0.79}_{-0.78}$	χ_{plik}^2	$2353.2 (\nu: 15.4)$
A_{217}^{dustTE}	$2.06^{+0.65}_{-0.68}$	r_{drag}	$147.34^{+0.64}_{-0.64}$	χ_{6DF}^2	$0.030 (\nu: 0.0)$
c_{100}	$0.9997^{+0.0016}_{-0.0015}$	k_D	$0.14076^{+0.00073}_{-0.00074}$	χ_{MGS}^2	$1.79 (\nu: 0.1)$
c_{217}	$0.9981^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.16056^{+0.00047}_{-0.00046}$	$\chi_{DR12BAO}^2$	$3.95 (\nu: 0.3)$
H_0	$68.2^{+1.3}_{-1.3}$	z_{eq}	3364^{+62}_{-64}	χ_{prior}^2	$11.3 (\nu: 9.7)$
Ω_Λ	$0.696^{+0.017}_{-0.017}$	k_{eq}	$0.01027^{+0.00019}_{-0.00019}$	χ_{BAO}^2	$5.78 (\nu: 0.3)$
Ω_m	$0.304^{+0.017}_{-0.017}$	$100\theta_{eq}$	$0.821^{+0.012}_{-0.012}$	χ_{CMB}^2	$2772.0 (\nu: 16.2)$
$\Omega_m h^2$	$0.1414^{+0.0026}_{-0.0027}$	$100\theta_{s,eq}$	$0.4532^{+0.0063}_{-0.0061}$		
$\Omega_m h^3$	$0.09649^{+0.00075}_{-0.00074}$	$H(0.15)$	$73.4^{+1.1}_{-1.1}$		

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

3.9 base_Alens_plikHM_TT_lowl_lowE_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02243	$0.02239^{+0.00065}_{-0.00066}$	$\sigma_8 \Omega_m^{0.25}$	0.5884	$0.589^{+0.036}_{-0.035}$	$D_M(0.15)$	632.9	634^{+24}_{-23}
$\Omega_c h^2$	0.1169	$0.1172^{+0.0062}_{-0.0060}$	$\sigma_8/h^{0.5}$	0.9620	$0.963^{+0.049}_{-0.049}$	$H(0.38)$	83.59	$83.5^{+1.9}_{-1.7}$
$100\theta_{MC}$	1.04121	$1.0412^{+0.0013}_{-0.0013}$	$r_{drag}h$	101.43	$101.2^{+5.0}_{-4.8}$	$D_M(0.38)$	1512.8	1515^{+48}_{-48}
τ	0.0509	$0.050^{+0.021}_{-0.026}$	$\langle d^2 \rangle^{1/2}$	2.477	$2.479^{+0.076}_{-0.080}$	$H(0.51)$	90.16	$90.1^{+1.5}_{-1.4}$
A_L	1.084	$1.08^{+0.14}_{-0.13}$	z_{re}	7.27	$7.1^{+2.0}_{-3.0}$	$D_M(0.51)$	1962	1965^{+56}_{-56}
$\ln(10^{10} A_s)$	3.0285	$3.027^{+0.044}_{-0.052}$	$10^9 A_s$	2.067	$2.063^{+0.093}_{-0.10}$	$H(0.61)$	95.66	$95.6^{+1.3}_{-1.1}$
n_s	0.9733	$0.971^{+0.017}_{-0.017}$	$10^9 A_s e^{-2\tau}$	1.8666	$1.868^{+0.038}_{-0.037}$	$D_M(0.61)$	2285	2288^{+60}_{-61}
y_{cal}	0.9998	$1.0001^{+0.0065}_{-0.0064}$	D_{40}	1208.2	1214^{+45}_{-42}	$H(2.33)$	234.60	$234.8^{+3.6}_{-3.5}$
A_{217}^{CIB}	46.7	47^{+20}_{-20}	D_{220}	5719	5725^{+110}_{-110}	$D_M(2.33)$	5750	5752^{+50}_{-54}
$\xi^{tSZ \times CIB}$	0.54	—	D_{810}	2530.3	2530^{+37}_{-37}	$f\sigma_8(0.15)$	0.4401	$0.441^{+0.037}_{-0.036}$
A_{143}^{tSZ}	7.0	—	D_{1420}	815.9	815^{+13}_{-13}	$\sigma_8(0.15)$	0.7377	$0.737^{+0.022}_{-0.023}$
A_{100}^{PS}	249	260^{+70}_{-70}	D_{2000}	231.12	$230.5^{+4.9}_{-4.8}$	$f\sigma_8(0.38)$	0.4613	$0.462^{+0.029}_{-0.029}$
A_{143}^{PS}	48.8	46^{+20}_{-20}	$n_{s,0.002}$	0.9733	$0.971^{+0.017}_{-0.017}$	$\sigma_8(0.38)$	0.6554	$0.655^{+0.017}_{-0.019}$
$A_{143 \times 217}^{PS}$	50.1	42^{+20}_{-20}	Y_P	0.245419	$0.24540^{+0.00027}_{-0.00030}$	$f\sigma_8(0.51)$	0.4615	$0.462^{+0.025}_{-0.026}$
A_{217}^{PS}	120.0	114^{+30}_{-30}	Y_P^{BBN}	0.246746	$0.24672^{+0.00027}_{-0.00030}$	$\sigma_8(0.51)$	0.6140	$0.613^{+0.015}_{-0.017}$
A^{kSZ}	0.0	—	$10^5 D/H$	2.574	$2.58^{+0.13}_{-0.12}$	$f\sigma_8(0.61)$	0.4578	$0.458^{+0.023}_{-0.023}$
A_{100}^{dustTT}	8.94	$9.0^{+4.8}_{-4.7}$	Age/Gyr	13.769	$13.77^{+0.11}_{-0.12}$	$\sigma_8(0.61)$	0.5847	$0.584^{+0.014}_{-0.016}$
A_{143}^{dustTT}	10.81	$10.8^{+4.5}_{-4.5}$	z_*	1089.57	$1089.7^{+1.3}_{-1.2}$	$f\sigma_8(2.33)$	0.2954	$0.2949^{+0.0068}_{-0.0077}$
$A_{143 \times 217}^{dustTT}$	19.5	$18.3^{+8.4}_{-8.6}$	r_*	145.19	$145.1^{+1.3}_{-1.3}$	$\sigma_8(2.33)$	0.3051	$0.3046^{+0.0069}_{-0.0080}$
A_{217}^{dustTT}	94.9	93^{+20}_{-20}	$100\theta_*$	1.04140	$1.0414^{+0.0013}_{-0.0013}$	f_{2000}^{143}	28.4	30^{+8}_{-8}
c_{100}	0.99966	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.942	$13.94^{+0.12}_{-0.12}$	$f_{2000}^{143 \times 217}$	31.8	32^{+5}_{-5}
c_{217}	0.99823	$0.9982^{+0.0016}_{-0.0016}$	z_{drag}	1059.86	$1059.8^{+1.3}_{-1.3}$	f_{2000}^{217}	106.2	$106.9^{+5.2}_{-5.1}$
H_0	68.61	$68.5^{+2.9}_{-2.8}$	r_{drag}	147.85	$147.8^{+1.3}_{-1.3}$	$\chi^2_{lensing}$	9.31	$10.1 (\nu: 2.0)$
Ω_Λ	0.7026	$0.700^{+0.034}_{-0.038}$	k_D	0.14011	$0.1401^{+0.0013}_{-0.0013}$	χ^2_{simall}	395.67	$396.8 (\nu: 1.2)$
Ω_m	0.2974	$0.300^{+0.038}_{-0.034}$	$100\theta_D$	0.16082	$0.16087^{+0.00074}_{-0.00068}$	χ^2_{lowl}	21.74	$22.2 (\nu: 0.7)$
$\Omega_m h^2$	0.1400	$0.1402^{+0.0058}_{-0.0056}$	z_{eq}	3329	3336^{+140}_{-130}	χ^2_{plik}	757.8	$770.4 (\nu: 15.4)$
$\Omega_m h^3$	0.09603	$0.0960^{+0.0011}_{-0.0012}$	k_{eq}	0.010162	$0.01018^{+0.00042}_{-0.00041}$	χ^2_{prior}	1.3	$7.3 (\nu: 6.8)$
σ_8	0.7968	$0.796^{+0.027}_{-0.028}$	$100\theta_{eq}$	0.8269	$0.826^{+0.027}_{-0.026}$	χ^2_{CMB}	1184.5	$1199.5 (\nu: 15.9)$
S_8	0.793	$0.796^{+0.073}_{-0.069}$	$100\theta_{s,eq}$	0.4565	$0.456^{+0.014}_{-0.013}$			
$\sigma_8 \Omega_m^{0.5}$	0.4345	$0.436^{+0.040}_{-0.038}$	$H(0.15)$	73.73	$73.6^{+2.5}_{-2.4}$			

Best-fit $\chi^2_{eff} = 1185.80$; $\Delta\chi^2_{eff} = -2.77$; $\bar{\chi}^2_{eff} = 1206.83$; $\Delta\bar{\chi}^2_{eff} = -1.59$; $R - 1 = 0.00595$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 9.31 (Δ 0.41) simall_100x143_offlike5_EE_Aplanck.B: 395.67 (Δ -0.20) commander_dx12_v3.2.29: 21.74 (Δ -1.49) plik_rd12_HM_v22_TT: 757.79 (Δ -1.53)

3.10 base_Alens_plikHM_TT_lowl_lowE_lensing_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02237	$0.02233^{+0.00052}_{-0.00055}$	$\sigma_8/h^{0.5}$	0.9689	$0.968^{+0.032}_{-0.032}$	$D_M(0.38)$	1520.0	1521^{+26}_{-26}
$\Omega_c h^2$	0.11787	$0.1179^{+0.0033}_{-0.0032}$	$r_{\text{drag}} h$	100.67	$100.6^{+2.6}_{-2.6}$	$H(0.51)$	89.95	$89.92^{+0.83}_{-0.81}$
$100\theta_{\text{MC}}$	1.04114	$1.0411^{+0.0011}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	2.478	$2.478^{+0.075}_{-0.077}$	$D_M(0.51)$	1970.3	1971^{+31}_{-30}
τ	0.0504	$0.049^{+0.020}_{-0.027}$	z_{re}	7.24	$7.1^{+2.1}_{-3.1}$	$H(0.61)$	95.50	$95.48^{+0.71}_{-0.69}$
A_L	1.070	$1.07^{+0.11}_{-0.097}$	$10^9 A_s$	2.069	$2.065^{+0.093}_{-0.11}$	$D_M(0.61)$	2293.8	2295^{+33}_{-33}
$\ln(10^{10} A_s)$	3.030	$3.027^{+0.044}_{-0.056}$	$10^9 A_s e^{-2\tau}$	1.8709	$1.871^{+0.031}_{-0.030}$	$H(2.33)$	235.17	$235.1^{+2.1}_{-2.0}$
n_s	0.9703	$0.969^{+0.011}_{-0.012}$	D_{40}	1214.8	1217^{+36}_{-34}	$D_M(2.33)$	5755.9	5758^{+34}_{-33}
y_{cal}	0.99995	$1.0001^{+0.0067}_{-0.0064}$	D_{220}	5719	5722^{+100}_{-110}	$f\sigma_8(0.15)$	0.4456	$0.445^{+0.021}_{-0.021}$
A_{217}^{CIB}	48.4	47^{+20}_{-20}	D_{810}	2531.3	2530^{+37}_{-37}	$\sigma_8(0.15)$	0.7401	$0.739^{+0.019}_{-0.021}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.28	—	D_{1420}	815.3	814^{+13}_{-13}	$f\sigma_8(0.38)$	0.4656	$0.465^{+0.018}_{-0.018}$
A_{143}^{tSZ}	7.1	—	D_{2000}	230.72	$230.3^{+4.5}_{-4.4}$	$\sigma_8(0.38)$	0.6569	$0.656^{+0.016}_{-0.018}$
A_{100}^{PS}	252	261^{+70}_{-70}	$n_{s,0.002}$	0.9703	$0.969^{+0.011}_{-0.012}$	$f\sigma_8(0.51)$	0.4652	$0.465^{+0.016}_{-0.017}$
A_{143}^{PS}	46.0	47^{+20}_{-20}	Y_P	0.245394	$0.24538^{+0.00020}_{-0.00025}$	$\sigma_8(0.51)$	0.6152	$0.614^{+0.014}_{-0.017}$
$A_{143 \times 217}^{\text{PS}}$	43.9	42^{+20}_{-20}	Y_P^{BBN}	0.246721	$0.24670^{+0.00020}_{-0.00025}$	$f\sigma_8(0.61)$	0.4609	$0.460^{+0.015}_{-0.015}$
A_{217}^{PS}	117.6	114^{+30}_{-30}	$10^5 D/H$	2.586	$2.59^{+0.10}_{-0.094}$	$\sigma_8(0.61)$	0.5856	$0.585^{+0.013}_{-0.016}$
A^{kSZ}	0.0	—	Age/Gyr	13.782	$13.786^{+0.078}_{-0.076}$	$f\sigma_8(2.33)$	0.2956	$0.2951^{+0.0067}_{-0.0079}$
A_{100}^{dustTT}	8.98	$9.0^{+4.8}_{-4.8}$	z_*	1089.74	$1089.78^{+0.83}_{-0.79}$	$\sigma_8(2.33)$	0.3051	$0.3046^{+0.0069}_{-0.0084}$
A_{143}^{dustTT}	10.86	$10.8^{+4.6}_{-4.3}$	r_*	144.99	$145.01^{+0.83}_{-0.81}$	f_{2000}^{143}	29.1	30^{+8}_{-7}
$A_{143 \times 217}^{\text{dustTT}}$	19.3	$18.3^{+8.6}_{-8.5}$	$100\theta_*$	1.04132	$1.0413^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	32.2	33^{+5}_{-5}
A_{217}^{dustTT}	94.5	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.923	$13.926^{+0.080}_{-0.078}$	f_{2000}^{217}	106.71	$107.2^{+4.8}_{-5.0}$
c_{100}	0.99963	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	1059.78	$1059.7^{+1.1}_{-1.2}$	χ_{lensing}^2	9.42	$10.1 (\nu: 1.9)$
c_{217}	0.99825	$0.9982^{+0.0015}_{-0.0016}$	r_{drag}	147.66	$147.70^{+0.89}_{-0.87}$	χ_{simall}^2	395.68	$396.8 (\nu: 1.2)$
H_0	68.18	$68.1^{+1.5}_{-1.5}$	k_D	0.14026	$0.1402^{+0.0011}_{-0.0011}$	χ_{lowl}^2	22.20	$22.43 (\nu: 0.4)$
Ω_Λ	0.6969	$0.697^{+0.019}_{-0.020}$	$100\theta_D$	0.16086	$0.16091^{+0.00070}_{-0.00064}$	χ_{plik}^2	757.2	$769.6 (\nu: 14.3)$
Ω_m	0.3031	$0.303^{+0.020}_{-0.019}$	z_{eq}	3351	3350^{+76}_{-74}	$\chi_{6\text{DF}}^2$	0.002	$0.044 (\nu: 0.0)$
$\Omega_m h^2$	0.14088	$0.1409^{+0.0032}_{-0.0031}$	k_{eq}	0.010228	$0.01023^{+0.00023}_{-0.00023}$	χ_{MGS}^2	1.82	$1.87 (\nu: 0.2)$
$\Omega_m h^3$	0.09605	$0.0960^{+0.0011}_{-0.0012}$	$100\theta_{\text{eq}}$	0.8227	$0.823^{+0.014}_{-0.014}$	χ_{DR12BAO}^2	3.39	$4.1 (\nu: 0.5)$
σ_8	0.8000	$0.799^{+0.021}_{-0.023}$	$100\theta_{s,\text{eq}}$	0.4543	$0.4543^{+0.0074}_{-0.0072}$	χ_{prior}^2	1.5	$7.4 (\nu: 7.0)$
S_8	0.8041	$0.803^{+0.041}_{-0.040}$	$H(0.15)$	73.37	$73.3^{+1.3}_{-1.3}$	χ_{CMB}^2	1184.5	$1199.0 (\nu: 15.3)$
$\sigma_8 \Omega_m^{0.5}$	0.4404	$0.440^{+0.022}_{-0.022}$	$D_M(0.15)$	636.5	637^{+13}_{-13}	χ_{BAO}^2	5.22	$6.0 (\nu: 0.6)$
$\sigma_8 \Omega_m^{0.25}$	0.5936	$0.593^{+0.022}_{-0.022}$	$H(0.38)$	83.33	$83.3^{+1.0}_{-0.97}$			

Best-fit $\chi_{\text{eff}}^2 = 1191.14$; $\Delta\chi_{\text{eff}}^2 = -3.55$; $\bar{\chi}_{\text{eff}}^2 = 1212.35$; $\Delta\bar{\chi}_{\text{eff}}^2 = -2.38$; $R - 1 = 0.01232$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.03) MGS: 1.82 (Δ 0.60) DR12BAO: 3.40 (Δ -0.98) CMB - smicadx12.Dec5.ftl_mv2.ndclpp.p.teb.consext8: 9.42 (Δ 0.54) simall_100x143_offlike5.EE_Aplanck
395.68 (Δ -0.42) commander_dx12_v3.2_29: 22.20 (Δ -0.76) plik_rd12_HM_v22_TT: 757.15 (Δ -2.65)

3.11 base_Alens_plikHM_TT_lowl_lowE_lensing_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}} h^2$	$0.02239^{+0.00066}_{-0.00067}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.591^{+0.035}_{-0.035}$	$D_{\mathrm{M}}(0.15)$	634^{+24}_{-23}
$\Omega_{\mathrm{c}} h^2$	$0.1171^{+0.0062}_{-0.0060}$	$\sigma_8/h^{0.5}$	$0.965^{+0.049}_{-0.047}$	$H(0.38)$	$83.5^{+1.9}_{-1.7}$
$100\theta_{\mathrm{MC}}$	$1.0412^{+0.0013}_{-0.0013}$	$r_{\mathrm{drag}} h$	$101.3^{+5.0}_{-4.8}$	$D_{\mathrm{M}}(0.38)$	1515^{+48}_{-48}
τ	$0.053^{+0.017}_{-0.011}$	$\langle d^2 \rangle^{1/2}$	$2.479^{+0.077}_{-0.081}$	$H(0.51)$	$90.1^{+1.5}_{-1.4}$
A_{L}	$1.08^{+0.13}_{-0.13}$	z_{re}	< 9.02	$D_{\mathrm{M}}(0.51)$	1964^{+56}_{-56}
$\ln(10^{10} A_{\mathrm{s}})$	$3.033^{+0.039}_{-0.029}$	$10^9 A_{\mathrm{s}}$	$2.076^{+0.083}_{-0.059}$	$H(0.61)$	$95.6^{+1.3}_{-1.1}$
n_{s}	$0.971^{+0.018}_{-0.017}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.868^{+0.038}_{-0.037}$	$D_{\mathrm{M}}(0.61)$	2287^{+60}_{-61}
y_{cal}	$1.0001^{+0.0066}_{-0.0064}$	D_{40}	1214^{+46}_{-42}	$H(2.33)$	$234.7^{+3.7}_{-3.5}$
A_{217}^{CIB}	47^{+20}_{-20}	D_{220}	5725^{+110}_{-110}	$D_{\mathrm{M}}(2.33)$	5752^{+51}_{-55}
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	2529^{+37}_{-37}	$f\sigma_8(0.15)$	$0.442^{+0.037}_{-0.035}$
A_{143}^{tSZ}	$5.3^{+4.4}_{-4.8}$	D_{1420}	815^{+13}_{-13}	$\sigma_8(0.15)$	$0.739^{+0.021}_{-0.020}$
A_{100}^{PS}	259^{+70}_{-70}	D_{2000}	$230.6^{+5.0}_{-4.7}$	$f\sigma_8(0.38)$	$0.463^{+0.029}_{-0.029}$
A_{143}^{PS}	46^{+20}_{-20}	$n_{\mathrm{s},0.002}$	$0.971^{+0.018}_{-0.017}$	$\sigma_8(0.38)$	$0.657^{+0.016}_{-0.015}$
$A_{143 \times 217}^{\mathrm{PS}}$	42^{+20}_{-20}	Y_{P}	$0.24540^{+0.00027}_{-0.00030}$	$f\sigma_8(0.51)$	$0.463^{+0.025}_{-0.025}$
A_{217}^{PS}	114^{+30}_{-30}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24673^{+0.00028}_{-0.00030}$	$\sigma_8(0.51)$	$0.615^{+0.014}_{-0.013}$
A^{kSZ}	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.58^{+0.13}_{-0.12}$	$f\sigma_8(0.61)$	$0.459^{+0.022}_{-0.022}$
$A_{100}^{\mathrm{dustTT}}$	$9.0^{+4.7}_{-4.7}$	$\mathrm{Age}/\mathrm{Gyr}$	$13.77^{+0.11}_{-0.12}$	$\sigma_8(0.61)$	$0.586^{+0.013}_{-0.011}$
$A_{143}^{\mathrm{dustTT}}$	$10.8^{+4.5}_{-4.5}$	z_{*}	$1089.6^{+1.3}_{-1.2}$	$f\sigma_8(2.33)$	$0.2958^{+0.0061}_{-0.0048}$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3^{+8.3}_{-8.5}$	r_{*}	$145.2^{+1.3}_{-1.3}$	$\sigma_8(2.33)$	$0.3056^{+0.0062}_{-0.0043}$
$A_{217}^{\mathrm{dustTT}}$	93^{+20}_{-20}	$100\theta_{*}$	$1.0414^{+0.0013}_{-0.0013}$	f_{2000}^{143}	30^{+8}_{-8}
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$13.94^{+0.12}_{-0.12}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-6}
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	z_{drag}	$1059.8^{+1.3}_{-1.3}$	f_{2000}^{217}	$106.9^{+5.3}_{-5.2}$
H_0	$68.5^{+2.9}_{-2.8}$	r_{drag}	$147.8^{+1.3}_{-1.3}$	$\chi_{\mathrm{lensing}}^2$	$10.1 (\nu: 2.0)$
Ω_{Λ}	$0.701^{+0.035}_{-0.038}$	k_{D}	$0.1401^{+0.0013}_{-0.0013}$	χ_{simall}^2	$396.4 (\nu: 0.6)$
Ω_{m}	$0.299^{+0.038}_{-0.035}$	$100\theta_{\mathrm{D}}$	$0.16087^{+0.00074}_{-0.00069}$	χ_{lowl}^2	$22.3 (\nu: 0.7)$
$\Omega_{\mathrm{m}} h^2$	$0.1402^{+0.0057}_{-0.0056}$	z_{eq}	3334^{+140}_{-130}	χ_{plik}^2	$770.4 (\nu: 15.6)$
$\Omega_{\mathrm{m}} h^3$	$0.0960^{+0.0011}_{-0.0012}$	k_{eq}	$0.01018^{+0.00042}_{-0.00041}$	χ_{prior}^2	$7.3 (\nu: 6.8)$
σ_8	$0.799^{+0.025}_{-0.025}$	$100\theta_{\mathrm{eq}}$	$0.826^{+0.027}_{-0.026}$	χ_{CMB}^2	$1199.2 (\nu: 15.7)$
S_8	$0.798^{+0.072}_{-0.068}$	$100\theta_{\mathrm{s,eq}}$	$0.456^{+0.014}_{-0.013}$		
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.437^{+0.039}_{-0.037}$	$H(0.15)$	$73.6^{+2.5}_{-2.4}$		

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

3.12 base_Alens_plikHM_TT_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02233^{+0.00052}_{-0.00054}$	$\sigma_8/h^{0.5}$	$0.971^{+0.030}_{-0.028}$	$D_M(0.38)$	1521^{+26}_{-26}
$\Omega_c h^2$	$0.1178^{+0.0033}_{-0.0032}$	$r_{\text{drag}} h$	$100.7^{+2.6}_{-2.6}$	$H(0.51)$	$89.93^{+0.83}_{-0.81}$
$100\theta_{\text{MC}}$	$1.0411^{+0.0011}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	$2.477^{+0.078}_{-0.077}$	$D_M(0.51)$	1971^{+31}_{-31}
τ	$0.053^{+0.016}_{-0.011}$	z_{re}	< 9.01	$H(0.61)$	$95.48^{+0.71}_{-0.70}$
A_L	$1.063^{+0.095}_{-0.094}$	$10^9 A_s$	$2.078^{+0.082}_{-0.055}$	$D_M(0.61)$	2295^{+33}_{-33}
$\ln(10^{10} A_s)$	$3.034^{+0.039}_{-0.027}$	$10^9 A_s e^{-2\tau}$	$1.871^{+0.030}_{-0.031}$	$H(2.33)$	$235.1^{+2.0}_{-2.0}$
n_s	$0.969^{+0.011}_{-0.012}$	D_{40}	1218^{+37}_{-33}	$D_M(2.33)$	5758^{+34}_{-34}
y_{cal}	$1.0001^{+0.0067}_{-0.0064}$	D_{220}	5722^{+110}_{-110}	$f\sigma_8(0.15)$	$0.447^{+0.021}_{-0.020}$
A_{217}^{CIB}	47^{+20}_{-20}	D_{810}	2530^{+38}_{-37}	$\sigma_8(0.15)$	$0.741^{+0.017}_{-0.014}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	814^{+14}_{-13}	$f\sigma_8(0.38)$	$0.466^{+0.017}_{-0.017}$
A_{143}^{tSZ}	—	D_{2000}	$230.3^{+4.5}_{-4.4}$	$\sigma_8(0.38)$	$0.658^{+0.014}_{-0.011}$
A_{100}^{PS}	261^{+80}_{-70}	$n_{s,0.002}$	$0.969^{+0.011}_{-0.012}$	$f\sigma_8(0.51)$	$0.466^{+0.015}_{-0.014}$
A_{143}^{PS}	47^{+20}_{-20}	Y_P	$0.24538^{+0.00020}_{-0.00025}$	$\sigma_8(0.51)$	$0.616^{+0.013}_{-0.0098}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	Y_P^{BBN}	$0.24670^{+0.00020}_{-0.00025}$	$f\sigma_8(0.61)$	$0.462^{+0.014}_{-0.013}$
A_{217}^{PS}	114^{+30}_{-30}	$10^5 D/H$	$2.59^{+0.10}_{-0.094}$	$\sigma_8(0.61)$	$0.587^{+0.012}_{-0.0091}$
A^{kSZ}	—	Age/Gyr	$13.786^{+0.078}_{-0.076}$	$f\sigma_8(2.33)$	$0.2961^{+0.0059}_{-0.0042}$
A_{100}^{dustTT}	$9.0^{+4.9}_{-4.7}$	z_*	$1089.78^{+0.82}_{-0.79}$	$\sigma_8(2.33)$	$0.3056^{+0.0062}_{-0.0042}$
A_{143}^{dustTT}	$10.8^{+4.5}_{-4.3}$	r_*	$145.02^{+0.82}_{-0.80}$	f_{2000}^{143}	30^{+8}_{-7}
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.5}_{-8.6}$	$100\theta_*$	$1.0413^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
A_{217}^{dustTT}	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	$13.927^{+0.080}_{-0.078}$	f_{2000}^{217}	$107.2^{+4.8}_{-5.0}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	$1059.7^{+1.1}_{-1.2}$	χ_{lensing}^2	$10.1 (\nu: 2.0)$
c_{217}	$0.9982^{+0.0015}_{-0.0016}$	r_{drag}	$147.71^{+0.88}_{-0.84}$	χ_{simall}^2	$396.4 (\nu: 0.6)$
H_0	$68.1^{+1.5}_{-1.5}$	k_D	$0.1402^{+0.0010}_{-0.0011}$	χ_{lowl}^2	$22.50 (\nu: 0.4)$
Ω_Λ	$0.697^{+0.019}_{-0.020}$	$100\theta_D$	$0.16091^{+0.00069}_{-0.00063}$	χ_{plik}^2	$769.6 (\nu: 14.6)$
Ω_m	$0.303^{+0.020}_{-0.019}$	z_{eq}	3350^{+75}_{-73}	$\chi_{6\text{DF}}^2$	$0.045 (\nu: 0.0)$
$\Omega_m h^2$	$0.1408^{+0.0031}_{-0.0031}$	k_{eq}	$0.01022^{+0.00023}_{-0.00022}$	χ_{MGS}^2	$1.88 (\nu: 0.2)$
$\Omega_m h^3$	$0.0960^{+0.0011}_{-0.0012}$	$100\theta_{\text{eq}}$	$0.823^{+0.014}_{-0.014}$	χ_{DR12BAO}^2	$4.07 (\nu: 0.5)$
σ_8	$0.801^{+0.019}_{-0.016}$	$100\theta_{s,\text{eq}}$	$0.4544^{+0.0073}_{-0.0072}$	χ_{prior}^2	$7.3 (\nu: 7.1)$
S_8	$0.806^{+0.040}_{-0.039}$	$H(0.15)$	$73.3^{+1.3}_{-1.3}$	χ_{CMB}^2	$1198.7 (\nu: 15.1)$
$\sigma_8 \Omega_m^{0.5}$	$0.441^{+0.022}_{-0.021}$	$D_M(0.15)$	637^{+13}_{-13}	χ_{BAO}^2	$6.0 (\nu: 0.6)$
$\sigma_8 \Omega_m^{0.25}$	$0.595^{+0.021}_{-0.020}$	$H(0.38)$	$83.3^{+1.0}_{-0.98}$		

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

3.13 base_Alens_plikHM_TTTEE_lowl_lowE_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022553	$0.02251^{+0.00044}_{-0.00043}$	$\Omega_m h^3$	0.09641	$0.09637^{+0.00075}_{-0.00074}$	$100\theta_{s,eq}$	0.4536	$0.4532^{+0.0086}_{-0.0083}$
$\Omega_c h^2$	0.11803	$0.1182^{+0.0038}_{-0.0038}$	σ_8	0.8008	$0.800^{+0.021}_{-0.024}$	$H(0.15)$	73.46	$73.4^{+1.6}_{-1.5}$
$100\theta_{MC}$	1.04111	$1.04110^{+0.00080}_{-0.00085}$	S_8	0.8049	$0.806^{+0.047}_{-0.047}$	$D_M(0.15)$	635.7	637^{+15}_{-15}
τ	0.0506	$0.049^{+0.021}_{-0.026}$	$\sigma_8 \Omega_m^{0.5}$	0.4409	$0.441^{+0.026}_{-0.026}$	$H(0.38)$	83.43	$83.4^{+1.2}_{-1.1}$
A_L	1.075	$1.07^{+0.11}_{-0.098}$	$\sigma_8 \Omega_m^{0.25}$	0.5942	$0.594^{+0.024}_{-0.025}$	$D_M(0.38)$	1518.0	1520^{+30}_{-30}
$\ln(10^{10} A_s)$	3.0314	$3.029^{+0.043}_{-0.051}$	$\sigma_8/h^{0.5}$	0.9692	$0.969^{+0.034}_{-0.036}$	$H(0.51)$	90.07	$90.01^{+0.93}_{-0.86}$
n_s	0.9718	$0.970^{+0.012}_{-0.012}$	$r_{drag} h$	100.63	$100.5^{+3.1}_{-3.0}$	$D_M(0.51)$	1967.8	1970^{+35}_{-36}
y_{cal}	0.99996	$1.0001^{+0.0063}_{-0.0065}$	$\langle d^2 \rangle^{1/2}$	2.483	$2.482^{+0.076}_{-0.077}$	$H(0.61)$	95.63	$95.58^{+0.75}_{-0.69}$
A_{217}^{CIB}	44.2	46^{+20}_{-20}	z_{re}	7.23	$7.1^{+2.0}_{-2.9}$	$D_M(0.61)$	2290.9	2293^{+38}_{-39}
$\xi^{tSZ \times CIB}$	0.83	—	$10^9 A_s$	2.073	$2.067^{+0.090}_{-0.10}$	$H(2.33)$	235.46	$235.6^{+2.2}_{-2.2}$
A_{143}^{tSZ}	7.00	> 1.03	$10^9 A_s e^{-2\tau}$	1.8733	$1.874^{+0.030}_{-0.030}$	$D_M(2.33)$	5748.6	5751^{+32}_{-33}
A_{100}^{PS}	244	255^{+70}_{-70}	D_{40}	1213.7	1219^{+35}_{-35}	$f\sigma_8(0.15)$	0.4461	$0.446^{+0.024}_{-0.024}$
A_{143}^{PS}	50.3	44^{+20}_{-20}	D_{220}	5730	5735^{+100}_{-98}	$\sigma_8(0.15)$	0.7408	$0.740^{+0.019}_{-0.021}$
$A_{143 \times 217}^{PS}$	55.3	42^{+20}_{-20}	D_{810}	2535.0	2533^{+35}_{-35}	$f\sigma_8(0.38)$	0.4661	$0.466^{+0.020}_{-0.021}$
A_{217}^{PS}	122.8	115^{+30}_{-30}	D_{1420}	818.0	816^{+12}_{-13}	$\sigma_8(0.38)$	0.6576	$0.657^{+0.016}_{-0.018}$
A^{kSZ}	0.0	—	D_{2000}	232.01	$231.3^{+4.1}_{-4.3}$	$f\sigma_8(0.51)$	0.4657	$0.465^{+0.017}_{-0.019}$
A_{100}^{dustTT}	8.82	$8.9^{+4.9}_{-4.8}$	$n_{s,0.002}$	0.9718	$0.970^{+0.012}_{-0.012}$	$\sigma_8(0.51)$	0.6158	$0.615^{+0.014}_{-0.016}$
A_{143}^{dustTT}	11.02	$10.9^{+4.7}_{-4.6}$	Y_P	0.245463	$0.24545^{+0.00018}_{-0.00017}$	$f\sigma_8(0.61)$	0.4614	$0.461^{+0.016}_{-0.017}$
$A_{143 \times 217}^{dustTT}$	20.2	$18.5^{+8.4}_{-8.6}$	Y_P^{BBN}	0.246790	$0.24678^{+0.00018}_{-0.00017}$	$\sigma_8(0.61)$	0.5862	$0.585^{+0.013}_{-0.015}$
A_{217}^{dustTT}	95.7	94^{+20}_{-20}	$10^5 D/H$	2.553	$2.560^{+0.080}_{-0.079}$	$f\sigma_8(2.33)$	0.2959	$0.2953^{+0.0066}_{-0.0076}$
A_{100}^{dustTE}	0.114	$0.114^{+0.10}_{-0.095}$	Age/Gyr	13.765	$13.770^{+0.070}_{-0.072}$	$\sigma_8(2.33)$	0.3054	$0.3048^{+0.0067}_{-0.0077}$
$A_{100 \times 143}^{dustTE}$	0.134	$0.135^{+0.074}_{-0.075}$	z_*	1089.52	$1089.59^{+0.80}_{-0.81}$	f_{2000}^{143}	27.2	28^{+7}_{-7}
$A_{100 \times 217}^{dustTE}$	0.480	$0.48^{+0.21}_{-0.22}$	r_*	144.80	$144.78^{+0.81}_{-0.81}$	$f_{2000}^{143 \times 217}$	30.80	31^{+5}_{-5}
A_{143}^{dustTE}	0.224	$0.22^{+0.14}_{-0.14}$	$100\theta_*$	1.04128	$1.04128^{+0.00079}_{-0.00083}$	f_{2000}^{217}	105.36	$106.2^{+4.9}_{-4.7}$
$A_{143 \times 217}^{dustTE}$	0.661	$0.66^{+0.21}_{-0.21}$	$D_M(z_*)/\text{Gpc}$	13.906	$13.904^{+0.074}_{-0.075}$	$\chi^2_{lensing}$	10.2	$10.5 (\nu: 2.4)$
A_{217}^{dustTE}	2.06	$2.06^{+0.68}_{-0.68}$	z_{drag}	1060.20	$1060.14^{+0.86}_{-0.82}$	χ^2_{small}	395.66	$396.8 (\nu: 1.2)$
c_{100}	0.99974	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	147.41	$147.40^{+0.76}_{-0.78}$	χ^2_{lowl}	22.06	$22.46 (\nu: 0.4)$
c_{217}	0.99815	$0.9982^{+0.0016}_{-0.0016}$	k_D	0.14067	$0.14065^{+0.00079}_{-0.00077}$	χ^2_{plik}	2341.8	$2357.1 (\nu: 17.7)$
H_0	68.27	$68.2^{+1.8}_{-1.7}$	$100\theta_D$	0.160601	$0.16065^{+0.00047}_{-0.00047}$	χ^2_{prior}	1.5	$11.5 (\nu: 10.2)$
Ω_Λ	0.6969	$0.695^{+0.023}_{-0.024}$	z_{eq}	3360	3364^{+85}_{-84}	χ^2_{CMB}	2769.7	$2786.9 (\nu: 17.8)$
Ω_m	0.3031	$0.305^{+0.024}_{-0.023}$	k_{eq}	0.010254	$0.01027^{+0.00026}_{-0.00026}$			
$\Omega_m h^2$	0.14123	$0.1414^{+0.0035}_{-0.0035}$	$100\theta_{eq}$	0.8217	$0.821^{+0.017}_{-0.016}$			

Best-fit $\chi^2_{eff} = 2771.20$; $\Delta\chi^2_{eff} = -3.44$; $\bar{\chi}^2_{eff} = 2798.40$; $\Delta\bar{\chi}^2_{eff} = -2.29$; $R - 1 = 0.01801$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 10.18 (Δ 1.31) small_100x143_offlike5_EE_Aplanck_B: 395.66 (Δ -0.39) commander_dx12_v3_2_29: 22.06 (Δ -1.20) plik_rd12_HM_v22b_TTTEE: 2341.85 (Δ -3.08)

3.14 base_Alens_plikHM_TTTEE_lowl_lowE_lensing_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022543	$0.02251^{+0.00036}_{-0.00036}$	σ_8	0.8002	$0.800^{+0.020}_{-0.022}$	$D_M(0.15)$	636.5	637^{+11}_{-11}
$\Omega_c h^2$	0.11826	$0.1183^{+0.0027}_{-0.0028}$	S_8	0.8060	$0.806^{+0.036}_{-0.035}$	$H(0.38)$	83.37	$83.36^{+0.85}_{-0.79}$
$100\theta_{MC}$	1.04109	$1.04111^{+0.00074}_{-0.00077}$	$\sigma_8 \Omega_m^{0.5}$	0.4415	$0.442^{+0.020}_{-0.019}$	$D_M(0.38)$	1519.7	1520^{+21}_{-22}
τ	0.0492	$0.049^{+0.020}_{-0.025}$	$\sigma_8 \Omega_m^{0.25}$	0.5943	$0.594^{+0.020}_{-0.020}$	$H(0.51)$	90.02	$90.01^{+0.67}_{-0.63}$
A_L	1.072	$1.071^{+0.094}_{-0.087}$	$\sigma_8/h^{0.5}$	0.9692	$0.969^{+0.029}_{-0.030}$	$D_M(0.51)$	1969.7	1970^{+25}_{-26}
$\ln(10^{10} A_s)$	3.0288	$3.029^{+0.043}_{-0.052}$	$r_{drag} h$	100.45	$100.4^{+2.2}_{-2.1}$	$H(0.61)$	95.59	$95.57^{+0.56}_{-0.52}$
n_s	0.9704	$0.969^{+0.010}_{-0.010}$	$\langle d^2 \rangle^{1/2}$	2.482	$2.482^{+0.076}_{-0.077}$	$D_M(0.61)$	2293.0	2294^{+27}_{-28}
y_{cal}	0.9998	$1.0001^{+0.0066}_{-0.0066}$	z_{re}	7.09	$7.1^{+2.0}_{-2.9}$	$H(2.33)$	235.60	$235.6^{+1.6}_{-1.6}$
A_{217}^{CIB}	45.8	46^{+20}_{-20}	$10^9 A_s$	2.067	$2.068^{+0.090}_{-0.10}$	$D_M(2.33)$	5750.0	5751^{+24}_{-25}
$\xi^{tSZ \times CIB}$	0.62	—	$10^9 A_s e^{-2\tau}$	1.8735	$1.874^{+0.027}_{-0.028}$	$f\sigma_8(0.15)$	0.4466	$0.447^{+0.019}_{-0.018}$
A_{143}^{tSZ}	7.17	> 0.956	D_{40}	1216.2	1219^{+32}_{-31}	$\sigma_8(0.15)$	0.7401	$0.740^{+0.018}_{-0.020}$
A_{100}^{PS}	246	255^{+70}_{-70}	D_{220}	5732	5735^{+97}_{-96}	$f\sigma_8(0.38)$	0.4662	$0.466^{+0.016}_{-0.016}$
A_{143}^{PS}	48.0	44^{+20}_{-20}	D_{810}	2533.8	2534^{+34}_{-35}	$\sigma_8(0.38)$	0.6568	$0.657^{+0.015}_{-0.018}$
$A_{143 \times 217}^{PS}$	50.9	42^{+20}_{-20}	D_{1420}	817.1	817^{+12}_{-13}	$f\sigma_8(0.51)$	0.4657	$0.466^{+0.015}_{-0.015}$
A_{217}^{PS}	120.4	115^{+30}_{-30}	D_{2000}	231.65	$231.3^{+3.9}_{-4.2}$	$\sigma_8(0.51)$	0.6150	$0.615^{+0.014}_{-0.016}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9704	$0.969^{+0.010}_{-0.010}$	$f\sigma_8(0.61)$	0.4613	$0.461^{+0.013}_{-0.014}$
A_{100}^{dustTT}	8.88	$8.9^{+5.0}_{-4.9}$	Y_P	0.245460	$0.24545^{+0.00014}_{-0.00014}$	$\sigma_8(0.61)$	0.5854	$0.585^{+0.013}_{-0.015}$
A_{143}^{dustTT}	11.03	$10.9^{+4.6}_{-4.8}$	Y_P^{BBN}	0.246786	$0.24677^{+0.00014}_{-0.00014}$	$f\sigma_8(2.33)$	0.2954	$0.2954^{+0.0067}_{-0.0076}$
$A_{143 \times 217}^{dustTT}$	19.9	$18.5^{+8.4}_{-8.9}$	$10^5 D/H$	2.554	$2.560^{+0.066}_{-0.065}$	$\sigma_8(2.33)$	0.3049	$0.3048^{+0.0068}_{-0.0078}$
A_{217}^{dustTT}	95.2	94^{+20}_{-20}	Age/Gyr	13.768	$13.770^{+0.054}_{-0.057}$	f_{2000}^{143}	27.7	28^{+7}_{-7}
A_{100}^{dustTE}	0.114	$0.113^{+0.099}_{-0.096}$	z_*	1089.55	$1089.59^{+0.60}_{-0.61}$	$f_{2000}^{143 \times 217}$	31.14	31^{+5}_{-5}
$A_{100 \times 143}^{dustTE}$	0.135	$0.134^{+0.078}_{-0.080}$	r_*	144.75	$144.77^{+0.62}_{-0.61}$	f_{2000}^{217}	105.65	$106.2^{+4.7}_{-4.6}$
$A_{100 \times 217}^{dustTE}$	0.479	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	1.04126	$1.04128^{+0.00072}_{-0.00076}$	$\chi_{lensing}^2$	9.99	$10.5 (\nu: 2.4)$
A_{143}^{dustTE}	0.222	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.902	$13.904^{+0.059}_{-0.058}$	χ_{small}^2	395.70	$396.8 (\nu: 1.2)$
$A_{143 \times 217}^{dustTE}$	0.662	$0.66^{+0.20}_{-0.21}$	z_{drag}	1060.20	$1060.14^{+0.75}_{-0.78}$	χ_{lowl}^2	22.25	$22.46 (\nu: 0.3)$
A_{217}^{dustTE}	2.07	$2.06^{+0.68}_{-0.67}$	r_{drag}	147.36	$147.40^{+0.63}_{-0.62}$	χ_{plik}^2	2341.7	$2356.5 (\nu: 17.1)$
c_{100}	0.99971	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14071	$0.14065^{+0.00071}_{-0.00073}$	χ_{6DF}^2	0.000	$0.029 (\nu: 0.0)$
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	0.160604	$0.16065^{+0.00043}_{-0.00043}$	χ_{MGS}^2	1.68	$1.74 (\nu: 0.1)$
H_0	68.17	$68.1^{+1.3}_{-1.2}$	z_{eq}	3365	3364^{+61}_{-62}	$\chi_{DR12BAO}^2$	3.53	$3.98 (\nu: 0.3)$
Ω_Λ	0.6956	$0.695^{+0.016}_{-0.017}$	k_{eq}	0.010270	$0.01027^{+0.00019}_{-0.00019}$	χ_{prior}^2	1.6	$11.6 (\nu: 10.1)$
Ω_m	0.3044	$0.305^{+0.017}_{-0.016}$	$100\theta_{eq}$	0.8207	$0.821^{+0.012}_{-0.012}$	χ_{CMB}^2	2769.6	$2786.3 (\nu: 17.1)$
$\Omega_m h^2$	0.14145	$0.1414^{+0.0026}_{-0.0026}$	$100\theta_{s,eq}$	0.4531	$0.4532^{+0.0061}_{-0.0059}$	χ_{BAO}^2	5.20	$5.75 (\nu: 0.3)$
$\Omega_m h^3$	0.09642	$0.09637^{+0.00076}_{-0.00070}$	$H(0.15)$	73.38	$73.4^{+1.1}_{-1.1}$			

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

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

3.15 base_Alens_plikHM_TTTEE_lowl_lowE_lensing_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02252^{+0.00044}_{-0.00043}$	$\Omega_m h^3$	$0.09637^{+0.00074}_{-0.00077}$	$100\theta_{s,eq}$	$0.4533^{+0.0084}_{-0.0083}$
$\Omega_c h^2$	$0.1182^{+0.0038}_{-0.0038}$	σ_8	$0.802^{+0.020}_{-0.018}$	$H(0.15)$	$73.4^{+1.6}_{-1.5}$
$100\theta_{MC}$	$1.04111^{+0.00080}_{-0.00086}$	S_8	$0.808^{+0.047}_{-0.046}$	$D_M(0.15)$	636^{+15}_{-15}
τ	$0.053^{+0.016}_{-0.010}$	$\sigma_8 \Omega_m^{0.5}$	$0.443^{+0.026}_{-0.025}$	$H(0.38)$	$83.4^{+1.2}_{-1.1}$
A_L	$1.06^{+0.10}_{-0.096}$	$\sigma_8 \Omega_m^{0.25}$	$0.596^{+0.023}_{-0.023}$	$D_M(0.38)$	1520^{+30}_{-30}
$\ln(10^{10} A_s)$	$3.035^{+0.037}_{-0.027}$	$\sigma_8/h^{0.5}$	$0.972^{+0.033}_{-0.032}$	$H(0.51)$	$90.02^{+0.92}_{-0.86}$
n_s	$0.970^{+0.012}_{-0.012}$	$r_{drag} h$	$100.5^{+3.1}_{-3.0}$	$D_M(0.51)$	1970^{+35}_{-36}
y_{cal}	$1.0001^{+0.0064}_{-0.0064}$	$\langle d^2 \rangle^{1/2}$	$2.482^{+0.078}_{-0.076}$	$H(0.61)$	$95.59^{+0.74}_{-0.70}$
A_{217}^{CIB}	46^{+20}_{-20}	z_{re}	< 8.98	$D_M(0.61)$	2293^{+37}_{-38}
$\xi^{tSZ \times CIB}$	—	$10^9 A_s$	$2.081^{+0.079}_{-0.056}$	$H(2.33)$	$235.5^{+2.2}_{-2.2}$
A_{143}^{tSZ}	$5.6^{+4.4}_{-4.6}$	$10^9 A_s e^{-2\tau}$	$1.873^{+0.030}_{-0.030}$	$D_M(2.33)$	5750^{+32}_{-33}
A_{100}^{PS}	255^{+70}_{-70}	D_{40}	1219^{+35}_{-35}	$f\sigma_8(0.15)$	$0.448^{+0.024}_{-0.023}$
A_{143}^{PS}	44^{+20}_{-20}	D_{220}	5734^{+100}_{-99}	$\sigma_8(0.15)$	$0.742^{+0.017}_{-0.015}$
$A_{143 \times 217}^{PS}$	41^{+20}_{-20}	D_{810}	2533^{+35}_{-35}	$f\sigma_8(0.38)$	$0.467^{+0.019}_{-0.019}$
A_{217}^{PS}	115^{+30}_{-30}	D_{1420}	816^{+12}_{-13}	$\sigma_8(0.38)$	$0.659^{+0.014}_{-0.012}$
A^{kSZ}	—	D_{2000}	$231.4^{+4.1}_{-4.2}$	$f\sigma_8(0.51)$	$0.467^{+0.017}_{-0.017}$
A_{100}^{dustTT}	$9.0^{+4.9}_{-4.8}$	$n_{s,0.002}$	$0.970^{+0.012}_{-0.012}$	$\sigma_8(0.51)$	$0.617^{+0.013}_{-0.010}$
A_{143}^{dustTT}	$10.9^{+4.7}_{-4.5}$	Y_P	$0.24545^{+0.00018}_{-0.00017}$	$f\sigma_8(0.61)$	$0.463^{+0.015}_{-0.015}$
$A_{143 \times 217}^{dustTT}$	$18.5^{+8.4}_{-8.4}$	Y_P^{BBN}	$0.24678^{+0.00018}_{-0.00017}$	$\sigma_8(0.61)$	$0.587^{+0.012}_{-0.0094}$
A_{217}^{dustTT}	94^{+20}_{-20}	$10^5 D/H$	$2.559^{+0.080}_{-0.079}$	$f\sigma_8(2.33)$	$0.2963^{+0.0058}_{-0.0043}$
A_{100}^{dustTE}	$0.113^{+0.10}_{-0.096}$	Age/Gyr	$13.769^{+0.071}_{-0.071}$	$\sigma_8(2.33)$	$0.3058^{+0.0061}_{-0.0042}$
$A_{100 \times 143}^{dustTE}$	$0.134^{+0.074}_{-0.075}$	z_*	$1089.58^{+0.80}_{-0.80}$	f_{2000}^{143}	28^{+7}_{-7}
$A_{100 \times 217}^{dustTE}$	$0.48^{+0.21}_{-0.21}$	r_*	$144.79^{+0.80}_{-0.82}$	$f_{2000}^{143 \times 217}$	31^{+5}_{-5}
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.13}$	$100\theta_*$	$1.04128^{+0.00079}_{-0.00083}$	f_{2000}^{217}	$106.1^{+4.9}_{-4.7}$
$A_{143 \times 217}^{dustTE}$	$0.66^{+0.21}_{-0.21}$	$D_M(z_*)/\text{Gpc}$	$13.905^{+0.074}_{-0.075}$	$\chi_{lensing}^2$	$10.5 (\nu: 2.4)$
A_{217}^{dustTE}	$2.06^{+0.68}_{-0.68}$	z_{drag}	$1060.15^{+0.85}_{-0.83}$	χ_{simall}^2	$396.4 (\nu: 0.6)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	$147.41^{+0.76}_{-0.78}$	χ_{lowl}^2	$22.51 (\nu: 0.4)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	k_D	$0.14064^{+0.00080}_{-0.00078}$	χ_{plik}^2	$2357.1 (\nu: 17.7)$
H_0	$68.2^{+1.8}_{-1.7}$	$100\theta_D$	$0.16064^{+0.00047}_{-0.00047}$	χ_{prior}^2	$11.5 (\nu: 10.3)$
Ω_Λ	$0.696^{+0.022}_{-0.024}$	z_{eq}	3362^{+85}_{-83}	χ_{CMB}^2	$2786.4 (\nu: 17.2)$
Ω_m	$0.304^{+0.024}_{-0.022}$	k_{eq}	$0.01026^{+0.00026}_{-0.00025}$		
$\Omega_m h^2$	$0.1414^{+0.0035}_{-0.0035}$	$100\theta_{eq}$	$0.821^{+0.017}_{-0.016}$		

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

3.16 base_Alens_plikHM_TTTEE_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02251^{+0.00036}_{-0.00036}$	σ_8	$0.803^{+0.018}_{-0.016}$	$D_M(0.15)$	637^{+11}_{-11}
$\Omega_c h^2$	$0.1182^{+0.0027}_{-0.0027}$	S_8	$0.809^{+0.034}_{-0.034}$	$H(0.38)$	$83.36^{+0.84}_{-0.79}$
$100\theta_{MC}$	$1.04110^{+0.00074}_{-0.00079}$	$\sigma_8 \Omega_m^{0.5}$	$0.443^{+0.019}_{-0.019}$	$D_M(0.38)$	1520^{+21}_{-22}
τ	$0.053^{+0.016}_{-0.010}$	$\sigma_8 \Omega_m^{0.25}$	$0.596^{+0.019}_{-0.018}$	$H(0.51)$	$90.01^{+0.68}_{-0.63}$
A_L	$1.064^{+0.092}_{-0.087}$	$\sigma_8/h^{0.5}$	$0.972^{+0.027}_{-0.026}$	$D_M(0.51)$	1970^{+25}_{-26}
$\ln(10^{10} A_s)$	$3.036^{+0.038}_{-0.027}$	$r_{\text{drag}} h$	$100.5^{+2.2}_{-2.1}$	$H(0.61)$	$95.58^{+0.56}_{-0.52}$
n_s	$0.9696^{+0.0099}_{-0.010}$	$\langle d^2 \rangle^{1/2}$	$2.482^{+0.076}_{-0.076}$	$D_M(0.61)$	2293^{+27}_{-28}
y_{cal}	$1.0001^{+0.0067}_{-0.0062}$	z_{re}	< 8.97	$H(2.33)$	$235.6^{+1.6}_{-1.6}$
A_{217}^{CIB}	46^{+20}_{-20}	$10^9 A_s$	$2.082^{+0.080}_{-0.055}$	$D_M(2.33)$	5751^{+24}_{-25}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.874^{+0.027}_{-0.028}$	$f\sigma_8(0.15)$	$0.448^{+0.018}_{-0.018}$
A_{143}^{tSZ}	$5.6^{+4.1}_{-5.0}$	D_{40}	1219^{+32}_{-31}	$\sigma_8(0.15)$	$0.742^{+0.016}_{-0.013}$
A_{100}^{PS}	255^{+70}_{-70}	D_{220}	5735^{+98}_{-97}	$f\sigma_8(0.38)$	$0.468^{+0.015}_{-0.015}$
A_{143}^{PS}	44^{+20}_{-20}	D_{810}	2533^{+34}_{-35}	$\sigma_8(0.38)$	$0.659^{+0.014}_{-0.011}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	816^{+12}_{-12}	$f\sigma_8(0.51)$	$0.467^{+0.014}_{-0.013}$
A_{217}^{PS}	115^{+20}_{-30}	D_{2000}	$231.4^{+4.0}_{-4.2}$	$\sigma_8(0.51)$	$0.617^{+0.013}_{-0.0094}$
A^{kSZ}	—	$n_{s,0.002}$	$0.9696^{+0.0099}_{-0.010}$	$f\sigma_8(0.61)$	$0.463^{+0.013}_{-0.012}$
A_{100}^{dustTT}	$9.0^{+4.9}_{-4.8}$	Y_P	$0.24545^{+0.00014}_{-0.00014}$	$\sigma_8(0.61)$	$0.587^{+0.012}_{-0.0087}$
A_{143}^{dustTT}	$10.9^{+4.7}_{-4.7}$	Y_P^{BBN}	$0.24677^{+0.00014}_{-0.00014}$	$f\sigma_8(2.33)$	$0.2964^{+0.0059}_{-0.0041}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.5^{+8.6}_{-8.4}$	$10^5 D/H$	$2.560^{+0.067}_{-0.065}$	$\sigma_8(2.33)$	$0.3059^{+0.0060}_{-0.0042}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.770^{+0.055}_{-0.057}$	f_{2000}^{143}	28^{+7}_{-7}
A_{100}^{dustTE}	$0.113^{+0.096}_{-0.097}$	z_*	$1089.59^{+0.61}_{-0.62}$	$f_{2000}^{143 \times 217}$	31^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	$0.134^{+0.078}_{-0.077}$	r_*	$144.78^{+0.63}_{-0.61}$	f_{2000}^{217}	$106.2^{+4.7}_{-4.5}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.21}_{-0.22}$	$100\theta_*$	$1.04128^{+0.00072}_{-0.00079}$	χ_{lensing}^2	$10.5 (\nu: 2.5)$
A_{143}^{dustTE}	$0.22^{+0.15}_{-0.13}$	$D_M(z_*)/\text{Gpc}$	$13.904^{+0.059}_{-0.057}$	χ_{simall}^2	$396.4 (\nu: 0.6)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.20}_{-0.20}$	z_{drag}	$1060.14^{+0.75}_{-0.78}$	χ_{lowl}^2	$22.52 (\nu: 0.3)$
A_{217}^{dustTE}	$2.06^{+0.70}_{-0.67}$	r_{drag}	$147.40^{+0.64}_{-0.62}$	χ_{plik}^2	$2356.5 (\nu: 17.0)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_D	$0.14065^{+0.00070}_{-0.00074}$	$\chi_{6\text{DF}}^2$	$0.030 (\nu: 0.0)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.16065^{+0.00043}_{-0.00043}$	χ_{MGS}^2	$1.75 (\nu: 0.1)$
H_0	$68.2^{+1.3}_{-1.2}$	z_{eq}	3363^{+61}_{-62}	χ_{DR12BAO}^2	$3.98 (\nu: 0.3)$
Ω_Λ	$0.696^{+0.016}_{-0.017}$	k_{eq}	$0.01027^{+0.00019}_{-0.00019}$	χ_{prior}^2	$11.6 (\nu: 10.1)$
Ω_m	$0.304^{+0.017}_{-0.016}$	$100\theta_{\text{eq}}$	$0.821^{+0.012}_{-0.012}$	χ_{CMB}^2	$2785.9 (\nu: 16.5)$
$\Omega_m h^2$	$0.1414^{+0.0026}_{-0.0026}$	$100\theta_{s,\text{eq}}$	$0.4532^{+0.0061}_{-0.0059}$	χ_{BAO}^2	$5.75 (\nu: 0.3)$
$\Omega_m h^3$	$0.09637^{+0.00072}_{-0.00073}$	$H(0.15)$	$73.4^{+1.1}_{-1.1}$		

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

4 Aphihi

4.1 base_Aphihi_plikHM_TT_lowl_lowE_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02216	$0.02214^{+0.00056}_{-0.00055}$	$\sigma_8 \Omega_m^{0.25}$	0.6089	$0.608^{+0.030}_{-0.029}$	$D_M(0.15)$	646.0	646^{+20}_{-20}
$\Omega_c h^2$	0.1202	$0.1201^{+0.0053}_{-0.0052}$	$\sigma_8/h^{0.5}$	0.9902	$0.989^{+0.040}_{-0.041}$	$H(0.38)$	82.63	$82.6^{+1.5}_{-1.4}$
$100\theta_{MC}$	1.04078	$1.0408^{+0.0012}_{-0.0012}$	$r_{drag}h$	98.77	$98.8^{+4.2}_{-4.0}$	$D_M(0.38)$	1539.0	1539^{+40}_{-40}
τ	0.0525	$0.052^{+0.022}_{-0.022}$	$\langle d^2 \rangle^{1/2}$	2.446	$2.445^{+0.098}_{-0.095}$	$H(0.51)$	89.40	$89.4^{+1.2}_{-1.1}$
$\ln(10^{10} A_s)$	3.0406	$3.039^{+0.043}_{-0.045}$	z_{re}	7.55	$7.5^{+2.1}_{-2.4}$	$D_M(0.51)$	1992.6	1992^{+47}_{-47}
n_s	0.9644	$0.963^{+0.015}_{-0.015}$	$10^9 A_s$	2.092	$2.088^{+0.092}_{-0.093}$	$H(0.61)$	95.07	$95.08^{+0.94}_{-0.85}$
$A_L^{\phi\phi}$	0.9996	$1.001^{+0.097}_{-0.089}$	$10^9 A_s e^{-2\tau}$	1.8831	$1.882^{+0.035}_{-0.034}$	$D_M(0.61)$	2318	2318^{+50}_{-51}
y_{cal}	1.0005	$1.0005^{+0.0065}_{-0.0064}$	D_{40}	1229.8	1232^{+40}_{-38}	$H(2.33)$	236.47	$236.4^{+3.3}_{-3.2}$
A_{217}^{CIB}	49.2	48^{+20}_{-20}	D_{220}	5714	5716^{+100}_{-100}	$D_M(2.33)$	5774.8	5775^{+40}_{-42}
$\xi^{tSZ \times CIB}$	0.28	—	D_{810}	2537.7	2536^{+35}_{-35}	$f\sigma_8(0.15)$	0.4613	$0.460^{+0.031}_{-0.030}$
A_{143}^{tSZ}	7.1	—	D_{1420}	815.6	815^{+13}_{-13}	$\sigma_8(0.15)$	0.7487	$0.748^{+0.019}_{-0.020}$
A_{100}^{PS}	255	264^{+70}_{-70}	D_{2000}	230.00	$229.6^{+4.7}_{-4.7}$	$f\sigma_8(0.38)$	0.4782	$0.477^{+0.024}_{-0.024}$
A_{143}^{PS}	48.7	49^{+20}_{-20}	$n_{s,0.002}$	0.9644	$0.963^{+0.015}_{-0.015}$	$\sigma_8(0.38)$	0.6630	$0.662^{+0.016}_{-0.016}$
$A_{143 \times 217}^{PS}$	45.8	43^{+20}_{-20}	Y_P	0.245310	$0.24530^{+0.00022}_{-0.00026}$	$f\sigma_8(0.51)$	0.4761	$0.475^{+0.020}_{-0.021}$
A_{217}^{PS}	118.5	115^{+30}_{-30}	Y_P^{BBN}	0.246636	$0.24662^{+0.00022}_{-0.00026}$	$\sigma_8(0.51)$	0.6201	$0.619^{+0.014}_{-0.015}$
A^{kSZ}	0.0	—	$10^5 D/H$	2.625	$2.63^{+0.11}_{-0.10}$	$f\sigma_8(0.61)$	0.4706	$0.470^{+0.018}_{-0.019}$
A_{100}^{dustTT}	8.85	$8.9^{+4.7}_{-4.6}$	Age/Gyr	13.823	$13.824^{+0.091}_{-0.094}$	$\sigma_8(0.61)$	0.5899	$0.589^{+0.014}_{-0.014}$
A_{143}^{dustTT}	10.80	$10.7^{+4.5}_{-4.6}$	z_*	1090.20	$1090.2^{+1.0}_{-1.0}$	$f\sigma_8(2.33)$	0.2972	$0.2968^{+0.0069}_{-0.0069}$
$A_{143 \times 217}^{dustTT}$	19.4	$18.3^{+8.6}_{-8.6}$	r_*	144.54	$144.6^{+1.2}_{-1.2}$	$\sigma_8(2.33)$	0.3061	$0.3057^{+0.0073}_{-0.0071}$
A_{217}^{dustTT}	94.5	93^{+20}_{-20}	$100\theta_*$	1.04099	$1.0410^{+0.0012}_{-0.0012}$	f_{2000}^{143}	30.4	31^{+8}_{-8}
c_{100}	0.99965	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.885	$13.89^{+0.11}_{-0.11}$	$f_{2000}^{143 \times 217}$	33.3	34^{+5}_{-5}
c_{217}	0.99826	$0.9983^{+0.0016}_{-0.0016}$	z_{drag}	1059.47	$1059.4^{+1.2}_{-1.2}$	f_{2000}^{217}	107.69	$108.2^{+4.9}_{-4.9}$
H_0	67.06	$67.1^{+2.4}_{-2.3}$	r_{drag}	147.27	$147.3^{+1.2}_{-1.2}$	$\chi_{lensing}^2$	8.89	$9.9 (\nu: 1.0)$
Ω_Λ	0.6820	$0.682^{+0.031}_{-0.034}$	k_D	0.14052	$0.1405^{+0.0013}_{-0.0014}$	χ_{small}^2	395.87	$396.9 (\nu: 1.3)$
Ω_m	0.3180	$0.318^{+0.034}_{-0.031}$	$100\theta_D$	0.16102	$0.16106^{+0.00068}_{-0.00066}$	χ_{lowl}^2	23.41	$23.7 (\nu: 0.8)$
$\Omega_m h^2$	0.1430	$0.1429^{+0.0051}_{-0.0050}$	z_{eq}	3402	3400^{+120}_{-120}	χ_{plik}^2	758.9	$771.7 (\nu: 15.5)$
$\Omega_m h^3$	0.09591	$0.0959^{+0.0012}_{-0.0012}$	k_{eq}	0.010384	$0.01038^{+0.00037}_{-0.00036}$	χ_{prior}^2	1.4	$7.3 (\nu: 6.7)$
σ_8	0.8109	$0.810^{+0.023}_{-0.023}$	$100\theta_{eq}$	0.8126	$0.813^{+0.023}_{-0.022}$	χ_{CMB}^2	1187.1	$1202.1 (\nu: 16.2)$
S_8	0.835	$0.833^{+0.062}_{-0.059}$	$100\theta_{s,eq}$	0.4492	$0.449^{+0.012}_{-0.012}$			
$\sigma_8 \Omega_m^{0.5}$	0.4573	$0.456^{+0.034}_{-0.033}$	$H(0.15)$	72.41	$72.4^{+2.0}_{-2.0}$			

Best-fit $\chi_{eff}^2 = 1188.51$; $\Delta\chi_{eff}^2 = -0.05$; $\bar{\chi}_{eff}^2 = 1209.46$; $\Delta\bar{\chi}_{eff}^2 = 1.05$; $R - 1 = 0.00514$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.89 (Δ -0.01) small_100x143_offlike5_EE_Aplanck_B: 395.87 (Δ 0.01) commander_dx12_v3_2_29: 23.41 (Δ 0.18) plik_rd12_HM_v22_TT: 758.90 (Δ -0.42)

4.2 base_Aphiphi_plikHM_TT_lowl_lowE_lensing_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02215^{+0.00055}_{-0.00055}$	$\sigma_8 \Omega_m^{0.25}$	$0.608^{+0.029}_{-0.030}$	$D_M(0.15)$	646^{+20}_{-20}
$\Omega_c h^2$	$0.1201^{+0.0053}_{-0.0052}$	$\sigma_8/h^{0.5}$	$0.990^{+0.040}_{-0.040}$	$H(0.38)$	$82.7^{+1.5}_{-1.4}$
$100\theta_{MC}$	$1.0408^{+0.0012}_{-0.0012}$	$r_{\text{drag}} h$	$98.9^{+4.2}_{-4.0}$	$D_M(0.38)$	1538^{+40}_{-40}
τ	$0.054^{+0.018}_{-0.012}$	$\langle d^2 \rangle^{1/2}$	$2.448^{+0.096}_{-0.094}$	$H(0.51)$	$89.4^{+1.2}_{-1.1}$
$\ln(10^{10} A_s)$	$3.042^{+0.041}_{-0.029}$	z_{re}	< 9.36	$D_M(0.51)$	1992^{+46}_{-47}
n_s	$0.964^{+0.015}_{-0.015}$	$10^9 A_s$	$2.095^{+0.087}_{-0.061}$	$H(0.61)$	$95.09^{+0.95}_{-0.85}$
$A_L^{\phi\phi}$	$0.999^{+0.095}_{-0.088}$	$10^9 A_s e^{-2\tau}$	$1.882^{+0.036}_{-0.034}$	$D_M(0.61)$	2317^{+50}_{-50}
y_{cal}	$1.0005^{+0.0065}_{-0.0064}$	D_{40}	1232^{+40}_{-38}	$H(2.33)$	$236.4^{+3.2}_{-3.2}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{220}	5717^{+100}_{-100}	$D_M(2.33)$	5774^{+40}_{-42}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{810}	2536^{+35}_{-35}	$f\sigma_8(0.15)$	$0.461^{+0.031}_{-0.031}$
A_{143}^{tSZ}	—	D_{1420}	815^{+13}_{-13}	$\sigma_8(0.15)$	$0.749^{+0.019}_{-0.017}$
A_{100}^{PS}	264^{+70}_{-70}	D_{2000}	$229.6^{+4.8}_{-4.6}$	$f\sigma_8(0.38)$	$0.478^{+0.024}_{-0.024}$
A_{143}^{PS}	49^{+20}_{-20}	$n_{s,0.002}$	$0.964^{+0.015}_{-0.015}$	$\sigma_8(0.38)$	$0.663^{+0.015}_{-0.013}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	Y_P	$0.24530^{+0.00022}_{-0.00026}$	$f\sigma_8(0.51)$	$0.476^{+0.020}_{-0.021}$
A_{217}^{PS}	115^{+30}_{-30}	Y_P^{BBN}	$0.24663^{+0.00022}_{-0.00026}$	$\sigma_8(0.51)$	$0.620^{+0.014}_{-0.012}$
A^{kSZ}	—	$10^5 D/H$	$2.63^{+0.11}_{-0.10}$	$f\sigma_8(0.61)$	$0.470^{+0.018}_{-0.019}$
A_{100}^{dustTT}	$8.9^{+4.6}_{-4.6}$	Age/Gyr	$13.822^{+0.091}_{-0.094}$	$\sigma_8(0.61)$	$0.590^{+0.013}_{-0.010}$
A_{143}^{dustTT}	$10.7^{+4.6}_{-4.6}$	z_*	$1090.2^{+1.0}_{-0.99}$	$f\sigma_8(2.33)$	$0.2973^{+0.0066}_{-0.0047}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.6}_{-8.5}$	r_*	$144.6^{+1.2}_{-1.2}$	$\sigma_8(2.33)$	$0.3063^{+0.0069}_{-0.0048}$
A_{217}^{dustTT}	93^{+20}_{-20}	$100\theta_*$	$1.0410^{+0.0012}_{-0.0012}$	f_{2000}^{143}	31^{+7}_{-8}
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	$13.89^{+0.11}_{-0.11}$	$f_{2000}^{143 \times 217}$	34^{+5}_{-5}
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	z_{drag}	$1059.4^{+1.2}_{-1.2}$	f_{2000}^{217}	$108.2^{+4.8}_{-4.9}$
H_0	$67.1^{+2.3}_{-2.3}$	r_{drag}	$147.3^{+1.2}_{-1.2}$	χ_{lensing}^2	$9.8 (\nu: 1.0)$
Ω_Λ	$0.683^{+0.031}_{-0.034}$	k_D	$0.1404^{+0.0013}_{-0.0014}$	χ_{simall}^2	$396.8 (\nu: 1.3)$
Ω_m	$0.317^{+0.034}_{-0.031}$	$100\theta_D$	$0.16105^{+0.00068}_{-0.00066}$	χ_{lowl}^2	$23.7 (\nu: 0.8)$
$\Omega_m h^2$	$0.1429^{+0.0051}_{-0.0050}$	z_{eq}	3398^{+120}_{-120}	χ_{plik}^2	$771.5 (\nu: 15.4)$
$\Omega_m h^3$	$0.0959^{+0.0012}_{-0.0011}$	k_{eq}	$0.01037^{+0.00037}_{-0.00036}$	χ_{prior}^2	$7.3 (\nu: 6.7)$
σ_8	$0.811^{+0.022}_{-0.021}$	$100\theta_{\text{eq}}$	$0.813^{+0.023}_{-0.022}$	χ_{CMB}^2	$1201.8 (\nu: 15.7)$
S_8	$0.834^{+0.062}_{-0.060}$	$100\theta_{s,\text{eq}}$	$0.450^{+0.012}_{-0.011}$		
$\sigma_8 \Omega_m^{0.5}$	$0.457^{+0.034}_{-0.033}$	$H(0.15)$	$72.5^{+2.0}_{-1.9}$		

$$\bar{\chi}_{\text{eff}}^2 = 1209.13; \Delta\bar{\chi}_{\text{eff}}^2 = 0.97; R - 1 = 0.00594$$

4.3 base_Aphiphi_plikHM_TTTEEE_lowl_lowE_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022385	$0.02237^{+0.00038}_{-0.00038}$	$\Omega_m h^3$	0.09636	$0.09633^{+0.00077}_{-0.00074}$	$100\theta_{s,eq}$	0.4492	$0.4493^{+0.0076}_{-0.0072}$
$\Omega_c h^2$	0.12005	$0.1201^{+0.0034}_{-0.0034}$	σ_8	0.8118	$0.811^{+0.020}_{-0.019}$	$H(0.15)$	72.67	$72.7^{+1.3}_{-1.3}$
$100\theta_{MC}$	1.04092	$1.04092^{+0.00078}_{-0.00079}$	S_8	0.8325	$0.832^{+0.040}_{-0.040}$	$D_M(0.15)$	643.4	644^{+13}_{-13}
τ	0.0543	$0.054^{+0.021}_{-0.020}$	$\sigma_8 \Omega_m^{0.5}$	0.4560	$0.456^{+0.022}_{-0.022}$	$H(0.38)$	82.86	$82.85^{+0.98}_{-0.94}$
$\ln(10^{10} A_s)$	3.0448	$3.044^{+0.043}_{-0.041}$	$\sigma_8 \Omega_m^{0.25}$	0.6084	$0.608^{+0.021}_{-0.020}$	$D_M(0.38)$	1533.6	1534^{+26}_{-27}
n_s	0.9660	$0.965^{+0.011}_{-0.011}$	$\sigma_8/h^{0.5}$	0.9893	$0.989^{+0.030}_{-0.029}$	$H(0.51)$	89.63	$89.62^{+0.78}_{-0.74}$
$A_L^{\phi\phi}$	0.999	$0.998^{+0.084}_{-0.076}$	$r_{drag} h$	99.04	$99.0^{+2.7}_{-2.6}$	$D_M(0.51)$	1986.0	1986^{+31}_{-31}
y_{cal}	1.0006	$1.0006^{+0.0064}_{-0.0067}$	$\langle d^2 \rangle^{1/2}$	2.444	$2.446^{+0.071}_{-0.072}$	$H(0.61)$	95.28	$95.27^{+0.62}_{-0.59}$
A_{217}^{CIB}	46.9	47^{+20}_{-20}	z_{re}	7.68	$7.7^{+2.0}_{-2.1}$	$D_M(0.61)$	2310.5	2311^{+33}_{-34}
$\xi^{tSZ \times CIB}$	0.48	—	$10^9 A_s$	2.101	$2.100^{+0.091}_{-0.084}$	$H(2.33)$	236.61	$236.6^{+2.0}_{-2.0}$
A_{143}^{tSZ}	7.15	$5.4^{+4.3}_{-4.7}$	$10^9 A_s e^{-2\tau}$	1.8843	$1.884^{+0.029}_{-0.029}$	$D_M(2.33)$	5763.2	5764^{+28}_{-28}
A_{100}^{PS}	250	259^{+70}_{-70}	D_{40}	1229.2	1232^{+33}_{-32}	$f\sigma_8(0.15)$	0.4602	$0.460^{+0.021}_{-0.021}$
A_{143}^{PS}	48.2	46^{+20}_{-20}	D_{220}	5732	5734^{+100}_{-100}	$\sigma_8(0.15)$	0.7498	$0.749^{+0.017}_{-0.017}$
$A_{143 \times 217}^{PS}$	48.8	42^{+20}_{-20}	D_{810}	2541.4	2540^{+34}_{-35}	$f\sigma_8(0.38)$	0.4777	$0.478^{+0.017}_{-0.017}$
A_{217}^{PS}	120.3	115^{+30}_{-30}	D_{1420}	818.5	817^{+12}_{-13}	$\sigma_8(0.38)$	0.6642	$0.664^{+0.015}_{-0.014}$
A^{kSZ}	0.0	—	D_{2000}	231.33	$230.9^{+4.0}_{-4.2}$	$f\sigma_8(0.51)$	0.4759	$0.476^{+0.015}_{-0.015}$
A_{100}^{dustTT}	8.83	$8.9^{+4.8}_{-4.6}$	$n_{s,0.002}$	0.9660	$0.965^{+0.011}_{-0.011}$	$\sigma_8(0.51)$	0.6214	$0.621^{+0.014}_{-0.013}$
A_{143}^{dustTT}	11.04	$10.9^{+4.6}_{-4.5}$	Y_P	0.245402	$0.24539^{+0.00014}_{-0.00016}$	$f\sigma_8(0.61)$	0.4706	$0.470^{+0.014}_{-0.013}$
$A_{143 \times 217}^{dustTT}$	19.9	$18.6^{+8.5}_{-8.5}$	Y_P^{BBN}	0.246728	$0.24672^{+0.00014}_{-0.00016}$	$\sigma_8(0.61)$	0.5912	$0.591^{+0.013}_{-0.012}$
A_{217}^{dustTT}	95.2	94^{+20}_{-20}	$10^5 D/H$	2.583	$2.587^{+0.072}_{-0.069}$	$f\sigma_8(2.33)$	0.2979	$0.2977^{+0.0066}_{-0.0060}$
A_{100}^{dustTE}	0.114	$0.114^{+0.10}_{-0.094}$	Age/Gyr	13.796	$13.798^{+0.063}_{-0.062}$	$\sigma_8(2.33)$	0.3070	$0.3068^{+0.0070}_{-0.0063}$
$A_{100 \times 143}^{dustTE}$	0.135	$0.135^{+0.074}_{-0.073}$	z_*	1089.90	$1089.93^{+0.71}_{-0.70}$	f_{2000}^{143}	28.8	29^{+7}_{-7}
$A_{100 \times 217}^{dustTE}$	0.484	$0.48^{+0.22}_{-0.22}$	r_*	144.41	$144.42^{+0.77}_{-0.75}$	$f_{2000}^{143 \times 217}$	31.97	32^{+5}_{-5}
A_{143}^{dustTE}	0.226	$0.23^{+0.14}_{-0.14}$	$100\theta_*$	1.04110	$1.04110^{+0.00077}_{-0.00077}$	f_{2000}^{217}	106.60	$107.0^{+4.6}_{-4.6}$
$A_{143 \times 217}^{dustTE}$	0.666	$0.67^{+0.20}_{-0.21}$	$D_M(z_*)/\text{Gpc}$	13.871	$13.872^{+0.071}_{-0.070}$	$\chi^2_{lensing}$	8.83	$9.8 (\nu: 1.0)$
A_{217}^{dustTE}	2.08	$2.08^{+0.68}_{-0.69}$	z_{drag}	1059.97	$1059.93^{+0.76}_{-0.76}$	χ^2_{small}	396.05	$397.1 (\nu: 1.7)$
c_{100}	0.99971	$0.9997^{+0.0016}_{-0.0015}$	r_{drag}	147.06	$147.08^{+0.76}_{-0.74}$	χ^2_{lowl}	23.24	$23.52 (\nu: 0.5)$
c_{217}	0.99820	$0.9982^{+0.0016}_{-0.0016}$	k_D	0.14091	$0.14088^{+0.00081}_{-0.00081}$	χ^2_{plik}	2344.7	$2359.7 (\nu: 16.9)$
H_0	67.35	$67.3^{+1.6}_{-1.5}$	$100\theta_D$	0.160735	$0.16076^{+0.00045}_{-0.00044}$	χ^2_{prior}	1.8	$11.6 (\nu: 10.1)$
Ω_Λ	0.6845	$0.684^{+0.021}_{-0.022}$	z_{eq}	3404	3404^{+76}_{-77}	χ^2_{CMB}	2772.8	$2790.1 (\nu: 18.0)$
Ω_m	0.3155	$0.316^{+0.022}_{-0.021}$	k_{eq}	0.010389	$0.01039^{+0.00023}_{-0.00023}$			
$\Omega_m h^2$	0.14308	$0.1431^{+0.0032}_{-0.0032}$	$100\theta_{eq}$	0.8130	$0.813^{+0.015}_{-0.014}$			

Best-fit $\chi^2_{eff} = 2774.59$; $\Delta\chi^2_{eff} = -0.04$; $\bar{\chi}^2_{eff} = 2801.64$; $\Delta\bar{\chi}^2_{eff} = 0.95$; $R - 1 = 0.01120$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.83 (Δ -0.04) small_100x143_offlike5_EE_Aplanck_B: 396.05 (Δ 0.00) commander_dx12_v3.2.29: 23.24 (Δ -0.01) plik_rd12_HM_v22b_TTTEEE: 2344.72 (Δ -0.21)

4.4 base_Aphiphi_plikHM_TTTEEE_lowl_lowE_lensing_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02237^{+0.00038}_{-0.00038}$	$\Omega_m h^3$	$0.09633^{+0.00078}_{-0.00074}$	$100\theta_{s,eq}$	$0.4493^{+0.0075}_{-0.0072}$
$\Omega_c h^2$	$0.1200^{+0.0034}_{-0.0034}$	σ_8	$0.812^{+0.019}_{-0.016}$	$H(0.15)$	$72.7^{+1.3}_{-1.3}$
$100\theta_{MC}$	$1.04092^{+0.00079}_{-0.00079}$	S_8	$0.833^{+0.040}_{-0.040}$	$D_M(0.15)$	644^{+13}_{-13}
τ	$0.055^{+0.019}_{-0.014}$	$\sigma_8 \Omega_m^{0.5}$	$0.456^{+0.022}_{-0.022}$	$H(0.38)$	$82.86^{+0.98}_{-0.94}$
$\ln(10^{10} A_s)$	$3.046^{+0.041}_{-0.029}$	$\sigma_8 \Omega_m^{0.25}$	$0.609^{+0.021}_{-0.020}$	$D_M(0.38)$	1534^{+26}_{-26}
n_s	$0.965^{+0.011}_{-0.011}$	$\sigma_8/h^{0.5}$	$0.990^{+0.029}_{-0.028}$	$H(0.51)$	$89.62^{+0.78}_{-0.74}$
$A_L^{\phi\phi}$	$0.997^{+0.082}_{-0.075}$	$r_{drag} h$	$99.1^{+2.7}_{-2.6}$	$D_M(0.51)$	1986^{+31}_{-31}
y_{cal}	$1.0006^{+0.0064}_{-0.0067}$	$\langle d^2 \rangle^{1/2}$	$2.448^{+0.069}_{-0.068}$	$H(0.61)$	$95.27^{+0.62}_{-0.59}$
A_{217}^{CIB}	47^{+20}_{-20}	z_{re}	< 9.50	$D_M(0.61)$	2311^{+33}_{-33}
$\xi^{tSZ \times CIB}$	—	$10^9 A_s$	$2.104^{+0.088}_{-0.061}$	$H(2.33)$	$236.6^{+2.0}_{-2.0}$
A_{143}^{tSZ}	$5.4^{+4.3}_{-4.7}$	$10^9 A_s e^{-2\tau}$	$1.884^{+0.029}_{-0.029}$	$D_M(2.33)$	5764^{+28}_{-28}
A_{100}^{PS}	258^{+70}_{-70}	D_{40}	1232^{+33}_{-32}	$f\sigma_8(0.15)$	$0.460^{+0.020}_{-0.021}$
A_{143}^{PS}	46^{+20}_{-20}	D_{220}	5734^{+100}_{-100}	$\sigma_8(0.15)$	$0.750^{+0.017}_{-0.014}$
$A_{143 \times 217}^{PS}$	42^{+20}_{-20}	D_{810}	2540^{+34}_{-35}	$f\sigma_8(0.38)$	$0.478^{+0.017}_{-0.017}$
A_{217}^{PS}	115^{+30}_{-30}	D_{1420}	817^{+12}_{-13}	$\sigma_8(0.38)$	$0.664^{+0.014}_{-0.011}$
A^{kSZ}	—	D_{2000}	$230.9^{+4.0}_{-4.2}$	$f\sigma_8(0.51)$	$0.476^{+0.015}_{-0.014}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.6}$	$n_{s,0.002}$	$0.965^{+0.011}_{-0.011}$	$\sigma_8(0.51)$	$0.622^{+0.013}_{-0.010}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.5}$	Y_P	$0.24539^{+0.00014}_{-0.00016}$	$f\sigma_8(0.61)$	$0.471^{+0.013}_{-0.013}$
$A_{143 \times 217}^{dustTT}$	$18.6^{+8.5}_{-8.5}$	Y_P^{BBN}	$0.24672^{+0.00014}_{-0.00016}$	$\sigma_8(0.61)$	$0.591^{+0.013}_{-0.0094}$
A_{217}^{dustTT}	94^{+20}_{-20}	$10^5 D/H$	$2.586^{+0.072}_{-0.069}$	$f\sigma_8(2.33)$	$0.2980^{+0.0064}_{-0.0045}$
A_{100}^{dustTE}	$0.114^{+0.10}_{-0.094}$	Age/Gyr	$13.798^{+0.063}_{-0.062}$	$\sigma_8(2.33)$	$0.3071^{+0.0067}_{-0.0046}$
$A_{100 \times 143}^{dustTE}$	$0.135^{+0.074}_{-0.073}$	z_*	$1089.92^{+0.70}_{-0.70}$	f_{2000}^{143}	29^{+7}_{-7}
$A_{100 \times 217}^{dustTE}$	$0.48^{+0.22}_{-0.22}$	r_*	$144.42^{+0.76}_{-0.75}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
A_{143}^{dustTE}	$0.23^{+0.14}_{-0.14}$	$100\theta_*$	$1.04110^{+0.00077}_{-0.00077}$	f_{2000}^{217}	$107.0^{+4.6}_{-4.6}$
$A_{143 \times 217}^{dustTE}$	$0.67^{+0.20}_{-0.21}$	$D_M(z_*)/\text{Gpc}$	$13.872^{+0.071}_{-0.069}$	$\chi_{lensing}^2$	$9.8 (\nu: 1.0)$
A_{217}^{dustTE}	$2.08^{+0.68}_{-0.68}$	z_{drag}	$1059.94^{+0.76}_{-0.77}$	χ_{simall}^2	$397.1 (\nu: 1.7)$
c_{100}	$0.9997^{+0.0016}_{-0.0015}$	r_{drag}	$147.08^{+0.75}_{-0.75}$	χ_{lowl}^2	$23.53 (\nu: 0.5)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	k_D	$0.14088^{+0.00081}_{-0.00080}$	χ_{plik}^2	$2359.5 (\nu: 16.6)$
H_0	$67.3^{+1.6}_{-1.5}$	$100\theta_D$	$0.16076^{+0.00045}_{-0.00044}$	χ_{prior}^2	$11.6 (\nu: 10.1)$
Ω_Λ	$0.684^{+0.021}_{-0.022}$	z_{eq}	3403^{+76}_{-76}	χ_{CMB}^2	$2789.8 (\nu: 17.5)$
Ω_m	$0.316^{+0.022}_{-0.021}$	k_{eq}	$0.01039^{+0.00023}_{-0.00023}$		
$\Omega_m h^2$	$0.1431^{+0.0032}_{-0.0032}$	$100\theta_{eq}$	$0.813^{+0.015}_{-0.014}$		

$$\bar{\chi}_{eff}^2 = 2801.40; \Delta \bar{\chi}_{eff}^2 = 0.90; R - 1 = 0.01121$$

5 alpha1

5.1 base_alpha1_plikHM_TT_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02218	$0.02219^{+0.00059}_{-0.00057}$	$\sigma_8 \Omega_m^{0.5}$	0.4622	$0.464^{+0.036}_{-0.035}$	$100\theta_{s,eq}$	0.4471	$0.446^{+0.013}_{-0.012}$
$\Omega_c h^2$	0.1211	$0.1214^{+0.0058}_{-0.0057}$	$\sigma_8 \Omega_m^{0.25}$	0.6128	$0.614^{+0.031}_{-0.031}$	$H(0.15)$	72.11	$72.0^{+2.2}_{-2.0}$
$100\theta_{MC}$	1.04062	$1.0405^{+0.0015}_{-0.0014}$	$\sigma_8/h^{0.5}$	0.9949	$0.996^{+0.042}_{-0.043}$	$D_M(0.15)$	649.0	650^{+22}_{-22}
τ	0.0526	$0.054^{+0.023}_{-0.022}$	$r_{drag}h$	98.06	$97.8^{+4.6}_{-4.3}$	$H(0.38)$	82.43	$82.4^{+1.6}_{-1.4}$
α_{-1}	-0.0003	$-0.0015^{+0.0042}_{-0.0062}$	$\langle d^2 \rangle^{1/2}$	2.458	$2.47^{+0.10}_{-0.11}$	$D_M(0.38)$	1545.0	1547^{+42}_{-43}
$\ln(10^{10} A_s)$	3.0442	$3.047^{+0.048}_{-0.048}$	z_{re}	7.57	$7.7^{+2.2}_{-2.4}$	$H(0.51)$	89.26	$89.2^{+1.2}_{-1.1}$
n_s	0.9607	$0.958^{+0.021}_{-0.018}$	$10^9 A_s$	2.099	$2.11^{+0.10}_{-0.099}$	$D_M(0.51)$	2000	2002^{+49}_{-50}
y_{cal}	1.0005	$1.0005^{+0.0066}_{-0.0066}$	$10^9 A_s e^{-2\tau}$	1.8895	$1.892^{+0.040}_{-0.039}$	$H(0.61)$	94.97	$94.94^{+0.97}_{-0.86}$
A_{217}^{CIB}	49.1	48^{+20}_{-20}	D_{40}	1222	1218^{+61}_{-48}	$D_M(0.61)$	2325	2328^{+52}_{-54}
$\xi^{tSZ \times CIB}$	0.28	—	D_{220}	5715	5719^{+110}_{-110}	$H(2.33)$	237.08	$237.3^{+3.6}_{-3.6}$
A_{143}^{tSZ}	7.0	—	D_{810}	2540.2	2539^{+38}_{-37}	$D_M(2.33)$	5778.1	5780^{+41}_{-43}
A_{100}^{PS}	255	265^{+70}_{-70}	D_{1420}	815.6	814^{+13}_{-13}	$f\sigma_8(0.15)$	0.4657	$0.467^{+0.032}_{-0.032}$
A_{143}^{PS}	49.1	49^{+20}_{-20}	D_{2000}	229.95	$229.4^{+4.6}_{-4.7}$	$\sigma_8(0.15)$	0.7497	$0.749^{+0.020}_{-0.020}$
$A_{143 \times 217}^{PS}$	46.1	43^{+20}_{-20}	$n_{s,0.002}$	0.9607	$0.958^{+0.021}_{-0.018}$	$f\sigma_8(0.38)$	0.4814	$0.482^{+0.025}_{-0.026}$
A_{217}^{PS}	118.8	115^{+30}_{-30}	Y_P	0.245318	$0.24532^{+0.00023}_{-0.00027}$	$\sigma_8(0.38)$	0.6632	$0.663^{+0.016}_{-0.016}$
A^{kSZ}	0.0	—	Y_P^{BBN}	0.246644	$0.24664^{+0.00023}_{-0.00027}$	$f\sigma_8(0.51)$	0.4786	$0.479^{+0.021}_{-0.022}$
A_{100}^{dustTT}	8.90	$9.0^{+4.7}_{-4.8}$	$10^5 D/H$	2.622	$2.62^{+0.11}_{-0.11}$	$\sigma_8(0.51)$	0.6201	$0.620^{+0.015}_{-0.015}$
A_{143}^{dustTT}	10.83	$10.7^{+4.6}_{-4.6}$	Age/Gyr	13.830	$13.834^{+0.092}_{-0.096}$	$f\sigma_8(0.61)$	0.4727	$0.473^{+0.018}_{-0.020}$
$A_{143 \times 217}^{dustTT}$	19.3	$18.3^{+8.5}_{-8.5}$	z_*	1090.26	$1090.3^{+1.0}_{-1.0}$	$\sigma_8(0.61)$	0.5898	$0.589^{+0.014}_{-0.014}$
A_{217}^{dustTT}	94.4	93^{+20}_{-20}	r_*	144.29	$144.2^{+1.4}_{-1.3}$	$f\sigma_8(2.33)$	0.2969	$0.2965^{+0.0069}_{-0.0070}$
c_{100}	0.99964	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	1.04082	$1.0407^{+0.0015}_{-0.0014}$	$\sigma_8(2.33)$	0.3056	$0.3051^{+0.0074}_{-0.0074}$
c_{217}	0.99827	$0.9983^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.863	$13.86^{+0.13}_{-0.12}$	f_{2000}^{143}	30.5	31^{+8}_{-8}
H_0	66.71	$66.6^{+2.5}_{-2.4}$	z_{drag}	1059.59	$1059.6^{+1.2}_{-1.3}$	$f_{2000}^{143 \times 217}$	33.4	34^{+5}_{-5}
Ω_Λ	0.6765	$0.674^{+0.035}_{-0.037}$	r_{drag}	147.01	$146.9^{+1.5}_{-1.4}$	f_{2000}^{217}	107.77	$108.3^{+4.9}_{-4.9}$
Ω_m	0.3235	$0.326^{+0.037}_{-0.035}$	k_D	0.14081	$0.1409^{+0.0015}_{-0.0017}$	χ_{small}^2	395.88	$397.1 (\nu: 1.5)$
$\Omega_m h^2$	0.1439	$0.1443^{+0.0056}_{-0.0056}$	$100\theta_D$	0.16094	$0.16090^{+0.00084}_{-0.00075}$	χ_{lowl}^2	22.2	$22.1 (\nu: 2.3)$
$\Omega_m h^3$	0.09602	$0.0960^{+0.0012}_{-0.0012}$	z_{eq}	3425	3432^{+130}_{-130}	χ_{plik}^2	759.7	$774.0 (\nu: 17.1)$
σ_8	0.8126	$0.812^{+0.023}_{-0.023}$	k_{eq}	0.010452	$0.01047^{+0.00041}_{-0.00041}$	χ_{prior}^2	1.4	$7.3 (\nu: 6.8)$
S_8	0.844	$0.847^{+0.065}_{-0.064}$	$100\theta_{eq}$	0.8086	$0.807^{+0.025}_{-0.024}$	χ_{CMB}^2	1177.7	$1193.2 (\nu: 16.7)$

Best-fit $\chi_{eff}^2 = 1179.15$; $\Delta\chi_{eff}^2 = -0.43$; $\bar{\chi}_{eff}^2 = 1200.56$; $\Delta\bar{\chi}_{eff}^2 = 0.98$; $R - 1 = 0.00658$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.88 (Δ 0.01) commander_dx12_v3.2.29: 22.18 (Δ -1.42) plik_rd12_HM_v22_TT: 759.66 (Δ 0.91)

5.2 base_alpha1_plikHM_TT_lowl_lowE_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02225	$0.02228^{+0.00058}_{-0.00062}$	$\sigma_8/h^{0.5}$	0.9814	$0.981^{+0.030}_{-0.030}$	$D_M(0.38)$	1529.4	1530^{+24}_{-24}
$\Omega_c h^2$	0.11894	$0.1191^{+0.0032}_{-0.0031}$	$r_{\text{drag}} h$	99.76	$99.7^{+2.5}_{-2.5}$	$H(0.51)$	89.67	$89.67^{+0.75}_{-0.72}$
$100\theta_{\text{MC}}$	1.04092	$1.0409^{+0.0012}_{-0.0012}$	$\langle d^2 \rangle^{1/2}$	2.427	$2.429^{+0.074}_{-0.076}$	$D_M(0.51)$	1981.4	1982^{+28}_{-28}
τ	0.0547	$0.055^{+0.023}_{-0.021}$	z_{re}	7.73	$7.8^{+2.2}_{-2.3}$	$H(0.61)$	95.27	$95.28^{+0.62}_{-0.62}$
α_{-1}	-0.0001	$-0.0008^{+0.0044}_{-0.0059}$	$10^9 A_s$	2.095	$2.10^{+0.10}_{-0.10}$	$D_M(0.61)$	2305.8	2306^{+30}_{-31}
$\ln(10^{10} A_s)$	3.0422	$3.044^{+0.048}_{-0.049}$	$10^9 A_s e^{-2\tau}$	1.8781	$1.880^{+0.032}_{-0.032}$	$H(2.33)$	235.74	$235.9^{+2.1}_{-2.0}$
n_s	0.9664	$0.964^{+0.015}_{-0.014}$	D_{40}	1219	1215^{+61}_{-48}	$D_M(2.33)$	5766.2	5766^{+32}_{-30}
y_{cal}	1.0004	$1.0006^{+0.0066}_{-0.0066}$	D_{220}	5719	5725^{+110}_{-110}	$f\sigma_8(0.15)$	0.4541	$0.454^{+0.020}_{-0.019}$
A_{217}^{CIB}	48.7	48^{+20}_{-20}	D_{810}	2536.6	2537^{+38}_{-37}	$\sigma_8(0.15)$	0.7460	$0.745^{+0.018}_{-0.019}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.34	—	D_{1420}	816.0	815^{+13}_{-13}	$f\sigma_8(0.38)$	0.4727	$0.473^{+0.017}_{-0.017}$
A_{143}^{tSZ}	6.9	—	D_{2000}	230.14	$229.9^{+4.5}_{-4.7}$	$\sigma_8(0.38)$	0.6614	$0.661^{+0.016}_{-0.017}$
A_{100}^{PS}	255	264^{+70}_{-70}	$n_{s,0.002}$	0.9664	$0.964^{+0.015}_{-0.014}$	$f\sigma_8(0.51)$	0.4715	$0.471^{+0.015}_{-0.016}$
A_{143}^{PS}	49.9	48^{+20}_{-20}	Y_{P}	0.245347	$0.24536^{+0.00023}_{-0.00029}$	$\sigma_8(0.51)$	0.6190	$0.618^{+0.015}_{-0.016}$
$A_{143 \times 217}^{\text{PS}}$	47.0	43^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246674	$0.24668^{+0.00023}_{-0.00029}$	$f\sigma_8(0.61)$	0.4666	$0.466^{+0.014}_{-0.014}$
A_{217}^{PS}	119.0	114^{+20}_{-30}	$10^5 \text{D}/\text{H}$	2.608	$2.60^{+0.12}_{-0.10}$	$\sigma_8(0.61)$	0.5890	$0.588^{+0.014}_{-0.015}$
A^{kSZ}	0.2	—	Age/Gyr	13.805	$13.804^{+0.073}_{-0.070}$	$f\sigma_8(2.33)$	0.2971	$0.2967^{+0.0068}_{-0.0073}$
A_{100}^{dustTT}	8.89	$9.0^{+4.6}_{-4.7}$	z_*	1089.98	$1089.95^{+0.87}_{-0.79}$	$\sigma_8(2.33)$	0.3063	$0.3059^{+0.0070}_{-0.0072}$
A_{143}^{dustTT}	10.74	$10.8^{+4.8}_{-4.6}$	r_*	144.80	$144.74^{+0.88}_{-0.88}$	f_{2000}^{143}	30.4	31^{+8}_{-8}
$A_{143 \times 217}^{\text{dustTT}}$	19.4	$18.3^{+8.5}_{-9.0}$	$100\theta_*$	1.04111	$1.0411^{+0.0012}_{-0.0012}$	$f_{2000}^{143 \times 217}$	33.2	33^{+5}_{-5}
A_{217}^{dustTT}	94.5	94^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.908	$13.903^{+0.082}_{-0.083}$	f_{2000}^{217}	107.58	$108.0^{+4.9}_{-4.9}$
c_{100}	0.99970	$0.9996^{+0.0016}_{-0.0015}$	z_{drag}	1059.59	$1059.7^{+1.3}_{-1.4}$	χ_{small}^2	396.06	$397.2 (\nu: 1.7)$
c_{217}	0.99823	$0.9983^{+0.0016}_{-0.0015}$	r_{drag}	147.50	$147.4^{+1.0}_{-0.98}$	χ_{lowl}^2	22.3	$22 (\nu: 3.1)$
H_0	67.63	$67.6^{+1.4}_{-1.4}$	k_{D}	0.14034	$0.1404^{+0.0013}_{-0.0014}$	χ_{plik}^2	760.7	$774.1 (\nu: 17.0)$
Ω_{Λ}	0.6899	$0.689^{+0.018}_{-0.020}$	$100\theta_{\text{D}}$	0.16095	$0.16091^{+0.00090}_{-0.00080}$	$\chi_{6\text{DF}}^2$	0.022	$0.067 (\nu: 0.0)$
Ω_{m}	0.3101	$0.311^{+0.020}_{-0.018}$	z_{eq}	3374	3378^{+77}_{-73}	χ_{MGS}^2	1.28	$1.30 (\nu: 0.1)$
$\Omega_{\text{m}} h^2$	0.14183	$0.1420^{+0.0032}_{-0.0031}$	k_{eq}	0.010298	$0.01031^{+0.00023}_{-0.00022}$	χ_{DR12BAO}^2	4.22	$5.0 (\nu: 1.7)$
$\Omega_{\text{m}} h^3$	0.09592	$0.0960^{+0.0012}_{-0.0012}$	$100\theta_{\text{eq}}$	0.8180	$0.817^{+0.014}_{-0.014}$	χ_{prior}^2	1.2	$7.3 (\nu: 6.9)$
σ_8	0.8071	$0.807^{+0.020}_{-0.021}$	$100\theta_{\text{s,eq}}$	0.4519	$0.4516^{+0.0071}_{-0.0072}$	χ_{BAO}^2	5.52	$6.4 (\nu: 1.2)$
S_8	0.8206	$0.821^{+0.039}_{-0.037}$	$H(0.15)$	72.89	$72.9^{+1.2}_{-1.2}$	χ_{CMB}^2	1179.0	$1193.6 (\nu: 16.3)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4495	$0.450^{+0.021}_{-0.020}$	$D_M(0.15)$	641.1	641^{+12}_{-12}			
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6023	$0.602^{+0.021}_{-0.021}$	$H(0.38)$	82.97	$82.96^{+0.92}_{-0.88}$			

Best-fit $\chi_{\text{eff}}^2 = 1185.69$; $\Delta\chi_{\text{eff}}^2 = -0.06$; $\bar{\chi}_{\text{eff}}^2 = 1207.24$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.22$; $R - 1 = 0.02382$

χ_{eff}^2 : BAO - 6DF: 0.02 (Δ 0.00) MGS: 1.28 (Δ 0.00) DR12BAO: 4.22 (Δ 0.03) CMB - simall_100x143.offlike5_EE_Aplanck_B: 396.06 (Δ 0.17) commander_dx12_v3_2_29: 22.26 (Δ -0.57) plik_rd12_HM_v22_TT: 760.65 (Δ 0.55)

5.3 base_alpha1_plikHM_TT_lowl_lowE_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02221	$0.02223^{+0.00057}_{-0.00057}$	$\sigma_8 \Omega_m^{0.25}$	0.6095	$0.609^{+0.020}_{-0.020}$	$D_M(0.15)$	646.8	647^{+16}_{-16}
$\Omega_c h^2$	0.12051	$0.1207^{+0.0042}_{-0.0041}$	$\sigma_8/h^{0.5}$	0.9905	$0.990^{+0.027}_{-0.027}$	$H(0.38)$	82.58	$82.5^{+1.2}_{-1.1}$
$100\theta_{MC}$	1.04069	$1.0406^{+0.0014}_{-0.0013}$	$r_{drag}h$	98.53	$98.4^{+3.4}_{-3.2}$	$D_M(0.38)$	1540.7	1542^{+32}_{-33}
τ	0.0528	$0.054^{+0.021}_{-0.022}$	$\langle d^2 \rangle^{1/2}$	2.449	$2.452^{+0.065}_{-0.065}$	$H(0.51)$	89.38	$89.35^{+0.96}_{-0.91}$
α_{-1}	-0.00018	$-0.0013^{+0.0040}_{-0.0058}$	z_{re}	7.58	$7.6^{+2.0}_{-2.3}$	$D_M(0.51)$	1994.5	1996^{+38}_{-39}
$\ln(10^{10} A_s)$	3.0425	$3.045^{+0.043}_{-0.041}$	$10^9 A_s$	2.096	$2.101^{+0.093}_{-0.085}$	$H(0.61)$	95.06	$95.04^{+0.78}_{-0.74}$
n_s	0.9621	$0.959^{+0.018}_{-0.016}$	$10^9 A_s e^{-2\tau}$	1.8855	$1.888^{+0.033}_{-0.033}$	$D_M(0.61)$	2319.8	2321^{+41}_{-42}
y_{cal}	1.0002	$1.0004^{+0.0065}_{-0.0066}$	D_{40}	1222	1216^{+61}_{-45}	$H(2.33)$	236.72	$236.8^{+2.6}_{-2.6}$
A_{217}^{CIB}	49.4	48^{+20}_{-20}	D_{220}	5716	5721^{+110}_{-100}	$D_M(2.33)$	5774.8	5776^{+36}_{-37}
$\xi^{tSZ \times CIB}$	0.26	—	D_{810}	2537.9	2538^{+36}_{-35}	$f\sigma_8(0.15)$	0.4622	$0.462^{+0.021}_{-0.021}$
A_{143}^{tSZ}	7.0	—	D_{1420}	815.2	814^{+13}_{-13}	$\sigma_8(0.15)$	0.7482	$0.747^{+0.014}_{-0.014}$
A_{100}^{PS}	257	265^{+70}_{-70}	D_{2000}	229.84	$229.4^{+4.7}_{-4.7}$	$f\sigma_8(0.38)$	0.4787	$0.479^{+0.016}_{-0.016}$
A_{143}^{PS}	48.9	49^{+20}_{-20}	$n_{s,0.002}$	0.9621	$0.959^{+0.018}_{-0.016}$	$\sigma_8(0.38)$	0.6623	$0.661^{+0.012}_{-0.013}$
$A_{143 \times 217}^{PS}$	45.3	43^{+20}_{-20}	Y_P	0.245329	$0.24533^{+0.00022}_{-0.00027}$	$f\sigma_8(0.51)$	0.4764	$0.476^{+0.014}_{-0.014}$
A_{217}^{PS}	118.1	114^{+30}_{-30}	Y_P^{BBN}	0.246655	$0.24666^{+0.00022}_{-0.00027}$	$\sigma_8(0.51)$	0.6195	$0.619^{+0.012}_{-0.012}$
A^{kSZ}	0.0	—	$10^5 D/H$	2.617	$2.61^{+0.11}_{-0.10}$	$f\sigma_8(0.61)$	0.4707	$0.470^{+0.012}_{-0.012}$
A_{100}^{dustTT}	8.88	$8.9^{+4.6}_{-4.8}$	Age/Gyr	13.823	$13.825^{+0.082}_{-0.084}$	$\sigma_8(0.61)$	0.5892	$0.588^{+0.011}_{-0.012}$
A_{143}^{dustTT}	10.80	$10.8^{+4.7}_{-4.5}$	z_*	1090.17	$1090.16^{+0.90}_{-0.92}$	$f\sigma_8(2.33)$	0.2968	$0.2963^{+0.0061}_{-0.0065}$
$A_{143 \times 217}^{dustTT}$	19.3	$18.4^{+8.5}_{-8.6}$	r_*	144.42	$144.4^{+1.0}_{-1.0}$	$\sigma_8(2.33)$	0.3056	$0.3051^{+0.0069}_{-0.0072}$
A_{217}^{dustTT}	94.2	93^{+20}_{-20}	$100\theta_*$	1.04089	$1.0408^{+0.0014}_{-0.0013}$	f_{2000}^{143}	30.5	31^{+8}_{-8}
c_{100}	0.99968	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.875	$13.872^{+0.096}_{-0.093}$	$f_{2000}^{143 \times 217}$	33.3	34^{+5}_{-5}
c_{217}	0.99827	$0.9983^{+0.0016}_{-0.0015}$	z_{drag}	1059.59	$1059.7^{+1.3}_{-1.3}$	f_{2000}^{217}	107.62	$108.2^{+5.0}_{-4.9}$
H_0	66.96	$66.9^{+1.9}_{-1.8}$	r_{drag}	147.14	$147.1^{+1.1}_{-1.1}$	$\chi^2_{lensing}$	8.93	$9.52 (\nu: 0.5)$
Ω_Λ	0.6803	$0.679^{+0.026}_{-0.027}$	k_D	0.14069	$0.1408^{+0.0013}_{-0.0014}$	χ^2_{small}	395.89	$397.0 (\nu: 1.1)$
Ω_m	0.3197	$0.321^{+0.027}_{-0.026}$	$100\theta_D$	0.16093	$0.16089^{+0.00086}_{-0.00075}$	χ^2_{lowl}	22.35	$22.1 (\nu: 2.4)$
$\Omega_m h^2$	0.14337	$0.1435^{+0.0041}_{-0.0040}$	z_{eq}	3411	3415^{+97}_{-97}	χ^2_{plik}	759.7	$773.7 (\nu: 16.1)$
$\Omega_m h^3$	0.09600	$0.0960^{+0.0012}_{-0.0012}$	k_{eq}	0.010409	$0.01042^{+0.00030}_{-0.00029}$	χ^2_{prior}	1.3	$7.3 (\nu: 6.7)$
σ_8	0.8106	$0.810^{+0.016}_{-0.016}$	$100\theta_{eq}$	0.8112	$0.810^{+0.018}_{-0.018}$	χ^2_{CMB}	1186.9	$1202.2 (\nu: 16.4)$
S_8	0.8368	$0.837^{+0.043}_{-0.042}$	$100\theta_{s,eq}$	0.4484	$0.4480^{+0.0094}_{-0.0091}$			
$\sigma_8 \Omega_m^{0.5}$	0.4583	$0.459^{+0.024}_{-0.023}$	$H(0.15)$	72.33	$72.3^{+1.7}_{-1.6}$			

Best-fit $\chi^2_{eff} = 1188.17$; $\Delta\chi^2_{eff} = -0.40$; $\bar{\chi}^2_{eff} = 1209.53$; $\Delta\bar{\chi}^2_{eff} = 1.12$; $R - 1 = 0.01166$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp.p_teb_consext8: 8.93 (Δ 0.03) small_100x143_offlike5_EE_Aplanck_B: 395.89 (Δ 0.02) commander_dx12_v3.2_29: 22.35 (Δ -0.88) plik_rd12_HM_v22_TT: 759.73 (Δ 0.41)

5.4 base_alpha1_plikHM_TT_lowl_lowE_post_BAO_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02228	$0.02229^{+0.00059}_{-0.00060}$	$\sigma_8/h^{0.5}$	0.9842	$0.983^{+0.023}_{-0.023}$	$D_M(0.38)$	1529.9	1531^{+22}_{-22}
$\Omega_c h^2$	0.11911	$0.1192^{+0.0029}_{-0.0028}$	$r_{\text{drag}} h$	99.65	$99.6^{+2.2}_{-2.2}$	$H(0.51)$	89.67	$89.65^{+0.68}_{-0.69}$
$100\theta_{\text{MC}}$	1.04092	$1.0408^{+0.0012}_{-0.0012}$	$\langle d^2 \rangle^{1/2}$	2.436	$2.436^{+0.055}_{-0.055}$	$D_M(0.51)$	1982.0	1983^{+26}_{-26}
τ	0.0565	$0.057^{+0.021}_{-0.019}$	z_{re}	7.91	$7.9^{+2.0}_{-2.0}$	$H(0.61)$	95.28	$95.26^{+0.58}_{-0.60}$
α_{-1}	-0.0001	$-0.0009^{+0.0045}_{-0.0059}$	$10^9 A_s$	2.106	$2.107^{+0.094}_{-0.086}$	$D_M(0.61)$	2306.4	2307^{+28}_{-28}
$\ln(10^{10} A_s)$	3.0472	$3.048^{+0.044}_{-0.041}$	$10^9 A_s e^{-2\tau}$	1.8806	$1.881^{+0.030}_{-0.030}$	$H(2.33)$	235.89	$235.9^{+1.9}_{-1.8}$
n_s	0.9654	$0.964^{+0.015}_{-0.013}$	D_{40}	1221	1216^{+60}_{-47}	$D_M(2.33)$	5765.4	5766^{+31}_{-30}
y_{cal}	1.0007	$1.0007^{+0.0067}_{-0.0067}$	D_{220}	5728	5728^{+110}_{-100}	$f\sigma_8(0.15)$	0.4558	$0.456^{+0.016}_{-0.015}$
A_{217}^{CIB}	50.3	48^{+20}_{-20}	D_{810}	2538.5	2538^{+37}_{-36}	$\sigma_8(0.15)$	0.7478	$0.747^{+0.014}_{-0.014}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.099	—	D_{1420}	816.4	816^{+13}_{-13}	$f\sigma_8(0.38)$	0.4743	$0.474^{+0.013}_{-0.013}$
A_{143}^{tSZ}	7.1	—	D_{2000}	230.31	$230.0^{+4.6}_{-4.6}$	$\sigma_8(0.38)$	0.6629	$0.662^{+0.012}_{-0.013}$
A_{100}^{PS}	257	264^{+70}_{-70}	$n_{s,0.002}$	0.9654	$0.964^{+0.015}_{-0.013}$	$f\sigma_8(0.51)$	0.4729	$0.473^{+0.011}_{-0.012}$
A_{143}^{PS}	45.7	48^{+20}_{-20}	Y_{P}	0.245360	$0.24536^{+0.00023}_{-0.00028}$	$\sigma_8(0.51)$	0.6204	$0.619^{+0.011}_{-0.012}$
$A_{143 \times 217}^{\text{PS}}$	41	43^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246686	$0.24668^{+0.00023}_{-0.00028}$	$f\sigma_8(0.61)$	0.4680	$0.468^{+0.011}_{-0.011}$
A_{217}^{PS}	116.4	115^{+30}_{-30}	$10^5 \text{D}/\text{H}$	2.602	$2.60^{+0.12}_{-0.11}$	$\sigma_8(0.61)$	0.5903	$0.589^{+0.011}_{-0.011}$
A^{kSZ}	0.0	—	Age/Gyr	13.803	$13.804^{+0.071}_{-0.070}$	$f\sigma_8(2.33)$	0.2977	$0.2972^{+0.0057}_{-0.0059}$
A_{100}^{dustTT}	8.89	$8.9^{+4.6}_{-4.7}$	z_*	1089.95	$1089.96^{+0.85}_{-0.79}$	$\sigma_8(2.33)$	0.3069	$0.3064^{+0.0062}_{-0.0062}$
A_{143}^{dustTT}	10.75	$10.7^{+4.8}_{-4.3}$	r_*	144.73	$144.70^{+0.79}_{-0.79}$	f_{2000}^{143}	30.4	31^{+8}_{-7}
$A_{143 \times 217}^{\text{dustTT}}$	18.9	$18.3^{+8.6}_{-9.1}$	$100\theta_*$	1.04112	$1.0410^{+0.0012}_{-0.0012}$	$f_{2000}^{143 \times 217}$	33.1	33^{+5}_{-5}
A_{217}^{dustTT}	93.9	94^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.901	$13.899^{+0.074}_{-0.076}$	f_{2000}^{217}	107.70	$108.0^{+5.0}_{-4.8}$
c_{100}	0.99965	$0.9996^{+0.0016}_{-0.0015}$	z_{drag}	1059.67	$1059.7^{+1.4}_{-1.4}$	χ^2_{lensing}	8.78	$9.25 (\nu: 0.3)$
c_{217}	0.99827	$0.9983^{+0.0016}_{-0.0015}$	r_{drag}	147.43	$147.39^{+0.90}_{-0.91}$	χ^2_{small}	396.43	$397.3 (\nu: 1.7)$
H_0	67.59	$67.5^{+1.3}_{-1.3}$	k_{D}	0.14045	$0.1405^{+0.0012}_{-0.0012}$	χ^2_{lowl}	22.3	$22 (\nu: 3.2)$
Ω_Λ	0.6891	$0.688^{+0.017}_{-0.018}$	$100\theta_{\text{D}}$	0.16091	$0.16089^{+0.00088}_{-0.00081}$	χ^2_{plik}	759.8	$773.6 (\nu: 16.1)$
Ω_{m}	0.3109	$0.312^{+0.018}_{-0.017}$	z_{eq}	3379	3381^{+69}_{-66}	$\chi^2_{6\text{DF}}$	0.029	$0.068 (\nu: 0.0)$
$\Omega_{\text{m}} h^2$	0.14204	$0.1421^{+0.0029}_{-0.0028}$	k_{eq}	0.010313	$0.01032^{+0.00021}_{-0.00020}$	χ^2_{MGS}	1.22	$1.23 (\nu: 0.1)$
$\Omega_{\text{m}} h^3$	0.09601	$0.0960^{+0.0012}_{-0.0012}$	$100\theta_{\text{eq}}$	0.8172	$0.817^{+0.012}_{-0.012}$	χ^2_{DR12BAO}	4.40	$5.1 (\nu: 1.5)$
σ_8	0.8092	$0.808^{+0.016}_{-0.016}$	$100\theta_{\text{s,eq}}$	0.4515	$0.4513^{+0.0063}_{-0.0064}$	χ^2_{prior}	1.6	$7.2 (\nu: 6.8)$
S_8	0.8237	$0.824^{+0.031}_{-0.029}$	$H(0.15)$	72.86	$72.8^{+1.1}_{-1.1}$	χ^2_{CMB}	1187.3	$1202.5 (\nu: 16.1)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4512	$0.451^{+0.017}_{-0.016}$	$D_M(0.15)$	641.4	642^{+11}_{-11}	χ^2_{BAO}	5.64	$6.4 (\nu: 1.0)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6042	$0.604^{+0.016}_{-0.016}$	$H(0.38)$	82.96	$82.93^{+0.84}_{-0.82}$			

Best-fit $\chi^2_{\text{eff}} = 1194.56$; $\Delta\chi^2_{\text{eff}} = -0.13$; $\bar{\chi}^2_{\text{eff}} = 1216.09$; $\Delta\bar{\chi}^2_{\text{eff}} = 1.36$; $R - 1 = 0.02745$

χ^2_{eff} : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.40 (Δ 0.02) CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.78 (Δ -0.09) small_100x143_offlike5_EE_Aplanck: 396.43 (Δ 0.34) commander_dx12_v3_2.29: 22.31 (Δ -0.65) plik_rd12_HM_v22.TT: 759.82 (Δ 0.02)

5.5 base_alpha1_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02220^{+0.00058}_{-0.00057}$	$\sigma_8 \Omega_m^{0.5}$	$0.464^{+0.036}_{-0.034}$	$100\theta_{s,eq}$	$0.446^{+0.013}_{-0.012}$
$\Omega_c h^2$	$0.1214^{+0.0058}_{-0.0056}$	$\sigma_8 \Omega_m^{0.25}$	$0.614^{+0.031}_{-0.030}$	$H(0.15)$	$72.0^{+2.1}_{-2.0}$
$100\theta_{MC}$	$1.0405^{+0.0015}_{-0.0014}$	$\sigma_8/h^{0.5}$	$0.997^{+0.041}_{-0.041}$	$D_M(0.15)$	650^{+21}_{-21}
τ	$0.055^{+0.020}_{-0.014}$	$r_{drag}h$	$97.9^{+4.5}_{-4.3}$	$H(0.38)$	$82.4^{+1.5}_{-1.4}$
α_{-1}	$-0.0015^{+0.0042}_{-0.0063}$	$\langle d^2 \rangle^{1/2}$	$2.47^{+0.10}_{-0.099}$	$D_M(0.38)$	1547^{+42}_{-43}
$\ln(10^{10} A_s)$	$3.050^{+0.046}_{-0.035}$	z_{re}	< 9.65	$H(0.51)$	$89.2^{+1.2}_{-1.1}$
n_s	$0.958^{+0.021}_{-0.018}$	$10^9 A_s$	$2.11^{+0.10}_{-0.073}$	$D_M(0.51)$	2002^{+49}_{-50}
y_{cal}	$1.0005^{+0.0066}_{-0.0065}$	$10^9 A_s e^{-2\tau}$	$1.892^{+0.040}_{-0.039}$	$H(0.61)$	$94.95^{+0.96}_{-0.85}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{40}	1217^{+61}_{-47}	$D_M(0.61)$	2328^{+52}_{-54}
$\xi^{tSZ \times CIB}$	—	D_{220}	5719^{+110}_{-100}	$H(2.33)$	$237.3^{+3.5}_{-3.5}$
A_{143}^{tSZ}	—	D_{810}	2539^{+38}_{-37}	$D_M(2.33)$	5779^{+40}_{-43}
A_{100}^{PS}	264^{+70}_{-70}	D_{1420}	814^{+13}_{-13}	$f\sigma_8(0.15)$	$0.467^{+0.032}_{-0.032}$
A_{143}^{PS}	49^{+20}_{-20}	D_{2000}	$229.4^{+4.6}_{-4.6}$	$\sigma_8(0.15)$	$0.750^{+0.019}_{-0.018}$
$A_{143 \times 217}^{PS}$	43^{+20}_{-20}	$n_{s,0.002}$	$0.958^{+0.021}_{-0.018}$	$f\sigma_8(0.38)$	$0.483^{+0.025}_{-0.025}$
A_{217}^{PS}	115^{+30}_{-30}	Y_P	$0.24532^{+0.00023}_{-0.00027}$	$\sigma_8(0.38)$	$0.663^{+0.016}_{-0.013}$
A^{kSZ}	—	Y_P^{BBN}	$0.24665^{+0.00023}_{-0.00027}$	$f\sigma_8(0.51)$	$0.479^{+0.021}_{-0.021}$
A_{100}^{dustTT}	$9.0^{+4.7}_{-4.8}$	$10^5 D/H$	$2.62^{+0.11}_{-0.11}$	$\sigma_8(0.51)$	$0.620^{+0.014}_{-0.012}$
A_{143}^{dustTT}	$10.7^{+4.6}_{-4.6}$	Age/Gyr	$13.833^{+0.092}_{-0.096}$	$f\sigma_8(0.61)$	$0.473^{+0.018}_{-0.019}$
$A_{143 \times 217}^{dustTT}$	$18.3^{+8.5}_{-8.5}$	z_*	$1090.3^{+1.0}_{-1.0}$	$\sigma_8(0.61)$	$0.590^{+0.013}_{-0.011}$
A_{217}^{dustTT}	93^{+20}_{-20}	r_*	$144.2^{+1.4}_{-1.3}$	$f\sigma_8(2.33)$	$0.2969^{+0.0066}_{-0.0053}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	$1.0407^{+0.0015}_{-0.0013}$	$\sigma_8(2.33)$	$0.3055^{+0.0071}_{-0.0057}$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	$13.86^{+0.12}_{-0.12}$	f_{2000}^{143}	31^{+8}_{-8}
H_0	$66.6^{+2.5}_{-2.4}$	z_{drag}	$1059.6^{+1.2}_{-1.3}$	$f_{2000}^{143 \times 217}$	34^{+5}_{-5}
Ω_Λ	$0.675^{+0.034}_{-0.037}$	r_{drag}	$146.9^{+1.4}_{-1.4}$	f_{2000}^{217}	$108.2^{+4.9}_{-4.9}$
Ω_m	$0.325^{+0.037}_{-0.034}$	k_D	$0.1409^{+0.0015}_{-0.0016}$	χ_{simall}^2	$397.0 (\nu: 1.5)$
$\Omega_m h^2$	$0.1442^{+0.0056}_{-0.0055}$	$100\theta_D$	$0.16089^{+0.00083}_{-0.00074}$	χ_{lowl}^2	$22.1 (\nu: 2.2)$
$\Omega_m h^3$	$0.0960^{+0.0012}_{-0.0012}$	z_{eq}	3431^{+130}_{-130}	χ_{plik}^2	$773.9 (\nu: 16.9)$
σ_8	$0.813^{+0.022}_{-0.022}$	k_{eq}	$0.01047^{+0.00041}_{-0.00040}$	χ_{prior}^2	$7.3 (\nu: 6.7)$
S_8	$0.847^{+0.065}_{-0.063}$	$100\theta_{eq}$	$0.808^{+0.025}_{-0.024}$	χ_{CMB}^2	$1193.0 (\nu: 16.1)$

$$\bar{\chi}_{eff}^2 = 1200.29; \Delta \bar{\chi}_{eff}^2 = 0.97; R - 1 = 0.00693$$

5.6 base_alpha1_plikHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02229^{+0.00057}_{-0.00060}$	$\sigma_8/h^{0.5}$	$0.982^{+0.030}_{-0.027}$	$D_M(0.38)$	1530^{+24}_{-24}
$\Omega_c h^2$	$0.1191^{+0.0032}_{-0.0031}$	$r_{\text{drag}} h$	$99.7^{+2.5}_{-2.5}$	$H(0.51)$	$89.67^{+0.75}_{-0.72}$
$100\theta_{\text{MC}}$	$1.0409^{+0.0012}_{-0.0012}$	$\langle d^2 \rangle^{1/2}$	$2.432^{+0.072}_{-0.065}$	$D_M(0.51)$	1982^{+28}_{-28}
τ	$0.056^{+0.020}_{-0.015}$	z_{re}	< 9.68	$H(0.61)$	$95.28^{+0.62}_{-0.61}$
α_{-1}	$-0.0009^{+0.0045}_{-0.0059}$	$10^9 A_s$	$2.104^{+0.099}_{-0.073}$	$D_M(0.61)$	2306^{+30}_{-31}
$\ln(10^{10} A_s)$	$3.046^{+0.046}_{-0.035}$	$10^9 A_s e^{-2\tau}$	$1.880^{+0.032}_{-0.032}$	$H(2.33)$	$235.9^{+2.1}_{-2.0}$
n_s	$0.964^{+0.015}_{-0.013}$	D_{40}	1214^{+61}_{-48}	$D_M(2.33)$	5766^{+31}_{-31}
y_{cal}	$1.0006^{+0.0065}_{-0.0066}$	D_{220}	5725^{+110}_{-110}	$f\sigma_8(0.15)$	$0.455^{+0.020}_{-0.019}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2537^{+37}_{-36}	$\sigma_8(0.15)$	$0.746^{+0.017}_{-0.015}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	815^{+13}_{-13}	$f\sigma_8(0.38)$	$0.473^{+0.017}_{-0.016}$
A_{143}^{tSZ}	—	D_{2000}	$229.9^{+4.5}_{-4.5}$	$\sigma_8(0.38)$	$0.661^{+0.015}_{-0.013}$
A_{100}^{PS}	264^{+70}_{-70}	$n_{s,0.002}$	$0.964^{+0.015}_{-0.013}$	$f\sigma_8(0.51)$	$0.472^{+0.015}_{-0.014}$
A_{143}^{PS}	48^{+20}_{-20}	Y_{P}	$0.24536^{+0.00022}_{-0.00028}$	$\sigma_8(0.51)$	$0.619^{+0.014}_{-0.012}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24668^{+0.00022}_{-0.00028}$	$f\sigma_8(0.61)$	$0.467^{+0.014}_{-0.013}$
A_{217}^{PS}	114^{+30}_{-30}	$10^5 \text{D}/\text{H}$	$2.60^{+0.12}_{-0.10}$	$\sigma_8(0.61)$	$0.589^{+0.013}_{-0.012}$
A^{kSZ}	—	Age/Gyr	$13.803^{+0.071}_{-0.070}$	$f\sigma_8(2.33)$	$0.2970^{+0.0066}_{-0.0057}$
A_{100}^{dustTT}	$9.0^{+4.6}_{-4.7}$	z_*	$1089.94^{+0.86}_{-0.80}$	$\sigma_8(2.33)$	$0.3063^{+0.0068}_{-0.0059}$
A_{143}^{dustTT}	$10.8^{+4.8}_{-4.6}$	r_*	$144.74^{+0.88}_{-0.88}$	f_{2000}^{143}	31^{+8}_{-7}
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.5}_{-9.0}$	$100\theta_*$	$1.0411^{+0.0012}_{-0.0012}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
A_{217}^{dustTT}	94^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	$13.903^{+0.081}_{-0.083}$	f_{2000}^{217}	$107.9^{+4.9}_{-4.8}$
c_{100}	$0.9996^{+0.0015}_{-0.0015}$	z_{drag}	$1059.7^{+1.3}_{-1.3}$	χ_{simall}^2	$397.1 (\nu: 1.7)$
c_{217}	$0.9983^{+0.0016}_{-0.0015}$	r_{drag}	$147.4^{+1.0}_{-0.97}$	χ_{lowl}^2	$22 (\nu: 3.1)$
H_0	$67.6^{+1.4}_{-1.4}$	k_{D}	$0.1404^{+0.0013}_{-0.0014}$	χ_{plik}^2	$774.0 (\nu: 16.7)$
Ω_{Λ}	$0.689^{+0.018}_{-0.020}$	$100\theta_{\text{D}}$	$0.16090^{+0.00089}_{-0.00079}$	$\chi_{6\text{DF}}^2$	$0.066 (\nu: 0.0)$
Ω_{m}	$0.311^{+0.020}_{-0.018}$	z_{eq}	3378^{+77}_{-73}	χ_{MGS}^2	$1.30 (\nu: 0.1)$
$\Omega_{\text{m}} h^2$	$0.1420^{+0.0032}_{-0.0031}$	k_{eq}	$0.01031^{+0.00023}_{-0.00022}$	χ_{DR12BAO}^2	$5.0 (\nu: 1.7)$
$\Omega_{\text{m}} h^3$	$0.0960^{+0.0012}_{-0.0012}$	$100\theta_{\text{eq}}$	$0.817^{+0.014}_{-0.014}$	χ_{prior}^2	$7.3 (\nu: 6.8)$
σ_8	$0.807^{+0.020}_{-0.018}$	$100\theta_{\text{s,eq}}$	$0.4516^{+0.0072}_{-0.0072}$	χ_{BAO}^2	$6.4 (\nu: 1.2)$
S_8	$0.822^{+0.039}_{-0.036}$	$H(0.15)$	$72.9^{+1.2}_{-1.2}$	χ_{CMB}^2	$1193.4 (\nu: 15.7)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.450^{+0.021}_{-0.020}$	$D_M(0.15)$	641^{+12}_{-12}		
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.603^{+0.021}_{-0.019}$	$H(0.38)$	$82.97^{+0.92}_{-0.88}$		

$\bar{\chi}_{\text{eff}}^2 = 1207.05$; $\Delta \bar{\chi}_{\text{eff}}^2 = 1.29$; $R - 1 = 0.02346$

5.7 base_alpha1_plikHM_TT_lowl_lowE_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02224^{+0.00056}_{-0.00058}$	$\sigma_8 \Omega_m^{0.25}$	$0.609^{+0.020}_{-0.020}$	$D_M(0.15)$	647^{+16}_{-16}
$\Omega_c h^2$	$0.1205^{+0.0041}_{-0.0040}$	$\sigma_8/h^{0.5}$	$0.990^{+0.027}_{-0.027}$	$H(0.38)$	$82.6^{+1.2}_{-1.1}$
$100\theta_{MC}$	$1.0406^{+0.0014}_{-0.0013}$	$r_{drag}h$	$98.5^{+3.3}_{-3.1}$	$D_M(0.38)$	1541^{+31}_{-32}
τ	$0.055^{+0.019}_{-0.014}$	$\langle d^2 \rangle^{1/2}$	$2.453^{+0.064}_{-0.065}$	$H(0.51)$	$89.37^{+0.94}_{-0.88}$
α_{-1}	$-0.0014^{+0.0039}_{-0.0060}$	z_{re}	< 9.49	$D_M(0.51)$	1995^{+36}_{-38}
$\ln(10^{10} A_s)$	$3.047^{+0.041}_{-0.030}$	$10^9 A_s$	$2.106^{+0.088}_{-0.063}$	$H(0.61)$	$95.06^{+0.77}_{-0.72}$
n_s	$0.959^{+0.018}_{-0.015}$	$10^9 A_s e^{-2\tau}$	$1.887^{+0.032}_{-0.033}$	$D_M(0.61)$	2320^{+39}_{-41}
y_{cal}	$1.0004^{+0.0065}_{-0.0065}$	D_{40}	1215^{+60}_{-45}	$H(2.33)$	$236.8^{+2.5}_{-2.6}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{220}	5721^{+110}_{-100}	$D_M(2.33)$	5775^{+35}_{-37}
$\xi^{tSZ \times CIB}$	—	D_{810}	2538^{+36}_{-35}	$f\sigma_8(0.15)$	$0.462^{+0.021}_{-0.021}$
A_{143}^{tSZ}	—	D_{1420}	814^{+13}_{-13}	$\sigma_8(0.15)$	$0.748^{+0.014}_{-0.013}$
A_{100}^{PS}	265^{+70}_{-70}	D_{2000}	$229.5^{+4.7}_{-4.7}$	$f\sigma_8(0.38)$	$0.479^{+0.016}_{-0.016}$
A_{143}^{PS}	49^{+20}_{-20}	$n_{s,0.002}$	$0.959^{+0.018}_{-0.015}$	$\sigma_8(0.38)$	$0.662^{+0.012}_{-0.011}$
$A_{143 \times 217}^{PS}$	43^{+20}_{-20}	Y_P	$0.24534^{+0.00022}_{-0.00027}$	$f\sigma_8(0.51)$	$0.476^{+0.013}_{-0.014}$
A_{217}^{PS}	114^{+30}_{-30}	Y_P^{BBN}	$0.24666^{+0.00022}_{-0.00027}$	$\sigma_8(0.51)$	$0.619^{+0.011}_{-0.010}$
A^{kSZ}	—	$10^5 D/H$	$2.61^{+0.11}_{-0.10}$	$f\sigma_8(0.61)$	$0.471^{+0.012}_{-0.012}$
A_{100}^{dustTT}	$9.0^{+4.6}_{-4.7}$	Age/Gyr	$13.823^{+0.080}_{-0.083}$	$\sigma_8(0.61)$	$0.589^{+0.011}_{-0.0096}$
A_{143}^{dustTT}	$10.8^{+4.7}_{-4.6}$	z_*	$1090.14^{+0.87}_{-0.91}$	$f\sigma_8(2.33)$	$0.2966^{+0.0058}_{-0.0050}$
$A_{143 \times 217}^{dustTT}$	$18.4^{+8.5}_{-8.6}$	r_*	$144.4^{+1.0}_{-1.0}$	$\sigma_8(2.33)$	$0.3054^{+0.0065}_{-0.0055}$
A_{217}^{dustTT}	93^{+20}_{-20}	$100\theta_*$	$1.0408^{+0.0014}_{-0.0013}$	f_{2000}^{143}	31^{+8}_{-8}
c_{100}	$0.9996^{+0.0015}_{-0.0015}$	$D_M(z_*)/\text{Gpc}$	$13.874^{+0.095}_{-0.093}$	$f_{2000}^{143 \times 217}$	34^{+5}_{-5}
c_{217}	$0.9983^{+0.0016}_{-0.0015}$	z_{drag}	$1059.7^{+1.3}_{-1.3}$	f_{2000}^{217}	$108.2^{+5.0}_{-4.9}$
H_0	$66.9^{+1.9}_{-1.8}$	r_{drag}	$147.1^{+1.1}_{-1.1}$	$\chi_{lensing}^2$	$9.50 (\nu: 0.5)$
Ω_Λ	$0.680^{+0.025}_{-0.026}$	k_D	$0.1408^{+0.0013}_{-0.0014}$	χ_{simall}^2	$396.9 (\nu: 1.1)$
Ω_m	$0.320^{+0.026}_{-0.025}$	$100\theta_D$	$0.16088^{+0.00085}_{-0.00074}$	χ_{lowl}^2	$22.0 (\nu: 2.4)$
$\Omega_m h^2$	$0.1434^{+0.0039}_{-0.0040}$	z_{eq}	3412^{+93}_{-95}	χ_{plik}^2	$773.6 (\nu: 16.0)$
$\Omega_m h^3$	$0.0960^{+0.0012}_{-0.0012}$	k_{eq}	$0.01041^{+0.00028}_{-0.00029}$	χ_{prior}^2	$7.3 (\nu: 6.7)$
σ_8	$0.810^{+0.016}_{-0.015}$	$100\theta_{eq}$	$0.811^{+0.018}_{-0.017}$	χ_{CMB}^2	$1202.0 (\nu: 15.9)$
S_8	$0.837^{+0.043}_{-0.041}$	$100\theta_{s,eq}$	$0.4483^{+0.0092}_{-0.0088}$		
$\sigma_8 \Omega_m^{0.5}$	$0.458^{+0.023}_{-0.023}$	$H(0.15)$	$72.3^{+1.6}_{-1.5}$		

$$\bar{\chi}_{\text{eff}}^2 = 1209.29; \Delta\bar{\chi}_{\text{eff}}^2 = 1.13; R - 1 = 0.01342$$

5.8 base_alpha1_plikHM_TT_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02229^{+0.00059}_{-0.00059}$	$\sigma_8/h^{0.5}$	$0.984^{+0.023}_{-0.022}$	$D_M(0.38)$	1531^{+22}_{-22}
$\Omega_c h^2$	$0.1192^{+0.0029}_{-0.0027}$	$r_{\text{drag}} h$	$99.6^{+2.2}_{-2.2}$	$H(0.51)$	$89.65^{+0.68}_{-0.69}$
$100\theta_{\text{MC}}$	$1.0408^{+0.0012}_{-0.0012}$	$\langle d^2 \rangle^{1/2}$	$2.436^{+0.054}_{-0.053}$	$D_M(0.51)$	1983^{+26}_{-26}
τ	$0.057^{+0.019}_{-0.015}$	z_{re}	< 9.65	$H(0.61)$	$95.27^{+0.58}_{-0.59}$
α_{-1}	$-0.0009^{+0.0044}_{-0.0059}$	$10^9 A_s$	$2.110^{+0.092}_{-0.070}$	$D_M(0.61)$	2307^{+28}_{-28}
$\ln(10^{10} A_s)$	$3.049^{+0.043}_{-0.034}$	$10^9 A_s e^{-2\tau}$	$1.881^{+0.030}_{-0.030}$	$H(2.33)$	$235.9^{+1.9}_{-1.8}$
n_s	$0.964^{+0.015}_{-0.013}$	D_{40}	1216^{+60}_{-46}	$D_M(2.33)$	5766^{+30}_{-29}
y_{cal}	$1.0007^{+0.0065}_{-0.0067}$	D_{220}	5728^{+100}_{-100}	$f\sigma_8(0.15)$	$0.456^{+0.016}_{-0.015}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2538^{+37}_{-36}	$\sigma_8(0.15)$	$0.747^{+0.014}_{-0.013}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	816^{+13}_{-13}	$f\sigma_8(0.38)$	$0.474^{+0.013}_{-0.013}$
A_{143}^{tSZ}	—	D_{2000}	$230.0^{+4.5}_{-4.5}$	$\sigma_8(0.38)$	$0.662^{+0.012}_{-0.011}$
A_{100}^{PS}	264^{+70}_{-70}	$n_{s,0.002}$	$0.964^{+0.015}_{-0.013}$	$f\sigma_8(0.51)$	$0.473^{+0.011}_{-0.011}$
A_{143}^{PS}	48^{+20}_{-20}	Y_{P}	$0.24536^{+0.00023}_{-0.00027}$	$\sigma_8(0.51)$	$0.620^{+0.011}_{-0.011}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24669^{+0.00023}_{-0.00028}$	$f\sigma_8(0.61)$	$0.468^{+0.010}_{-0.010}$
A_{217}^{PS}	115^{+30}_{-30}	10^5D/H	$2.60^{+0.11}_{-0.11}$	$\sigma_8(0.61)$	$0.590^{+0.011}_{-0.010}$
A^{kSZ}	—	Age/Gyr	$13.804^{+0.070}_{-0.069}$	$f\sigma_8(2.33)$	$0.2973^{+0.0055}_{-0.0053}$
A_{100}^{dustTT}	$8.9^{+4.6}_{-4.7}$	z_*	$1089.95^{+0.84}_{-0.78}$	$\sigma_8(2.33)$	$0.3066^{+0.0061}_{-0.0057}$
A_{143}^{dustTT}	$10.7^{+4.8}_{-4.3}$	r_*	$144.70^{+0.79}_{-0.79}$	f_{2000}^{143}	31^{+7}_{-7}
$A_{143 \times 217}^{\text{dustTT}}$	$18.4^{+8.6}_{-9.1}$	$100\theta_*$	$1.0410^{+0.0012}_{-0.0012}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
A_{217}^{dustTT}	94^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	$13.900^{+0.074}_{-0.076}$	f_{2000}^{217}	$107.9^{+4.9}_{-4.7}$
c_{100}	$0.9996^{+0.0016}_{-0.0015}$	z_{drag}	$1059.7^{+1.3}_{-1.4}$	χ_{lensing}^2	$9.21 (\nu: 0.2)$
c_{217}	$0.9983^{+0.0016}_{-0.0015}$	r_{drag}	$147.39^{+0.90}_{-0.91}$	χ_{simall}^2	$397.3 (\nu: 1.7)$
H_0	$67.6^{+1.3}_{-1.3}$	k_{D}	$0.1405^{+0.0012}_{-0.0012}$	χ_{lowl}^2	$22 (\nu: 3.1)$
Ω_{Λ}	$0.689^{+0.016}_{-0.018}$	$100\theta_{\text{D}}$	$0.16088^{+0.00087}_{-0.00080}$	χ_{plik}^2	$773.6 (\nu: 16.0)$
Ω_{m}	$0.311^{+0.018}_{-0.016}$	z_{eq}	3381^{+68}_{-66}	$\chi_{6\text{DF}}^2$	$0.066 (\nu: 0.0)$
$\Omega_{\text{m}} h^2$	$0.1421^{+0.0029}_{-0.0028}$	k_{eq}	$0.01032^{+0.00021}_{-0.00020}$	χ_{MGS}^2	$1.24 (\nu: 0.1)$
$\Omega_{\text{m}} h^3$	$0.0960^{+0.0012}_{-0.0012}$	$100\theta_{\text{eq}}$	$0.817^{+0.012}_{-0.012}$	χ_{DR12BAO}^2	$5.0 (\nu: 1.4)$
σ_8	$0.809^{+0.016}_{-0.015}$	$100\theta_{\text{s,eq}}$	$0.4513^{+0.0063}_{-0.0064}$	χ_{prior}^2	$7.2 (\nu: 6.7)$
S_8	$0.824^{+0.031}_{-0.030}$	$H(0.15)$	$72.8^{+1.1}_{-1.1}$	χ_{CMB}^2	$1202.4 (\nu: 15.8)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.451^{+0.017}_{-0.016}$	$D_M(0.15)$	642^{+11}_{-11}	χ_{BAO}^2	$6.3 (\nu: 1.0)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.604^{+0.016}_{-0.016}$	$H(0.38)$	$82.94^{+0.83}_{-0.82}$		

$\bar{\chi}_{\text{eff}}^2 = 1215.96$; $\Delta \bar{\chi}_{\text{eff}}^2 = 1.39$; $R - 1 = 0.02803$

5.9 base_alpha1_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022381	$0.02236^{+0.00038}_{-0.00040}$	$\Omega_m h^2$	0.14328	$0.1435^{+0.0043}_{-0.0044}$	k_{eq}	0.010403	$0.01042^{+0.00032}_{-0.00032}$
$\Omega_c h^2$	0.12025	$0.1205^{+0.0046}_{-0.0046}$	$\Omega_m h^3$	0.09637	$0.09634^{+0.00075}_{-0.00076}$	$100\theta_{\text{eq}}$	0.8122	$0.811^{+0.020}_{-0.019}$
$100\theta_{\text{MC}}$	1.04086	$1.0408^{+0.0012}_{-0.0011}$	σ_8	0.8123	$0.813^{+0.020}_{-0.021}$	$100\theta_{\text{s,eq}}$	0.4488	$0.448^{+0.010}_{-0.0099}$
τ	0.0543	$0.055^{+0.022}_{-0.020}$	S_8	0.835	$0.837^{+0.051}_{-0.050}$	$H(0.15)$	72.60	$72.5^{+1.8}_{-1.7}$
α_{-1}	-0.00001	$-0.0001^{+0.0018}_{-0.0017}$	$\sigma_8 \Omega_m^{0.5}$	0.4572	$0.459^{+0.028}_{-0.028}$	$D_{\text{M}}(0.15)$	644.2	645^{+17}_{-17}
$\ln(10^{10} A_s)$	3.0459	$3.046^{+0.044}_{-0.043}$	$\sigma_8 \Omega_m^{0.25}$	0.6094	$0.610^{+0.024}_{-0.025}$	$H(0.38)$	82.81	$82.7^{+1.3}_{-1.2}$
n_s	0.9649	$0.964^{+0.017}_{-0.016}$	$\sigma_8/h^{0.5}$	0.9905	$0.992^{+0.033}_{-0.034}$	$D_{\text{M}}(0.38)$	1535.1	1537^{+34}_{-35}
y_{cal}	1.0008	$1.0006^{+0.0065}_{-0.0062}$	$r_{\text{drag}} h$	98.88	$98.7^{+3.7}_{-3.5}$	$H(0.51)$	89.59	$89.54^{+0.99}_{-0.90}$
A_{217}^{CIB}	46.8	47^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.449	$2.454^{+0.086}_{-0.085}$	$D_{\text{M}}(0.51)$	1987.8	1990^{+40}_{-40}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.51	—	z_{re}	7.68	$7.7^{+2.1}_{-2.1}$	$H(0.61)$	95.25	$95.21^{+0.78}_{-0.70}$
A_{143}^{tSZ}	7.20	$5.4^{+4.3}_{-4.9}$	$10^9 A_s$	2.103	$2.104^{+0.094}_{-0.088}$	$D_{\text{M}}(0.61)$	2312.4	2315^{+43}_{-44}
A_{100}^{PS}	250	259^{+70}_{-70}	$10^9 A_s e^{-2\tau}$	1.8866	$1.886^{+0.036}_{-0.036}$	$H(2.33)$	236.73	$236.9^{+2.7}_{-2.8}$
A_{143}^{PS}	49.1	46^{+20}_{-20}	D_{40}	1230.5	1231^{+38}_{-35}	$D_{\text{M}}(2.33)$	5764.4	5766^{+32}_{-34}
$A_{143 \times 217}^{\text{PS}}$	50.0	42^{+20}_{-20}	D_{220}	5737	5733^{+96}_{-98}	$f\sigma_8(0.15)$	0.4613	$0.463^{+0.026}_{-0.026}$
A_{217}^{PS}	120.7	115^{+30}_{-30}	D_{810}	2542.8	2540^{+34}_{-34}	$\sigma_8(0.15)$	0.7501	$0.750^{+0.018}_{-0.018}$
A^{kSZ}	0.0	—	D_{1420}	818.5	817^{+12}_{-13}	$f\sigma_8(0.38)$	0.4785	$0.479^{+0.020}_{-0.020}$
A_{100}^{dustTT}	8.78	$8.9^{+4.7}_{-4.8}$	D_{2000}	231.29	$230.8^{+4.1}_{-4.3}$	$\sigma_8(0.38)$	0.6644	$0.664^{+0.015}_{-0.015}$
A_{143}^{dustTT}	11.01	$10.9^{+4.7}_{-4.6}$	$n_{\text{s},0.002}$	0.9649	$0.964^{+0.017}_{-0.016}$	$f\sigma_8(0.51)$	0.4765	$0.477^{+0.017}_{-0.018}$
$A_{143 \times 217}^{\text{dustTT}}$	20.0	$18.6^{+8.5}_{-8.5}$	Y_{P}	0.245400	$0.24539^{+0.00014}_{-0.00017}$	$\sigma_8(0.51)$	0.6215	$0.621^{+0.013}_{-0.014}$
A_{217}^{dustTT}	95.3	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246726	$0.24672^{+0.00014}_{-0.00017}$	$f\sigma_8(0.61)$	0.4711	$0.472^{+0.015}_{-0.016}$
A_{100}^{dustTE}	0.114	$0.115^{+0.10}_{-0.096}$	10^5D/H	2.583	$2.588^{+0.075}_{-0.068}$	$\sigma_8(0.61)$	0.5912	$0.591^{+0.013}_{-0.013}$
$A_{100 \times 143}^{\text{dustTE}}$	0.136	$0.135^{+0.076}_{-0.076}$	Age/Gyr	13.799	$13.803^{+0.071}_{-0.073}$	$f\sigma_8(2.33)$	0.2979	$0.2977^{+0.0065}_{-0.0066}$
$A_{100 \times 217}^{\text{dustTE}}$	0.482	$0.48^{+0.22}_{-0.21}$	z_*	1089.93	$1089.98^{+0.78}_{-0.74}$	$\sigma_8(2.33)$	0.3069	$0.3067^{+0.0070}_{-0.0071}$
A_{143}^{dustTE}	0.226	$0.23^{+0.14}_{-0.14}$	r_*	144.36	$144.3^{+1.1}_{-1.0}$	f_{2000}^{143}	28.9	30^{+7}_{-7}
$A_{143 \times 217}^{\text{dustTE}}$	0.666	$0.67^{+0.21}_{-0.20}$	$100\theta_*$	1.04105	$1.0410^{+0.0012}_{-0.0011}$	$f_{2000}^{143 \times 217}$	32.11	32^{+5}_{-5}
A_{217}^{dustTE}	2.08	$2.09^{+0.70}_{-0.69}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.867	$13.863^{+0.096}_{-0.093}$	f_{2000}^{217}	106.71	$107.1^{+4.7}_{-4.5}$
c_{100}	0.99974	$0.9997^{+0.0016}_{-0.0016}$	z_{drag}	1059.97	$1059.95^{+0.79}_{-0.81}$	χ_{small}^2	396.06	397.1 (ν : 1.8)
c_{217}	0.99820	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	147.01	$147.0^{+1.1}_{-1.0}$	χ_{lowl}^2	23.22	23.4 (ν : 1.3)
H_0	67.26	$67.1^{+2.1}_{-2.0}$	k_{D}	0.14096	$0.1410^{+0.0011}_{-0.0012}$	χ_{plik}^2	2344.8	2361.5 (ν : 18.7)
Ω_{Λ}	0.6833	$0.682^{+0.028}_{-0.029}$	$100\theta_{\text{D}}$	0.16073	$0.16074^{+0.00052}_{-0.00051}$	χ_{prior}^2	1.7	11.5 (ν : 10.3)
Ω_{m}	0.3167	$0.318^{+0.029}_{-0.028}$	z_{eq}	3408	3414^{+100}_{-110}	χ_{CMB}^2	2764.1	2782.1 (ν : 18.2)

Best-fit $\chi_{\text{eff}}^2 = 2765.78$; $\Delta\chi_{\text{eff}}^2 = 0.01$; $\bar{\chi}_{\text{eff}}^2 = 2793.61$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.84$; $R - 1 = 0.01294$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.06 (Δ 0.01) commander_dx12_v3.2.29: 23.22 (Δ -0.04) plik_rd12_HM_v22b_TTTEEE: 2344.78 (Δ 0.14)

5.10 base_alpha1_plikHM_TTTEEE_lowl_lowE_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022431	$0.02240^{+0.00035}_{-0.00037}$	σ_8	0.8109	$0.810^{+0.020}_{-0.019}$	$D_M(0.15)$	640.0	640^{+11}_{-11}
$\Omega_c h^2$	0.11917	$0.1191^{+0.0030}_{-0.0029}$	S_8	0.8242	$0.823^{+0.036}_{-0.034}$	$H(0.38)$	83.11	$83.10^{+0.82}_{-0.78}$
$100\theta_{MC}$	1.04107	$1.04109^{+0.00093}_{-0.0010}$	$\sigma_8 \Omega_m^{0.5}$	0.4515	$0.451^{+0.020}_{-0.019}$	$D_M(0.38)$	1526.8	1527^{+22}_{-22}
τ	0.0561	$0.055^{+0.021}_{-0.020}$	$\sigma_8 \Omega_m^{0.25}$	0.6051	$0.604^{+0.019}_{-0.019}$	$H(0.51)$	89.81	$89.81^{+0.65}_{-0.62}$
α_{-1}	0.00002	$0.0002^{+0.0016}_{-0.0014}$	$\sigma_8/h^{0.5}$	0.9852	$0.984^{+0.028}_{-0.027}$	$D_M(0.51)$	1978.1	1978^{+26}_{-26}
$\ln(10^{10} A_s)$	3.0466	$3.044^{+0.044}_{-0.044}$	$r_{drag} h$	99.75	$99.8^{+2.3}_{-2.3}$	$H(0.61)$	95.42	$95.41^{+0.54}_{-0.50}$
n_s	0.9693	$0.968^{+0.013}_{-0.013}$	$\langle d^2 \rangle^{1/2}$	2.433	$2.433^{+0.068}_{-0.064}$	$D_M(0.61)$	2302.0	2302^{+28}_{-28}
y_{cal}	1.0008	$1.0007^{+0.0063}_{-0.0061}$	z_{re}	7.83	$7.8^{+2.1}_{-2.1}$	$H(2.33)$	236.09	$236.0^{+1.9}_{-1.8}$
A_{217}^{CIB}	45.1	47^{+20}_{-20}	$10^9 A_s$	2.104	$2.100^{+0.093}_{-0.090}$	$D_M(2.33)$	5757.2	5758^{+24}_{-24}
$\xi^{tSZ \times CIB}$	0.76	—	$10^9 A_s e^{-2\tau}$	1.8811	$1.879^{+0.030}_{-0.029}$	$f\sigma_8(0.15)$	0.4562	$0.455^{+0.018}_{-0.018}$
A_{143}^{tSZ}	7.05	> 0.847	D_{40}	1227.3	1230^{+40}_{-34}	$\sigma_8(0.15)$	0.7495	$0.748^{+0.017}_{-0.017}$
A_{100}^{PS}	246	258^{+70}_{-70}	D_{220}	5735	5734^{+98}_{-97}	$f\sigma_8(0.38)$	0.4749	$0.474^{+0.016}_{-0.015}$
A_{143}^{PS}	51.3	45^{+20}_{-20}	D_{810}	2542.5	2539^{+34}_{-33}	$\sigma_8(0.38)$	0.6645	$0.664^{+0.015}_{-0.014}$
$A_{143 \times 217}^{PS}$	55.4	42^{+20}_{-20}	D_{1420}	819.9	818^{+12}_{-12}	$f\sigma_8(0.51)$	0.4737	$0.473^{+0.014}_{-0.014}$
A_{217}^{PS}	122.9	115^{+30}_{-30}	D_{2000}	231.90	$231.2^{+4.0}_{-4.1}$	$\sigma_8(0.51)$	0.6220	$0.621^{+0.014}_{-0.013}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9693	$0.968^{+0.013}_{-0.013}$	$f\sigma_8(0.61)$	0.4688	$0.468^{+0.013}_{-0.013}$
A_{100}^{dustTT}	8.87	$9.0^{+4.7}_{-4.6}$	Y_P	0.245419	$0.24541^{+0.00013}_{-0.00015}$	$\sigma_8(0.61)$	0.5919	$0.591^{+0.013}_{-0.012}$
A_{143}^{dustTT}	11.03	$10.9^{+4.7}_{-4.5}$	Y_P^{BBN}	0.246746	$0.24673^{+0.00013}_{-0.00015}$	$f\sigma_8(2.33)$	0.2985	$0.2980^{+0.0064}_{-0.0064}$
$A_{143 \times 217}^{dustTT}$	20.2	$18.7^{+8.6}_{-8.5}$	$10^5 D/H$	2.574	$2.580^{+0.071}_{-0.063}$	$\sigma_8(2.33)$	0.3078	$0.3074^{+0.0068}_{-0.0065}$
A_{217}^{dustTT}	95.8	94^{+20}_{-20}	Age/Gyr	13.783	$13.785^{+0.053}_{-0.054}$	f_{2000}^{143}	28.1	29^{+7}_{-7}
A_{100}^{dustTE}	0.114	$0.115^{+0.094}_{-0.10}$	z_*	1089.77	$1089.80^{+0.59}_{-0.56}$	$f_{2000}^{143 \times 217}$	31.63	32^{+5}_{-5}
$A_{100 \times 143}^{dustTE}$	0.134	$0.136^{+0.075}_{-0.076}$	r_*	144.60	$144.64^{+0.72}_{-0.75}$	f_{2000}^{217}	106.17	$106.9^{+4.7}_{-4.5}$
$A_{100 \times 217}^{dustTE}$	0.481	$0.48^{+0.21}_{-0.21}$	$100\theta_*$	1.04125	$1.04127^{+0.00093}_{-0.0010}$	χ_{small}^2	396.4	$397.2 (\nu: 2.1)$
A_{143}^{dustTE}	0.225	$0.23^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.887	$13.890^{+0.067}_{-0.067}$	χ_{lowl}^2	23.20	$23.8 (\nu: 1.4)$
$A_{143 \times 217}^{dustTE}$	0.664	$0.67^{+0.20}_{-0.19}$	z_{drag}	1060.01	$1059.95^{+0.82}_{-0.82}$	χ_{plik}^2	2345.2	$2360.9 (\nu: 17.8)$
A_{217}^{dustTE}	2.08	$2.08^{+0.66}_{-0.72}$	r_{drag}	147.24	$147.29^{+0.77}_{-0.79}$	χ_{6DF}^2	0.023	$0.056 (\nu: 0.0)$
c_{100}	0.99974	$0.9996^{+0.0016}_{-0.0016}$	k_D	0.14075	$0.14068^{+0.00096}_{-0.00093}$	χ_{MGS}^2	1.28	$1.36 (\nu: 0.1)$
c_{217}	0.99815	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	0.16072	$0.16077^{+0.00053}_{-0.00051}$	$\chi_{DR12BAO}^2$	4.25	$4.8 (\nu: 1.3)$
H_0	67.75	$67.8^{+1.3}_{-1.3}$	z_{eq}	3384	3382^{+70}_{-68}	χ_{prior}^2	1.6	$11.7 (\nu: 9.8)$
Ω_Λ	0.6901	$0.690^{+0.017}_{-0.018}$	k_{eq}	0.010328	$0.01032^{+0.00021}_{-0.00021}$	χ_{BAO}^2	5.55	$6.2 (\nu: 0.8)$
Ω_m	0.3099	$0.310^{+0.018}_{-0.017}$	$100\theta_{eq}$	0.8169	$0.817^{+0.013}_{-0.013}$	χ_{CMB}^2	2764.7	$2781.9 (\nu: 17.5)$
$\Omega_m h^2$	0.14224	$0.1422^{+0.0029}_{-0.0028}$	$100\theta_{s,eq}$	0.4512	$0.4514^{+0.0067}_{-0.0066}$			
$\Omega_m h^3$	0.09637	$0.09631^{+0.00077}_{-0.00078}$	$H(0.15)$	73.01	$73.0^{+1.1}_{-1.1}$			

Best-fit $\chi_{eff}^2 = 2771.88$; $\Delta\chi_{eff}^2 = -0.04$; $\bar{\chi}_{eff}^2 = 2799.77$; $\Delta\bar{\chi}_{eff}^2 = 1.87$; $R - 1 = 0.02417$

χ_{eff}^2 : BAO - 6DF: 0.02 (Δ -0.01) MGS: 1.28 (Δ 0.06) DR12BAO: 4.25 (Δ -0.16) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.37 (Δ 0.17) commander_dx12_v3_2_29: 23.20 (Δ 0.32) plik_rd12_HM_v22b_TTTEEE: 2345.16 (Δ -0.35)

5.11 base_alpha1_plikHM_TTTEEE_lowl_lowE_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022410	$0.02238^{+0.00037}_{-0.00038}$	$\Omega_m h^3$	0.09641	$0.09633^{+0.00075}_{-0.00075}$	$100\theta_{s,eq}$	0.4491	$0.4491^{+0.0089}_{-0.0083}$
$\Omega_c h^2$	0.12008	$0.1201^{+0.0038}_{-0.0039}$	σ_8	0.8115	$0.811^{+0.015}_{-0.015}$	$H(0.15)$	72.68	$72.6^{+1.5}_{-1.4}$
$100\theta_{MC}$	1.04090	$1.0409^{+0.0011}_{-0.0010}$	S_8	0.8322	$0.833^{+0.038}_{-0.037}$	$D_M(0.15)$	643.4	644^{+15}_{-15}
τ	0.0543	$0.054^{+0.021}_{-0.020}$	$\sigma_8 \Omega_m^{0.5}$	0.4558	$0.456^{+0.021}_{-0.021}$	$H(0.38)$	82.87	$82.8^{+1.1}_{-1.0}$
α_{-1}	0.00000	$-0.0001^{+0.0016}_{-0.0016}$	$\sigma_8 \Omega_m^{0.25}$	0.6082	$0.608^{+0.017}_{-0.018}$	$D_M(0.38)$	1533.4	1534^{+29}_{-29}
$\ln(10^{10} A_s)$	3.0446	$3.045^{+0.038}_{-0.037}$	$\sigma_8/h^{0.5}$	0.9888	$0.989^{+0.024}_{-0.025}$	$H(0.51)$	89.64	$89.60^{+0.85}_{-0.78}$
n_s	0.9657	$0.964^{+0.016}_{-0.014}$	$r_{drag} h$	99.03	$99.0^{+3.1}_{-3.0}$	$D_M(0.51)$	1985.8	1987^{+34}_{-35}
y_{cal}	1.0002	$1.0006^{+0.0062}_{-0.0063}$	$\langle d^2 \rangle^{1/2}$	2.444	$2.447^{+0.060}_{-0.061}$	$H(0.61)$	95.29	$95.26^{+0.67}_{-0.61}$
A_{217}^{CIB}	46.1	47^{+20}_{-20}	z_{re}	7.68	$7.7^{+2.0}_{-2.1}$	$D_M(0.61)$	2310.2	2312^{+37}_{-37}
$\xi^{tSZ \times CIB}$	0.60	—	$10^9 A_s$	2.100	$2.101^{+0.081}_{-0.076}$	$H(2.33)$	236.65	$236.6^{+2.3}_{-2.4}$
A_{143}^{tSZ}	7.1	—	$10^9 A_s e^{-2\tau}$	1.8840	$1.884^{+0.030}_{-0.031}$	$D_M(2.33)$	5762.3	5764^{+29}_{-30}
A_{100}^{PS}	248	259^{+70}_{-70}	D_{40}	1228.1	1230^{+39}_{-34}	$f\sigma_8(0.15)$	0.4601	$0.460^{+0.019}_{-0.019}$
A_{143}^{PS}	49.7	46^{+20}_{-20}	D_{220}	5732	5734^{+98}_{-98}	$\sigma_8(0.15)$	0.7495	$0.749^{+0.014}_{-0.014}$
$A_{143 \times 217}^{PS}$	51.7	42^{+20}_{-20}	D_{810}	2540.6	2540^{+33}_{-33}	$f\sigma_8(0.38)$	0.4776	$0.478^{+0.014}_{-0.015}$
A_{217}^{PS}	121.3	115^{+30}_{-30}	D_{1420}	818.2	817^{+12}_{-13}	$\sigma_8(0.38)$	0.6639	$0.664^{+0.013}_{-0.012}$
A^{kSZ}	0.0	—	D_{2000}	231.28	$230.8^{+4.1}_{-4.5}$	$f\sigma_8(0.51)$	0.4757	$0.476^{+0.012}_{-0.013}$
A_{100}^{dustTT}	8.79	$8.9^{+4.8}_{-4.6}$	$n_{s,0.002}$	0.9657	$0.964^{+0.016}_{-0.014}$	$\sigma_8(0.51)$	0.6211	$0.621^{+0.012}_{-0.012}$
A_{143}^{dustTT}	11.00	$10.9^{+4.8}_{-4.6}$	Y_P	0.245411	$0.24540^{+0.00014}_{-0.00016}$	$f\sigma_8(0.61)$	0.4704	$0.470^{+0.011}_{-0.011}$
$A_{143 \times 217}^{dustTT}$	20.1	$18.7^{+8.3}_{-8.6}$	Y_P^{BBN}	0.246738	$0.24672^{+0.00014}_{-0.00016}$	$\sigma_8(0.61)$	0.5909	$0.591^{+0.012}_{-0.012}$
A_{217}^{dustTT}	95.5	94^{+20}_{-20}	$10^5 D/H$	2.578	$2.585^{+0.073}_{-0.066}$	$f\sigma_8(2.33)$	0.2978	$0.2976^{+0.0063}_{-0.0062}$
A_{100}^{dustTE}	0.114	$0.116^{+0.094}_{-0.095}$	Age/Gyr	13.794	$13.799^{+0.066}_{-0.065}$	$\sigma_8(2.33)$	0.3068	$0.3066^{+0.0070}_{-0.0070}$
$A_{100 \times 143}^{dustTE}$	0.135	$0.136^{+0.078}_{-0.075}$	z_*	1089.88	$1089.92^{+0.67}_{-0.66}$	f_{2000}^{143}	28.6	30^{+7}_{-7}
$A_{100 \times 217}^{dustTE}$	0.482	$0.48^{+0.23}_{-0.22}$	r_*	144.38	$144.40^{+0.92}_{-0.89}$	$f_{2000}^{143 \times 217}$	31.86	32^{+5}_{-5}
A_{143}^{dustTE}	0.226	$0.23^{+0.14}_{-0.14}$	$100\theta_*$	1.04109	$1.0411^{+0.0011}_{-0.0010}$	f_{2000}^{217}	106.36	$107.0^{+4.7}_{-4.5}$
$A_{143 \times 217}^{dustTE}$	0.667	$0.67^{+0.21}_{-0.20}$	$D_M(z_*)/\text{Gpc}$	13.868	$13.870^{+0.083}_{-0.078}$	$\chi^2_{lensing}$	8.84	9.35 ($\nu: 0.3$)
A_{217}^{dustTE}	2.08	$2.08^{+0.67}_{-0.72}$	z_{drag}	1060.05	$1059.96^{+0.81}_{-0.83}$	χ^2_{small}	396.04	397.0 ($\nu: 1.6$)
c_{100}	0.99972	$0.9997^{+0.0016}_{-0.0015}$	r_{drag}	147.03	$147.06^{+0.95}_{-0.92}$	χ^2_{lowl}	23.15	23.4 ($\nu: 1.4$)
c_{217}	0.99817	$0.9982^{+0.0016}_{-0.0017}$	k_D	0.14097	$0.1409^{+0.0010}_{-0.0011}$	χ^2_{plik}	2345.1	2361.2 ($\nu: 18.1$)
H_0	67.35	$67.3^{+1.7}_{-1.7}$	$100\theta_D$	0.16070	$0.16074^{+0.00053}_{-0.00050}$	χ^2_{prior}	1.6	11.6 ($\nu: 10.0$)
Ω_Λ	0.6845	$0.684^{+0.024}_{-0.025}$	z_{eq}	3405	3405^{+87}_{-89}	χ^2_{CMB}	2773.1	2791.0 ($\nu: 18.5$)
Ω_m	0.3155	$0.316^{+0.025}_{-0.024}$	k_{eq}	0.010393	$0.01039^{+0.00027}_{-0.00027}$			
$\Omega_m h^2$	0.14314	$0.1431^{+0.0036}_{-0.0037}$	$100\theta_{eq}$	0.8129	$0.813^{+0.017}_{-0.016}$			

Best-fit $\chi^2_{eff} = 2774.65$; $\Delta\chi^2_{eff} = 0.02$; $\bar{\chi}^2_{eff} = 2802.58$; $\Delta\bar{\chi}^2_{eff} = 1.89$; $R - 1 = 0.01462$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.84 (Δ -0.03) small_100x143_offlike5_EE_Aplanck_B: 396.04 (Δ -0.01) commander_dx12_v3_2_29: 23.15 (Δ -0.10) plik_rd12_HM_v22b_TTTEEE: 2345.06 (Δ 0.13)

5.12 base_alpha1_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022420	$0.02241^{+0.00035}_{-0.00038}$	σ_8	0.8109	$0.810^{+0.015}_{-0.015}$	$D_M(0.15)$	640.5	$640^{+10}_{-9.9}$
$\Omega_c h^2$	0.11927	$0.1192^{+0.0027}_{-0.0026}$	S_8	0.8252	$0.824^{+0.029}_{-0.029}$	$H(0.38)$	83.07	$83.09^{+0.75}_{-0.73}$
$100\theta_{MC}$	1.04102	$1.04107^{+0.00094}_{-0.0010}$	$\sigma_8 \Omega_m^{0.5}$	0.4520	$0.451^{+0.016}_{-0.016}$	$D_M(0.38)$	1527.9	1527^{+20}_{-20}
τ	0.0560	$0.056^{+0.020}_{-0.018}$	$\sigma_8 \Omega_m^{0.25}$	0.6054	$0.605^{+0.015}_{-0.015}$	$H(0.51)$	89.78	$89.80^{+0.61}_{-0.58}$
α_{-1}	0.00001	$0.0001^{+0.0016}_{-0.0014}$	$\sigma_8/h^{0.5}$	0.9857	$0.985^{+0.022}_{-0.022}$	$D_M(0.51)$	1979.3	1979^{+24}_{-24}
$\ln(10^{10} A_s)$	3.0467	$3.046^{+0.038}_{-0.036}$	$r_{drag} h$	99.66	$99.7^{+2.1}_{-2.1}$	$H(0.61)$	95.397	$95.41^{+0.50}_{-0.48}$
n_s	0.9684	$0.968^{+0.012}_{-0.013}$	$\langle d^2 \rangle^{1/2}$	2.436	$2.436^{+0.054}_{-0.053}$	$D_M(0.61)$	2303.3	2303^{+25}_{-25}
y_{cal}	1.0009	$1.0008^{+0.0062}_{-0.0062}$	z_{re}	7.83	$7.8^{+1.9}_{-1.9}$	$H(2.33)$	236.14	$236.1^{+1.7}_{-1.7}$
A_{217}^{CIB}	46.4	47^{+20}_{-20}	$10^9 A_s$	2.104	$2.104^{+0.081}_{-0.074}$	$D_M(2.33)$	5758.5	5758^{+23}_{-23}
$\xi^{tSZ \times CIB}$	0.54	—	$10^9 A_s e^{-2\tau}$	1.8815	$1.880^{+0.028}_{-0.028}$	$f\sigma_8(0.15)$	0.4567	$0.456^{+0.015}_{-0.015}$
A_{143}^{tSZ}	7.12	$5.5^{+4.4}_{-4.7}$	D_{40}	1228.3	1231^{+40}_{-34}	$\sigma_8(0.15)$	0.7494	$0.749^{+0.014}_{-0.014}$
A_{100}^{PS}	249	258^{+70}_{-70}	D_{220}	5736	5737^{+97}_{-95}	$f\sigma_8(0.38)$	0.4752	$0.475^{+0.012}_{-0.012}$
A_{143}^{PS}	48.6	45^{+20}_{-20}	D_{810}	2542.0	2539^{+34}_{-32}	$\sigma_8(0.38)$	0.6644	$0.664^{+0.012}_{-0.012}$
$A_{143 \times 217}^{PS}$	49.9	42^{+20}_{-20}	D_{1420}	819.4	818^{+13}_{-12}	$f\sigma_8(0.51)$	0.4739	$0.473^{+0.011}_{-0.011}$
A_{217}^{PS}	120.7	115^{+30}_{-30}	D_{2000}	231.68	$231.2^{+4.0}_{-4.1}$	$\sigma_8(0.51)$	0.6218	$0.622^{+0.012}_{-0.012}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9684	$0.968^{+0.012}_{-0.013}$	$f\sigma_8(0.61)$	0.4690	$0.469^{+0.010}_{-0.010}$
A_{100}^{dustTT}	8.92	$8.9^{+4.7}_{-4.6}$	Y_P	0.245415	$0.24541^{+0.00013}_{-0.00016}$	$\sigma_8(0.61)$	0.5917	$0.591^{+0.011}_{-0.011}$
A_{143}^{dustTT}	11.07	$10.9^{+4.8}_{-4.5}$	Y_P^{BBN}	0.246742	$0.24673^{+0.00013}_{-0.00016}$	$f\sigma_8(2.33)$	0.2984	$0.2983^{+0.0059}_{-0.0058}$
$A_{143 \times 217}^{dustTT}$	20.0	$18.7^{+8.3}_{-8.4}$	$10^5 D/H$	2.576	$2.579^{+0.071}_{-0.062}$	$\sigma_8(2.33)$	0.3076	$0.3076^{+0.0064}_{-0.0062}$
A_{217}^{dustTT}	95.4	94^{+20}_{-20}	Age/Gyr	13.786	$13.786^{+0.051}_{-0.053}$	f_{2000}^{143}	28.5	29^{+7}_{-7}
A_{100}^{dustTE}	0.114	$0.115^{+0.094}_{-0.10}$	z_*	1089.79	$1089.80^{+0.57}_{-0.56}$	$f_{2000}^{143 \times 217}$	31.78	32^{+5}_{-5}
$A_{100 \times 143}^{dustTE}$	0.134	$0.136^{+0.075}_{-0.076}$	r_*	144.58	$144.62^{+0.69}_{-0.68}$	f_{2000}^{217}	106.43	$106.9^{+4.7}_{-4.5}$
$A_{100 \times 217}^{dustTE}$	0.482	$0.48^{+0.22}_{-0.21}$	$100\theta_*$	1.04120	$1.04125^{+0.00094}_{-0.0010}$	$\chi^2_{lensing}$	8.74	$9.14 (\nu: 0.2)$
A_{143}^{dustTE}	0.225	$0.23^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.886	$13.889^{+0.065}_{-0.062}$	χ^2_{small}	396.38	$397.3 (\nu: 2.0)$
$A_{143 \times 217}^{dustTE}$	0.667	$0.67^{+0.20}_{-0.19}$	z_{drag}	1060.01	$1059.96^{+0.81}_{-0.83}$	χ^2_{lowl}	23.24	$23.8 (\nu: 1.5)$
A_{217}^{dustTE}	2.09	$2.08^{+0.67}_{-0.72}$	r_{drag}	147.23	$147.27^{+0.73}_{-0.73}$	χ^2_{plik}	2344.9	$2360.6 (\nu: 17.6)$
c_{100}	0.99974	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14076	$0.14071^{+0.00091}_{-0.00092}$	χ^2_{6DF}	0.029	$0.053 (\nu: 0.0)$
c_{217}	0.99817	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	0.16073	$0.16076^{+0.00055}_{-0.00051}$	χ^2_{MGS}	1.22	$1.33 (\nu: 0.1)$
H_0	67.69	$67.7^{+1.2}_{-1.2}$	z_{eq}	3386	3383^{+63}_{-61}	$\chi^2_{DR12BAO}$	4.41	$4.7 (\nu: 1.1)$
Ω_Λ	0.6893	$0.690^{+0.016}_{-0.017}$	k_{eq}	0.010334	$0.01033^{+0.00019}_{-0.00019}$	χ^2_{prior}	1.7	$11.6 (\nu: 9.7)$
Ω_m	0.3107	$0.310^{+0.017}_{-0.016}$	$100\theta_{eq}$	0.8164	$0.817^{+0.012}_{-0.012}$	χ^2_{CMB}	2773.3	$2790.9 (\nu: 17.9)$
$\Omega_m h^2$	0.14233	$0.1422^{+0.0026}_{-0.0025}$	$100\theta_{s,eq}$	0.4510	$0.4513^{+0.0061}_{-0.0060}$	χ^2_{BAO}	5.66	$6.1 (\nu: 0.7)$
$\Omega_m h^3$	0.09634	$0.09632^{+0.00075}_{-0.00078}$	$H(0.15)$	72.96	$73.0^{+1.0}_{-1.0}$			

Best-fit $\chi^2_{eff} = 2780.63$; $\Delta\chi^2_{eff} = -0.07$; $\bar{\chi}^2_{eff} = 2808.59$; $\Delta\bar{\chi}^2_{eff} = 1.75$; $R - 1 = 0.02748$

χ^2_{eff} : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.41 (Δ -0.01) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.74 (Δ 0.01) small_100x143_offlike5_EE_Aplanck: 396.38 (Δ -0.14) commander_dx12_v3.2_29: 23.24 (Δ 0.34) plik_rd12_HM_v22b.TTTEEE: 2344.91 (Δ -0.41)

5.13 base_alpha1_plikHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02236^{+0.00038}_{-0.00040}$	$\Omega_m h^2$	$0.1435^{+0.0043}_{-0.0044}$	k_{eq}	$0.01042^{+0.00032}_{-0.00032}$
$\Omega_c h^2$	$0.1205^{+0.0045}_{-0.0045}$	$\Omega_m h^3$	$0.09634^{+0.00075}_{-0.00076}$	$100\theta_{\text{eq}}$	$0.811^{+0.020}_{-0.019}$
$100\theta_{\text{MC}}$	$1.0408^{+0.0011}_{-0.0011}$	σ_8	$0.813^{+0.020}_{-0.018}$	$100\theta_{\text{s,eq}}$	$0.448^{+0.010}_{-0.0098}$
τ	$0.056^{+0.019}_{-0.014}$	S_8	$0.838^{+0.051}_{-0.049}$	$H(0.15)$	$72.5^{+1.8}_{-1.7}$
α_{-1}	$-0.0001^{+0.0018}_{-0.0018}$	$\sigma_8 \Omega_m^{0.5}$	$0.459^{+0.028}_{-0.027}$	$D_{\text{M}}(0.15)$	645^{+17}_{-17}
$\ln(10^{10} A_s)$	$3.048^{+0.042}_{-0.032}$	$\sigma_8 \Omega_m^{0.25}$	$0.611^{+0.024}_{-0.024}$	$H(0.38)$	$82.8^{+1.3}_{-1.2}$
n_s	$0.964^{+0.017}_{-0.016}$	$\sigma_8/h^{0.5}$	$0.992^{+0.033}_{-0.032}$	$D_{\text{M}}(0.38)$	1537^{+34}_{-35}
y_{cal}	$1.0006^{+0.0065}_{-0.0062}$	$r_{\text{drag}} h$	$98.7^{+3.7}_{-3.5}$	$H(0.51)$	$89.54^{+0.99}_{-0.90}$
A_{217}^{CIB}	47^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	$2.455^{+0.084}_{-0.083}$	$D_{\text{M}}(0.51)$	1990^{+40}_{-40}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	< 9.57	$H(0.61)$	$95.22^{+0.78}_{-0.70}$
A_{143}^{tSZ}	$5.4^{+4.3}_{-4.9}$	$10^9 A_s$	$2.108^{+0.091}_{-0.066}$	$D_{\text{M}}(0.61)$	2315^{+43}_{-43}
A_{100}^{PS}	259^{+70}_{-70}	$10^9 A_s e^{-2\tau}$	$1.886^{+0.035}_{-0.036}$	$H(2.33)$	$236.8^{+2.7}_{-2.8}$
A_{143}^{PS}	46^{+20}_{-20}	D_{40}	1231^{+38}_{-34}	$D_{\text{M}}(2.33)$	5766^{+32}_{-33}
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{220}	5733^{+96}_{-98}	$f\sigma_8(0.15)$	$0.463^{+0.026}_{-0.025}$
A_{217}^{PS}	115^{+30}_{-30}	D_{810}	2540^{+34}_{-34}	$\sigma_8(0.15)$	$0.751^{+0.017}_{-0.015}$
A^{kSZ}	—	D_{1420}	817^{+12}_{-13}	$f\sigma_8(0.38)$	$0.480^{+0.020}_{-0.020}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.8}$	D_{2000}	$230.8^{+4.0}_{-4.2}$	$\sigma_8(0.38)$	$0.665^{+0.014}_{-0.012}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.5}$	$n_{\text{s},0.002}$	$0.964^{+0.017}_{-0.016}$	$f\sigma_8(0.51)$	$0.477^{+0.017}_{-0.017}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.5}_{-8.5}$	Y_{P}	$0.24539^{+0.00014}_{-0.00017}$	$\sigma_8(0.51)$	$0.622^{+0.013}_{-0.011}$
A_{217}^{dustTT}	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24672^{+0.00014}_{-0.00017}$	$f\sigma_8(0.61)$	$0.472^{+0.015}_{-0.015}$
A_{100}^{dustTE}	$0.115^{+0.10}_{-0.096}$	$10^5 \text{D}/\text{H}$	$2.587^{+0.075}_{-0.068}$	$\sigma_8(0.61)$	$0.592^{+0.012}_{-0.0099}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.077}_{-0.075}$	Age/Gyr	$13.803^{+0.072}_{-0.072}$	$f\sigma_8(2.33)$	$0.2980^{+0.0063}_{-0.0049}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	z_*	$1089.97^{+0.78}_{-0.73}$	$\sigma_8(2.33)$	$0.3070^{+0.0068}_{-0.0053}$
A_{143}^{dustTE}	$0.23^{+0.14}_{-0.14}$	r_*	$144.3^{+1.1}_{-1.0}$	f_{2000}^{143}	30^{+7}_{-7}
$A_{143 \times 217}^{\text{dustTE}}$	$0.67^{+0.21}_{-0.20}$	$100\theta_*$	$1.0410^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
A_{217}^{dustTE}	$2.09^{+0.70}_{-0.70}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.864^{+0.096}_{-0.093}$	f_{2000}^{217}	$107.0^{+4.7}_{-4.5}$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	z_{drag}	$1059.95^{+0.82}_{-0.82}$	χ_{small}^2	$397.1 (\nu: 1.9)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	$147.0^{+1.1}_{-1.0}$	χ_{lowl}^2	$23.4 (\nu: 1.3)$
H_0	$67.2^{+2.0}_{-2.0}$	k_{D}	$0.1410^{+0.0011}_{-0.0012}$	χ_{plik}^2	$2361.4 (\nu: 18.5)$
Ω_{Λ}	$0.682^{+0.028}_{-0.029}$	$100\theta_{\text{D}}$	$0.16074^{+0.00053}_{-0.00051}$	χ_{prior}^2	$11.5 (\nu: 10.2)$
Ω_{m}	$0.318^{+0.029}_{-0.028}$	z_{eq}	3413^{+100}_{-100}	χ_{CMB}^2	$2781.9 (\nu: 17.9)$

$$\bar{\chi}_{\text{eff}}^2 = 2793.42; \Delta\bar{\chi}_{\text{eff}}^2 = 1.88; R - 1 = 0.01296$$

5.14 base_alpha1_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02240^{+0.00035}_{-0.00038}$	σ_8	$0.810^{+0.019}_{-0.015}$	$D_M(0.15)$	640^{+11}_{-11}
$\Omega_c h^2$	$0.1191^{+0.0030}_{-0.0029}$	S_8	$0.823^{+0.035}_{-0.033}$	$H(0.38)$	$83.11^{+0.81}_{-0.78}$
$100\theta_{MC}$	$1.04109^{+0.00092}_{-0.0010}$	$\sigma_8 \Omega_m^{0.5}$	$0.451^{+0.019}_{-0.018}$	$D_M(0.38)$	1527^{+22}_{-22}
τ	$0.056^{+0.020}_{-0.015}$	$\sigma_8 \Omega_m^{0.25}$	$0.604^{+0.019}_{-0.017}$	$H(0.51)$	$89.81^{+0.65}_{-0.62}$
α_{-1}	$0.0001^{+0.0016}_{-0.0014}$	$\sigma_8/h^{0.5}$	$0.984^{+0.027}_{-0.024}$	$D_M(0.51)$	1978^{+26}_{-26}
$\ln(10^{10} A_s)$	$3.046^{+0.042}_{-0.032}$	$r_{\text{drag}} h$	$99.8^{+2.3}_{-2.3}$	$H(0.61)$	$95.42^{+0.53}_{-0.50}$
n_s	$0.968^{+0.013}_{-0.013}$	$\langle d^2 \rangle^{1/2}$	$2.434^{+0.067}_{-0.063}$	$D_M(0.61)$	2302^{+28}_{-28}
y_{cal}	$1.0007^{+0.0063}_{-0.0063}$	z_{re}	< 9.62	$H(2.33)$	$236.0^{+1.9}_{-1.8}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.103^{+0.090}_{-0.066}$	$D_M(2.33)$	5758^{+24}_{-24}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.879^{+0.030}_{-0.029}$	$f\sigma_8(0.15)$	$0.456^{+0.018}_{-0.017}$
A_{143}^{tSZ}	> 0.835	D_{40}	1230^{+40}_{-34}	$\sigma_8(0.15)$	$0.749^{+0.017}_{-0.014}$
A_{100}^{PS}	258^{+70}_{-70}	D_{220}	5734^{+99}_{-98}	$f\sigma_8(0.38)$	$0.474^{+0.015}_{-0.014}$
A_{143}^{PS}	45^{+20}_{-20}	D_{810}	2539^{+34}_{-33}	$\sigma_8(0.38)$	$0.664^{+0.014}_{-0.011}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	818^{+12}_{-12}	$f\sigma_8(0.51)$	$0.473^{+0.014}_{-0.013}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$231.2^{+4.0}_{-4.1}$	$\sigma_8(0.51)$	$0.622^{+0.013}_{-0.011}$
A^{kSZ}	—	$n_{s,0.002}$	$0.968^{+0.013}_{-0.013}$	$f\sigma_8(0.61)$	$0.468^{+0.013}_{-0.011}$
A_{100}^{dustTT}	$9.0^{+4.7}_{-4.7}$	Y_P	$0.24541^{+0.00013}_{-0.00015}$	$\sigma_8(0.61)$	$0.591^{+0.012}_{-0.010}$
A_{143}^{dustTT}	$10.9^{+4.7}_{-4.5}$	Y_P^{BBN}	$0.24673^{+0.00013}_{-0.00015}$	$f\sigma_8(2.33)$	$0.2983^{+0.0063}_{-0.0050}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.7^{+8.6}_{-8.4}$	$10^5 D/H$	$2.580^{+0.071}_{-0.063}$	$\sigma_8(2.33)$	$0.3076^{+0.0067}_{-0.0052}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.785^{+0.053}_{-0.054}$	f_{2000}^{143}	29^{+7}_{-7}
A_{100}^{dustTE}	$0.115^{+0.094}_{-0.10}$	z_*	$1089.80^{+0.59}_{-0.57}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	$0.136^{+0.076}_{-0.075}$	r_*	$144.64^{+0.72}_{-0.75}$	f_{2000}^{217}	$106.8^{+4.7}_{-4.5}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.21}_{-0.21}$	$100\theta_*$	$1.04127^{+0.00093}_{-0.0010}$	χ_{simall}^2	$397.2 (\nu: 2.2)$
A_{143}^{dustTE}	$0.23^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.890^{+0.067}_{-0.067}$	χ_{lowl}^2	$23.8 (\nu: 1.4)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.67^{+0.20}_{-0.19}$	z_{drag}	$1059.95^{+0.82}_{-0.82}$	χ_{plik}^2	$2360.8 (\nu: 17.7)$
A_{217}^{dustTE}	$2.08^{+0.66}_{-0.72}$	r_{drag}	$147.29^{+0.76}_{-0.79}$	$\chi_{6\text{DF}}^2$	$0.056 (\nu: 0.0)$
c_{100}	$0.9996^{+0.0016}_{-0.0017}$	k_D	$0.14068^{+0.00095}_{-0.00094}$	χ_{MGS}^2	$1.36 (\nu: 0.1)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.16077^{+0.00054}_{-0.00051}$	χ_{DR12BAO}^2	$4.8 (\nu: 1.2)$
H_0	$67.8^{+1.3}_{-1.3}$	z_{eq}	3382^{+70}_{-67}	χ_{prior}^2	$11.7 (\nu: 9.7)$
Ω_Λ	$0.690^{+0.017}_{-0.018}$	k_{eq}	$0.01032^{+0.00021}_{-0.00021}$	χ_{BAO}^2	$6.2 (\nu: 0.8)$
Ω_m	$0.310^{+0.018}_{-0.017}$	$100\theta_{\text{eq}}$	$0.817^{+0.013}_{-0.013}$	χ_{CMB}^2	$2781.8 (\nu: 17.3)$
$\Omega_m h^2$	$0.1422^{+0.0029}_{-0.0028}$	$100\theta_{s,\text{eq}}$	$0.4514^{+0.0067}_{-0.0066}$		
$\Omega_m h^3$	$0.09631^{+0.00077}_{-0.00078}$	$H(0.15)$	$73.0^{+1.1}_{-1.1}$		

$$\bar{\chi}_{\text{eff}}^2 = 2799.63; \Delta \bar{\chi}_{\text{eff}}^2 = 1.91; R - 1 = 0.02644$$

5.15 base_alpha1_plikHM_TTTEEE_lowl_lowE_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02238^{+0.00037}_{-0.00038}$	$\Omega_m h^3$	$0.09633^{+0.00074}_{-0.00075}$	$100\theta_{s,eq}$	$0.4493^{+0.0088}_{-0.0080}$
$\Omega_c h^2$	$0.1200^{+0.0037}_{-0.0038}$	σ_8	$0.812^{+0.015}_{-0.014}$	$H(0.15)$	$72.7^{+1.5}_{-1.4}$
$100\theta_{MC}$	$1.0409^{+0.0011}_{-0.0010}$	S_8	$0.833^{+0.038}_{-0.037}$	$D_M(0.15)$	644^{+14}_{-14}
τ	$0.055^{+0.019}_{-0.014}$	$\sigma_8 \Omega_m^{0.5}$	$0.456^{+0.021}_{-0.020}$	$H(0.38)$	$82.9^{+1.1}_{-0.99}$
α_{-1}	$-0.0001^{+0.0016}_{-0.0017}$	$\sigma_8 \Omega_m^{0.25}$	$0.608^{+0.017}_{-0.018}$	$D_M(0.38)$	1534^{+28}_{-29}
$\ln(10^{10} A_s)$	$3.046^{+0.036}_{-0.028}$	$\sigma_8/h^{0.5}$	$0.989^{+0.024}_{-0.024}$	$H(0.51)$	$89.62^{+0.84}_{-0.77}$
n_s	$0.965^{+0.015}_{-0.014}$	$r_{drag} h$	$99.0^{+3.1}_{-2.9}$	$D_M(0.51)$	1986^{+33}_{-34}
y_{cal}	$1.0006^{+0.0062}_{-0.0063}$	$\langle d^2 \rangle^{1/2}$	$2.448^{+0.060}_{-0.060}$	$H(0.61)$	$95.27^{+0.67}_{-0.60}$
A_{217}^{CIB}	47^{+20}_{-20}	z_{re}	< 9.48	$D_M(0.61)$	2311^{+35}_{-37}
$\xi^{tSZ \times CIB}$	—	$10^9 A_s$	$2.104^{+0.078}_{-0.058}$	$H(2.33)$	$236.6^{+2.2}_{-2.3}$
A_{143}^{tSZ}	$5.5^{+4.4}_{-4.7}$	$10^9 A_s e^{-2\tau}$	$1.884^{+0.030}_{-0.031}$	$D_M(2.33)$	5764^{+29}_{-29}
A_{100}^{PS}	259^{+70}_{-70}	D_{40}	1230^{+39}_{-34}	$f\sigma_8(0.15)$	$0.460^{+0.019}_{-0.019}$
A_{143}^{PS}	46^{+20}_{-20}	D_{220}	5734^{+98}_{-98}	$\sigma_8(0.15)$	$0.750^{+0.013}_{-0.012}$
$A_{143 \times 217}^{PS}$	42^{+20}_{-20}	D_{810}	2539^{+33}_{-33}	$f\sigma_8(0.38)$	$0.478^{+0.014}_{-0.015}$
A_{217}^{PS}	115^{+30}_{-30}	D_{1420}	817^{+12}_{-13}	$\sigma_8(0.38)$	$0.664^{+0.012}_{-0.010}$
A^{kSZ}	—	D_{2000}	$230.9^{+4.1}_{-4.3}$	$f\sigma_8(0.51)$	$0.476^{+0.012}_{-0.013}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.8}$	$n_{s,0.002}$	$0.965^{+0.015}_{-0.014}$	$\sigma_8(0.51)$	$0.621^{+0.012}_{-0.0095}$
A_{143}^{dustTT}	$10.9^{+4.9}_{-4.5}$	Y_P	$0.24540^{+0.00014}_{-0.00016}$	$f\sigma_8(0.61)$	$0.471^{+0.011}_{-0.011}$
$A_{143 \times 217}^{dustTT}$	$18.7^{+8.3}_{-8.5}$	Y_P^{BBN}	$0.24672^{+0.00014}_{-0.00016}$	$\sigma_8(0.61)$	$0.591^{+0.011}_{-0.0091}$
A_{217}^{dustTT}	94^{+20}_{-20}	$10^5 D/H$	$2.584^{+0.072}_{-0.066}$	$f\sigma_8(2.33)$	$0.2979^{+0.0061}_{-0.0047}$
A_{100}^{dustTE}	$0.115^{+0.094}_{-0.096}$	Age/Gyr	$13.798^{+0.064}_{-0.065}$	$\sigma_8(2.33)$	$0.3069^{+0.0067}_{-0.0052}$
$A_{100 \times 143}^{dustTE}$	$0.135^{+0.079}_{-0.075}$	z_*	$1089.91^{+0.67}_{-0.65}$	f_{2000}^{143}	30^{+7}_{-7}
$A_{100 \times 217}^{dustTE}$	$0.48^{+0.23}_{-0.22}$	r_*	$144.41^{+0.92}_{-0.88}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
A_{143}^{dustTE}	$0.23^{+0.14}_{-0.14}$	$100\theta_*$	$1.0411^{+0.0011}_{-0.0010}$	f_{2000}^{217}	$107.0^{+4.6}_{-4.5}$
$A_{143 \times 217}^{dustTE}$	$0.67^{+0.21}_{-0.20}$	$D_M(z_*)/\text{Gpc}$	$13.872^{+0.082}_{-0.077}$	$\chi_{lensing}^2$	$9.34 (\nu: 0.3)$
A_{217}^{dustTE}	$2.08^{+0.67}_{-0.72}$	z_{drag}	$1059.96^{+0.81}_{-0.83}$	χ_{simall}^2	$397.0 (\nu: 1.6)$
c_{100}	$0.9997^{+0.0016}_{-0.0015}$	r_{drag}	$147.07^{+0.94}_{-0.90}$	χ_{lowl}^2	$23.4 (\nu: 1.4)$
c_{217}	$0.9982^{+0.0016}_{-0.0017}$	k_D	$0.1409^{+0.0010}_{-0.0011}$	χ_{plik}^2	$2361.0 (\nu: 17.7)$
H_0	$67.3^{+1.7}_{-1.6}$	$100\theta_D$	$0.16074^{+0.00053}_{-0.00051}$	χ_{prior}^2	$11.6 (\nu: 9.9)$
Ω_Λ	$0.684^{+0.023}_{-0.024}$	z_{eq}	3403^{+83}_{-88}	χ_{CMB}^2	$2790.8 (\nu: 18.0)$
Ω_m	$0.316^{+0.024}_{-0.023}$	k_{eq}	$0.01039^{+0.00025}_{-0.00027}$		
$\Omega_m h^2$	$0.1431^{+0.0035}_{-0.0037}$	$100\theta_{eq}$	$0.813^{+0.017}_{-0.016}$		

$$\bar{\chi}_{eff}^2 = 2802.36; \Delta \bar{\chi}_{eff}^2 = 1.86; R - 1 = 0.01801$$

5.16 base_alpha1_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02241^{+0.00035}_{-0.00038}$	σ_8	$0.811^{+0.015}_{-0.014}$	$D_M(0.15)$	$640^{+10}_{-9.9}$
$\Omega_c h^2$	$0.1192^{+0.0027}_{-0.0026}$	S_8	$0.824^{+0.029}_{-0.029}$	$H(0.38)$	$83.10^{+0.75}_{-0.73}$
$100\theta_{MC}$	$1.04107^{+0.00094}_{-0.0010}$	$\sigma_8 \Omega_m^{0.5}$	$0.451^{+0.016}_{-0.016}$	$D_M(0.38)$	1527^{+20}_{-20}
τ	$0.057^{+0.019}_{-0.015}$	$\sigma_8 \Omega_m^{0.25}$	$0.605^{+0.015}_{-0.015}$	$H(0.51)$	$89.80^{+0.61}_{-0.58}$
α_{-1}	$0.0001^{+0.0016}_{-0.0014}$	$\sigma_8/h^{0.5}$	$0.985^{+0.022}_{-0.021}$	$D_M(0.51)$	1978^{+23}_{-24}
$\ln(10^{10} A_s)$	$3.047^{+0.037}_{-0.029}$	$r_{\text{drag}} h$	$99.8^{+2.1}_{-2.1}$	$H(0.61)$	$95.41^{+0.49}_{-0.47}$
n_s	$0.968^{+0.012}_{-0.013}$	$\langle d^2 \rangle^{1/2}$	$2.437^{+0.054}_{-0.051}$	$D_M(0.61)$	2302^{+25}_{-25}
y_{cal}	$1.0008^{+0.0063}_{-0.0062}$	z_{re}	< 9.59	$H(2.33)$	$236.1^{+1.7}_{-1.7}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.106^{+0.079}_{-0.061}$	$D_M(2.33)$	5758^{+23}_{-23}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.879^{+0.028}_{-0.028}$	$f\sigma_8(0.15)$	$0.456^{+0.015}_{-0.015}$
A_{143}^{tSZ}	$5.5^{+4.4}_{-4.7}$	D_{40}	1231^{+40}_{-34}	$\sigma_8(0.15)$	$0.749^{+0.014}_{-0.012}$
A_{100}^{PS}	258^{+70}_{-70}	D_{220}	5737^{+98}_{-95}	$f\sigma_8(0.38)$	$0.475^{+0.012}_{-0.012}$
A_{143}^{PS}	45^{+20}_{-20}	D_{810}	2539^{+34}_{-32}	$\sigma_8(0.38)$	$0.664^{+0.012}_{-0.011}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	818^{+12}_{-12}	$f\sigma_8(0.51)$	$0.474^{+0.011}_{-0.011}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$231.2^{+4.0}_{-4.1}$	$\sigma_8(0.51)$	$0.622^{+0.012}_{-0.010}$
A^{kSZ}	—	$n_{s,0.002}$	$0.968^{+0.012}_{-0.013}$	$f\sigma_8(0.61)$	$0.469^{+0.010}_{-0.0096}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.6}$	Y_P	$0.24541^{+0.00013}_{-0.00016}$	$\sigma_8(0.61)$	$0.592^{+0.011}_{-0.0096}$
A_{143}^{dustTT}	$10.9^{+4.8}_{-4.5}$	Y_P^{BBN}	$0.24673^{+0.00013}_{-0.00016}$	$f\sigma_8(2.33)$	$0.2984^{+0.0058}_{-0.0049}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.3}_{-8.4}$	$10^5 D/H$	$2.579^{+0.072}_{-0.062}$	$\sigma_8(2.33)$	$0.3077^{+0.0063}_{-0.0052}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.785^{+0.051}_{-0.052}$	f_{2000}^{143}	29^{+7}_{-7}
A_{100}^{dustTE}	$0.115^{+0.094}_{-0.10}$	z_*	$1089.80^{+0.56}_{-0.56}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	$0.136^{+0.075}_{-0.076}$	r_*	$144.62^{+0.68}_{-0.67}$	f_{2000}^{217}	$106.9^{+4.7}_{-4.5}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.21}_{-0.21}$	$100\theta_*$	$1.04125^{+0.00094}_{-0.0010}$	χ_{lensing}^2	$9.12 (\nu: 0.2)$
A_{143}^{dustTE}	$0.23^{+0.13}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.889^{+0.064}_{-0.062}$	χ_{simall}^2	$397.3 (\nu: 2.1)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.67^{+0.20}_{-0.19}$	z_{drag}	$1059.96^{+0.81}_{-0.87}$	χ_{lowl}^2	$23.8 (\nu: 1.5)$
A_{217}^{dustTE}	$2.08^{+0.66}_{-0.72}$	r_{drag}	$147.27^{+0.73}_{-0.73}$	χ_{plik}^2	$2360.6 (\nu: 17.5)$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	k_D	$0.14070^{+0.00090}_{-0.00092}$	$\chi_{6\text{DF}}^2$	$0.052 (\nu: 0.0)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.16076^{+0.00056}_{-0.00051}$	χ_{MGS}^2	$1.34 (\nu: 0.1)$
H_0	$67.7^{+1.2}_{-1.2}$	z_{eq}	3383^{+62}_{-60}	χ_{DR12BAO}^2	$4.7 (\nu: 1.0)$
Ω_Λ	$0.690^{+0.016}_{-0.017}$	k_{eq}	$0.01032^{+0.00019}_{-0.00018}$	χ_{prior}^2	$11.6 (\nu: 9.7)$
Ω_m	$0.310^{+0.017}_{-0.016}$	$100\theta_{\text{eq}}$	$0.817^{+0.012}_{-0.012}$	χ_{CMB}^2	$2790.8 (\nu: 17.9)$
$\Omega_m h^2$	$0.1422^{+0.0026}_{-0.0025}$	$100\theta_{s,\text{eq}}$	$0.4513^{+0.0060}_{-0.0060}$	χ_{BAO}^2	$6.1 (\nu: 0.6)$
$\Omega_m h^3$	$0.09632^{+0.00073}_{-0.00078}$	$H(0.15)$	$73.0^{+1.0}_{-1.0}$		

$$\bar{\chi}_{\text{eff}}^2 = 2808.47; \Delta\bar{\chi}_{\text{eff}}^2 = 1.75; R - 1 = 0.02935$$

6 mnu

6.1 base_mnu_plikHM_TT_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02216	$0.02205^{+0.00059}_{-0.00070}$	$\sigma_8 \Omega_m^{0.5}$	0.4615	$0.457^{+0.034}_{-0.037}$	$H(0.15)$	72.8	$71.2^{+3.2}_{-7.2}$
$\Omega_c h^2$	0.1204	$0.1210^{+0.0060}_{-0.0057}$	$\sigma_8 \Omega_m^{0.25}$	0.617	$0.600^{+0.038}_{-0.075}$	$D_M(0.15)$	642	658^{+80}_{-30}
$100\theta_{MC}$	1.04081	$1.0406^{+0.0013}_{-0.0014}$	$\sigma_8/h^{0.5}$	1.004	$0.973^{+0.058}_{-0.14}$	$H(0.38)$	82.94	$81.7^{+2.4}_{-5.3}$
τ	0.0525	$0.052^{+0.022}_{-0.021}$	$r_{drag} h$	99.4	$96.7^{+6.1}_{-13}$	$D_M(0.38)$	1531	1564^{+170}_{-65}
Σm_ν [eV]	0.001	< 0.856	$\langle d^2 \rangle^{1/2}$	2.459	$2.448^{+0.097}_{-0.098}$	$H(0.51)$	89.68	$88.7^{+1.9}_{-4.3}$
$\ln(10^{10} A_s)$	3.0413	$3.040^{+0.044}_{-0.043}$	z_{re}	7.55	$7.5^{+2.1}_{-2.4}$	$D_M(0.51)$	1983	2022^{+190}_{-77}
n_s	0.9640	$0.961^{+0.016}_{-0.018}$	$10^9 A_s$	2.093	$2.091^{+0.093}_{-0.089}$	$H(0.61)$	95.31	$94.5^{+1.6}_{-3.5}$
y_{cal}	1.0004	$1.0005^{+0.0064}_{-0.0065}$	$10^9 A_s e^{-2\tau}$	1.8845	$1.886^{+0.035}_{-0.035}$	$D_M(0.61)$	2308	2350^{+210}_{-83}
A_{217}^{CIB}	48.6	48^{+20}_{-20}	D_{40}	1231.4	1234^{+40}_{-39}	$H(2.33)$	236.3	$237.6^{+7.2}_{-4.0}$
$\xi^{tSZ \times CIB}$	0.35	—	D_{220}	5713	5712^{+110}_{-100}	$D_M(2.33)$	5763	5806^{+200}_{-75}
A_{143}^{tSZ}	7.0	—	D_{810}	2537.6	2537^{+35}_{-37}	$f\sigma_8(0.15)$	0.4653	$0.460^{+0.031}_{-0.037}$
A_{100}^{PS}	254	265^{+70}_{-70}	D_{1420}	815.4	814^{+13}_{-13}	$\sigma_8(0.15)$	0.762	$0.727^{+0.052}_{-0.13}$
A_{143}^{PS}	49.8	50^{+20}_{-20}	D_{2000}	230.08	$229.2^{+4.7}_{-5.0}$	$f\sigma_8(0.38)$	0.4834	$0.473^{+0.028}_{-0.055}$
$A_{143 \times 217}^{PS}$	47.7	44^{+20}_{-20}	$n_{s,0.002}$	0.9640	$0.961^{+0.016}_{-0.018}$	$\sigma_8(0.38)$	0.675	$0.642^{+0.047}_{-0.12}$
A_{217}^{PS}	119.6	115^{+30}_{-30}	Y_P	0.245310	$0.24525^{+0.00024}_{-0.00032}$	$f\sigma_8(0.51)$	0.4817	$0.469^{+0.027}_{-0.065}$
A^{kSZ}	0.0	—	Y_P^{BBN}	0.246636	$0.24658^{+0.00024}_{-0.00032}$	$\sigma_8(0.51)$	0.632	$0.600^{+0.044}_{-0.12}$
A_{100}^{dustTT}	8.88	$8.9^{+4.7}_{-4.7}$	$10^5 D/H$	2.625	$2.65^{+0.14}_{-0.11}$	$f\sigma_8(0.61)$	0.4765	$0.463^{+0.030}_{-0.060}$
A_{143}^{dustTT}	10.82	$10.7^{+4.6}_{-4.6}$	Age/Gyr	13.795	$13.90^{+0.47}_{-0.17}$	$\sigma_8(0.61)$	0.601	$0.571^{+0.042}_{-0.11}$
$A_{143 \times 217}^{dustTT}$	19.5	$18.3^{+8.4}_{-8.8}$	z_*	1090.22	$1090.4^{+1.5}_{-1.1}$	$f\sigma_8(2.33)$	0.3019	$0.288^{+0.020}_{-0.054}$
A_{217}^{dustTT}	94.7	93^{+20}_{-20}	r_*	144.48	$144.4^{+1.3}_{-1.4}$	$\sigma_8(2.33)$	0.3116	$0.296^{+0.023}_{-0.061}$
c_{100}	0.99965	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	1.04099	$1.0409^{+0.0012}_{-0.0012}$	f_{2000}^{143}	30.2	32^{+8}_{-8}
c_{217}	0.99826	$0.9983^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.879	$13.87^{+0.12}_{-0.13}$	$f_{2000}^{143 \times 217}$	33.2	34^{+6}_{-5}
H_0	67.5	$65.7^{+3.7}_{-8.4}$	z_{drag}	1059.47	$1059.3^{+1.2}_{-1.3}$	f_{2000}^{217}	107.6	$108.6^{+5.4}_{-5.0}$
Ω_Λ	0.687	$0.663^{+0.050}_{-0.14}$	r_{drag}	147.22	$147.2^{+1.3}_{-1.3}$	χ_{simall}^2	395.87	$396.9 (\nu: 1.4)$
Ω_m	0.313	$0.337^{+0.14}_{-0.050}$	k_D	0.14057	$0.1406^{+0.0014}_{-0.0013}$	χ_{lowl}^2	23.66	$23.9 (\nu: 0.8)$
$\Omega_m h^2$	0.1426	$0.145^{+0.013}_{-0.0065}$	$100\theta_D$	0.16102	$0.16112^{+0.00069}_{-0.00068}$	χ_{plik}^2	758.1	$772.5 (\nu: 16.3)$
$\Omega_\nu h^2$	0.00001	< 0.00921	z_{eq}	3408	3419^{+130}_{-130}	χ_{prior}^2	1.3	$7.3 (\nu: 6.7)$
$\Omega_m h^3$	0.09626	$0.0952^{+0.0020}_{-0.0052}$	k_{eq}	0.010401	$0.01044^{+0.00041}_{-0.00040}$	χ_{CMB}^2	1177.6	$1193.4 (\nu: 16.9)$
σ_8	0.825	$0.789^{+0.055}_{-0.13}$	$100\theta_{eq}$	0.8116	$0.809^{+0.025}_{-0.024}$			
S_8	0.843	$0.834^{+0.062}_{-0.067}$	$100\theta_{s,eq}$	0.4486	$0.448^{+0.013}_{-0.012}$			

Best-fit $\chi_{eff}^2 = 1178.95$; $\Delta\chi_{eff}^2 = -0.62$; $\bar{\chi}_{eff}^2 = 1200.74$; $\Delta\bar{\chi}_{eff}^2 = 1.16$; $R - 1 = 0.00818$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.87 (Δ -0.00) commander_dx12_v3_2_29: 23.66 (Δ 0.06) plik_rd12_HM_v22_TT: 758.09 (Δ -0.66)

6.2 base_mnu_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02206^{+0.00059}_{-0.00068}$	$\sigma_8 \Omega_m^{0.5}$	$0.457^{+0.034}_{-0.036}$	$H(0.15)$	$71.3^{+3.2}_{-7.0}$
$\Omega_c h^2$	$0.1209^{+0.0059}_{-0.0057}$	$\sigma_8 \Omega_m^{0.25}$	$0.601^{+0.038}_{-0.074}$	$D_M(0.15)$	658^{+80}_{-30}
$100\theta_{MC}$	$1.0407^{+0.0013}_{-0.0014}$	$\sigma_8/h^{0.5}$	$0.974^{+0.058}_{-0.13}$	$H(0.38)$	$81.8^{+2.4}_{-5.2}$
τ	$0.053^{+0.019}_{-0.013}$	$r_{\text{drag}} h$	$96.8^{+6.2}_{-13}$	$D_M(0.38)$	1563^{+160}_{-65}
$\Sigma m_\nu [\text{eV}]$	< 0.838	$\langle d^2 \rangle^{1/2}$	$2.451^{+0.096}_{-0.096}$	$H(0.51)$	$88.7^{+1.9}_{-4.2}$
$\ln(10^{10} A_s)$	$3.043^{+0.041}_{-0.030}$	z_{re}	< 9.42	$D_M(0.51)$	2021^{+190}_{-77}
n_s	$0.962^{+0.016}_{-0.017}$	$10^9 A_s$	$2.098^{+0.087}_{-0.062}$	$H(0.61)$	$94.5^{+1.6}_{-3.5}$
y_{cal}	$1.0005^{+0.0064}_{-0.0066}$	$10^9 A_s e^{-2\tau}$	$1.885^{+0.036}_{-0.035}$	$D_M(0.61)$	2349^{+200}_{-83}
A_{217}^{CIB}	48^{+20}_{-20}	D_{40}	1234^{+40}_{-39}	$H(2.33)$	$237.5^{+7.0}_{-4.0}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{220}	5712^{+110}_{-100}	$D_M(2.33)$	5805^{+200}_{-75}
A_{143}^{tSZ}	—	D_{810}	2537^{+35}_{-37}	$f\sigma_8(0.15)$	$0.461^{+0.031}_{-0.037}$
A_{100}^{PS}	265^{+70}_{-70}	D_{1420}	814^{+13}_{-13}	$\sigma_8(0.15)$	$0.728^{+0.051}_{-0.13}$
A_{143}^{PS}	50^{+20}_{-20}	D_{2000}	$229.2^{+4.7}_{-5.0}$	$f\sigma_8(0.38)$	$0.473^{+0.028}_{-0.054}$
$A_{143 \times 217}^{\text{PS}}$	44^{+20}_{-20}	$n_{s,0.002}$	$0.962^{+0.016}_{-0.017}$	$\sigma_8(0.38)$	$0.643^{+0.046}_{-0.12}$
A_{217}^{PS}	115^{+30}_{-30}	Y_P	$0.24526^{+0.00024}_{-0.00031}$	$f\sigma_8(0.51)$	$0.470^{+0.027}_{-0.063}$
A^{kSZ}	—	Y_P^{BBN}	$0.24658^{+0.00024}_{-0.00031}$	$\sigma_8(0.51)$	$0.601^{+0.043}_{-0.11}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.7}$	$10^5 \text{D}/\text{H}$	$2.65^{+0.14}_{-0.11}$	$f\sigma_8(0.61)$	$0.463^{+0.030}_{-0.059}$
A_{143}^{dustTT}	$10.7^{+4.7}_{-4.6}$	Age/Gyr	$13.89^{+0.46}_{-0.17}$	$\sigma_8(0.61)$	$0.571^{+0.042}_{-0.11}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.5}_{-8.7}$	z_*	$1090.4^{+1.5}_{-1.1}$	$f\sigma_8(2.33)$	$0.289^{+0.019}_{-0.053}$
A_{217}^{dustTT}	93^{+20}_{-20}	r_*	$144.4^{+1.3}_{-1.4}$	$\sigma_8(2.33)$	$0.296^{+0.022}_{-0.060}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	$1.0409^{+0.0012}_{-0.0012}$	f_{2000}^{143}	32^{+8}_{-8}
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	$13.87^{+0.12}_{-0.13}$	$f_{2000}^{143 \times 217}$	34^{+6}_{-5}
H_0	$65.8^{+3.7}_{-8.1}$	z_{drag}	$1059.3^{+1.2}_{-1.3}$	f_{2000}^{217}	$108.5^{+5.3}_{-5.1}$
Ω_Λ	$0.663^{+0.050}_{-0.14}$	r_{drag}	$147.2^{+1.3}_{-1.3}$	χ_{simall}^2	$396.8 (\nu: 1.4)$
Ω_m	$0.337^{+0.14}_{-0.050}$	k_D	$0.1406^{+0.0014}_{-0.0013}$	χ_{lowl}^2	$23.9 (\nu: 0.8)$
$\Omega_m h^2$	$0.145^{+0.012}_{-0.0065}$	$100\theta_D$	$0.16112^{+0.00069}_{-0.00067}$	χ_{plik}^2	$772.4 (\nu: 16.2)$
$\Omega_\nu h^2$	< 0.00901	z_{eq}	3417^{+130}_{-130}	χ_{prior}^2	$7.3 (\nu: 6.7)$
$\Omega_m h^3$	$0.0952^{+0.0020}_{-0.0051}$	k_{eq}	$0.01043^{+0.00041}_{-0.00039}$	χ_{CMB}^2	$1193.1 (\nu: 16.5)$
σ_8	$0.790^{+0.055}_{-0.13}$	$100\theta_{\text{eq}}$	$0.810^{+0.025}_{-0.024}$		
S_8	$0.835^{+0.062}_{-0.066}$	$100\theta_{s,\text{eq}}$	$0.448^{+0.013}_{-0.012}$		

$$\bar{\chi}_{\text{eff}}^2 = 1200.49; \Delta \bar{\chi}_{\text{eff}}^2 = 1.17; R - 1 = 0.01089$$

6.3 base_mnu_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022395	$0.02235^{+0.00039}_{-0.00039}$	$\Omega_\nu h^2$	0.00001	< 0.00394	$100\theta_{\text{eq}}$	0.8131	$0.812^{+0.015}_{-0.015}$
$\Omega_c h^2$	0.12003	$0.1202^{+0.0036}_{-0.0035}$	$\Omega_m h^3$	0.09669	$0.0962^{+0.0011}_{-0.0021}$	$100\theta_{\text{s,eq}}$	0.4493	$0.4489^{+0.0075}_{-0.0077}$
$100\theta_{\text{MC}}$	1.04095	$1.04089^{+0.00080}_{-0.00084}$	σ_8	0.8258	$0.807^{+0.035}_{-0.064}$	$H(0.15)$	73.14	$72.4^{+1.8}_{-3.3}$
τ	0.0552	$0.055^{+0.022}_{-0.020}$	S_8	0.8383	$0.833^{+0.043}_{-0.042}$	$D_{\text{M}}(0.15)$	638.9	646^{+34}_{-18}
Σm_ν [eV]	0.001	< 0.367	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4592	$0.456^{+0.023}_{-0.023}$	$H(0.38)$	83.23	$82.7^{+1.3}_{-2.5}$
$\ln(10^{10} A_{\text{s}})$	3.0469	$3.045^{+0.044}_{-0.042}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6158	$0.607^{+0.025}_{-0.038}$	$D_{\text{M}}(0.38)$	1524	1539^{+69}_{-36}
n_{s}	0.9668	$0.965^{+0.011}_{-0.012}$	$\sigma_8/h^{0.5}$	1.002	$0.986^{+0.038}_{-0.066}$	$H(0.51)$	89.94	$89.5^{+1.1}_{-2.0}$
y_{cal}	1.0006	$1.0006^{+0.0064}_{-0.0064}$	$r_{\text{drag}} h$	99.82	$98.6^{+3.5}_{-5.8}$	$D_{\text{M}}(0.51)$	1975	1993^{+81}_{-42}
A_{217}^{CIB}	44.8	47^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.454	$2.446^{+0.073}_{-0.075}$	$H(0.61)$	95.55	$95.14^{+0.90}_{-1.7}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.79	—	z_{re}	7.76	$7.7^{+2.1}_{-2.2}$	$D_{\text{M}}(0.61)$	2298	2318^{+79}_{-50}
A_{143}^{tSZ}	6.98	$5.5^{+4.3}_{-4.8}$	$10^9 A_{\text{s}}$	2.105	$2.102^{+0.094}_{-0.087}$	$H(2.33)$	236.28	$236.9^{+3.2}_{-2.3}$
A_{100}^{PS}	246	259^{+70}_{-70}	$10^9 A_{\text{s}} e^{-2\tau}$	1.8851	$1.884^{+0.030}_{-0.030}$	$D_{\text{M}}(2.33)$	5750	5770^{+87}_{-43}
A_{143}^{PS}	51.9	46^{+20}_{-20}	D_{40}	1228.3	1232^{+33}_{-31}	$f\sigma_8(0.15)$	0.4633	$0.460^{+0.022}_{-0.022}$
$A_{143 \times 217}^{\text{PS}}$	56.3	43^{+20}_{-20}	D_{220}	5730	5732^{+100}_{-98}	$\sigma_8(0.15)$	0.7632	$0.745^{+0.029}_{-0.067}$
A_{217}^{PS}	123.6	115^{+30}_{-30}	D_{810}	2542.2	2540^{+35}_{-35}	$f\sigma_8(0.38)$	0.4823	$0.477^{+0.019}_{-0.026}$
A^{kSZ}	0.0	—	D_{1420}	818.9	817^{+12}_{-12}	$\sigma_8(0.38)$	0.6766	$0.660^{+0.029}_{-0.057}$
A_{100}^{dustTT}	8.82	$8.9^{+4.8}_{-4.7}$	D_{2000}	231.68	$230.9^{+4.0}_{-3.9}$	$f\sigma_8(0.51)$	0.4811	$0.475^{+0.018}_{-0.028}$
A_{143}^{dustTT}	11.02	$10.9^{+4.6}_{-4.5}$	$n_{\text{s},0.002}$	0.9668	$0.965^{+0.011}_{-0.012}$	$\sigma_8(0.51)$	0.6332	$0.617^{+0.027}_{-0.054}$
$A_{143 \times 217}^{\text{dustTT}}$	20.2	$18.6^{+8.4}_{-8.7}$	Y_{P}	0.245405	$0.24539^{+0.00015}_{-0.00016}$	$f\sigma_8(0.61)$	0.4761	$0.469^{+0.017}_{-0.030}$
A_{217}^{dustTT}	95.7	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246732	$0.24671^{+0.00015}_{-0.00016}$	$\sigma_8(0.61)$	0.6025	$0.587^{+0.026}_{-0.052}$
A_{100}^{dustTE}	0.114	$0.114^{+0.098}_{-0.096}$	$10^5 D/\text{H}$	2.581	$2.590^{+0.073}_{-0.071}$	$f\sigma_8(2.33)$	0.3029	$0.296^{+0.012}_{-0.024}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.135^{+0.077}_{-0.075}$	Age/Gyr	13.766	$13.81^{+0.18}_{-0.10}$	$\sigma_8(2.33)$	0.3128	$0.305^{+0.014}_{-0.028}$
$A_{100 \times 217}^{\text{dustTE}}$	0.480	$0.48^{+0.22}_{-0.22}$	z_*	1089.89	$1089.97^{+0.76}_{-0.70}$	f_{2000}^{143}	28.2	30^{+7}_{-7}
A_{143}^{dustTE}	0.225	$0.23^{+0.14}_{-0.14}$	r_*	144.41	$144.38^{+0.77}_{-0.78}$	$f_{2000}^{143 \times 217}$	31.68	32^{+5}_{-5}
$A_{143 \times 217}^{\text{dustTE}}$	0.666	$0.67^{+0.20}_{-0.21}$	$100\theta_*$	1.04110	$1.04110^{+0.00077}_{-0.00080}$	f_{2000}^{217}	106.25	$107.1^{+4.6}_{-4.4}$
A_{217}^{dustTE}	2.08	$2.09^{+0.69}_{-0.70}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.871	$13.868^{+0.072}_{-0.075}$	χ_{small}^2	396.20	$397.2 (\nu: 2.0)$
c_{100}	0.99975	$0.9997^{+0.0016}_{-0.0016}$	z_{drag}	1060.01	$1059.91^{+0.79}_{-0.78}$	χ_{lowl}^2	23.24	$23.56 (\nu: 0.5)$
c_{217}	0.99817	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	147.06	$147.05^{+0.77}_{-0.78}$	χ_{plik}^2	2343.8	$2360.2 (\nu: 18.0)$
H_0	67.88	$67.0^{+2.1}_{-3.7}$	k_{D}	0.14091	$0.14090^{+0.00086}_{-0.00084}$	χ_{prior}^2	1.5	$11.5 (\nu: 10.2)$
Ω_{Λ}	0.6909	$0.680^{+0.027}_{-0.052}$	$100\theta_{\text{D}}$	0.160729	$0.16078^{+0.00044}_{-0.00045}$	χ_{CMB}^2	2763.2	$2780.9 (\nu: 18.3)$
Ω_{m}	0.3091	$0.320^{+0.052}_{-0.027}$	z_{eq}	3404	3408^{+82}_{-78}			
$\Omega_{\text{m}} h^2$	0.14244	$0.1436^{+0.0056}_{-0.0038}$	k_{eq}	0.010388	$0.01040^{+0.00025}_{-0.00024}$			

Best-fit $\chi_{\text{eff}}^2 = 2764.74$; $\Delta\chi_{\text{eff}}^2 = -1.03$; $\bar{\chi}_{\text{eff}}^2 = 2792.41$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.65$; $R - 1 = 0.01278$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.20 (Δ 0.15) commander_dx12_v3.2.29: 23.24 (Δ -0.01) plik_rd12_HM_v22b_TTTEEE: 2343.80 (Δ -0.85)

6.4 base_mnu_plikHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02235^{+0.00039}_{-0.00038}$	$\Omega_\nu h^2$	< 0.00394	$100\theta_{\text{eq}}$	$0.812^{+0.015}_{-0.015}$
$\Omega_c h^2$	$0.1202^{+0.0037}_{-0.0034}$	$\Omega_m h^3$	$0.0962^{+0.0011}_{-0.0021}$	$100\theta_{\text{s,eq}}$	$0.4490^{+0.0076}_{-0.0078}$
$100\theta_{\text{MC}}$	$1.04090^{+0.00080}_{-0.00084}$	σ_8	$0.808^{+0.034}_{-0.063}$	$H(0.15)$	$72.4^{+1.8}_{-3.2}$
τ	$0.056^{+0.020}_{-0.014}$	S_8	$0.833^{+0.042}_{-0.042}$	$D_{\text{M}}(0.15)$	646^{+33}_{-18}
$\Sigma m_\nu [\text{eV}]$	< 0.367	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.456^{+0.023}_{-0.023}$	$H(0.38)$	$82.7^{+1.3}_{-2.4}$
$\ln(10^{10} A_{\text{s}})$	$3.047^{+0.043}_{-0.030}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.607^{+0.025}_{-0.038}$	$D_{\text{M}}(0.38)$	1539^{+68}_{-36}
n_{s}	$0.965^{+0.011}_{-0.012}$	$\sigma_8/h^{0.5}$	$0.986^{+0.038}_{-0.065}$	$H(0.51)$	$89.5^{+1.1}_{-2.0}$
y_{cal}	$1.0006^{+0.0064}_{-0.0064}$	$r_{\text{drag}} h$	$98.6^{+3.4}_{-5.7}$	$D_{\text{M}}(0.51)$	1993^{+80}_{-42}
A_{217}^{CIB}	47^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	$2.448^{+0.072}_{-0.074}$	$H(0.61)$	$95.15^{+0.91}_{-1.7}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	< 9.60	$D_{\text{M}}(0.61)$	2318^{+86}_{-46}
A_{143}^{tSZ}	$5.5^{+4.3}_{-4.9}$	$10^9 A_{\text{s}}$	$2.106^{+0.091}_{-0.063}$	$H(2.33)$	$236.8^{+3.2}_{-2.3}$
A_{100}^{PS}	258^{+70}_{-70}	$10^9 A_{\text{s}} e^{-2\tau}$	$1.884^{+0.030}_{-0.030}$	$D_{\text{M}}(2.33)$	5770^{+77}_{-47}
A_{143}^{PS}	46^{+20}_{-20}	D_{40}	1232^{+33}_{-31}	$f\sigma_8(0.15)$	$0.461^{+0.022}_{-0.022}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	D_{220}	5732^{+99}_{-98}	$\sigma_8(0.15)$	$0.746^{+0.029}_{-0.067}$
A_{217}^{PS}	115^{+30}_{-30}	D_{810}	2540^{+35}_{-34}	$f\sigma_8(0.38)$	$0.477^{+0.019}_{-0.026}$
A^{kSZ}	—	D_{1420}	817^{+12}_{-12}	$\sigma_8(0.38)$	$0.660^{+0.028}_{-0.057}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.7}$	D_{2000}	$230.9^{+4.0}_{-3.9}$	$f\sigma_8(0.51)$	$0.475^{+0.018}_{-0.028}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.6}$	$n_{\text{s},0.002}$	$0.965^{+0.011}_{-0.012}$	$\sigma_8(0.51)$	$0.617^{+0.027}_{-0.054}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.3}_{-8.7}$	Y_{P}	$0.24539^{+0.00015}_{-0.00016}$	$f\sigma_8(0.61)$	$0.469^{+0.017}_{-0.030}$
A_{217}^{dustTT}	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24671^{+0.00015}_{-0.00016}$	$\sigma_8(0.61)$	$0.587^{+0.025}_{-0.052}$
A_{100}^{dustTE}	$0.114^{+0.098}_{-0.096}$	$10^5 \text{D}/\text{H}$	$2.589^{+0.073}_{-0.071}$	$f\sigma_8(2.33)$	$0.296^{+0.011}_{-0.027}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.077}_{-0.074}$	Age/Gyr	$13.81^{+0.20}_{-0.096}$	$\sigma_8(2.33)$	$0.305^{+0.013}_{-0.031}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	z_*	$1089.96^{+0.76}_{-0.70}$	f_{2000}^{143}	30^{+7}_{-7}
A_{143}^{dustTE}	$0.23^{+0.14}_{-0.14}$	r_*	$144.39^{+0.77}_{-0.79}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{143 \times 217}^{\text{dustTE}}$	$0.67^{+0.20}_{-0.21}$	$100\theta_*$	$1.04110^{+0.00077}_{-0.00081}$	f_{2000}^{217}	$107.1^{+4.6}_{-4.4}$
A_{217}^{dustTE}	$2.09^{+0.69}_{-0.69}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.869^{+0.072}_{-0.075}$	χ_{simall}^2	$397.2 (\nu: 2.1)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	z_{drag}	$1059.91^{+0.78}_{-0.74}$	χ_{lowl}^2	$23.57 (\nu: 0.5)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	$147.05^{+0.77}_{-0.78}$	χ_{plik}^2	$2360.0 (\nu: 17.8)$
H_0	$67.0^{+2.1}_{-3.7}$	k_{D}	$0.14090^{+0.00086}_{-0.00084}$	χ_{prior}^2	$11.5 (\nu: 10.2)$
Ω_{Λ}	$0.680^{+0.027}_{-0.051}$	$100\theta_{\text{D}}$	$0.16077^{+0.00044}_{-0.00045}$	χ_{CMB}^2	$2780.7 (\nu: 18.0)$
Ω_{m}	$0.320^{+0.051}_{-0.027}$	z_{eq}	3407^{+83}_{-78}		
$\Omega_{\text{m}} h^2$	$0.1435^{+0.0055}_{-0.0037}$	k_{eq}	$0.01040^{+0.00025}_{-0.00024}$		

$$\bar{\chi}_{\text{eff}}^2 = 2792.20; \Delta \bar{\chi}_{\text{eff}}^2 = 0.67; R - 1 = 0.01347$$

6.5 base_mnu_plikHM_TT_lowl_lowE_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02221	$0.02206^{+0.00058}_{-0.00068}$	$\sigma_8 \Omega_m^{0.5}$	0.4564	$0.458^{+0.023}_{-0.023}$	$H(0.15)$	73.09	$71.4^{+2.8}_{-5.8}$
$\Omega_c h^2$	0.1197	$0.1210^{+0.0062}_{-0.0048}$	$\sigma_8 \Omega_m^{0.25}$	0.6125	$0.603^{+0.024}_{-0.040}$	$D_M(0.15)$	639.3	656^{+66}_{-29}
$100\theta_{MC}$	1.04091	$1.0407^{+0.0013}_{-0.0014}$	$\sigma_8/h^{0.5}$	0.998	$0.978^{+0.038}_{-0.077}$	$H(0.38)$	83.15	$81.9^{+2.1}_{-4.2}$
τ	0.0529	$0.052^{+0.022}_{-0.020}$	$r_{drag} h$	99.98	$97.0^{+5.4}_{-11}$	$D_M(0.38)$	1525	1560^{+130}_{-58}
Σm_ν [eV]	0.000	< 0.618	$\langle d^2 \rangle^{1/2}$	2.445	$2.451^{+0.078}_{-0.067}$	$H(0.51)$	89.84	$88.8^{+1.7}_{-3.4}$
$\ln(10^{10} A_s)$	3.0395	$3.042^{+0.043}_{-0.040}$	z_{re}	7.56	$7.6^{+2.1}_{-2.2}$	$D_M(0.51)$	1976	2017^{+150}_{-68}
n_s	0.9657	$0.961^{+0.015}_{-0.018}$	$10^9 A_s$	2.089	$2.095^{+0.091}_{-0.082}$	$H(0.61)$	95.43	$94.6^{+1.4}_{-2.8}$
y_{cal}	1.0002	$1.0006^{+0.0065}_{-0.0065}$	$10^9 A_s e^{-2\tau}$	1.8797	$1.886^{+0.033}_{-0.031}$	$D_M(0.61)$	2300	2345^{+160}_{-73}
A_{217}^{CIB}	49.3	48^{+20}_{-20}	D_{40}	1226.5	1235^{+36}_{-36}	$H(2.33)$	235.85	$237.4^{+6.4}_{-3.5}$
$\xi^{tSZ \times CIB}$	0.22	—	D_{220}	5712	5714^{+100}_{-110}	$D_M(2.33)$	5757	5800^{+150}_{-70}
A_{143}^{tSZ}	7.2	—	D_{810}	2535.2	2538^{+36}_{-35}	$f\sigma_8(0.15)$	0.4606	$0.462^{+0.021}_{-0.021}$
A_{100}^{PS}	254	265^{+70}_{-70}	D_{1420}	815.2	814^{+13}_{-13}	$\sigma_8(0.15)$	0.760	$0.732^{+0.041}_{-0.087}$
A_{143}^{PS}	47.3	50^{+20}_{-20}	D_{2000}	230.06	$229.3^{+4.7}_{-5.0}$	$f\sigma_8(0.38)$	0.4797	$0.475^{+0.017}_{-0.027}$
$A_{143 \times 217}^{PS}$	44.0	44^{+20}_{-20}	$n_{s,0.002}$	0.9657	$0.961^{+0.015}_{-0.018}$	$\sigma_8(0.38)$	0.674	$0.647^{+0.038}_{-0.084}$
A_{217}^{PS}	117.8	115^{+30}_{-30}	Y_P	0.245329	$0.24526^{+0.00024}_{-0.00031}$	$f\sigma_8(0.51)$	0.4786	$0.471^{+0.017}_{-0.034}$
A^{kSZ}	0.0	—	Y_P^{BBN}	0.246655	$0.24659^{+0.00024}_{-0.00031}$	$\sigma_8(0.51)$	0.630	$0.605^{+0.037}_{-0.081}$
A_{100}^{dustTT}	8.90	$8.9^{+4.7}_{-4.8}$	$10^5 D/H$	2.617	$2.64^{+0.13}_{-0.11}$	$f\sigma_8(0.61)$	0.4738	$0.465^{+0.017}_{-0.039}$
A_{143}^{dustTT}	10.79	$10.7^{+4.5}_{-4.6}$	Age/Gyr	13.784	$13.88^{+0.35}_{-0.16}$	$\sigma_8(0.61)$	0.600	$0.575^{+0.036}_{-0.079}$
$A_{143 \times 217}^{dustTT}$	19.2	$18.3^{+8.4}_{-8.5}$	z_*	1090.09	$1090.4^{+1.5}_{-1.1}$	$f\sigma_8(2.33)$	0.3016	$0.290^{+0.017}_{-0.038}$
A_{217}^{dustTT}	94.3	93^{+20}_{-20}	r_*	144.65	$144.4^{+1.1}_{-1.4}$	$\sigma_8(2.33)$	0.3116	$0.298^{+0.020}_{-0.044}$
c_{100}	0.99964	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	1.04109	$1.0409^{+0.0012}_{-0.0013}$	f_{2000}^{143}	30.2	32^{+8}_{-8}
c_{217}	0.99826	$0.9983^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.894	$13.87^{+0.10}_{-0.13}$	$f_{2000}^{143 \times 217}$	33.0	34^{+6}_{-5}
H_0	67.8	$65.9^{+3.3}_{-6.8}$	z_{drag}	1059.51	$1059.3^{+1.2}_{-1.3}$	f_{2000}^{217}	107.5	$108.5^{+5.2}_{-5.0}$
Ω_Λ	0.692	$0.666^{+0.043}_{-0.11}$	r_{drag}	147.37	$147.2^{+1.1}_{-1.3}$	$\chi_{lensing}^2$	9.04	$9.43 (\nu: 0.5)$
Ω_m	0.308	$0.334^{+0.11}_{-0.043}$	k_D	0.14044	$0.1406^{+0.0013}_{-0.0012}$	χ_{small}^2	395.86	$397.0 (\nu: 1.5)$
$\Omega_m h^2$	0.1419	$0.145^{+0.011}_{-0.0057}$	$100\theta_D$	0.16100	$0.16111^{+0.00072}_{-0.00067}$	χ_{lowl}^2	23.26	$24.0 (\nu: 0.7)$
$\Omega_\nu h^2$	0.00000	< 0.00664	z_{eq}	3390	3419^{+140}_{-110}	χ_{plik}^2	758.5	$771.9 (\nu: 14.4)$
$\Omega_m h^3$	0.09625	$0.0953^{+0.0018}_{-0.0036}$	k_{eq}	0.010348	$0.01044^{+0.00042}_{-0.00033}$	χ_{prior}^2	1.5	$7.3 (\nu: 6.8)$
σ_8	0.822	$0.794^{+0.042}_{-0.088}$	$100\theta_{eq}$	0.8149	$0.810^{+0.021}_{-0.024}$	χ_{CMB}^2	1186.6	$1202.3 (\nu: 16.6)$
S_8	0.8333	$0.836^{+0.043}_{-0.042}$	$100\theta_{s,eq}$	0.4503	$0.448^{+0.011}_{-0.012}$			

Best-fit $\chi_{eff}^2 = 1188.10$; $\Delta\chi_{eff}^2 = -0.47$; $\bar{\chi}_{eff}^2 = 1209.58$; $\Delta\bar{\chi}_{eff}^2 = 1.16$; $R - 1 = 0.00659$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 9.04 (Δ 0.14) small_100x143_offlike5_EE_Aplanck.B: 395.86 (Δ -0.00) commander_dx12.v3.2.29: 23.26 (Δ 0.03) plik_rd12_HM.v22.TT: 758.46 (Δ -0.86)

6.6 base_mnu_plikHM_TT_lowl_lowE_lensing_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02207^{+0.00058}_{-0.00068}$	$\sigma_8 \Omega_m^{0.5}$	$0.458^{+0.023}_{-0.023}$	$H(0.15)$	$71.4^{+2.8}_{-5.9}$
$\Omega_c h^2$	$0.1209^{+0.0062}_{-0.0048}$	$\sigma_8 \Omega_m^{0.25}$	$0.603^{+0.024}_{-0.040}$	$D_M(0.15)$	656^{+67}_{-29}
$100\theta_{MC}$	$1.0407^{+0.0013}_{-0.0014}$	$\sigma_8/h^{0.5}$	$0.978^{+0.039}_{-0.078}$	$H(0.38)$	$81.9^{+2.1}_{-4.3}$
τ	$0.054^{+0.019}_{-0.013}$	$r_{\text{drag}} h$	$97.1^{+5.4}_{-11}$	$D_M(0.38)$	1560^{+130}_{-58}
$\Sigma m_\nu [\text{eV}]$	< 0.626	$\langle d^2 \rangle^{1/2}$	$2.452^{+0.078}_{-0.067}$	$H(0.51)$	$88.8^{+1.7}_{-3.4}$
$\ln(10^{10} A_s)$	$3.044^{+0.041}_{-0.028}$	z_{re}	< 9.47	$D_M(0.51)$	2017^{+150}_{-68}
n_s	$0.962^{+0.014}_{-0.018}$	$10^9 A_s$	$2.100^{+0.087}_{-0.059}$	$H(0.61)$	$94.6^{+1.5}_{-2.8}$
y_{cal}	$1.0005^{+0.0065}_{-0.0065}$	$10^9 A_s e^{-2\tau}$	$1.886^{+0.034}_{-0.031}$	$D_M(0.61)$	2344^{+170}_{-74}
A_{217}^{CIB}	48^{+20}_{-20}	D_{40}	1235^{+36}_{-36}	$H(2.33)$	$237.4^{+6.5}_{-3.5}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{220}	5714^{+110}_{-110}	$D_M(2.33)$	5800^{+150}_{-70}
A_{143}^{tSZ}	—	D_{810}	2537^{+36}_{-35}	$f\sigma_8(0.15)$	$0.462^{+0.021}_{-0.021}$
A_{100}^{PS}	265^{+70}_{-70}	D_{1420}	814^{+13}_{-13}	$\sigma_8(0.15)$	$0.732^{+0.041}_{-0.089}$
A_{143}^{PS}	50^{+20}_{-20}	D_{2000}	$229.3^{+4.7}_{-5.0}$	$f\sigma_8(0.38)$	$0.475^{+0.018}_{-0.027}$
$A_{143 \times 217}^{\text{PS}}$	44^{+20}_{-20}	$n_{s,0.002}$	$0.962^{+0.014}_{-0.018}$	$\sigma_8(0.38)$	$0.647^{+0.038}_{-0.085}$
A_{217}^{PS}	115^{+30}_{-30}	Y_P	$0.24526^{+0.00024}_{-0.00031}$	$f\sigma_8(0.51)$	$0.471^{+0.017}_{-0.035}$
A^{kSZ}	—	Y_P^{BBN}	$0.24659^{+0.00024}_{-0.00031}$	$\sigma_8(0.51)$	$0.605^{+0.037}_{-0.083}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.8}$	$10^5 D/H$	$2.64^{+0.13}_{-0.11}$	$f\sigma_8(0.61)$	$0.465^{+0.017}_{-0.039}$
A_{143}^{dustTT}	$10.7^{+4.5}_{-4.6}$	Age/Gyr	$13.88^{+0.32}_{-0.17}$	$\sigma_8(0.61)$	$0.575^{+0.036}_{-0.080}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.5}_{-8.5}$	z_*	$1090.4^{+1.5}_{-1.1}$	$f\sigma_8(2.33)$	$0.291^{+0.017}_{-0.039}$
A_{217}^{dustTT}	93^{+20}_{-20}	r_*	$144.4^{+1.1}_{-1.4}$	$\sigma_8(2.33)$	$0.298^{+0.020}_{-0.045}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	$1.0409^{+0.0012}_{-0.0013}$	f_{2000}^{143}	32^{+8}_{-8}
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	$13.87^{+0.10}_{-0.13}$	$f_{2000}^{143 \times 217}$	34^{+6}_{-5}
H_0	$65.9^{+3.3}_{-6.8}$	z_{drag}	$1059.3^{+1.2}_{-1.3}$	f_{2000}^{217}	$108.5^{+5.1}_{-5.0}$
Ω_Λ	$0.666^{+0.044}_{-0.11}$	r_{drag}	$147.2^{+1.1}_{-1.3}$	χ_{lensing}^2	$9.40 (\nu: 0.5)$
Ω_m	$0.334^{+0.11}_{-0.044}$	k_D	$0.1406^{+0.0013}_{-0.0012}$	χ_{simall}^2	$396.9 (\nu: 1.6)$
$\Omega_m h^2$	$0.145^{+0.011}_{-0.0057}$	$100\theta_D$	$0.16111^{+0.00073}_{-0.00067}$	χ_{lowl}^2	$23.9 (\nu: 0.7)$
$\Omega_\nu h^2$	< 0.00673	z_{eq}	3417^{+140}_{-110}	χ_{plik}^2	$771.8 (\nu: 14.5)$
$\Omega_m h^3$	$0.0953^{+0.0018}_{-0.0036}$	k_{eq}	$0.01043^{+0.00043}_{-0.00033}$	χ_{prior}^2	$7.3 (\nu: 6.8)$
σ_8	$0.794^{+0.042}_{-0.089}$	$100\theta_{\text{eq}}$	$0.810^{+0.020}_{-0.024}$	χ_{CMB}^2	$1202.1 (\nu: 16.6)$
S_8	$0.836^{+0.043}_{-0.042}$	$100\theta_{s,\text{eq}}$	$0.448^{+0.010}_{-0.012}$		

$$\bar{\chi}_{\text{eff}}^2 = 1209.38; \Delta \bar{\chi}_{\text{eff}}^2 = 1.22; R - 1 = 0.00698$$

6.7 base_mnu_plikHM_TTTEEE_lowl_lowE_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022421	$0.02236^{+0.00041}_{-0.00041}$	$\Omega_\nu h^2$	0.00000	< 0.00376	$100\theta_{\text{eq}}$	0.8145	$0.813^{+0.013}_{-0.015}$
$\Omega_c h^2$	0.11969	$0.1201^{+0.0036}_{-0.0031}$	$\Omega_m h^3$	0.09668	$0.0962^{+0.0010}_{-0.0020}$	$100\theta_{\text{s,eq}}$	0.4500	$0.4491^{+0.0068}_{-0.0075}$
$100\theta_{\text{MC}}$	1.04098	$1.04088^{+0.00082}_{-0.00080}$	σ_8	0.8224	$0.807^{+0.029}_{-0.053}$	$H(0.15)$	73.28	$72.4^{+1.7}_{-3.2}$
τ	0.0532	$0.055^{+0.020}_{-0.019}$	S_8	0.8320	$0.832^{+0.032}_{-0.032}$	$D_{\text{M}}(0.15)$	637.6	646^{+33}_{-17}
Σm_ν [eV]	0.000	< 0.350	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4557	$0.456^{+0.018}_{-0.017}$	$H(0.38)$	83.33	$82.7^{+1.3}_{-2.4}$
$\ln(10^{10} A_{\text{s}})$	3.0417	$3.046^{+0.039}_{-0.037}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6122	$0.606^{+0.019}_{-0.028}$	$D_{\text{M}}(0.38)$	1522	1538^{+67}_{-34}
n_{s}	0.9664	$0.965^{+0.011}_{-0.011}$	$\sigma_8/h^{0.5}$	0.9970	$0.985^{+0.029}_{-0.050}$	$H(0.51)$	90.01	$89.5^{+1.1}_{-2.0}$
y_{cal}	1.0005	$1.0007^{+0.0063}_{-0.0061}$	$r_{\text{drag}} h$	100.09	$98.7^{+3.2}_{-5.7}$	$D_{\text{M}}(0.51)$	1972	1992^{+80}_{-40}
A_{217}^{CIB}	47.0	47^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.445	$2.445^{+0.056}_{-0.054}$	$H(0.61)$	95.61	$95.16^{+0.88}_{-1.7}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.48	—	z_{re}	7.54	$7.7^{+1.9}_{-2.0}$	$D_{\text{M}}(0.61)$	2295	2317^{+86}_{-44}
A_{143}^{tSZ}	7.15	$5.5^{+4.5}_{-4.6}$	$10^9 A_{\text{s}}$	2.094	$2.103^{+0.084}_{-0.076}$	$H(2.33)$	236.08	$236.8^{+3.2}_{-2.1}$
A_{100}^{PS}	250	259^{+70}_{-70}	$10^9 A_{\text{s}} e^{-2\tau}$	1.8828	$1.884^{+0.028}_{-0.028}$	$D_{\text{M}}(2.33)$	5748	5769^{+83}_{-42}
A_{143}^{PS}	48.2	46^{+20}_{-20}	D_{40}	1228.6	1233^{+31}_{-30}	$f\sigma_8(0.15)$	0.4599	$0.460^{+0.016}_{-0.016}$
$A_{143 \times 217}^{\text{PS}}$	48.6	42^{+20}_{-20}	D_{220}	5736	5736^{+98}_{-99}	$\sigma_8(0.15)$	0.7602	$0.745^{+0.028}_{-0.052}$
A_{217}^{PS}	119.9	115^{+30}_{-30}	D_{810}	2540.2	2540^{+35}_{-33}	$f\sigma_8(0.38)$	0.4794	$0.477^{+0.014}_{-0.018}$
A^{kSZ}	0.0	—	D_{1420}	818.1	818^{+12}_{-12}	$\sigma_8(0.38)$	0.6741	$0.660^{+0.026}_{-0.049}$
A_{100}^{dustTT}	8.76	$8.9^{+4.7}_{-4.7}$	D_{2000}	231.33	$230.9^{+4.1}_{-4.0}$	$f\sigma_8(0.51)$	0.4784	$0.474^{+0.013}_{-0.021}$
A_{143}^{dustTT}	10.99	$10.9^{+4.6}_{-4.6}$	$n_{\text{s},0.002}$	0.9664	$0.965^{+0.011}_{-0.011}$	$\sigma_8(0.51)$	0.6310	$0.617^{+0.025}_{-0.047}$
$A_{143 \times 217}^{\text{dustTT}}$	19.9	$18.6^{+8.4}_{-8.3}$	Y_{P}	0.245415	$0.24539^{+0.00015}_{-0.00017}$	$f\sigma_8(0.61)$	0.4736	$0.469^{+0.013}_{-0.023}$
A_{217}^{dustTT}	95.2	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246742	$0.24672^{+0.00015}_{-0.00017}$	$\sigma_8(0.61)$	0.6004	$0.587^{+0.024}_{-0.045}$
A_{100}^{dustTE}	0.114	$0.114^{+0.097}_{-0.095}$	$10^5 D/\text{H}$	2.576	$2.587^{+0.078}_{-0.073}$	$f\sigma_8(2.33)$	0.3019	$0.296^{+0.010}_{-0.024}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.135^{+0.076}_{-0.075}$	Age/Gyr	13.761	$13.81^{+0.19}_{-0.094}$	$\sigma_8(2.33)$	0.3119	$0.305^{+0.012}_{-0.028}$
$A_{100 \times 217}^{\text{dustTE}}$	0.483	$0.48^{+0.22}_{-0.22}$	z_*	1089.82	$1089.94^{+0.77}_{-0.71}$	f_{2000}^{143}	28.7	30^{+7}_{-7}
A_{143}^{dustTE}	0.225	$0.23^{+0.14}_{-0.14}$	r_*	144.48	$144.40^{+0.69}_{-0.77}$	$f_{2000}^{143 \times 217}$	31.89	32^{+5}_{-5}
$A_{143 \times 217}^{\text{dustTE}}$	0.664	$0.67^{+0.20}_{-0.21}$	$100\theta_*$	1.04112	$1.04108^{+0.00079}_{-0.00076}$	f_{2000}^{217}	106.51	$107.1^{+4.7}_{-4.6}$
A_{217}^{dustTE}	2.08	$2.09^{+0.70}_{-0.68}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.877	$13.870^{+0.064}_{-0.071}$	χ_{lensing}^2	9.02	$9.29 (\nu: 0.3)$
c_{100}	0.99972	$0.9997^{+0.0015}_{-0.0015}$	z_{drag}	1060.01	$1059.93^{+0.80}_{-0.80}$	χ_{small}^2	395.85	$397.1 (\nu: 1.7)$
c_{217}	0.99820	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	147.13	$147.06^{+0.69}_{-0.74}$	χ_{lowl}^2	23.26	$23.55 (\nu: 0.4)$
H_0	68.03	$67.1^{+2.0}_{-3.7}$	k_{D}	0.14087	$0.14089^{+0.00079}_{-0.00076}$	χ_{plik}^2	2344.0	$2359.8 (\nu: 17.3)$
Ω_Λ	0.6929	$0.681^{+0.026}_{-0.051}$	$100\theta_{\text{D}}$	0.160709	$0.16076^{+0.00047}_{-0.00046}$	χ_{prior}^2	1.7	$11.5 (\nu: 10.4)$
Ω_{m}	0.3071	$0.319^{+0.051}_{-0.026}$	z_{eq}	3396	3405^{+79}_{-69}	χ_{CMB}^2	2772.2	$2789.8 (\nu: 18.5)$
$\Omega_{\text{m}} h^2$	0.14211	$0.1435^{+0.0056}_{-0.0035}$	k_{eq}	0.010365	$0.01039^{+0.00024}_{-0.00021}$			

Best-fit $\chi_{\text{eff}}^2 = 2773.86$; $\Delta\chi_{\text{eff}}^2 = -0.78$; $\bar{\chi}_{\text{eff}}^2 = 2801.35$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.66$; $R - 1 = 0.01138$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 9.02 (Δ 0.15) small_100x143_offlike5_EE_Aplanck.B: 395.85 (Δ -0.20) commander_dx12.v3.2.29: 23.26 (Δ 0.01) plik_rd12_HM.v22b.TTTEEE: 2344.04 (Δ -0.89)

6.8 base_mnu_plikHM_TTTEEE_lowl_lowE_lensing_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02237^{+0.00041}_{-0.00041}$	$\Omega_\nu h^2$	< 0.00379	$100\theta_{\text{eq}}$	$0.813^{+0.013}_{-0.014}$
$\Omega_c h^2$	$0.1201^{+0.0035}_{-0.0031}$	$\Omega_m h^3$	$0.0962^{+0.0010}_{-0.0020}$	$100\theta_{\text{s,eq}}$	$0.4492^{+0.0067}_{-0.0074}$
$100\theta_{\text{MC}}$	$1.04089^{+0.00081}_{-0.00080}$	σ_8	$0.807^{+0.029}_{-0.054}$	$H(0.15)$	$72.5^{+1.7}_{-3.2}$
τ	$0.056^{+0.018}_{-0.014}$	S_8	$0.832^{+0.032}_{-0.032}$	$D_{\text{M}}(0.15)$	646^{+34}_{-17}
$\Sigma m_\nu [\text{eV}]$	< 0.352	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.456^{+0.018}_{-0.018}$	$H(0.38)$	$82.7^{+1.3}_{-2.4}$
$\ln(10^{10} A_{\text{s}})$	$3.047^{+0.038}_{-0.029}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.606^{+0.019}_{-0.028}$	$D_{\text{M}}(0.38)$	1538^{+68}_{-34}
n_{s}	$0.965^{+0.011}_{-0.011}$	$\sigma_8/h^{0.5}$	$0.985^{+0.029}_{-0.051}$	$H(0.51)$	$89.5^{+1.1}_{-2.0}$
y_{cal}	$1.0007^{+0.0063}_{-0.0061}$	$r_{\text{drag}} h$	$98.7^{+3.2}_{-5.8}$	$D_{\text{M}}(0.51)$	1991^{+80}_{-40}
A_{217}^{CIB}	47^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	$2.446^{+0.055}_{-0.052}$	$H(0.61)$	$95.16^{+0.89}_{-1.7}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	< 9.47	$D_{\text{M}}(0.61)$	2316^{+87}_{-44}
A_{143}^{tSZ}	$5.5^{+4.5}_{-4.6}$	$10^9 A_{\text{s}}$	$2.106^{+0.081}_{-0.060}$	$H(2.33)$	$236.8^{+3.2}_{-2.1}$
A_{100}^{PS}	259^{+70}_{-70}	$10^9 A_{\text{s}} e^{-2\tau}$	$1.884^{+0.028}_{-0.028}$	$D_{\text{M}}(2.33)$	5769^{+85}_{-42}
A_{143}^{PS}	46^{+20}_{-20}	D_{40}	1232^{+31}_{-30}	$f\sigma_8(0.15)$	$0.460^{+0.016}_{-0.016}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{220}	5736^{+98}_{-99}	$\sigma_8(0.15)$	$0.745^{+0.028}_{-0.053}$
A_{217}^{PS}	115^{+30}_{-30}	D_{810}	2540^{+34}_{-33}	$f\sigma_8(0.38)$	$0.477^{+0.014}_{-0.018}$
A^{kSZ}	—	D_{1420}	818^{+12}_{-12}	$\sigma_8(0.38)$	$0.660^{+0.026}_{-0.050}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.7}$	D_{2000}	$230.9^{+4.1}_{-4.0}$	$f\sigma_8(0.51)$	$0.474^{+0.013}_{-0.021}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.6}$	$n_{\text{s},0.002}$	$0.965^{+0.011}_{-0.011}$	$\sigma_8(0.51)$	$0.617^{+0.025}_{-0.048}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.4}_{-8.3}$	Y_{P}	$0.24539^{+0.00015}_{-0.00017}$	$f\sigma_8(0.61)$	$0.469^{+0.013}_{-0.023}$
A_{217}^{dustTT}	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24672^{+0.00015}_{-0.00017}$	$\sigma_8(0.61)$	$0.587^{+0.024}_{-0.046}$
A_{100}^{dustTE}	$0.114^{+0.097}_{-0.095}$	$10^5 \text{D}/\text{H}$	$2.587^{+0.077}_{-0.073}$	$f\sigma_8(2.33)$	$0.296^{+0.010}_{-0.024}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.076}_{-0.075}$	Age/Gyr	$13.81^{+0.19}_{-0.094}$	$\sigma_8(2.33)$	$0.305^{+0.012}_{-0.029}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	z_*	$1089.93^{+0.77}_{-0.71}$	f_{2000}^{143}	30^{+7}_{-7}
A_{143}^{dustTE}	$0.23^{+0.14}_{-0.14}$	r_*	$144.41^{+0.68}_{-0.76}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{143 \times 217}^{\text{dustTE}}$	$0.67^{+0.20}_{-0.21}$	$100\theta_*$	$1.04109^{+0.00079}_{-0.00077}$	f_{2000}^{217}	$107.1^{+4.7}_{-4.6}$
A_{217}^{dustTE}	$2.09^{+0.70}_{-0.67}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.871^{+0.064}_{-0.071}$	χ_{lensing}^2	$9.28 (\nu: 0.3)$
c_{100}	$0.9997^{+0.0015}_{-0.0015}$	z_{drag}	$1059.93^{+0.80}_{-0.76}$	χ_{simall}^2	$397.1 (\nu: 1.7)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	$147.07^{+0.68}_{-0.74}$	χ_{lowl}^2	$23.54 (\nu: 0.4)$
H_0	$67.1^{+2.0}_{-3.7}$	k_{D}	$0.14088^{+0.00079}_{-0.00076}$	χ_{plik}^2	$2359.7 (\nu: 17.3)$
Ω_Λ	$0.681^{+0.025}_{-0.052}$	$100\theta_{\text{D}}$	$0.16076^{+0.00047}_{-0.00046}$	χ_{prior}^2	$11.5 (\nu: 10.4)$
Ω_{m}	$0.319^{+0.052}_{-0.025}$	z_{eq}	3404^{+78}_{-68}	χ_{CMB}^2	$2789.7 (\nu: 18.3)$
$\Omega_{\text{m}} h^2$	$0.1434^{+0.0057}_{-0.0035}$	k_{eq}	$0.01039^{+0.00024}_{-0.00021}$		

$$\bar{\chi}_{\text{eff}}^2 = 2801.19; \Delta \bar{\chi}_{\text{eff}}^2 = 0.68; R - 1 = 0.01124$$

6.9 base_mnu_plikHM_TT_lowl_lowE_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022202	$0.02222^{+0.00049}_{-0.00050}$	$\sigma_8 \Omega_m^{0.25}$	0.6127	$0.603^{+0.025}_{-0.034}$	$H(0.38)$	83.15	$83.00^{+0.94}_{-1.1}$
$\Omega_c h^2$	0.11966	$0.1190^{+0.0033}_{-0.0033}$	$\sigma_8/h^{0.5}$	0.9983	$0.983^{+0.037}_{-0.053}$	$D_M(0.38)$	1525.2	1529^{+29}_{-24}
$100\theta_{MC}$	1.04094	$1.0410^{+0.0010}_{-0.0011}$	$r_{drag}h$	99.99	$99.8^{+2.4}_{-2.6}$	$H(0.51)$	89.84	$89.70^{+0.79}_{-0.95}$
τ	0.0529	$0.053^{+0.023}_{-0.022}$	$\langle d^2 \rangle^{1/2}$	2.446	$2.428^{+0.075}_{-0.081}$	$D_M(0.51)$	1976.3	1981^{+34}_{-28}
Σm_ν [eV]	0.003	< 0.211	z_{re}	7.56	$7.6^{+2.2}_{-2.4}$	$H(0.61)$	95.44	$95.30^{+0.68}_{-0.83}$
$\ln(10^{10} A_s)$	3.0404	$3.039^{+0.048}_{-0.045}$	$10^9 A_s$	2.091	$2.09^{+0.10}_{-0.091}$	$D_M(0.61)$	2300.1	2305^{+37}_{-31}
n_s	0.9659	$0.966^{+0.011}_{-0.011}$	$10^9 A_s e^{-2\tau}$	1.8812	$1.878^{+0.029}_{-0.030}$	$H(2.33)$	235.84	$235.8^{+2.0}_{-2.0}$
y_{cal}	1.0005	$1.0005^{+0.0064}_{-0.0067}$	D_{40}	1227.2	1226^{+33}_{-33}	$D_M(2.33)$	5757.3	5765^{+43}_{-34}
A_{217}^{CIB}	48.7	48^{+20}_{-20}	D_{220}	5716	5720^{+100}_{-100}	$f\sigma_8(0.15)$	0.4607	$0.455^{+0.021}_{-0.025}$
$\xi^{tSZ \times CIB}$	0.30	—	D_{810}	2537.4	2536^{+36}_{-36}	$\sigma_8(0.15)$	0.7601	$0.748^{+0.026}_{-0.043}$
A_{143}^{tSZ}	7.0	—	D_{1420}	815.9	815^{+13}_{-13}	$f\sigma_8(0.38)$	0.4799	$0.474^{+0.019}_{-0.024}$
A_{100}^{PS}	254	262^{+70}_{-70}	D_{2000}	230.27	$230.0^{+4.7}_{-4.6}$	$\sigma_8(0.38)$	0.6739	$0.663^{+0.022}_{-0.039}$
A_{143}^{PS}	48.7	48^{+20}_{-20}	$n_{s,0.002}$	0.9659	$0.966^{+0.011}_{-0.011}$	$f\sigma_8(0.51)$	0.4788	$0.472^{+0.018}_{-0.024}$
$A_{143 \times 217}^{PS}$	46.0	43^{+20}_{-20}	Y_P	0.245327	$0.24533^{+0.00019}_{-0.00024}$	$\sigma_8(0.51)$	0.6307	$0.620^{+0.021}_{-0.037}$
A_{217}^{PS}	118.9	115^{+30}_{-30}	Y_P^{BBN}	0.246653	$0.24666^{+0.00019}_{-0.00024}$	$f\sigma_8(0.61)$	0.4739	$0.468^{+0.017}_{-0.024}$
A^{kSZ}	0.0	—	$10^5 D/H$	2.618	$2.614^{+0.096}_{-0.089}$	$\sigma_8(0.61)$	0.6002	$0.590^{+0.020}_{-0.035}$
A_{100}^{dustTT}	8.85	$9.0^{+4.8}_{-4.8}$	Age/Gyr	13.784	$13.80^{+0.10}_{-0.077}$	$f\sigma_8(2.33)$	0.3018	$0.2977^{+0.0094}_{-0.016}$
A_{143}^{dustTT}	10.83	$10.7^{+4.6}_{-4.6}$	z_*	1090.10	$1090.02^{+0.75}_{-0.74}$	$\sigma_8(2.33)$	0.3117	$0.307^{+0.010}_{-0.018}$
$A_{143 \times 217}^{dustTT}$	19.4	$18.3^{+8.3}_{-8.4}$	r_*	144.66	$144.80^{+0.89}_{-0.82}$	f_{2000}^{143}	30.1	31^{+8}_{-8}
A_{217}^{dustTT}	94.6	93^{+20}_{-20}	$100\theta_*$	1.04112	$1.0412^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33.0	33^{+5}_{-5}
c_{100}	0.99966	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.894	$13.907^{+0.083}_{-0.078}$	f_{2000}^{217}	107.49	$107.8^{+4.8}_{-4.9}$
c_{217}	0.99825	$0.9983^{+0.0016}_{-0.0016}$	z_{drag}	1059.51	$1059.5^{+1.1}_{-1.1}$	χ_{simall}^2	395.9	$397.0 (\nu: 1.7)$
H_0	67.85	$67.7^{+1.4}_{-1.6}$	r_{drag}	147.38	$147.52^{+0.95}_{-0.87}$	χ_{lowl}^2	23.25	$23.11 (\nu: 0.4)$
Ω_Λ	0.6918	$0.690^{+0.018}_{-0.021}$	k_D	0.14043	$0.1403^{+0.0011}_{-0.0012}$	χ_{plik}^2	758.6	$772.0 (\nu: 15.4)$
Ω_m	0.3082	$0.310^{+0.021}_{-0.018}$	$100\theta_D$	0.16101	$0.16101^{+0.00068}_{-0.00065}$	χ_{6DF}^2	0.010	$0.059 (\nu: 0.0)$
$\Omega_m h^2$	0.14189	$0.1419^{+0.0031}_{-0.0030}$	z_{eq}	3390	3375^{+77}_{-80}	χ_{MGS}^2	1.41	$1.39 (\nu: 0.1)$
$\Omega_\nu h^2$	0.00003	< 0.00226	k_{eq}	0.010346	$0.01030^{+0.00023}_{-0.00024}$	$\chi_{DR12BAO}^2$	3.90	$4.7 (\nu: 1.4)$
$\Omega_m h^3$	0.09627	$0.0960^{+0.0012}_{-0.0015}$	$100\theta_{eq}$	0.8150	$0.818^{+0.015}_{-0.014}$	χ_{prior}^2	1.3	$7.3 (\nu: 6.9)$
σ_8	0.8223	$0.809^{+0.028}_{-0.047}$	$100\theta_{s,eq}$	0.4504	$0.4519^{+0.0077}_{-0.0072}$	χ_{BAO}^2	5.32	$6.2 (\nu: 1.0)$
S_8	0.8335	$0.822^{+0.042}_{-0.048}$	$H(0.15)$	73.10	$72.9^{+1.2}_{-1.4}$	χ_{CMB}^2	1177.7	$1192.1 (\nu: 15.4)$
$\sigma_8 \Omega_m^{0.5}$	0.4565	$0.450^{+0.023}_{-0.026}$	$D_M(0.15)$	639.2	641^{+14}_{-12}			

Best-fit $\chi_{eff}^2 = 1184.39$; $\Delta\chi_{eff}^2 = -1.36$; $\bar{\chi}_{eff}^2 = 1205.62$; $\Delta\bar{\chi}_{eff}^2 = -0.41$; $R - 1 = 0.00712$

χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.01) MGS: 1.41 (Δ 0.13) DR12BAO: 3.90 (Δ -0.28) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.87 (Δ -0.02) commander_dx12_v3_2_29: 23.25 (Δ 0.43) plik_rd12_HM_v22.TT: 758.61 (Δ -1.49)

6.10 base_mnu_plikHM_TT_lowl_lowE_BAO_post_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022194	$0.02223^{+0.00048}_{-0.00048}$	$\sigma_8 \Omega_m^{0.25}$	0.6118	$0.603^{+0.024}_{-0.035}$	$H(0.38)$	83.18	$83.06^{+0.89}_{-1.0}$
$\Omega_c h^2$	0.11950	$0.1189^{+0.0032}_{-0.0034}$	$\sigma_8/h^{0.5}$	0.9971	$0.983^{+0.036}_{-0.054}$	$D_M(0.38)$	1524.4	1527^{+26}_{-23}
$100\theta_{MC}$	1.04096	$1.0410^{+0.0011}_{-0.0011}$	$r_{drag}h$	100.11	$99.98^{+2.2}_{-2.4}$	$H(0.51)$	89.86	$89.75^{+0.75}_{-0.86}$
τ	0.0529	$0.054^{+0.023}_{-0.021}$	$\langle d^2 \rangle^{1/2}$	2.443	$2.426^{+0.074}_{-0.081}$	$D_M(0.51)$	1975.3	1979^{+31}_{-27}
Σm_ν [eV]	0.001	< 0.202	z_{re}	7.56	$7.6^{+2.3}_{-2.3}$	$H(0.61)$	95.45	$95.34^{+0.66}_{-0.77}$
$\ln(10^{10} A_s)$	3.0395	$3.039^{+0.048}_{-0.044}$	$10^9 A_s$	2.090	$2.09^{+0.10}_{-0.089}$	$D_M(0.61)$	2299.1	2303^{+34}_{-29}
n_s	0.9660	$0.967^{+0.011}_{-0.010}$	$10^9 A_s e^{-2\tau}$	1.8797	$1.877^{+0.029}_{-0.030}$	$H(2.33)$	235.73	$235.7^{+1.9}_{-1.9}$
y_{cal}	1.0003	$1.0005^{+0.0064}_{-0.0067}$	D_{40}	1226.2	1225^{+32}_{-33}	$D_M(2.33)$	5757.1	5763^{+40}_{-32}
A_{217}^{CIB}	49.0	48^{+20}_{-20}	D_{220}	5713	5720^{+100}_{-100}	$f\sigma_8(0.15)$	0.4597	$0.454^{+0.021}_{-0.025}$
$\xi^{tSZ \times CIB}$	0.28	—	D_{810}	2535.9	2535^{+36}_{-36}	$\sigma_8(0.15)$	0.7595	$0.748^{+0.025}_{-0.043}$
A_{143}^{tSZ}	7.0	—	D_{1420}	815.4	816^{+13}_{-13}	$f\sigma_8(0.38)$	0.4791	$0.473^{+0.019}_{-0.025}$
A_{100}^{PS}	256	262^{+70}_{-80}	D_{2000}	230.08	$230.0^{+4.7}_{-4.5}$	$\sigma_8(0.38)$	0.6735	$0.663^{+0.022}_{-0.039}$
A_{143}^{PS}	48.6	48^{+20}_{-20}	$n_{s,0.002}$	0.9660	$0.967^{+0.011}_{-0.010}$	$f\sigma_8(0.51)$	0.4781	$0.472^{+0.017}_{-0.025}$
$A_{143 \times 217}^{PS}$	45.5	43^{+20}_{-20}	Y_P	0.245323	$0.24534^{+0.00018}_{-0.00022}$	$\sigma_8(0.51)$	0.6304	$0.621^{+0.021}_{-0.036}$
A_{217}^{PS}	118.5	115^{+30}_{-30}	Y_P^{BBN}	0.246650	$0.24666^{+0.00018}_{-0.00022}$	$f\sigma_8(0.61)$	0.4733	$0.467^{+0.017}_{-0.024}$
A^{kSZ}	0.0	—	$10^5 D/H$	2.619	$2.612^{+0.092}_{-0.087}$	$\sigma_8(0.61)$	0.5999	$0.591^{+0.020}_{-0.035}$
A_{100}^{dustTT}	8.87	$9.0^{+5.0}_{-4.8}$	Age/Gyr	13.784	$13.798^{+0.093}_{-0.075}$	$f\sigma_8(2.33)$	0.3017	$0.2980^{+0.0094}_{-0.015}$
A_{143}^{dustTT}	10.81	$10.7^{+4.7}_{-4.8}$	z_*	1090.09	$1089.99^{+0.75}_{-0.72}$	$\sigma_8(2.33)$	0.3116	$0.307^{+0.010}_{-0.017}$
$A_{143 \times 217}^{dustTT}$	19.4	$18.3^{+8.2}_{-8.4}$	r_*	144.70	$144.84^{+0.92}_{-0.80}$	f_{2000}^{143}	30.3	31^{+8}_{-7}
A_{217}^{dustTT}	94.5	94^{+20}_{-20}	$100\theta_*$	1.04113	$1.0412^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33.1	33^{+5}_{-5}
c_{100}	0.99964	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.898	$13.910^{+0.085}_{-0.077}$	f_{2000}^{217}	107.54	$107.8^{+4.9}_{-4.9}$
c_{217}	0.99825	$0.9983^{+0.0016}_{-0.0017}$	z_{drag}	1059.47	$1059.5^{+1.1}_{-1.1}$	χ_{small}^2	395.9	$397.0 (\nu: 1.7)$
H_0	67.90	$67.8^{+1.3}_{-1.5}$	r_{drag}	147.43	$147.55^{+0.98}_{-0.85}$	χ_{lowl}^2	23.21	$23.05 (\nu: 0.4)$
Ω_Λ	0.6927	$0.691^{+0.017}_{-0.019}$	k_D	0.14037	$0.1403^{+0.0011}_{-0.0011}$	χ_{plik}^2	758.7	$772.1 (\nu: 15.4)$
Ω_m	0.3073	$0.309^{+0.019}_{-0.017}$	$100\theta_D$	0.16103	$0.16101^{+0.00065}_{-0.00062}$	χ_{JLA}^2	1034.88	$1035.03 (\nu: 0.1)$
$\Omega_m h^2$	0.14171	$0.1417^{+0.0030}_{-0.0029}$	z_{eq}	3386	3372^{+74}_{-82}	χ_{6DF}^2	0.006	$0.047 (\nu: 0.0)$
$\Omega_\nu h^2$	0.00001	< 0.00218	k_{eq}	0.010335	$0.01029^{+0.00023}_{-0.00025}$	χ_{MGS}^2	1.47	$1.47 (\nu: 0.1)$
$\Omega_m h^3$	0.09623	$0.0960^{+0.0012}_{-0.0015}$	$100\theta_{eq}$	0.8157	$0.818^{+0.015}_{-0.014}$	$\chi_{DR12BAO}^2$	3.77	$4.5 (\nu: 1.0)$
σ_8	0.8217	$0.809^{+0.027}_{-0.047}$	$100\theta_{s,eq}$	0.4507	$0.4522^{+0.0080}_{-0.0071}$	χ_{prior}^2	1.4	$7.4 (\nu: 7.0)$
S_8	0.8317	$0.821^{+0.041}_{-0.049}$	$H(0.15)$	73.14	$73.0^{+1.2}_{-1.3}$	χ_{BAO}^2	5.25	$6.0 (\nu: 0.6)$
$\sigma_8 \Omega_m^{0.5}$	0.4555	$0.449^{+0.022}_{-0.027}$	$D_M(0.15)$	638.8	640^{+13}_{-11}	χ_{CMB}^2	1177.8	$1192.2 (\nu: 15.3)$

Best-fit $\chi_{eff}^2 = 2219.29$; $\bar{\chi}_{eff}^2 = 2240.54$; $R - 1 = 0.00739$

χ_{eff}^2 : BAO - 6DF: 0.01 MGS: 1.47 DR12BAO: 3.77 CMB - small_100x143.offlike5_EE_Aplanck_B: 395.88 commander_dx12_v3.2.29: 23.21 plik_rd12_HM_v22.TT: 758.69
SN - JLA Pantheon18: 1034.88

6.11 base_mnu_plikHM_TT_lowl_lowE_BAO_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02222^{+0.00049}_{-0.00050}$	$\sigma_8 \Omega_m^{0.25}$	$0.604^{+0.024}_{-0.034}$	$H(0.38)$	$83.01^{+0.94}_{-1.1}$
$\Omega_c h^2$	$0.1190^{+0.0033}_{-0.0033}$	$\sigma_8/h^{0.5}$	$0.984^{+0.036}_{-0.054}$	$D_M(0.38)$	1529^{+28}_{-24}
$100\theta_{MC}$	$1.0410^{+0.0011}_{-0.0011}$	$r_{drag}h$	$99.8^{+2.4}_{-2.5}$	$H(0.51)$	$89.70^{+0.79}_{-0.95}$
τ	$0.055^{+0.020}_{-0.013}$	$\langle d^2 \rangle^{1/2}$	$2.431^{+0.073}_{-0.078}$	$D_M(0.51)$	1981^{+33}_{-28}
Σm_ν [eV]	< 0.210	z_{re}	< 9.58	$H(0.61)$	$95.30^{+0.68}_{-0.83}$
$\ln(10^{10} A_s)$	$3.042^{+0.047}_{-0.031}$	$10^9 A_s$	$2.09^{+0.10}_{-0.063}$	$D_M(0.61)$	2305^{+36}_{-31}
n_s	$0.967^{+0.011}_{-0.011}$	$10^9 A_s e^{-2\tau}$	$1.877^{+0.029}_{-0.030}$	$H(2.33)$	$235.8^{+2.0}_{-2.0}$
y_{cal}	$1.0005^{+0.0064}_{-0.0067}$	D_{40}	1226^{+33}_{-33}	$D_M(2.33)$	5765^{+43}_{-34}
A_{217}^{CIB}	48^{+20}_{-20}	D_{220}	5719^{+100}_{-100}	$f\sigma_8(0.15)$	$0.455^{+0.021}_{-0.025}$
$\xi^{tSZ \times CIB}$	—	D_{810}	2535^{+36}_{-36}	$\sigma_8(0.15)$	$0.748^{+0.025}_{-0.043}$
A_{143}^{tSZ}	—	D_{1420}	815^{+13}_{-13}	$f\sigma_8(0.38)$	$0.474^{+0.019}_{-0.024}$
A_{100}^{PS}	262^{+70}_{-70}	D_{2000}	$230.0^{+4.7}_{-4.6}$	$\sigma_8(0.38)$	$0.663^{+0.022}_{-0.038}$
A_{143}^{PS}	48^{+20}_{-20}	$n_{s,0.002}$	$0.967^{+0.011}_{-0.011}$	$f\sigma_8(0.51)$	$0.473^{+0.018}_{-0.024}$
$A_{143 \times 217}^{PS}$	43^{+20}_{-20}	Y_P	$0.24533^{+0.00019}_{-0.00024}$	$\sigma_8(0.51)$	$0.621^{+0.020}_{-0.036}$
A_{217}^{PS}	115^{+30}_{-30}	Y_P^{BBN}	$0.24666^{+0.00019}_{-0.00024}$	$f\sigma_8(0.61)$	$0.468^{+0.017}_{-0.024}$
A^{kSZ}	—	$10^5 D/H$	$2.614^{+0.096}_{-0.089}$	$\sigma_8(0.61)$	$0.591^{+0.020}_{-0.034}$
A_{100}^{dustTT}	$9.0^{+4.8}_{-4.8}$	Age/Gyr	$13.80^{+0.10}_{-0.077}$	$f\sigma_8(2.33)$	$0.2981^{+0.0092}_{-0.015}$
A_{143}^{dustTT}	$10.7^{+4.6}_{-4.6}$	z_*	$1090.02^{+0.76}_{-0.75}$	$\sigma_8(2.33)$	$0.307^{+0.010}_{-0.017}$
$A_{143 \times 217}^{dustTT}$	$18.3^{+8.3}_{-8.4}$	r_*	$144.81^{+0.90}_{-0.81}$	f_{2000}^{143}	31^{+8}_{-8}
A_{217}^{dustTT}	93^{+20}_{-20}	$100\theta_*$	$1.0412^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	$13.908^{+0.083}_{-0.078}$	f_{2000}^{217}	$107.8^{+4.9}_{-4.9}$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	z_{drag}	$1059.5^{+1.1}_{-1.1}$	χ_{simall}^2	$396.9 (\nu: 1.7)$
H_0	$67.7^{+1.4}_{-1.6}$	r_{drag}	$147.53^{+0.96}_{-0.86}$	χ_{lowl}^2	$23.13 (\nu: 0.4)$
Ω_Λ	$0.690^{+0.018}_{-0.021}$	k_D	$0.1403^{+0.0011}_{-0.0012}$	χ_{plik}^2	$771.8 (\nu: 15.1)$
Ω_m	$0.310^{+0.021}_{-0.018}$	$100\theta_D$	$0.16101^{+0.00068}_{-0.00065}$	χ_{6DF}^2	$0.058 (\nu: 0.0)$
$\Omega_m h^2$	$0.1419^{+0.0030}_{-0.0030}$	z_{eq}	3375^{+76}_{-80}	χ_{MGS}^2	$1.39 (\nu: 0.2)$
$\Omega_\nu h^2$	< 0.00226	k_{eq}	$0.01030^{+0.00023}_{-0.00024}$	$\chi_{DR12BAO}^2$	$4.7 (\nu: 1.4)$
$\Omega_m h^3$	$0.0960^{+0.0012}_{-0.0015}$	$100\theta_{eq}$	$0.818^{+0.015}_{-0.014}$	χ_{prior}^2	$7.3 (\nu: 6.9)$
σ_8	$0.810^{+0.028}_{-0.047}$	$100\theta_{s,eq}$	$0.4519^{+0.0077}_{-0.0072}$	χ_{BAO}^2	$6.2 (\nu: 0.9)$
S_8	$0.823^{+0.041}_{-0.048}$	$H(0.15)$	$72.9^{+1.2}_{-1.4}$	χ_{CMB}^2	$1191.9 (\nu: 15.0)$
$\sigma_8 \Omega_m^{0.5}$	$0.451^{+0.023}_{-0.027}$	$D_M(0.15)$	641^{+14}_{-12}		

$$\bar{\chi}_{eff}^2 = 1205.36; \Delta \bar{\chi}_{eff}^2 = -0.40; R - 1 = 0.00940$$

6.12 base_mnu_plikHM_TT_lowl_lowE_BAO_post_Pantheon18_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02223^{+0.00048}_{-0.00047}$	$\sigma_8 \Omega_m^{0.25}$	$0.604^{+0.024}_{-0.035}$	$H(0.38)$	$83.06^{+0.90}_{-1.0}$
$\Omega_c h^2$	$0.1188^{+0.0032}_{-0.0033}$	$\sigma_8/h^{0.5}$	$0.984^{+0.036}_{-0.054}$	$D_M(0.38)$	1527^{+26}_{-23}
$100\theta_{MC}$	$1.0410^{+0.0011}_{-0.0011}$	$r_{drag}h$	$99.99^{+2.3}_{-2.4}$	$H(0.51)$	$89.75^{+0.75}_{-0.86}$
τ	$0.055^{+0.020}_{-0.014}$	$\langle d^2 \rangle^{1/2}$	$2.429^{+0.073}_{-0.079}$	$D_M(0.51)$	1979^{+31}_{-27}
Σm_ν [eV]	< 0.203	z_{re}	< 9.57	$H(0.61)$	$95.34^{+0.66}_{-0.77}$
$\ln(10^{10} A_s)$	$3.042^{+0.046}_{-0.030}$	$10^9 A_s$	$2.095^{+0.099}_{-0.063}$	$D_M(0.61)$	2303^{+34}_{-29}
n_s	$0.967^{+0.010}_{-0.010}$	$10^9 A_s e^{-2\tau}$	$1.877^{+0.029}_{-0.030}$	$H(2.33)$	$235.6^{+1.9}_{-1.9}$
y_{cal}	$1.0005^{+0.0064}_{-0.0067}$	D_{40}	1225^{+32}_{-33}	$D_M(2.33)$	5763^{+40}_{-33}
A_{217}^{CIB}	48^{+20}_{-20}	D_{220}	5720^{+100}_{-100}	$f\sigma_8(0.15)$	$0.455^{+0.021}_{-0.025}$
$\xi^{tSZ \times CIB}$	—	D_{810}	2535^{+36}_{-36}	$\sigma_8(0.15)$	$0.749^{+0.025}_{-0.043}$
A_{143}^{tSZ}	—	D_{1420}	815^{+13}_{-13}	$f\sigma_8(0.38)$	$0.474^{+0.018}_{-0.025}$
A_{100}^{PS}	262^{+70}_{-80}	D_{2000}	$230.0^{+4.7}_{-4.5}$	$\sigma_8(0.38)$	$0.664^{+0.022}_{-0.038}$
A_{143}^{PS}	48^{+20}_{-20}	$n_{s,0.002}$	$0.967^{+0.010}_{-0.010}$	$f\sigma_8(0.51)$	$0.473^{+0.017}_{-0.024}$
$A_{143 \times 217}^{PS}$	43^{+20}_{-20}	Y_P	$0.24534^{+0.00018}_{-0.00022}$	$\sigma_8(0.51)$	$0.621^{+0.020}_{-0.036}$
A_{217}^{PS}	115^{+30}_{-30}	Y_P^{BBN}	$0.24666^{+0.00018}_{-0.00022}$	$f\sigma_8(0.61)$	$0.468^{+0.016}_{-0.024}$
A^{kSZ}	—	$10^5 D/H$	$2.612^{+0.091}_{-0.087}$	$\sigma_8(0.61)$	$0.591^{+0.019}_{-0.035}$
A_{100}^{dustTT}	$9.0^{+4.9}_{-4.8}$	Age/Gyr	$13.798^{+0.093}_{-0.076}$	$f\sigma_8(2.33)$	$0.2983^{+0.0092}_{-0.015}$
A_{143}^{dustTT}	$10.7^{+4.7}_{-4.8}$	z_*	$1089.99^{+0.74}_{-0.72}$	$\sigma_8(2.33)$	$0.3076^{+0.0099}_{-0.017}$
$A_{143 \times 217}^{dustTT}$	$18.4^{+8.2}_{-8.4}$	r_*	$144.84^{+0.92}_{-0.80}$	f_{2000}^{143}	31^{+8}_{-7}
A_{217}^{dustTT}	94^{+20}_{-20}	$100\theta_*$	$1.0412^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
c_{100}	$0.9996^{+0.0016}_{-0.0017}$	$D_M(z_*)/\text{Gpc}$	$13.911^{+0.084}_{-0.077}$	f_{2000}^{217}	$107.8^{+4.9}_{-4.9}$
c_{217}	$0.9983^{+0.0017}_{-0.0017}$	z_{drag}	$1059.5^{+1.1}_{-1.1}$	χ_{simall}^2	$396.9 (\nu: 1.7)$
H_0	$67.8^{+1.3}_{-1.5}$	r_{drag}	$147.56^{+0.97}_{-0.85}$	χ_{lowl}^2	$23.06 (\nu: 0.4)$
Ω_Λ	$0.691^{+0.017}_{-0.019}$	k_D	$0.1403^{+0.0011}_{-0.0012}$	χ_{plik}^2	$771.9 (\nu: 15.1)$
Ω_m	$0.309^{+0.019}_{-0.017}$	$100\theta_D$	$0.16101^{+0.00065}_{-0.00063}$	χ_{JLA}^2	$1035.03 (\nu: 0.1)$
$\Omega_m h^2$	$0.1417^{+0.0030}_{-0.0029}$	z_{eq}	3371^{+73}_{-80}	χ_{6DF}^2	$0.046 (\nu: 0.0)$
$\Omega_\nu h^2$	< 0.00219	k_{eq}	$0.01029^{+0.00022}_{-0.00024}$	χ_{MGS}^2	$1.48 (\nu: 0.1)$
$\Omega_m h^3$	$0.0960^{+0.0012}_{-0.0015}$	$100\theta_{eq}$	$0.819^{+0.015}_{-0.014}$	$\chi_{DR12BAO}^2$	$4.4 (\nu: 1.0)$
σ_8	$0.810^{+0.027}_{-0.047}$	$100\theta_{s,eq}$	$0.4523^{+0.0079}_{-0.0071}$	χ_{prior}^2	$7.3 (\nu: 7.0)$
S_8	$0.821^{+0.041}_{-0.048}$	$H(0.15)$	$73.0^{+1.2}_{-1.3}$	χ_{BAO}^2	$6.0 (\nu: 0.6)$
$\sigma_8 \Omega_m^{0.5}$	$0.450^{+0.022}_{-0.026}$	$D_M(0.15)$	640^{+13}_{-11}	χ_{CMB}^2	$1191.9 (\nu: 14.9)$

$$\bar{\chi}_{\text{eff}}^2 = 2240.29; R - 1 = 0.00886$$

6.13 base_mnu_plikHM_TTTEEE_lowl_lowE_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022420	$0.02241^{+0.00036}_{-0.00034}$	$\Omega_m h^3$	0.09670	$0.09648^{+0.00085}_{-0.0011}$	$H(0.15)$	73.29	$73.0^{+1.1}_{-1.2}$
$\Omega_c h^2$	0.11968	$0.1195^{+0.0025}_{-0.0027}$	σ_8	0.8236	$0.814^{+0.024}_{-0.038}$	$D_M(0.15)$	637.4	640^{+12}_{-11}
$100\theta_{MC}$	1.04100	$1.04100^{+0.00077}_{-0.00075}$	S_8	0.8331	$0.828^{+0.034}_{-0.037}$	$H(0.38)$	83.34	$83.13^{+0.81}_{-0.95}$
τ	0.0546	$0.055^{+0.021}_{-0.020}$	$\sigma_8 \Omega_m^{0.5}$	0.4563	$0.453^{+0.019}_{-0.020}$	$D_M(0.38)$	1521.4	1526^{+25}_{-21}
Σm_ν [eV]	0.001	< 0.173	$\sigma_8 \Omega_m^{0.25}$	0.6130	$0.607^{+0.020}_{-0.026}$	$H(0.51)$	90.02	$89.84^{+0.67}_{-0.79}$
$\ln(10^{10} A_s)$	3.0444	$3.045^{+0.043}_{-0.041}$	$\sigma_8/h^{0.5}$	0.9985	$0.989^{+0.031}_{-0.042}$	$D_M(0.51)$	1971.5	1978^{+30}_{-25}
n_s	0.9669	$0.9666^{+0.0098}_{-0.0096}$	$r_{\text{drag}} h$	100.11	$99.7^{+2.1}_{-2.3}$	$H(0.61)$	95.61	$95.46^{+0.57}_{-0.69}$
y_{cal}	1.0004	$1.0008^{+0.0063}_{-0.0065}$	$\langle d^2 \rangle^{1/2}$	2.447	$2.439^{+0.069}_{-0.068}$	$D_M(0.61)$	2294.7	2301^{+32}_{-27}
A_{217}^{CIB}	46.5	47^{+20}_{-20}	z_{re}	7.69	$7.7^{+2.0}_{-2.1}$	$H(2.33)$	236.08	$236.2^{+1.6}_{-1.6}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.57	—	$10^9 A_s$	2.100	$2.101^{+0.092}_{-0.084}$	$D_M(2.33)$	5747.2	5755^{+35}_{-27}
A_{143}^{tSZ}	7.12	$5.5^{+4.4}_{-4.6}$	$10^9 A_s e^{-2\tau}$	1.8826	$1.882^{+0.028}_{-0.028}$	$f\sigma_8(0.15)$	0.4605	$0.458^{+0.018}_{-0.019}$
A_{100}^{PS}	248	258^{+70}_{-70}	D_{40}	1227.6	1229^{+30}_{-30}	$\sigma_8(0.15)$	0.7614	$0.752^{+0.022}_{-0.036}$
A_{143}^{PS}	49.1	46^{+20}_{-20}	D_{220}	5732	5737^{+95}_{-98}	$f\sigma_8(0.38)$	0.4800	$0.477^{+0.016}_{-0.019}$
$A_{143 \times 217}^{\text{PS}}$	50.7	42^{+20}_{-20}	D_{810}	2540.2	2540^{+34}_{-35}	$\sigma_8(0.38)$	0.6752	$0.667^{+0.020}_{-0.032}$
A_{217}^{PS}	120.9	115^{+30}_{-30}	D_{1420}	818.2	818^{+12}_{-12}	$f\sigma_8(0.51)$	0.4791	$0.475^{+0.015}_{-0.019}$
A^{kSZ}	0.0	—	D_{2000}	231.43	$231.2^{+3.9}_{-4.0}$	$\sigma_8(0.51)$	0.6320	$0.624^{+0.018}_{-0.030}$
A_{100}^{dustTT}	8.78	$8.9^{+4.7}_{-4.8}$	$n_{\text{s},0.002}$	0.9669	$0.9666^{+0.0098}_{-0.0096}$	$f\sigma_8(0.61)$	0.4743	$0.470^{+0.014}_{-0.018}$
A_{143}^{dustTT}	11.02	$10.9^{+4.5}_{-4.6}$	Y_{P}	0.245415	$0.24541^{+0.00013}_{-0.00014}$	$\sigma_8(0.61)$	0.6014	$0.594^{+0.018}_{-0.029}$
$A_{143 \times 217}^{\text{dustTT}}$	19.9	$18.6^{+8.5}_{-8.6}$	$Y_{\text{P}}^{\text{BBN}}$	0.246742	$0.24674^{+0.00013}_{-0.00014}$	$f\sigma_8(2.33)$	0.3024	$0.2994^{+0.0083}_{-0.013}$
A_{217}^{dustTT}	95.1	94^{+20}_{-20}	$10^5 \text{D}/\text{H}$	2.576	$2.579^{+0.065}_{-0.064}$	$\sigma_8(2.33)$	0.3124	$0.3088^{+0.0090}_{-0.015}$
A_{100}^{dustTE}	0.114	$0.114^{+0.10}_{-0.096}$	Age/Gyr	13.760	$13.779^{+0.079}_{-0.062}$	f_{2000}^{143}	28.5	29^{+7}_{-7}
$A_{100 \times 143}^{\text{dustTE}}$	0.134	$0.135^{+0.073}_{-0.075}$	z_*	1089.82	$1089.82^{+0.56}_{-0.58}$	$f_{2000}^{143 \times 217}$	31.83	32^{+5}_{-5}
$A_{100 \times 217}^{\text{dustTE}}$	0.481	$0.48^{+0.21}_{-0.22}$	r_*	144.48	$144.55^{+0.62}_{-0.60}$	f_{2000}^{217}	106.42	$106.9^{+4.5}_{-4.6}$
A_{143}^{dustTE}	0.226	$0.22^{+0.15}_{-0.14}$	$100\theta_*$	1.04116	$1.04118^{+0.00075}_{-0.00074}$	χ_{simall}^2	396.08	$397.1 (\nu: 1.8)$
$A_{143 \times 217}^{\text{dustTE}}$	0.667	$0.66^{+0.21}_{-0.21}$	$D_M(z_*)/\text{Gpc}$	13.877	$13.883^{+0.060}_{-0.058}$	χ_{lowl}^2	23.21	$23.25 (\nu: 0.4)$
A_{217}^{dustTE}	2.08	$2.08^{+0.68}_{-0.68}$	z_{drag}	1060.01	$1059.99^{+0.75}_{-0.74}$	χ_{plik}^2	2343.8	$2359.3 (\nu: 17.4)$
c_{100}	0.99970	$0.9997^{+0.0015}_{-0.0016}$	r_{drag}	147.13	$147.20^{+0.65}_{-0.63}$	$\chi_{6\text{DF}}^2$	0.006	$0.051 (\nu: 0.0)$
c_{217}	0.99819	$0.9982^{+0.0016}_{-0.0016}$	k_{D}	0.14086	$0.14078^{+0.00076}_{-0.00077}$	χ_{MGS}^2	1.47	$1.33 (\nu: 0.1)$
H_0	68.04	$67.8^{+1.3}_{-1.4}$	$100\theta_{\text{D}}$	0.160716	$0.16074^{+0.00044}_{-0.00044}$	χ_{DR12BAO}^2	3.82	$4.7 (\nu: 1.1)$
Ω_Λ	0.6931	$0.690^{+0.016}_{-0.019}$	z_{eq}	3396	3390^{+58}_{-60}	χ_{prior}^2	1.7	$11.6 (\nu: 10.4)$
Ω_m	0.3069	$0.310^{+0.019}_{-0.016}$	k_{eq}	0.010364	$0.01035^{+0.00018}_{-0.00018}$	χ_{BAO}^2	5.30	$6.1 (\nu: 0.7)$
$\Omega_m h^2$	0.14211	$0.1424^{+0.0025}_{-0.0025}$	$100\theta_{\text{eq}}$	0.8146	$0.816^{+0.011}_{-0.011}$	χ_{CMB}^2	2763.1	$2779.7 (\nu: 17.0)$
$\Omega_\nu h^2$	0.00001	< 0.00186	$100\theta_{\text{s,eq}}$	0.4500	$0.4506^{+0.0059}_{-0.0055}$			

Best-fit $\chi_{\text{eff}}^2 = 2770.08$; $\Delta\chi_{\text{eff}}^2 = -1.83$; $\bar{\chi}_{\text{eff}}^2 = 2797.32$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.59$; $R - 1 = 0.00869$

χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.02) MGS: 1.47 (Δ 0.26) DR12BAO: 3.82 (Δ -0.60) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.08 (Δ -0.12) commander_dx12_v3_2_29: 23.21 (Δ 0.34) plik_rd12_HM_v22b_TTTEEE: 2343.84 (Δ -1.67)

6.14 base_mnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022432	$0.02242^{+0.00035}_{-0.00034}$	$\Omega_m h^3$	0.09670	$0.09649^{+0.00086}_{-0.0011}$	$H(0.15)$	73.34	$73.1^{+1.0}_{-1.2}$
$\Omega_c h^2$	0.11954	$0.1193^{+0.0025}_{-0.0026}$	σ_8	0.8238	$0.814^{+0.024}_{-0.037}$	$D_M(0.15)$	636.9	639^{+11}_{-10}
$100\theta_{MC}$	1.04101	$1.04102^{+0.00076}_{-0.00073}$	S_8	0.8321	$0.827^{+0.034}_{-0.037}$	$H(0.38)$	83.38	$83.18^{+0.77}_{-0.89}$
τ	0.0554	$0.055^{+0.020}_{-0.020}$	$\sigma_8 \Omega_m^{0.5}$	0.4558	$0.453^{+0.018}_{-0.020}$	$D_M(0.38)$	1520.3	1525^{+24}_{-20}
Σm_ν [eV]	0.001	< 0.163	$\sigma_8 \Omega_m^{0.25}$	0.6128	$0.607^{+0.020}_{-0.025}$	$H(0.51)$	90.05	$89.88^{+0.65}_{-0.75}$
$\ln(10^{10} A_s)$	3.0457	$3.045^{+0.043}_{-0.040}$	$\sigma_8/h^{0.5}$	0.9982	$0.989^{+0.031}_{-0.041}$	$D_M(0.51)$	1970.3	1976^{+28}_{-24}
n_s	0.9676	$0.967^{+0.010}_{-0.0095}$	$r_{\text{drag}} h$	100.22	$99.9^{+2.0}_{-2.1}$	$H(0.61)$	95.64	$95.49^{+0.55}_{-0.64}$
y_{cal}	1.0004	$1.0008^{+0.0063}_{-0.0066}$	$\langle d^2 \rangle^{1/2}$	2.446	$2.438^{+0.069}_{-0.068}$	$D_M(0.61)$	2293.4	2300^{+30}_{-26}
A_{217}^{CIB}	45.6	47^{+20}_{-20}	z_{re}	7.76	$7.7^{+2.0}_{-2.1}$	$H(2.33)$	236.00	$236.1^{+1.5}_{-1.5}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.66	—	$10^9 A_s$	2.102	$2.101^{+0.092}_{-0.083}$	$D_M(2.33)$	5746.3	5754^{+32}_{-26}
A_{143}^{tSZ}	7.09	$5.5^{+4.5}_{-4.5}$	$10^9 A_s e^{-2\tau}$	1.8819	$1.881^{+0.028}_{-0.028}$	$f\sigma_8(0.15)$	0.4601	$0.457^{+0.017}_{-0.019}$
A_{100}^{PS}	247	257^{+70}_{-70}	D_{40}	1226.1	1228^{+30}_{-30}	$\sigma_8(0.15)$	0.7616	$0.753^{+0.022}_{-0.034}$
A_{143}^{PS}	50.1	45^{+20}_{-20}	D_{220}	5731	5737^{+95}_{-99}	$f\sigma_8(0.38)$	0.4798	$0.476^{+0.016}_{-0.018}$
$A_{143 \times 217}^{\text{PS}}$	52.8	42^{+20}_{-20}	D_{810}	2540.3	2540^{+34}_{-35}	$\sigma_8(0.38)$	0.6755	$0.667^{+0.019}_{-0.031}$
A_{217}^{PS}	122.0	115^{+30}_{-30}	D_{1420}	818.6	818^{+12}_{-12}	$f\sigma_8(0.51)$	0.4789	$0.475^{+0.015}_{-0.018}$
A^{kSZ}	0.0	—	D_{2000}	231.58	$231.2^{+4.0}_{-4.0}$	$\sigma_8(0.51)$	0.6323	$0.625^{+0.018}_{-0.029}$
A_{100}^{dustTT}	8.81	$8.9^{+4.8}_{-4.8}$	$n_{\text{s},0.002}$	0.9676	$0.967^{+0.010}_{-0.0095}$	$f\sigma_8(0.61)$	0.4743	$0.470^{+0.014}_{-0.018}$
A_{143}^{dustTT}	11.05	$10.9^{+4.5}_{-4.5}$	Y_{P}	0.245420	$0.24541^{+0.00013}_{-0.00014}$	$\sigma_8(0.61)$	0.6017	$0.594^{+0.017}_{-0.028}$
$A_{143 \times 217}^{\text{dustTT}}$	20.2	$18.6^{+8.6}_{-8.4}$	$Y_{\text{P}}^{\text{BBN}}$	0.246746	$0.24674^{+0.00013}_{-0.00014}$	$f\sigma_8(2.33)$	0.3026	$0.2996^{+0.0081}_{-0.012}$
A_{217}^{dustTT}	95.5	94^{+20}_{-20}	10^5D/H	2.574	$2.577^{+0.064}_{-0.063}$	$\sigma_8(2.33)$	0.3127	$0.3091^{+0.0087}_{-0.014}$
A_{100}^{dustTE}	0.115	$0.115^{+0.099}_{-0.094}$	Age/Gyr	13.758	$13.776^{+0.074}_{-0.060}$	f_{2000}^{143}	28.3	29^{+7}_{-7}
$A_{100 \times 143}^{\text{dustTE}}$	0.134	$0.135^{+0.073}_{-0.076}$	z_*	1089.80	$1089.80^{+0.57}_{-0.57}$	$f_{2000}^{143 \times 217}$	31.63	32^{+5}_{-5}
$A_{100 \times 217}^{\text{dustTE}}$	0.482	$0.48^{+0.22}_{-0.22}$	r_*	144.51	$144.57^{+0.62}_{-0.59}$	f_{2000}^{217}	106.22	$106.8^{+4.5}_{-4.7}$
A_{143}^{dustTE}	0.224	$0.22^{+0.15}_{-0.14}$	$100\theta_*$	1.04116	$1.04119^{+0.00075}_{-0.00073}$	χ_{simall}^2	396.22	$397.2 (\nu: 1.9)$
$A_{143 \times 217}^{\text{dustTE}}$	0.665	$0.66^{+0.20}_{-0.21}$	$D_M(z_*)/\text{Gpc}$	13.880	$13.885^{+0.059}_{-0.057}$	χ_{lowl}^2	23.08	$23.20 (\nu: 0.3)$
A_{217}^{dustTE}	2.08	$2.08^{+0.66}_{-0.69}$	z_{drag}	1060.05	$1060.00^{+0.74}_{-0.75}$	χ_{plik}^2	2344.0	$2359.3 (\nu: 17.4)$
c_{100}	0.99973	$0.9997^{+0.0015}_{-0.0016}$	r_{drag}	147.15	$147.22^{+0.64}_{-0.62}$	χ_{JLA}^2	1034.84	$1035.02 (\nu: 0.0)$
c_{217}	0.99817	$0.9982^{+0.0016}_{-0.0016}$	k_{D}	0.14085	$0.14077^{+0.00076}_{-0.00077}$	$\chi_{6\text{DF}}^2$	0.003	$0.042 (\nu: 0.0)$
H_0	68.11	$67.8^{+1.2}_{-1.3}$	$100\theta_{\text{D}}$	0.160704	$0.16073^{+0.00044}_{-0.00044}$	χ_{MGS}^2	1.54	$1.39 (\nu: 0.1)$
Ω_Λ	0.6939	$0.691^{+0.016}_{-0.017}$	z_{eq}	3393	3388^{+56}_{-60}	χ_{DR12BAO}^2	3.71	$4.5 (\nu: 0.8)$
Ω_m	0.3061	$0.309^{+0.017}_{-0.016}$	k_{eq}	0.010354	$0.01034^{+0.00017}_{-0.00018}$	χ_{prior}^2	1.6	$11.5 (\nu: 10.6)$
$\Omega_m h^2$	0.14198	$0.1423^{+0.0024}_{-0.0024}$	$100\theta_{\text{eq}}$	0.8152	$0.816^{+0.011}_{-0.010}$	χ_{BAO}^2	5.25	$5.93 (\nu: 0.5)$
$\Omega_\nu h^2$	0.00001	< 0.00175	$100\theta_{\text{s,eq}}$	0.4503	$0.4508^{+0.0058}_{-0.0053}$	χ_{CMB}^2	2763.3	$2779.7 (\nu: 17.0)$

Best-fit $\chi_{\text{eff}}^2 = 3804.95$; $\bar{\chi}_{\text{eff}}^2 = 3832.15$; $R - 1 = 0.01154$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.54 DR12BAO: 3.71 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.22 commander_dx12_v3_2_29: 23.08 plik_rd12_HM_v22b_TTTEEE: 2343.99 SN - JLA Pantheon18: 1034.84

6.15 base_mnu_plikHM_TTTEEE_lowl_lowE_BAO_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02241^{+0.00036}_{-0.00034}$	$\Omega_m h^3$	$0.09648^{+0.00085}_{-0.0011}$	$H(0.15)$	$73.0^{+1.1}_{-1.2}$
$\Omega_c h^2$	$0.1194^{+0.0025}_{-0.0026}$	σ_8	$0.815^{+0.024}_{-0.039}$	$D_M(0.15)$	640^{+12}_{-10}
$100\theta_{MC}$	$1.04101^{+0.00077}_{-0.00075}$	S_8	$0.828^{+0.034}_{-0.037}$	$H(0.38)$	$83.14^{+0.81}_{-0.94}$
τ	$0.056^{+0.019}_{-0.014}$	$\sigma_8 \Omega_m^{0.5}$	$0.454^{+0.019}_{-0.020}$	$D_M(0.38)$	1526^{+25}_{-21}
Σm_ν [eV]	< 0.175	$\sigma_8 \Omega_m^{0.25}$	$0.608^{+0.020}_{-0.026}$	$H(0.51)$	$89.85^{+0.67}_{-0.79}$
$\ln(10^{10} A_s)$	$3.047^{+0.041}_{-0.031}$	$\sigma_8/h^{0.5}$	$0.990^{+0.031}_{-0.042}$	$D_M(0.51)$	1977^{+29}_{-25}
n_s	$0.9667^{+0.0098}_{-0.0096}$	$r_{\text{drag}} h$	$99.8^{+2.1}_{-2.3}$	$H(0.61)$	$95.46^{+0.57}_{-0.69}$
y_{cal}	$1.0008^{+0.0063}_{-0.0065}$	$\langle d^2 \rangle^{1/2}$	$2.441^{+0.067}_{-0.066}$	$D_M(0.61)$	2301^{+32}_{-27}
A_{217}^{CIB}	47^{+20}_{-20}	z_{re}	< 9.56	$H(2.33)$	$236.2^{+1.6}_{-1.6}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s$	$2.104^{+0.088}_{-0.065}$	$D_M(2.33)$	5755^{+35}_{-27}
A_{143}^{tSZ}	$5.5^{+4.4}_{-4.6}$	$10^9 A_s e^{-2\tau}$	$1.882^{+0.028}_{-0.028}$	$f\sigma_8(0.15)$	$0.458^{+0.017}_{-0.019}$
A_{100}^{PS}	258^{+70}_{-70}	D_{40}	1229^{+30}_{-30}	$\sigma_8(0.15)$	$0.753^{+0.022}_{-0.036}$
A_{143}^{PS}	46^{+20}_{-20}	D_{220}	5737^{+95}_{-98}	$f\sigma_8(0.38)$	$0.477^{+0.016}_{-0.019}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{810}	2540^{+34}_{-35}	$\sigma_8(0.38)$	$0.668^{+0.019}_{-0.033}$
A_{217}^{PS}	115^{+30}_{-30}	D_{1420}	818^{+12}_{-12}	$f\sigma_8(0.51)$	$0.476^{+0.015}_{-0.018}$
A^{kSZ}	—	D_{2000}	$231.2^{+3.9}_{-4.0}$	$\sigma_8(0.51)$	$0.625^{+0.018}_{-0.031}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.8}$	$n_{s,0.002}$	$0.9667^{+0.0098}_{-0.0096}$	$f\sigma_8(0.61)$	$0.471^{+0.014}_{-0.018}$
A_{143}^{dustTT}	$10.9^{+4.5}_{-4.6}$	Y_P	$0.24541^{+0.00013}_{-0.00014}$	$\sigma_8(0.61)$	$0.595^{+0.017}_{-0.030}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.5}_{-8.6}$	Y_P^{BBN}	$0.24674^{+0.00013}_{-0.00014}$	$f\sigma_8(2.33)$	$0.2997^{+0.0081}_{-0.013}$
A_{217}^{dustTT}	94^{+20}_{-20}	$10^5 D/H$	$2.578^{+0.063}_{-0.064}$	$\sigma_8(2.33)$	$0.3091^{+0.0087}_{-0.015}$
A_{100}^{dustTE}	$0.114^{+0.10}_{-0.096}$	Age/Gyr	$13.779^{+0.079}_{-0.062}$	f_{2000}^{143}	29^{+7}_{-7}
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.073}_{-0.075}$	z_*	$1089.82^{+0.56}_{-0.57}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	r_*	$144.55^{+0.62}_{-0.61}$	f_{2000}^{217}	$106.8^{+4.4}_{-4.6}$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$100\theta_*$	$1.04118^{+0.00076}_{-0.00074}$	χ_{simall}^2	$397.1 (\nu: 1.9)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	$D_M(z_*)/\text{Gpc}$	$13.883^{+0.059}_{-0.058}$	χ_{lowl}^2	$23.25 (\nu: 0.4)$
A_{217}^{dustTE}	$2.08^{+0.68}_{-0.68}$	z_{drag}	$1059.99^{+0.75}_{-0.74}$	χ_{plik}^2	$2359.1 (\nu: 17.3)$
c_{100}	$0.9997^{+0.0015}_{-0.0016}$	r_{drag}	$147.20^{+0.65}_{-0.63}$	$\chi_{6\text{DF}}^2$	$0.051 (\nu: 0.0)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	k_D	$0.14078^{+0.00075}_{-0.00077}$	χ_{MGS}^2	$1.34 (\nu: 0.1)$
H_0	$67.8^{+1.2}_{-1.4}$	$100\theta_D$	$0.16074^{+0.00044}_{-0.00044}$	χ_{DR12BAO}^2	$4.7 (\nu: 1.1)$
Ω_Λ	$0.690^{+0.016}_{-0.018}$	z_{eq}	3390^{+58}_{-60}	χ_{prior}^2	$11.6 (\nu: 10.4)$
Ω_m	$0.310^{+0.018}_{-0.016}$	k_{eq}	$0.01035^{+0.00018}_{-0.00018}$	χ_{BAO}^2	$6.1 (\nu: 0.7)$
$\Omega_m h^2$	$0.1424^{+0.0025}_{-0.0025}$	$100\theta_{\text{eq}}$	$0.816^{+0.011}_{-0.011}$	χ_{CMB}^2	$2779.5 (\nu: 16.8)$
$\Omega_\nu h^2$	< 0.00188	$100\theta_{s,\text{eq}}$	$0.4506^{+0.0059}_{-0.0055}$		

$$\bar{\chi}_{\text{eff}}^2 = 2797.12; \Delta \bar{\chi}_{\text{eff}}^2 = -0.59; R - 1 = 0.00800$$

6.16 base_mnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02242^{+0.00035}_{-0.00034}$	$\Omega_m h^3$	$0.09649^{+0.00084}_{-0.0011}$	$H(0.15)$	$73.1^{+1.0}_{-1.2}$
$\Omega_c h^2$	$0.1193^{+0.0025}_{-0.0026}$	σ_8	$0.815^{+0.024}_{-0.036}$	$D_M(0.15)$	$639^{+11}_{-9.9}$
$100\theta_{MC}$	$1.04102^{+0.00075}_{-0.00073}$	S_8	$0.827^{+0.033}_{-0.036}$	$H(0.38)$	$83.18^{+0.77}_{-0.88}$
τ	$0.056^{+0.019}_{-0.014}$	$\sigma_8 \Omega_m^{0.5}$	$0.453^{+0.018}_{-0.020}$	$D_M(0.38)$	1525^{+23}_{-20}
Σm_ν [eV]	< 0.163	$\sigma_8 \Omega_m^{0.25}$	$0.608^{+0.020}_{-0.025}$	$H(0.51)$	$89.88^{+0.65}_{-0.74}$
$\ln(10^{10} A_s)$	$3.047^{+0.042}_{-0.032}$	$\sigma_8/h^{0.5}$	$0.990^{+0.030}_{-0.040}$	$D_M(0.51)$	1976^{+28}_{-24}
n_s	$0.9669^{+0.0099}_{-0.0095}$	$r_{\text{drag}} h$	$99.9^{+2.0}_{-2.1}$	$H(0.61)$	$95.49^{+0.54}_{-0.64}$
y_{cal}	$1.0007^{+0.0063}_{-0.0066}$	$\langle d^2 \rangle^{1/2}$	$2.440^{+0.067}_{-0.067}$	$D_M(0.61)$	2300^{+30}_{-26}
A_{217}^{CIB}	47^{+20}_{-20}	z_{re}	< 9.54	$H(2.33)$	$236.1^{+1.5}_{-1.5}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s$	$2.105^{+0.090}_{-0.066}$	$D_M(2.33)$	5754^{+32}_{-26}
A_{143}^{tSZ}	$5.5^{+4.4}_{-4.5}$	$10^9 A_s e^{-2\tau}$	$1.881^{+0.028}_{-0.029}$	$f\sigma_8(0.15)$	$0.458^{+0.017}_{-0.018}$
A_{100}^{PS}	257^{+70}_{-70}	D_{40}	1228^{+30}_{-30}	$\sigma_8(0.15)$	$0.753^{+0.022}_{-0.034}$
A_{143}^{PS}	45^{+20}_{-20}	D_{220}	5737^{+96}_{-99}	$f\sigma_8(0.38)$	$0.477^{+0.015}_{-0.018}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{810}	2540^{+34}_{-35}	$\sigma_8(0.38)$	$0.668^{+0.019}_{-0.030}$
A_{217}^{PS}	115^{+30}_{-30}	D_{1420}	818^{+12}_{-12}	$f\sigma_8(0.51)$	$0.476^{+0.014}_{-0.018}$
A^{kSZ}	—	D_{2000}	$231.2^{+4.0}_{-4.0}$	$\sigma_8(0.51)$	$0.625^{+0.018}_{-0.028}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.8}$	$n_{s,0.002}$	$0.9669^{+0.0099}_{-0.0095}$	$f\sigma_8(0.61)$	$0.471^{+0.014}_{-0.018}$
A_{143}^{dustTT}	$10.8^{+4.5}_{-4.6}$	Y_P	$0.24541^{+0.00013}_{-0.00014}$	$\sigma_8(0.61)$	$0.595^{+0.017}_{-0.027}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.7}_{-8.4}$	Y_P^{BBN}	$0.24674^{+0.00013}_{-0.00014}$	$f\sigma_8(2.33)$	$0.2999^{+0.0079}_{-0.012}$
A_{217}^{dustTT}	94^{+20}_{-20}	$10^5 D/H$	$2.577^{+0.064}_{-0.063}$	$\sigma_8(2.33)$	$0.3093^{+0.0085}_{-0.014}$
A_{100}^{dustTE}	$0.115^{+0.099}_{-0.093}$	Age/Gyr	$13.776^{+0.074}_{-0.060}$	f_{2000}^{143}	29^{+7}_{-7}
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.072}_{-0.076}$	z_*	$1089.80^{+0.55}_{-0.57}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-4}
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	r_*	$144.57^{+0.62}_{-0.59}$	f_{2000}^{217}	$106.8^{+4.4}_{-4.6}$
A_{143}^{dustTE}	$0.22^{+0.15}_{-0.14}$	$100\theta_*$	$1.04119^{+0.00075}_{-0.00073}$	χ_{simall}^2	$397.1 (\nu: 1.9)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.20}_{-0.21}$	$D_M(z_*)/\text{Gpc}$	$13.885^{+0.059}_{-0.057}$	χ_{lowl}^2	$23.22 (\nu: 0.4)$
A_{217}^{dustTE}	$2.08^{+0.66}_{-0.69}$	z_{drag}	$1060.00^{+0.73}_{-0.75}$	χ_{plik}^2	$2359.1 (\nu: 17.4)$
c_{100}	$0.9997^{+0.0015}_{-0.0015}$	r_{drag}	$147.22^{+0.63}_{-0.62}$	χ_{JLA}^2	$1035.02 (\nu: 0.0)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	k_D	$0.14077^{+0.00074}_{-0.00077}$	$\chi_{6\text{DF}}^2$	$0.041 (\nu: 0.0)$
H_0	$67.8^{+1.2}_{-1.3}$	$100\theta_D$	$0.16073^{+0.00044}_{-0.00043}$	χ_{MGS}^2	$1.40 (\nu: 0.1)$
Ω_Λ	$0.691^{+0.015}_{-0.017}$	z_{eq}	3387^{+56}_{-59}	χ_{DR12BAO}^2	$4.5 (\nu: 0.8)$
Ω_m	$0.309^{+0.017}_{-0.015}$	k_{eq}	$0.01034^{+0.00017}_{-0.00018}$	χ_{prior}^2	$11.5 (\nu: 10.6)$
$\Omega_m h^2$	$0.1422^{+0.0024}_{-0.0024}$	$100\theta_{\text{eq}}$	$0.816^{+0.011}_{-0.010}$	χ_{BAO}^2	$5.92 (\nu: 0.5)$
$\Omega_\nu h^2$	< 0.00176	$100\theta_{s,\text{eq}}$	$0.4509^{+0.0057}_{-0.0053}$	χ_{CMB}^2	$2779.5 (\nu: 16.9)$

$$\bar{\chi}_{\text{eff}}^2 = 3831.97; R - 1 = 0.01168$$

6.17 base_mnu_plikHM_TT_lowl_lowE_lensing_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02223	$0.02222^{+0.00050}_{-0.00049}$	$\sigma_8 \Omega_m^{0.25}$	0.6115	$0.606^{+0.018}_{-0.023}$	$H(0.38)$	83.24	$83.01^{+0.98}_{-1.0}$
$\Omega_c h^2$	0.11936	$0.1192^{+0.0027}_{-0.0027}$	$\sigma_8/h^{0.5}$	0.9967	$0.987^{+0.027}_{-0.037}$	$D_M(0.38)$	1523.0	1529^{+27}_{-25}
$100\theta_{MC}$	1.04096	$1.0410^{+0.0011}_{-0.0010}$	$r_{drag} h$	100.22	$99.8^{+2.3}_{-2.4}$	$H(0.51)$	89.90	$89.71^{+0.82}_{-0.86}$
τ	0.0542	$0.054^{+0.021}_{-0.019}$	$\langle d^2 \rangle^{1/2}$	2.444	$2.435^{+0.056}_{-0.058}$	$D_M(0.51)$	1973.7	1980^{+32}_{-29}
Σm_ν [eV]	0.004	< 0.177	z_{re}	7.68	$7.7^{+2.0}_{-2.0}$	$H(0.61)$	95.49	$95.32^{+0.71}_{-0.76}$
$\ln(10^{10} A_s)$	3.0419	$3.042^{+0.040}_{-0.037}$	$10^9 A_s$	2.094	$2.095^{+0.086}_{-0.077}$	$D_M(0.61)$	2297.3	2305^{+34}_{-32}
n_s	0.9662	$0.966^{+0.011}_{-0.010}$	$10^9 A_s e^{-2\tau}$	1.8794	$1.879^{+0.028}_{-0.028}$	$H(2.33)$	235.68	$235.8^{+1.8}_{-1.7}$
y_{cal}	1.0002	$1.0006^{+0.0063}_{-0.0065}$	D_{40}	1226.6	1228^{+30}_{-31}	$D_M(2.33)$	5755.2	5764^{+39}_{-35}
A_{217}^{CIB}	48.3	48^{+20}_{-20}	D_{220}	5718	5723^{+100}_{-110}	$f\sigma_8(0.15)$	0.4593	$0.457^{+0.016}_{-0.017}$
$\xi^{tSZ \times CIB}$	0.36	—	D_{810}	2536.1	2536^{+35}_{-35}	$\sigma_8(0.15)$	0.7598	$0.750^{+0.019}_{-0.032}$
A_{143}^{tSZ}	7.0	—	D_{1420}	815.6	815^{+13}_{-13}	$f\sigma_8(0.38)$	0.4788	$0.475^{+0.014}_{-0.016}$
A_{100}^{PS}	253	263^{+70}_{-70}	D_{2000}	230.22	$230.0^{+4.5}_{-4.4}$	$\sigma_8(0.38)$	0.6738	$0.665^{+0.018}_{-0.029}$
A_{143}^{PS}	49.3	48^{+20}_{-20}	$n_{s,0.002}$	0.9662	$0.966^{+0.011}_{-0.010}$	$f\sigma_8(0.51)$	0.4779	$0.474^{+0.013}_{-0.016}$
$A_{143 \times 217}^{PS}$	47.5	43^{+20}_{-20}	Y_P	0.245339	$0.24533^{+0.00019}_{-0.00023}$	$\sigma_8(0.51)$	0.6307	$0.623^{+0.016}_{-0.027}$
A_{217}^{PS}	119.5	115^{+30}_{-30}	Y_P^{BBN}	0.246666	$0.24666^{+0.00019}_{-0.00023}$	$f\sigma_8(0.61)$	0.4732	$0.469^{+0.012}_{-0.016}$
A^{kSZ}	0.0	—	$10^5 D/H$	2.612	$2.615^{+0.095}_{-0.092}$	$\sigma_8(0.61)$	0.6002	$0.592^{+0.016}_{-0.026}$
A_{100}^{dustTT}	8.88	$8.9^{+4.8}_{-4.7}$	Age/Gyr	13.779	$13.800^{+0.089}_{-0.079}$	$f\sigma_8(2.33)$	0.3019	$0.2987^{+0.0075}_{-0.011}$
A_{143}^{dustTT}	10.78	$10.7^{+4.6}_{-4.7}$	z_*	1090.04	$1090.04^{+0.74}_{-0.74}$	$\sigma_8(2.33)$	0.3119	$0.3080^{+0.0084}_{-0.013}$
$A_{143 \times 217}^{dustTT}$	19.5	$18.3^{+8.4}_{-8.6}$	r_*	144.71	$144.77^{+0.72}_{-0.71}$	f_{2000}^{143}	30.0	31^{+7}_{-7}
A_{217}^{dustTT}	94.7	93^{+20}_{-20}	$100\theta_*$	1.04113	$1.0412^{+0.0011}_{-0.0010}$	$f_{2000}^{143 \times 217}$	33.0	33^{+5}_{-5}
c_{100}	0.99967	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.899	$13.905^{+0.071}_{-0.069}$	f_{2000}^{217}	107.38	$107.9^{+5.0}_{-4.9}$
c_{217}	0.99825	$0.9983^{+0.0016}_{-0.0016}$	z_{drag}	1059.55	$1059.5^{+1.1}_{-1.1}$	$\chi_{lensing}^2$	8.96	$9.41 (\nu: 0.3)$
H_0	67.98	$67.7^{+1.4}_{-1.5}$	r_{drag}	147.42	$147.49^{+0.81}_{-0.77}$	χ_{small}^2	396.04	$397.0 (\nu: 1.4)$
Ω_Λ	0.6935	$0.690^{+0.018}_{-0.020}$	k_D	0.14041	$0.1403^{+0.0011}_{-0.0011}$	χ_{lowl}^2	23.24	$23.28 (\nu: 0.4)$
Ω_m	0.3065	$0.310^{+0.020}_{-0.018}$	$100\theta_D$	0.16098	$0.16101^{+0.00068}_{-0.00064}$	χ_{plik}^2	758.7	$771.4 (\nu: 14.1)$
$\Omega_m h^2$	0.14163	$0.1419^{+0.0028}_{-0.0027}$	z_{eq}	3384	3379^{+64}_{-63}	χ_{6DF}^2	0.003	$0.055 (\nu: 0.0)$
$\Omega_\nu h^2$	0.00004	< 0.00191	k_{eq}	0.010327	$0.01031^{+0.00019}_{-0.00019}$	χ_{MGS}^2	1.54	$1.37 (\nu: 0.1)$
$\Omega_m h^3$	0.09628	$0.0960^{+0.0012}_{-0.0013}$	$100\theta_{eq}$	0.8162	$0.817^{+0.012}_{-0.012}$	$\chi_{DR12BAO}^2$	3.67	$4.7 (\nu: 1.2)$
σ_8	0.8218	$0.812^{+0.021}_{-0.034}$	$100\theta_{s,eq}$	0.4510	$0.4515^{+0.0062}_{-0.0061}$	χ_{prior}^2	1.3	$7.3 (\nu: 6.8)$
S_8	0.8306	$0.825^{+0.031}_{-0.032}$	$H(0.15)$	73.21	$72.9^{+1.3}_{-1.3}$	χ_{CMB}^2	1186.9	$1201.0 (\nu: 15.2)$
$\sigma_8 \Omega_m^{0.5}$	0.4550	$0.452^{+0.017}_{-0.018}$	$D_M(0.15)$	638.1	641^{+13}_{-12}	χ_{BAO}^2	5.21	$6.1 (\nu: 0.8)$

Best-fit $\chi_{eff}^2 = 1193.44$; $\Delta\chi_{eff}^2 = -1.25$; $\bar{\chi}_{eff}^2 = 1214.40$; $\Delta\bar{\chi}_{eff}^2 = -0.33$; $R - 1 = 0.00805$

χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.03) MGS: 1.54 (Δ 0.32) DR12BAO: 3.67 (Δ -0.70) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.96 (Δ 0.09) small_100x143_offlike5_EE_Aplanck: 396.04 (Δ -0.05) commander_dx12_v3.2_29: 23.24 (Δ 0.28) plik_rd12_HM_v22.TT: 758.68 (Δ -1.12)

6.18 base_mnu_plikHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022235	$0.02223^{+0.00050}_{-0.00049}$	$\sigma_8 \Omega_m^{0.25}$	0.6103	$0.606^{+0.017}_{-0.022}$	$H(0.38)$	83.27	$83.07^{+0.94}_{-0.98}$
$\Omega_c h^2$	0.11922	$0.1190^{+0.0027}_{-0.0026}$	$\sigma_8/h^{0.5}$	0.9952	$0.987^{+0.026}_{-0.036}$	$D_M(0.38)$	1522.0	1527^{+25}_{-24}
$100\theta_{MC}$	1.04097	$1.0410^{+0.0011}_{-0.0011}$	$r_{drag}h$	100.33	$99.9^{+2.2}_{-2.3}$	$H(0.51)$	89.93	$89.75^{+0.79}_{-0.83}$
τ	0.0531	$0.054^{+0.021}_{-0.019}$	$\langle d^2 \rangle^{1/2}$	2.439	$2.434^{+0.056}_{-0.056}$	$D_M(0.51)$	1972.5	1979^{+30}_{-29}
Σm_ν [eV]	0.000	< 0.169	z_{re}	7.57	$7.7^{+2.0}_{-2.0}$	$H(0.61)$	95.51	$95.35^{+0.69}_{-0.73}$
$\ln(10^{10} A_s)$	3.0397	$3.042^{+0.040}_{-0.037}$	$10^9 A_s$	2.090	$2.095^{+0.085}_{-0.076}$	$D_M(0.61)$	2296.1	2303^{+33}_{-31}
n_s	0.9668	$0.966^{+0.011}_{-0.0099}$	$10^9 A_s e^{-2\tau}$	1.8792	$1.879^{+0.028}_{-0.028}$	$H(2.33)$	235.59	$235.7^{+1.7}_{-1.7}$
y_{cal}	1.0004	$1.0007^{+0.0064}_{-0.0065}$	D_{40}	1225.3	1228^{+30}_{-31}	$D_M(2.33)$	5754.5	5762^{+38}_{-34}
A_{217}^{CIB}	48.7	48^{+20}_{-20}	D_{220}	5718	5724^{+100}_{-110}	$f\sigma_8(0.15)$	0.4581	$0.456^{+0.016}_{-0.016}$
$\xi^{tSZ \times CIB}$	0.29	—	D_{810}	2536.8	2537^{+35}_{-35}	$\sigma_8(0.15)$	0.7590	$0.751^{+0.019}_{-0.031}$
A_{143}^{tSZ}	7.0	—	D_{1420}	816.0	816^{+13}_{-13}	$f\sigma_8(0.38)$	0.4778	$0.475^{+0.013}_{-0.016}$
A_{100}^{PS}	254	262^{+70}_{-70}	D_{2000}	230.33	$230.1^{+4.5}_{-4.3}$	$\sigma_8(0.38)$	0.6732	$0.666^{+0.017}_{-0.028}$
A_{143}^{PS}	48.2	48^{+20}_{-20}	$n_{s,0.002}$	0.9668	$0.966^{+0.011}_{-0.0099}$	$f\sigma_8(0.51)$	0.4770	$0.474^{+0.012}_{-0.016}$
$A_{143 \times 217}^{PS}$	45.7	43^{+20}_{-20}	Y_P	0.245340	$0.24533^{+0.00019}_{-0.00023}$	$\sigma_8(0.51)$	0.6302	$0.623^{+0.016}_{-0.026}$
A_{217}^{PS}	118.8	115^{+30}_{-30}	Y_P^{BBN}	0.246667	$0.24666^{+0.00019}_{-0.00023}$	$f\sigma_8(0.61)$	0.4724	$0.469^{+0.012}_{-0.016}$
A^{kSZ}	0.0	—	$10^5 D/H$	2.611	$2.613^{+0.095}_{-0.091}$	$\sigma_8(0.61)$	0.5997	$0.593^{+0.015}_{-0.025}$
A_{100}^{dustTT}	8.91	$8.9^{+4.8}_{-4.8}$	Age/Gyr	13.778	$13.796^{+0.087}_{-0.078}$	$f\sigma_8(2.33)$	0.3017	$0.2990^{+0.0073}_{-0.011}$
A_{143}^{dustTT}	10.76	$10.7^{+4.5}_{-4.8}$	z_*	1090.02	$1090.02^{+0.73}_{-0.73}$	$\sigma_8(2.33)$	0.3117	$0.3084^{+0.0082}_{-0.013}$
$A_{143 \times 217}^{dustTT}$	19.2	$18.2^{+8.5}_{-8.7}$	r_*	144.74	$144.80^{+0.71}_{-0.69}$	$\chi^2_{lensing}$	8.91	9.40 (ν : 0.3)
A_{217}^{dustTT}	94.4	93^{+20}_{-20}	$100\theta_*$	1.04113	$1.0412^{+0.0010}_{-0.0010}$	χ^2_{small}	395.89	397.0 (ν : 1.4)
c_{100}	0.99966	$0.9996^{+0.0015}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.902	$13.907^{+0.069}_{-0.069}$	χ^2_{lowl}	23.08	23.23 (ν : 0.4)
c_{217}	0.99824	$0.9983^{+0.0016}_{-0.0015}$	z_{drag}	1059.55	$1059.5^{+1.1}_{-1.1}$	χ^2_{plik}	758.9	771.4 (ν : 14.2)
H_0	68.04	$67.8^{+1.4}_{-1.4}$	r_{drag}	147.46	$147.51^{+0.80}_{-0.78}$	χ^2_{JLA}	1034.82	1035.03 (ν : 0.0)
Ω_Λ	0.6945	$0.691^{+0.017}_{-0.019}$	k_D	0.14037	$0.1403^{+0.0011}_{-0.0011}$	χ^2_{6DF}	0.001	0.044 (ν : 0.0)
Ω_m	0.3055	$0.309^{+0.019}_{-0.017}$	$100\theta_D$	0.16098	$0.16100^{+0.00067}_{-0.00064}$	χ^2_{MGS}	1.61	1.45 (ν : 0.1)
$\Omega_m h^2$	0.14146	$0.1418^{+0.0026}_{-0.0026}$	z_{eq}	3380	3376^{+62}_{-61}	$\chi^2_{DR12BAO}$	3.58	4.4 (ν : 0.9)
$\Omega_\nu h^2$	0.00000	< 0.00182	k_{eq}	0.010317	$0.01030^{+0.00019}_{-0.00019}$	χ^2_{prior}	1.4	7.3 (ν : 6.9)
$\Omega_m h^3$	0.09625	$0.0961^{+0.0012}_{-0.0013}$	$100\theta_{eq}$	0.8168	$0.818^{+0.012}_{-0.011}$	χ^2_{CMB}	1186.8	1201.1 (ν : 15.2)
σ_8	0.8209	$0.812^{+0.021}_{-0.033}$	$100\theta_{s,eq}$	0.4513	$0.4518^{+0.0060}_{-0.0059}$	χ^2_{BAO}	5.19	5.9 (ν : 0.5)
S_8	0.8284	$0.824^{+0.030}_{-0.031}$	$H(0.15)$	73.26	$73.0^{+1.2}_{-1.3}$			
$\sigma_8 \Omega_m^{0.5}$	0.4538	$0.451^{+0.017}_{-0.017}$	$D_M(0.15)$	637.6	640^{+12}_{-12}			

Best-fit $\chi^2_{eff} = 2228.19$; $\Delta\chi^2_{eff} = -1.52$; $\bar{\chi}^2_{eff} = 2249.31$; $\Delta\bar{\chi}^2_{eff} = -0.46$; $R - 1 = 0.00867$

χ^2_{eff} : BAO - 6DF: 0.00 (Δ -0.01) MGS: 1.61 (Δ 0.27) DR12BAO: 3.58 (Δ -0.45) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.91 (Δ 0.03) small_100x143_offlike5_EE_Aplanck 395.89 (Δ -0.48) commander_dx12_v3.2_29: 23.08 (Δ 0.27) plik_rd12_HM_v22.TT: 758.94 (Δ -0.85) SN - JLA Pantheon18: 1034.82 (Δ -0.13)

6.19 base_mnu_plikHM_TT_lowl_lowE_lensing_BAO_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02222^{+0.00050}_{-0.00049}$	$\sigma_8 \Omega_m^{0.25}$	$0.606^{+0.018}_{-0.023}$	$H(0.38)$	$83.02^{+0.98}_{-1.0}$
$\Omega_c h^2$	$0.1191^{+0.0027}_{-0.0027}$	$\sigma_8/h^{0.5}$	$0.987^{+0.026}_{-0.037}$	$D_M(0.38)$	1528^{+27}_{-25}
$100\theta_{MC}$	$1.0410^{+0.0011}_{-0.0011}$	$r_{\text{drag}} h$	$99.8^{+2.3}_{-2.5}$	$H(0.51)$	$89.72^{+0.82}_{-0.87}$
τ	$0.055^{+0.018}_{-0.014}$	$\langle d^2 \rangle^{1/2}$	$2.436^{+0.056}_{-0.056}$	$D_M(0.51)$	1980^{+32}_{-29}
$\Sigma m_\nu [\text{eV}]$	< 0.178	z_{re}	< 9.46	$H(0.61)$	$95.32^{+0.71}_{-0.77}$
$\ln(10^{10} A_s)$	$3.043^{+0.039}_{-0.029}$	$10^9 A_s$	$2.098^{+0.084}_{-0.059}$	$D_M(0.61)$	2304^{+35}_{-32}
n_s	$0.966^{+0.011}_{-0.010}$	$10^9 A_s e^{-2\tau}$	$1.879^{+0.028}_{-0.028}$	$H(2.33)$	$235.8^{+1.8}_{-1.7}$
y_{cal}	$1.0006^{+0.0063}_{-0.0065}$	D_{40}	1228^{+30}_{-31}	$D_M(2.33)$	5764^{+39}_{-35}
A_{217}^{CIB}	48^{+20}_{-20}	D_{220}	5723^{+100}_{-110}	$f\sigma_8(0.15)$	$0.457^{+0.016}_{-0.017}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{810}	2536^{+35}_{-35}	$\sigma_8(0.15)$	$0.751^{+0.019}_{-0.032}$
A_{143}^{tSZ}	—	D_{1420}	815^{+13}_{-13}	$f\sigma_8(0.38)$	$0.476^{+0.014}_{-0.016}$
A_{100}^{PS}	263^{+70}_{-70}	D_{2000}	$230.0^{+4.5}_{-4.4}$	$\sigma_8(0.38)$	$0.666^{+0.017}_{-0.029}$
A_{143}^{PS}	48^{+20}_{-20}	$n_{s,0.002}$	$0.966^{+0.011}_{-0.010}$	$f\sigma_8(0.51)$	$0.474^{+0.013}_{-0.016}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	Y_P	$0.24533^{+0.00019}_{-0.00023}$	$\sigma_8(0.51)$	$0.623^{+0.016}_{-0.027}$
A_{217}^{PS}	115^{+30}_{-30}	Y_P^{BBN}	$0.24666^{+0.00019}_{-0.00023}$	$f\sigma_8(0.61)$	$0.469^{+0.012}_{-0.016}$
A^{kSZ}	—	$10^5 D/H$	$2.614^{+0.095}_{-0.092}$	$\sigma_8(0.61)$	$0.593^{+0.016}_{-0.026}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.7}$	Age/Gyr	$13.800^{+0.090}_{-0.079}$	$f\sigma_8(2.33)$	$0.2989^{+0.0073}_{-0.011}$
A_{143}^{dustTT}	$10.7^{+4.6}_{-4.7}$	z_*	$1090.03^{+0.74}_{-0.74}$	$\sigma_8(2.33)$	$0.3082^{+0.0082}_{-0.013}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.4}_{-8.6}$	r_*	$144.78^{+0.72}_{-0.71}$	f_{2000}^{143}	31^{+7}_{-7}
A_{217}^{dustTT}	93^{+20}_{-20}	$100\theta_*$	$1.0412^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	$13.905^{+0.070}_{-0.069}$	f_{2000}^{217}	$107.8^{+5.0}_{-4.9}$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	z_{drag}	$1059.5^{+1.1}_{-1.2}$	χ_{lensing}^2	$9.38 (\nu: 0.3)$
H_0	$67.7^{+1.4}_{-1.5}$	r_{drag}	$147.50^{+0.81}_{-0.78}$	χ_{simall}^2	$396.9 (\nu: 1.5)$
Ω_Λ	$0.690^{+0.018}_{-0.020}$	k_D	$0.1403^{+0.0011}_{-0.0011}$	χ_{lowl}^2	$23.27 (\nu: 0.4)$
Ω_m	$0.310^{+0.020}_{-0.018}$	$100\theta_D$	$0.16101^{+0.00068}_{-0.00064}$	χ_{plik}^2	$771.3 (\nu: 14.2)$
$\Omega_m h^2$	$0.1419^{+0.0028}_{-0.0027}$	z_{eq}	3378^{+63}_{-63}	$\chi_{6\text{DF}}^2$	$0.054 (\nu: 0.0)$
$\Omega_\nu h^2$	< 0.00192	k_{eq}	$0.01031^{+0.00019}_{-0.00019}$	χ_{MGS}^2	$1.39 (\nu: 0.1)$
$\Omega_m h^3$	$0.0960^{+0.0012}_{-0.0013}$	$100\theta_{\text{eq}}$	$0.817^{+0.012}_{-0.012}$	χ_{DR12BAO}^2	$4.7 (\nu: 1.2)$
σ_8	$0.812^{+0.021}_{-0.034}$	$100\theta_{s,\text{eq}}$	$0.4516^{+0.0062}_{-0.0060}$	χ_{prior}^2	$7.3 (\nu: 6.8)$
S_8	$0.825^{+0.031}_{-0.032}$	$H(0.15)$	$72.9^{+1.3}_{-1.3}$	χ_{CMB}^2	$1200.9 (\nu: 15.0)$
$\sigma_8 \Omega_m^{0.5}$	$0.452^{+0.017}_{-0.018}$	$D_M(0.15)$	641^{+13}_{-12}	χ_{BAO}^2	$6.1 (\nu: 0.8)$

$$\bar{\chi}_{\text{eff}}^2 = 1214.24; \Delta \bar{\chi}_{\text{eff}}^2 = -0.34; R - 1 = 0.00889$$

6.20 base_mnu_plikHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02223^{+0.00050}_{-0.00049}$	$\sigma_8/h^{0.5}$	$0.987^{+0.026}_{-0.036}$	$H(0.51)$	$89.76^{+0.80}_{-0.84}$
$\Omega_c h^2$	$0.1190^{+0.0026}_{-0.0026}$	$r_{\text{drag}} h$	$99.97^{+2.2}_{-2.3}$	$D_M(0.51)$	1979^{+30}_{-28}
$100\theta_{\text{MC}}$	$1.0410^{+0.0011}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	$2.435^{+0.055}_{-0.055}$	$H(0.61)$	$95.35^{+0.69}_{-0.73}$
τ	$0.055^{+0.018}_{-0.014}$	z_{re}	< 9.46	$D_M(0.61)$	2303^{+33}_{-31}
$\Sigma m_\nu [\text{eV}]$	< 0.171	$10^9 A_s$	$2.098^{+0.083}_{-0.061}$	$H(2.33)$	$235.7^{+1.7}_{-1.7}$
$\ln(10^{10} A_s)$	$3.044^{+0.039}_{-0.029}$	$10^9 A_s e^{-2\tau}$	$1.878^{+0.028}_{-0.028}$	$D_M(2.33)$	5762^{+38}_{-34}
n_s	$0.966^{+0.011}_{-0.0098}$	D_{40}	1227^{+30}_{-31}	$f\sigma_8(0.15)$	$0.456^{+0.015}_{-0.016}$
y_{cal}	$1.0006^{+0.0064}_{-0.0066}$	D_{220}	5724^{+100}_{-100}	$\sigma_8(0.15)$	$0.751^{+0.019}_{-0.031}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2536^{+35}_{-35}	$f\sigma_8(0.38)$	$0.475^{+0.013}_{-0.016}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	816^{+13}_{-13}	$\sigma_8(0.38)$	$0.666^{+0.017}_{-0.028}$
A_{143}^{tSZ}	—	D_{2000}	$230.1^{+4.5}_{-4.3}$	$f\sigma_8(0.51)$	$0.474^{+0.012}_{-0.016}$
A_{100}^{PS}	262^{+70}_{-70}	$n_{s,0.002}$	$0.966^{+0.011}_{-0.0098}$	$\sigma_8(0.51)$	$0.624^{+0.016}_{-0.026}$
A_{143}^{PS}	48^{+20}_{-20}	Y_P	$0.24534^{+0.00019}_{-0.00023}$	$f\sigma_8(0.61)$	$0.469^{+0.012}_{-0.016}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	Y_P^{BBN}	$0.24666^{+0.00019}_{-0.00023}$	$\sigma_8(0.61)$	$0.593^{+0.015}_{-0.025}$
A_{217}^{PS}	115^{+30}_{-30}	10^5D/H	$2.613^{+0.095}_{-0.091}$	$f\sigma_8(2.33)$	$0.2991^{+0.0072}_{-0.011}$
A^{kSZ}	—	Age/Gyr	$13.796^{+0.088}_{-0.078}$	$\sigma_8(2.33)$	$0.3086^{+0.0081}_{-0.013}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.7}$	z_*	$1090.01^{+0.72}_{-0.73}$	f_{2000}^{143}	31^{+7}_{-7}
A_{143}^{dustTT}	$10.7^{+4.5}_{-4.8}$	r_*	$144.80^{+0.70}_{-0.69}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
$A_{143 \times 217}^{\text{dustTT}}$	$18.2^{+8.5}_{-8.7}$	$100\theta_*$	$1.0412^{+0.0010}_{-0.0011}$	f_{2000}^{217}	$107.8^{+4.9}_{-5.0}$
A_{217}^{dustTT}	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	$13.907^{+0.069}_{-0.069}$	χ_{lensing}^2	$9.37 (\nu: 0.3)$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	$1059.5^{+1.1}_{-1.1}$	χ_{simall}^2	$397.0 (\nu: 1.5)$
c_{217}	$0.9983^{+0.0017}_{-0.0015}$	r_{drag}	$147.52^{+0.80}_{-0.78}$	χ_{lowl}^2	$23.22 (\nu: 0.4)$
H_0	$67.8^{+1.4}_{-1.4}$	k_D	$0.1403^{+0.0011}_{-0.0011}$	χ_{plik}^2	$771.4 (\nu: 14.2)$
Ω_Λ	$0.691^{+0.017}_{-0.019}$	$100\theta_D$	$0.16100^{+0.00068}_{-0.00064}$	χ_{JLA}^2	$1035.02 (\nu: 0.0)$
Ω_m	$0.309^{+0.019}_{-0.017}$	z_{eq}	3375^{+61}_{-60}	$\chi_{6\text{DF}}^2$	$0.043 (\nu: 0.0)$
$\Omega_m h^2$	$0.1418^{+0.0027}_{-0.0025}$	k_{eq}	$0.01030^{+0.00019}_{-0.00018}$	χ_{MGS}^2	$1.46 (\nu: 0.1)$
$\Omega_\nu h^2$	< 0.00183	$100\theta_{\text{eq}}$	$0.818^{+0.012}_{-0.011}$	χ_{DR12BAO}^2	$4.4 (\nu: 0.9)$
$\Omega_m h^3$	$0.0961^{+0.0012}_{-0.0013}$	$100\theta_{s,\text{eq}}$	$0.4519^{+0.0059}_{-0.0058}$	χ_{prior}^2	$7.3 (\nu: 6.9)$
σ_8	$0.813^{+0.021}_{-0.033}$	$H(0.15)$	$73.0^{+1.2}_{-1.3}$	χ_{CMB}^2	$1200.9 (\nu: 15.0)$
S_8	$0.824^{+0.031}_{-0.031}$	$D_M(0.15)$	640^{+13}_{-12}	χ_{BAO}^2	$5.9 (\nu: 0.5)$
$\sigma_8 \Omega_m^{0.5}$	$0.452^{+0.017}_{-0.017}$	$H(0.38)$	$83.07^{+0.94}_{-0.98}$		
$\sigma_8 \Omega_m^{0.25}$	$0.606^{+0.017}_{-0.022}$	$D_M(0.38)$	1527^{+26}_{-24}		

$$\bar{\chi}_{\text{eff}}^2 = 2249.16; \Delta \bar{\chi}_{\text{eff}}^2 = -0.47; R - 1 = 0.00928$$

6.21 base_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022417	$0.02242^{+0.00035}_{-0.00035}$	$\Omega_m h^3$	0.09666	$0.09649^{+0.00087}_{-0.0010}$	$H(0.15)$	73.33	$73.1^{+1.1}_{-1.3}$
$\Omega_c h^2$	0.11952	$0.1193^{+0.0024}_{-0.0024}$	σ_8	0.8220	$0.814^{+0.021}_{-0.031}$	$D_M(0.15)$	637.0	639^{+13}_{-10}
$100\theta_{MC}$	1.04100	$1.04100^{+0.00076}_{-0.00075}$	S_8	0.8303	$0.826^{+0.028}_{-0.029}$	$H(0.38)$	83.36	$83.17^{+0.81}_{-0.99}$
τ	0.0533	$0.055^{+0.020}_{-0.018}$	$\sigma_8 \Omega_m^{0.5}$	0.4548	$0.453^{+0.015}_{-0.016}$	$D_M(0.38)$	1520.5	1525^{+26}_{-21}
Σm_ν [eV]	0.001	< 0.161	$\sigma_8 \Omega_m^{0.25}$	0.6114	$0.607^{+0.016}_{-0.020}$	$H(0.51)$	90.04	$89.87^{+0.66}_{-0.83}$
$\ln(10^{10} A_s)$	3.0415	$3.045^{+0.039}_{-0.036}$	$\sigma_8/h^{0.5}$	0.9961	$0.988^{+0.025}_{-0.032}$	$D_M(0.51)$	1970.6	1976^{+31}_{-25}
n_s	0.9672	$0.9666^{+0.0095}_{-0.0095}$	$r_{\text{drag}} h$	100.22	$99.9^{+2.1}_{-2.4}$	$H(0.61)$	95.62	$95.48^{+0.56}_{-0.70}$
y_{cal}	1.0006	$1.0006^{+0.0064}_{-0.0062}$	$\langle d^2 \rangle^{1/2}$	2.442	$2.438^{+0.054}_{-0.053}$	$D_M(0.61)$	2293.7	2300^{+33}_{-27}
A_{217}^{CIB}	46.5	47^{+20}_{-20}	z_{re}	7.55	$7.7^{+1.9}_{-1.9}$	$H(2.33)$	235.97	$236.1^{+1.6}_{-1.5}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.50	—	$10^9 A_s$	2.094	$2.101^{+0.083}_{-0.075}$	$D_M(2.33)$	5747.0	5754^{+35}_{-26}
A_{143}^{tSZ}	7.23	$5.5^{+4.5}_{-4.5}$	$10^9 A_s e^{-2\tau}$	1.8820	$1.881^{+0.027}_{-0.026}$	$f\sigma_8(0.15)$	0.4591	$0.457^{+0.014}_{-0.015}$
A_{100}^{PS}	249	258^{+70}_{-70}	D_{40}	1226.5	1229^{+30}_{-28}	$\sigma_8(0.15)$	0.7599	$0.752^{+0.019}_{-0.029}$
A_{143}^{PS}	48.1	45^{+20}_{-20}	D_{220}	5733	5738^{+98}_{-93}	$f\sigma_8(0.38)$	0.4787	$0.476^{+0.013}_{-0.014}$
$A_{143 \times 217}^{\text{PS}}$	49.2	42^{+20}_{-20}	D_{810}	2540.3	2539^{+35}_{-34}	$\sigma_8(0.38)$	0.6740	$0.667^{+0.017}_{-0.026}$
A_{217}^{PS}	120.4	115^{+30}_{-30}	D_{1420}	818.3	818^{+13}_{-12}	$f\sigma_8(0.51)$	0.4779	$0.475^{+0.012}_{-0.014}$
A^{kSZ}	0.0	—	D_{2000}	231.42	$231.1^{+4.1}_{-3.9}$	$\sigma_8(0.51)$	0.6309	$0.624^{+0.016}_{-0.025}$
A_{100}^{dustTT}	8.86	$8.9^{+4.8}_{-4.7}$	$n_{\text{s},0.002}$	0.9672	$0.9666^{+0.0095}_{-0.0095}$	$f\sigma_8(0.61)$	0.4732	$0.470^{+0.011}_{-0.014}$
A_{143}^{dustTT}	11.04	$10.9^{+4.6}_{-4.6}$	Y_{P}	0.245414	$0.24541^{+0.00013}_{-0.00014}$	$\sigma_8(0.61)$	0.6004	$0.594^{+0.015}_{-0.024}$
$A_{143 \times 217}^{\text{dustTT}}$	20.0	$18.6^{+8.6}_{-8.6}$	$Y_{\text{P}}^{\text{BBN}}$	0.246741	$0.24674^{+0.00013}_{-0.00014}$	$f\sigma_8(2.33)$	0.3020	$0.2995^{+0.0073}_{-0.010}$
A_{217}^{dustTT}	95.5	94^{+20}_{-20}	$10^5 \text{D}/\text{H}$	2.577	$2.576^{+0.065}_{-0.062}$	$\sigma_8(2.33)$	0.3120	$0.3090^{+0.0081}_{-0.012}$
A_{100}^{dustTE}	0.114	$0.114^{+0.099}_{-0.096}$	Age/Gyr	13.760	$13.777^{+0.080}_{-0.060}$	f_{2000}^{143}	28.6	29^{+7}_{-7}
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.135^{+0.075}_{-0.076}$	z_*	1089.81	$1089.79^{+0.56}_{-0.53}$	$f_{2000}^{143 \times 217}$	31.85	32^{+5}_{-5}
$A_{100 \times 217}^{\text{dustTE}}$	0.481	$0.48^{+0.22}_{-0.22}$	r_*	144.53	$144.57^{+0.57}_{-0.57}$	f_{2000}^{217}	106.44	$106.8^{+4.6}_{-4.6}$
A_{143}^{dustTE}	0.225	$0.22^{+0.14}_{-0.13}$	$100\theta_*$	1.04115	$1.04117^{+0.00076}_{-0.00074}$	χ_{lensing}^2	8.97	$9.24 (\nu: 0.2)$
$A_{143 \times 217}^{\text{dustTE}}$	0.664	$0.66^{+0.21}_{-0.21}$	$D_M(z_*)/\text{Gpc}$	13.881	$13.885^{+0.056}_{-0.054}$	χ_{small}^2	395.88	$397.1 (\nu: 1.7)$
A_{217}^{dustTE}	2.08	$2.08^{+0.71}_{-0.70}$	z_{drag}	1060.01	$1060.00^{+0.77}_{-0.76}$	χ_{lowl}^2	23.09	$23.25 (\nu: 0.3)$
c_{100}	0.99973	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	147.17	$147.22^{+0.60}_{-0.60}$	χ_{plik}^2	2344.2	$2359.3 (\nu: 16.7)$
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0016}$	k_{D}	0.14081	$0.14077^{+0.00076}_{-0.00072}$	$\chi_{6\text{DF}}^2$	0.003	$0.046 (\nu: 0.0)$
H_0	68.10	$67.8^{+1.2}_{-1.5}$	$100\theta_{\text{D}}$	0.160723	$0.16073^{+0.00047}_{-0.00043}$	χ_{MGS}^2	1.54	$1.39 (\nu: 0.1)$
Ω_Λ	0.6939	$0.691^{+0.016}_{-0.019}$	z_{eq}	3392	3388^{+55}_{-54}	χ_{DR12BAO}^2	3.71	$4.6 (\nu: 1.0)$
Ω_m	0.3061	$0.309^{+0.019}_{-0.016}$	k_{eq}	0.010352	$0.01034^{+0.00017}_{-0.00017}$	χ_{prior}^2	1.7	$11.6 (\nu: 10.3)$
$\Omega_m h^2$	0.14194	$0.1423^{+0.0026}_{-0.0024}$	$100\theta_{\text{eq}}$	0.8153	$0.816^{+0.010}_{-0.010}$	χ_{CMB}^2	2772.2	$2788.9 (\nu: 17.5)$
$\Omega_\nu h^2$	0.00001	< 0.00174	$100\theta_{\text{s,eq}}$	0.4504	$0.4508^{+0.0054}_{-0.0052}$	χ_{BAO}^2	5.25	$6.0 (\nu: 0.6)$

Best-fit $\chi_{\text{eff}}^2 = 2779.13$; $\Delta\chi_{\text{eff}}^2 = -1.56$; $\bar{\chi}_{\text{eff}}^2 = 2806.44$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.40$; $R - 1 = 0.01008$

χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.03) MGS: 1.54 (Δ 0.32) DR12BAO: 3.71 (Δ -0.71) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.97 (Δ 0.24) simall_100x143_offlike5_EE_Aplanck 395.88 (Δ -0.64) commander_dx12_v3.2_29: 23.09 (Δ 0.19) plik_rd12_HM_v22b.TTTEEE: 2344.24 (Δ -1.08)

6.22 base_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022419	$0.02243^{+0.00035}_{-0.00034}$	σ_8	0.8217	$0.814^{+0.020}_{-0.029}$	$H(0.38)$	83.36	$83.22^{+0.77}_{-0.92}$
$\Omega_c h^2$	0.11950	$0.1192^{+0.0023}_{-0.0023}$	S_8	0.8300	$0.826^{+0.027}_{-0.028}$	$D_M(0.38)$	1520.5	1524^{+24}_{-20}
$100\theta_{MC}$	1.04100	$1.04101^{+0.00076}_{-0.00075}$	$\sigma_8 \Omega_m^{0.5}$	0.4546	$0.452^{+0.015}_{-0.015}$	$H(0.51)$	90.04	$89.91^{+0.63}_{-0.76}$
τ	0.0533	$0.055^{+0.021}_{-0.018}$	$\sigma_8 \Omega_m^{0.25}$	0.6112	$0.607^{+0.016}_{-0.019}$	$D_M(0.51)$	1970.6	1975^{+28}_{-23}
Σm_ν [eV]	0.004	< 0.154	$\sigma_8/h^{0.5}$	0.9957	$0.988^{+0.025}_{-0.031}$	$H(0.61)$	95.62	$95.51^{+0.54}_{-0.66}$
$\ln(10^{10} A_s)$	3.0414	$3.045^{+0.039}_{-0.036}$	$r_{\text{drag}} h$	100.22	$99.96^{+2.0}_{-2.1}$	$D_M(0.61)$	2293.7	2299^{+31}_{-25}
n_s	0.9674	$0.9668^{+0.0094}_{-0.0094}$	$\langle d^2 \rangle^{1/2}$	2.441	$2.438^{+0.053}_{-0.053}$	$H(2.33)$	235.96	$236.0^{+1.5}_{-1.4}$
y_{cal}	1.0005	$1.0007^{+0.0067}_{-0.0065}$	z_{re}	7.55	$7.8^{+2.0}_{-1.9}$	$D_M(2.33)$	5747.1	5753^{+33}_{-25}
A_{217}^{CIB}	46.4	47^{+20}_{-20}	$10^9 A_s$	2.093	$2.101^{+0.083}_{-0.074}$	$f\sigma_8(0.15)$	0.4590	$0.457^{+0.014}_{-0.015}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.55	—	$10^9 A_s e^{-2\tau}$	1.8820	$1.880^{+0.027}_{-0.026}$	$\sigma_8(0.15)$	0.7597	$0.753^{+0.019}_{-0.027}$
A_{143}^{tSZ}	7.12	> 0.953	D_{40}	1226.1	1228^{+30}_{-28}	$f\sigma_8(0.38)$	0.4786	$0.476^{+0.012}_{-0.014}$
A_{100}^{PS}	248	258^{+70}_{-70}	D_{220}	5732	5738^{+96}_{-94}	$\sigma_8(0.38)$	0.6738	$0.668^{+0.016}_{-0.025}$
A_{143}^{PS}	48.8	45^{+20}_{-20}	D_{810}	2540.4	2539^{+36}_{-34}	$f\sigma_8(0.51)$	0.4777	$0.475^{+0.012}_{-0.014}$
$A_{143 \times 217}^{\text{PS}}$	50.3	42^{+20}_{-20}	D_{1420}	818.4	818^{+13}_{-12}	$\sigma_8(0.51)$	0.6307	$0.625^{+0.015}_{-0.024}$
A_{217}^{PS}	120.8	115^{+30}_{-30}	D_{2000}	231.46	$231.1^{+4.1}_{-4.0}$	$f\sigma_8(0.61)$	0.4731	$0.470^{+0.011}_{-0.013}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9674	$0.9668^{+0.0094}_{-0.0094}$	$\sigma_8(0.61)$	0.6002	$0.595^{+0.015}_{-0.023}$
A_{100}^{dustTT}	8.91	$8.9^{+4.8}_{-4.7}$	Y_P	0.245415	$0.24542^{+0.00013}_{-0.00014}$	$f\sigma_8(2.33)$	0.3019	$0.2998^{+0.0070}_{-0.0099}$
A_{143}^{dustTT}	11.04	$10.9^{+4.6}_{-4.6}$	Y_P^{BBN}	0.246741	$0.24674^{+0.00013}_{-0.00014}$	$\sigma_8(2.33)$	0.3119	$0.3093^{+0.0077}_{-0.011}$
$A_{143 \times 217}^{\text{dustTT}}$	20.0	$18.6^{+8.6}_{-8.5}$	$10^5 D/H$	2.576	$2.575^{+0.064}_{-0.062}$	f_{2000}^{143}	28.5	29^{+7}_{-7}
A_{217}^{dustTT}	95.4	94^{+20}_{-20}	Age/Gyr	13.760	$13.774^{+0.075}_{-0.057}$	$f_{2000}^{143 \times 217}$	31.79	32^{+5}_{-5}
A_{100}^{dustTE}	0.114	$0.115^{+0.099}_{-0.097}$	z_*	1089.81	$1089.78^{+0.54}_{-0.54}$	f_{2000}^{217}	106.39	$106.8^{+4.8}_{-4.5}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.135^{+0.075}_{-0.073}$	r_*	144.53	$144.59^{+0.56}_{-0.54}$	χ_{lensing}^2	8.96	$9.22 (\nu: 0.2)$
$A_{100 \times 217}^{\text{dustTE}}$	0.483	$0.48^{+0.22}_{-0.23}$	$100\theta_*$	1.04115	$1.04118^{+0.00075}_{-0.00075}$	χ_{small}^2	395.88	$397.1 (\nu: 1.7)$
A_{143}^{dustTE}	0.226	$0.22^{+0.14}_{-0.13}$	$D_M(z_*)/\text{Gpc}$	13.882	$13.887^{+0.055}_{-0.053}$	χ_{lowl}^2	23.05	$23.22 (\nu: 0.3)$
$A_{143 \times 217}^{\text{dustTE}}$	0.666	$0.66^{+0.21}_{-0.20}$	z_{drag}	1060.01	$1060.02^{+0.72}_{-0.77}$	χ_{plik}^2	2344.3	$2359.2 (\nu: 16.8)$
A_{217}^{dustTE}	2.08	$2.08^{+0.67}_{-0.69}$	r_{drag}	147.18	$147.23^{+0.59}_{-0.59}$	χ_{JLA}^2	1034.84	$1034.99 (\nu: 0.0)$
c_{100}	0.99971	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14081	$0.14076^{+0.00075}_{-0.00071}$	$\chi_{6\text{DF}}^2$	0.003	$0.037 (\nu: 0.0)$
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	0.160721	$0.16072^{+0.00045}_{-0.00043}$	χ_{MGS}^2	1.54	$1.45 (\nu: 0.1)$
H_0	68.10	$67.9^{+1.2}_{-1.4}$	z_{eq}	3391	3386^{+53}_{-53}	χ_{DR12BAO}^2	3.71	$4.4 (\nu: 0.7)$
Ω_Λ	0.6939	$0.692^{+0.015}_{-0.017}$	k_{eq}	0.010351	$0.01033^{+0.00016}_{-0.00016}$	χ_{prior}^2	1.7	$11.6 (\nu: 10.8)$
Ω_m	0.3061	$0.308^{+0.017}_{-0.015}$	$100\theta_{\text{eq}}$	0.8154	$0.817^{+0.010}_{-0.0099}$	χ_{CMB}^2	2772.2	$2788.7 (\nu: 17.5)$
$\Omega_m h^2$	0.14196	$0.1421^{+0.0024}_{-0.0022}$	$100\theta_{s,\text{eq}}$	0.4504	$0.4510^{+0.0053}_{-0.0051}$	χ_{BAO}^2	5.25	$5.86 (\nu: 0.4)$
$\Omega_\nu h^2$	0.00004	< 0.00165	$H(0.15)$	73.33	$73.1^{+1.0}_{-1.2}$			
$\Omega_m h^3$	0.09667	$0.09650^{+0.00085}_{-0.00098}$	$D_M(0.15)$	637.0	$639^{+12}_{-9.7}$			

Best-fit $\chi_{\text{eff}}^2 = 3813.97$; $\Delta\chi_{\text{eff}}^2 = -1.70$; $\bar{\chi}_{\text{eff}}^2 = 3841.20$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.65$; $R - 1 = 0.01317$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.02) MGS: 1.54 (Δ 0.26) DR12BAO: 3.71 (Δ -0.54) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.96 (Δ 0.24) small_100x143_offlike5_EE_Aplanck
395.88 (Δ -0.64) commander_dx12_v3.2_29: 23.05 (Δ 0.17) plik_rd12_HM_v22b.TTTEEE: 2344.32 (Δ -0.95) SN - JLA Pantheon18: 1034.84 (Δ -0.13)

6.23 base_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02242^{+0.00034}_{-0.00034}$	$\Omega_m h^3$	$0.09648^{+0.00087}_{-0.0010}$	$H(0.15)$	$73.1^{+1.1}_{-1.3}$
$\Omega_c h^2$	$0.1193^{+0.0024}_{-0.0024}$	σ_8	$0.814^{+0.020}_{-0.031}$	$D_M(0.15)$	639^{+13}_{-10}
$100\theta_{MC}$	$1.04100^{+0.00075}_{-0.00075}$	S_8	$0.827^{+0.028}_{-0.029}$	$H(0.38)$	$83.18^{+0.81}_{-0.98}$
τ	$0.056^{+0.018}_{-0.014}$	$\sigma_8 \Omega_m^{0.5}$	$0.453^{+0.015}_{-0.016}$	$D_M(0.38)$	1525^{+26}_{-21}
Σm_ν [eV]	< 0.162	$\sigma_8 \Omega_m^{0.25}$	$0.607^{+0.016}_{-0.020}$	$H(0.51)$	$89.88^{+0.66}_{-0.83}$
$\ln(10^{10} A_s)$	$3.046^{+0.038}_{-0.029}$	$\sigma_8/h^{0.5}$	$0.989^{+0.025}_{-0.032}$	$D_M(0.51)$	1976^{+31}_{-25}
n_s	$0.9667^{+0.0095}_{-0.0094}$	$r_{\text{drag}} h$	$99.9^{+2.1}_{-2.4}$	$H(0.61)$	$95.48^{+0.56}_{-0.70}$
y_{cal}	$1.0006^{+0.0064}_{-0.0063}$	$\langle d^2 \rangle^{1/2}$	$2.439^{+0.053}_{-0.051}$	$D_M(0.61)$	2300^{+33}_{-27}
A_{217}^{CIB}	47^{+20}_{-20}	z_{re}	< 9.49	$H(2.33)$	$236.1^{+1.6}_{-1.5}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s$	$2.104^{+0.081}_{-0.061}$	$D_M(2.33)$	5754^{+35}_{-26}
A_{143}^{tSZ}	$5.5^{+4.4}_{-4.6}$	$10^9 A_s e^{-2\tau}$	$1.881^{+0.027}_{-0.026}$	$f\sigma_8(0.15)$	$0.457^{+0.014}_{-0.015}$
A_{100}^{PS}	258^{+70}_{-70}	D_{40}	1229^{+30}_{-28}	$\sigma_8(0.15)$	$0.753^{+0.019}_{-0.029}$
A_{143}^{PS}	45^{+20}_{-20}	D_{220}	5737^{+98}_{-93}	$f\sigma_8(0.38)$	$0.476^{+0.012}_{-0.014}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{810}	2539^{+34}_{-34}	$\sigma_8(0.38)$	$0.667^{+0.017}_{-0.026}$
A_{217}^{PS}	115^{+30}_{-30}	D_{1420}	818^{+13}_{-12}	$f\sigma_8(0.51)$	$0.475^{+0.012}_{-0.014}$
A^{kSZ}	—	D_{2000}	$231.1^{+4.1}_{-3.9}$	$\sigma_8(0.51)$	$0.625^{+0.016}_{-0.025}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.7}$	$n_{s,0.002}$	$0.9667^{+0.0095}_{-0.0094}$	$f\sigma_8(0.61)$	$0.470^{+0.011}_{-0.014}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.7}$	Y_P	$0.24541^{+0.00013}_{-0.00014}$	$\sigma_8(0.61)$	$0.595^{+0.015}_{-0.024}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.6}_{-8.6}$	Y_P^{BBN}	$0.24674^{+0.00013}_{-0.00014}$	$f\sigma_8(2.33)$	$0.2997^{+0.0072}_{-0.011}$
A_{217}^{dustTT}	94^{+20}_{-20}	$10^5 D/H$	$2.576^{+0.065}_{-0.062}$	$\sigma_8(2.33)$	$0.3091^{+0.0080}_{-0.012}$
A_{100}^{dustTE}	$0.114^{+0.099}_{-0.096}$	Age/Gyr	$13.777^{+0.080}_{-0.060}$	f_{2000}^{143}	29^{+7}_{-7}
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.075}_{-0.076}$	z_*	$1089.79^{+0.55}_{-0.53}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	r_*	$144.57^{+0.57}_{-0.56}$	f_{2000}^{217}	$106.8^{+4.7}_{-4.6}$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.13}$	$100\theta_*$	$1.04118^{+0.00075}_{-0.00074}$	χ_{lensing}^2	$9.22 (\nu: 0.2)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	$D_M(z_*)/\text{Gpc}$	$13.886^{+0.056}_{-0.054}$	χ_{simall}^2	$397.1 (\nu: 1.7)$
A_{217}^{dustTE}	$2.08^{+0.71}_{-0.70}$	z_{drag}	$1060.01^{+0.73}_{-0.76}$	χ_{lowl}^2	$23.25 (\nu: 0.3)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	$147.22^{+0.60}_{-0.60}$	χ_{plik}^2	$2359.1 (\nu: 16.5)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	k_D	$0.14077^{+0.00076}_{-0.00072}$	$\chi_{6\text{DF}}^2$	$0.045 (\nu: 0.0)$
H_0	$67.8^{+1.2}_{-1.5}$	$100\theta_D$	$0.16072^{+0.00046}_{-0.00043}$	χ_{MGS}^2	$1.39 (\nu: 0.1)$
Ω_Λ	$0.691^{+0.016}_{-0.019}$	z_{eq}	3387^{+53}_{-54}	χ_{DR12BAO}^2	$4.5 (\nu: 1.0)$
Ω_m	$0.309^{+0.019}_{-0.016}$	k_{eq}	$0.01034^{+0.00016}_{-0.00017}$	χ_{prior}^2	$11.6 (\nu: 10.3)$
$\Omega_m h^2$	$0.1422^{+0.0025}_{-0.0023}$	$100\theta_{\text{eq}}$	$0.816^{+0.010}_{-0.010}$	χ_{CMB}^2	$2788.7 (\nu: 17.2)$
$\Omega_\nu h^2$	< 0.00174	$100\theta_{s,\text{eq}}$	$0.4509^{+0.0054}_{-0.0051}$	χ_{BAO}^2	$6.0 (\nu: 0.6)$

$$\bar{\chi}_{\text{eff}}^2 = 2806.28; \Delta \bar{\chi}_{\text{eff}}^2 = -0.44; R - 1 = 0.01177$$

6.24 base_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02243^{+0.00035}_{-0.00034}$	σ_8	$0.815^{+0.020}_{-0.030}$	$H(0.38)$	$83.22^{+0.77}_{-0.92}$
$\Omega_c h^2$	$0.1192^{+0.0023}_{-0.0023}$	S_8	$0.826^{+0.027}_{-0.028}$	$D_M(0.38)$	1524^{+24}_{-20}
$100\theta_{MC}$	$1.04102^{+0.00075}_{-0.00075}$	$\sigma_8 \Omega_m^{0.5}$	$0.452^{+0.015}_{-0.015}$	$H(0.51)$	$89.91^{+0.63}_{-0.76}$
τ	$0.056^{+0.019}_{-0.014}$	$\sigma_8 \Omega_m^{0.25}$	$0.607^{+0.016}_{-0.020}$	$D_M(0.51)$	1975^{+28}_{-23}
Σm_ν [eV]	< 0.154	$\sigma_8/h^{0.5}$	$0.989^{+0.025}_{-0.031}$	$H(0.61)$	$95.51^{+0.54}_{-0.66}$
$\ln(10^{10} A_s)$	$3.046^{+0.038}_{-0.030}$	$r_{\text{drag}} h$	$99.97^{+2.0}_{-2.1}$	$D_M(0.61)$	2298^{+31}_{-25}
n_s	$0.9669^{+0.0094}_{-0.0094}$	$\langle d^2 \rangle^{1/2}$	$2.439^{+0.052}_{-0.051}$	$H(2.33)$	$236.0^{+1.5}_{-1.4}$
y_{cal}	$1.0006^{+0.0066}_{-0.0065}$	z_{re}	< 9.54	$D_M(2.33)$	5753^{+33}_{-25}
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.104^{+0.081}_{-0.062}$	$f\sigma_8(0.15)$	$0.457^{+0.014}_{-0.014}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.880^{+0.027}_{-0.027}$	$\sigma_8(0.15)$	$0.753^{+0.019}_{-0.028}$
A_{143}^{tSZ}	> 0.961	D_{40}	1228^{+29}_{-28}	$f\sigma_8(0.38)$	$0.476^{+0.012}_{-0.014}$
A_{100}^{PS}	257^{+70}_{-70}	D_{220}	5738^{+96}_{-94}	$\sigma_8(0.38)$	$0.668^{+0.016}_{-0.025}$
A_{143}^{PS}	45^{+20}_{-20}	D_{810}	2539^{+36}_{-34}	$f\sigma_8(0.51)$	$0.475^{+0.012}_{-0.014}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	818^{+13}_{-12}	$\sigma_8(0.51)$	$0.625^{+0.015}_{-0.024}$
A_{217}^{PS}	115^{+20}_{-30}	D_{2000}	$231.1^{+4.1}_{-4.0}$	$f\sigma_8(0.61)$	$0.470^{+0.011}_{-0.013}$
A^{kSZ}	—	$n_{s,0.002}$	$0.9669^{+0.0094}_{-0.0094}$	$\sigma_8(0.61)$	$0.595^{+0.015}_{-0.023}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.7}$	Y_P	$0.24542^{+0.00013}_{-0.00014}$	$f\sigma_8(2.33)$	$0.2999^{+0.0068}_{-0.010}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.6}$	Y_P^{BBN}	$0.24674^{+0.00013}_{-0.00014}$	$\sigma_8(2.33)$	$0.3094^{+0.0075}_{-0.012}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.6}_{-8.5}$	10^5D/H	$2.575^{+0.065}_{-0.062}$	f_{2000}^{143}	29^{+7}_{-7}
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.774^{+0.074}_{-0.057}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
A_{100}^{dustTE}	$0.115^{+0.099}_{-0.097}$	z_*	$1089.77^{+0.52}_{-0.54}$	f_{2000}^{217}	$106.8^{+4.7}_{-4.5}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.075}_{-0.073}$	r_*	$144.59^{+0.56}_{-0.54}$	χ_{lensing}^2	$9.20 (\nu: 0.2)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.23}$	$100\theta_*$	$1.04119^{+0.00074}_{-0.00075}$	χ_{simall}^2	$397.1 (\nu: 1.8)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.13}$	$D_M(z_*)/\text{Gpc}$	$13.887^{+0.054}_{-0.053}$	χ_{lowl}^2	$23.22 (\nu: 0.3)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.20}$	z_{drag}	$1060.02^{+0.72}_{-0.73}$	χ_{plik}^2	$2359.0 (\nu: 16.6)$
A_{217}^{dustTE}	$2.08^{+0.68}_{-0.69}$	r_{drag}	$147.24^{+0.58}_{-0.59}$	χ_{JLA}^2	$1034.99 (\nu: 0.0)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_D	$0.14076^{+0.00074}_{-0.00070}$	$\chi_{6\text{DF}}^2$	$0.037 (\nu: 0.0)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.16072^{+0.00045}_{-0.00043}$	χ_{MGS}^2	$1.45 (\nu: 0.1)$
H_0	$67.9^{+1.2}_{-1.4}$	z_{eq}	3385^{+52}_{-52}	χ_{DR12BAO}^2	$4.4 (\nu: 0.7)$
Ω_Λ	$0.692^{+0.015}_{-0.017}$	k_{eq}	$0.01033^{+0.00016}_{-0.00016}$	χ_{prior}^2	$11.6 (\nu: 10.7)$
Ω_m	$0.308^{+0.017}_{-0.015}$	$100\theta_{\text{eq}}$	$0.817^{+0.010}_{-0.0097}$	χ_{CMB}^2	$2788.6 (\nu: 17.2)$
$\Omega_m h^2$	$0.1421^{+0.0024}_{-0.0022}$	$100\theta_{s,\text{eq}}$	$0.4511^{+0.0052}_{-0.0049}$	χ_{BAO}^2	$5.84 (\nu: 0.4)$
$\Omega_\nu h^2$	< 0.00166	$H(0.15)$	$73.2^{+1.0}_{-1.2}$		
$\Omega_m h^3$	$0.09650^{+0.00086}_{-0.00097}$	$D_M(0.15)$	$639^{+12}_{-9.7}$		

$$\bar{\chi}_{\text{eff}}^2 = 3841.03; \Delta \bar{\chi}_{\text{eff}}^2 = -0.71; R - 1 = 0.01560$$

6.25 base_mnu_plikHM_TTTEEE_lowl_lowE_DES

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022543	$0.02251^{+0.00039}_{-0.00041}$	$\Delta z_{\text{l,DES}}^1$	0.0034	$0.004^{+0.019}_{-0.019}$	z_{drag}	1060.20	$1060.12^{+0.81}_{-0.80}$
$\Omega_c h^2$	0.11794	$0.1180^{+0.0031}_{-0.0028}$	$\Delta z_{\text{l,DES}}^2$	0.0006	$0.001^{+0.017}_{-0.017}$	r_{drag}	147.45	$147.47^{+0.67}_{-0.69}$
$100\theta_{\text{MC}}$	1.04114	$1.04110^{+0.00078}_{-0.00084}$	$\Delta z_{\text{l,DES}}^3$	0.0036	$0.003^{+0.017}_{-0.017}$	k_{D}	0.14061	$0.14058^{+0.00079}_{-0.00078}$
τ	0.0554	$0.055^{+0.022}_{-0.021}$	$\Delta z_{\text{l,DES}}^4$	0.0007	$0.001^{+0.023}_{-0.023}$	$100\theta_{\text{D}}$	0.160625	$0.16066^{+0.00046}_{-0.00046}$
Σm_ν [eV]	0.000	< 0.570	$\Delta z_{\text{l,DES}}^5$	-0.0007	$-0.001^{+0.025}_{-0.025}$	z_{eq}	3357	3357^{+68}_{-64}
$\ln(10^{10} A_{\text{s}})$	3.0423	$3.040^{+0.043}_{-0.043}$	$\Delta z_{\text{s,DES}}^1$	0.0000	$-0.004^{+0.036}_{-0.037}$	k_{eq}	0.010246	$0.01025^{+0.00021}_{-0.00019}$
n_{s}	0.9706	$0.969^{+0.011}_{-0.011}$	$\Delta z_{\text{s,DES}}^2$	-0.0300	$-0.031^{+0.028}_{-0.028}$	$100\theta_{\text{eq}}$	0.8221	$0.822^{+0.012}_{-0.013}$
y_{cal}	1.0006	$1.0005^{+0.0063}_{-0.0063}$	$\Delta z_{\text{s,DES}}^3$	0.0035	$0.004^{+0.024}_{-0.025}$	$100\theta_{\text{s,eq}}$	0.4538	$0.4539^{+0.0064}_{-0.0065}$
A_{217}^{CIB}	46.5	47^{+20}_{-20}	$\Delta z_{\text{s,DES}}^4$	-0.0307	$-0.029^{+0.048}_{-0.047}$	$H(0.15)$	73.95	$73.1^{+1.8}_{-5.0}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.57	—	H_0	68.82	$67.9^{+2.0}_{-5.7}$	$D_{\text{M}}(0.15)$	631.0	639^{+53}_{-17}
A_{143}^{tSZ}	7.16	$5.5^{+4.5}_{-4.6}$	Ω_{Λ}	0.703	$0.692^{+0.025}_{-0.078}$	$H(0.38)$	83.81	$83.2^{+1.3}_{-3.8}$
A_{100}^{PS}	248	259^{+70}_{-70}	Ω_{m}	0.297	$0.308^{+0.078}_{-0.025}$	$D_{\text{M}}(0.38)$	1508	1525^{+110}_{-34}
A_{143}^{PS}	48.3	45^{+20}_{-20}	$\Omega_{\text{m}} h^2$	0.1405	$0.1416^{+0.0076}_{-0.0034}$	$H(0.51)$	90.39	$89.9^{+1.1}_{-3.2}$
$A_{143 \times 217}^{\text{PS}}$	50.1	41^{+20}_{-20}	$\Omega_{\nu} h^2$	0.00000	< 0.00613	$D_{\text{M}}(0.51)$	1956	1976^{+130}_{-41}
A_{217}^{PS}	120.0	114^{+30}_{-30}	$\Omega_{\text{m}} h^3$	0.09668	$0.0961^{+0.0012}_{-0.0035}$	$H(0.61)$	95.90	$95.44^{+0.93}_{-2.7}$
A^{kSZ}	0.0	—	σ_8	0.818	$0.795^{+0.034}_{-0.11}$	$D_{\text{M}}(0.61)$	2278	2300^{+140}_{-44}
A_{100}^{dustTT}	8.82	$9.0^{+4.7}_{-4.7}$	S_8	0.8129	$0.804^{+0.034}_{-0.041}$	$H(2.33)$	235.07	$235.6^{+4.2}_{-2.0}$
A_{143}^{dustTT}	11.07	$11.0^{+4.7}_{-4.7}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4453	$0.440^{+0.019}_{-0.022}$	$D_{\text{M}}(2.33)$	5736	5759^{+140}_{-44}
$A_{143 \times 217}^{\text{dustTT}}$	20.0	$18.7^{+8.3}_{-8.5}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6034	$0.591^{+0.024}_{-0.054}$	$f\sigma_8(0.15)$	0.4503	$0.446^{+0.018}_{-0.023}$
A_{217}^{dustTT}	95.2	94^{+20}_{-20}	$\sigma_8/h^{0.5}$	0.986	$0.964^{+0.037}_{-0.099}$	$\sigma_8(0.15)$	0.757	$0.735^{+0.032}_{-0.11}$
A_{100}^{dustTE}	0.113	$0.114^{+0.098}_{-0.096}$	$r_{\text{drag}} h$	101.5	$100.2^{+3.3}_{-8.7}$	$f\sigma_8(0.38)$	0.4720	$0.465^{+0.017}_{-0.036}$
$A_{100 \times 143}^{\text{dustTE}}$	0.134	$0.135^{+0.076}_{-0.075}$	$\langle d^2 \rangle^{1/2}$	2.419	$2.404^{+0.064}_{-0.064}$	$\sigma_8(0.38)$	0.672	$0.652^{+0.029}_{-0.10}$
$A_{100 \times 217}^{\text{dustTE}}$	0.482	$0.48^{+0.22}_{-0.22}$	z_{re}	7.72	$7.6^{+2.0}_{-2.3}$	$f\sigma_8(0.51)$	0.4722	$0.464^{+0.017}_{-0.043}$
A_{143}^{dustTE}	0.222	$0.22^{+0.14}_{-0.14}$	$10^9 A_{\text{s}}$	2.095	$2.090^{+0.092}_{-0.088}$	$\sigma_8(0.51)$	0.630	$0.611^{+0.028}_{-0.097}$
$A_{143 \times 217}^{\text{dustTE}}$	0.662	$0.66^{+0.20}_{-0.21}$	$10^9 A_{\text{s}} e^{-2\tau}$	1.8754	$1.874^{+0.028}_{-0.028}$	$f\sigma_8(0.61)$	0.4684	$0.459^{+0.017}_{-0.047}$
A_{217}^{dustTE}	2.06	$2.06^{+0.70}_{-0.70}$	D_{40}	1220.0	1221^{+32}_{-30}	$\sigma_8(0.61)$	0.600	$0.581^{+0.027}_{-0.094}$
c_{100}	0.99972	$0.9997^{+0.0016}_{-0.0016}$	D_{220}	5744	5745^{+100}_{-100}	$f\sigma_8(2.33)$	0.3019	$0.294^{+0.012}_{-0.044}$
c_{217}	0.99819	$0.9982^{+0.0016}_{-0.0016}$	D_{810}	2539.2	2537^{+34}_{-34}	$\sigma_8(2.33)$	0.3124	$0.303^{+0.016}_{-0.045}$
b_{DES}^1	1.484	$1.53^{+0.30}_{-0.21}$	D_{1420}	819.2	818^{+12}_{-12}	f_{2000}^{143}	28.2	29^{+7}_{-7}
b_{DES}^2	1.682	$1.73^{+0.29}_{-0.16}$	D_{2000}	231.80	$231.2^{+4.1}_{-4.1}$	$f_{2000}^{143 \times 217}$	31.49	32^{+5}_{-5}
b_{DES}^3	1.671	$1.72^{+0.27}_{-0.14}$	$n_{\text{s},0.002}$	0.9706	$0.969^{+0.011}_{-0.011}$	f_{2000}^{217}	106.03	$106.8^{+4.6}_{-4.6}$
b_{DES}^4	2.026	$2.08^{+0.31}_{-0.16}$	Y_{P}	0.245460	$0.24545^{+0.00016}_{-0.00016}$	χ_{small}^2	396.08	$397.0 (\nu: 1.6)$
b_{DES}^5	2.130	$2.18^{+0.32}_{-0.23}$	$Y_{\text{P}}^{\text{BBN}}$	0.246786	$0.24677^{+0.00016}_{-0.00016}$	χ_{lowl}^2	22.51	$22.56 (\nu: 0.3)$
m_{DES}^1	0.014	$0.012^{+0.058}_{-0.058}$	$10^5 \text{D}/\text{H}$	2.554	$2.560^{+0.077}_{-0.070}$	χ_{plik}^2	2346.9	$2364.5 (\nu: 23.9)$
m_{DES}^2	0.013	$0.013^{+0.058}_{-0.057}$	Age/Gyr	13.736	$13.79^{+0.32}_{-0.099}$	χ_{DES}^2	508.9	$518.1 (\nu: 11.9)$
m_{DES}^3	-0.003	$-0.002^{+0.052}_{-0.052}$	z_*	1089.52	$1089.57^{+0.82}_{-0.65}$	χ_{prior}^2	3.9	$25 (\nu: 23.3)$
m_{DES}^4	0.002	$0.003^{+0.054}_{-0.053}$	r_*	144.84	$144.85^{+0.66}_{-0.72}$	χ_{CMB}^2	2765.5	$2784.0 (\nu: 23.5)$
$A_{\text{IA,DES}}$	0.454	$0.46^{+0.47}_{-0.39}$	$100\theta_*$	1.04129	$1.04129^{+0.00077}_{-0.00078}$			
$\alpha_{\text{IA,DES}}$	-2.3	—	$D_{\text{M}}(z_*)/\text{Gpc}$	13.910	$13.910^{+0.062}_{-0.067}$			

Best-fit $\chi_{\text{eff}}^2 = 3278.36$; $\Delta\chi_{\text{eff}}^2 = -1.33$; $\bar{\chi}_{\text{eff}}^2 = 3326.78$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.09$; $R - 1 = 0.00796$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.07 (Δ -0.00) commander_dx12_v3.2_29: 22.51 (Δ 0.02) plik_rd12_HM_v22b_TTTEEE: 2346.89 (Δ -1.11) WL - DES_1YR_final: 508.94 (Δ -0.21)

6.26 base_mnu_plikHM_TTTEEE_lowl_lowE_DES_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022502	$0.02252^{+0.00035}_{-0.00035}$	$\Delta z_{\text{l,DES}}^2$	0.0005	$0.001^{+0.017}_{-0.017}$	k_D	0.14065	$0.14058^{+0.00075}_{-0.00075}$
$\Omega_c h^2$	0.11837	$0.1180^{+0.0023}_{-0.0024}$	$\Delta z_{\text{l,DES}}^3$	0.0034	$0.003^{+0.017}_{-0.017}$	$100\theta_D$	0.160663	$0.16066^{+0.00044}_{-0.00043}$
$100\theta_{\text{MC}}$	1.04114	$1.04112^{+0.00073}_{-0.00076}$	$\Delta z_{\text{l,DES}}^4$	0.0009	$0.001^{+0.024}_{-0.023}$	z_{eq}	3366	3357^{+53}_{-55}
τ	0.0538	$0.054^{+0.022}_{-0.021}$	$\Delta z_{\text{l,DES}}^5$	-0.0008	$-0.001^{+0.025}_{-0.025}$	k_{eq}	0.010274	$0.01025^{+0.00016}_{-0.00017}$
Σm_ν [eV]	0.000	< 0.235	$\Delta z_{\text{s,DES}}^1$	0.0009	$-0.003^{+0.037}_{-0.037}$	$100\theta_{\text{eq}}$	0.8202	$0.822^{+0.011}_{-0.010}$
$\ln(10^{10} A_s)$	3.0387	$3.039^{+0.043}_{-0.042}$	$\Delta z_{\text{s,DES}}^2$	-0.0303	$-0.031^{+0.028}_{-0.028}$	$100\theta_{\text{s,eq}}$	0.4529	$0.4538^{+0.0054}_{-0.0051}$
n_s	0.9691	$0.9694^{+0.0098}_{-0.010}$	$\Delta z_{\text{s,DES}}^3$	0.0025	$0.004^{+0.025}_{-0.025}$	$H(0.15)$	73.78	$73.4^{+1.1}_{-1.5}$
y_{cal}	0.99999	$1.0005^{+0.0064}_{-0.0064}$	$\Delta z_{\text{s,DES}}^4$	-0.0314	$-0.030^{+0.046}_{-0.047}$	$D_{\text{M}}(0.15)$	632.6	636^{+14}_{-11}
A_{217}^{CIB}	47.7	47^{+20}_{-20}	H_0	68.62	$68.2^{+1.3}_{-1.7}$	$H(0.38)$	83.69	$83.40^{+0.86}_{-1.2}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.40	—	Ω_Λ	0.7009	$0.697^{+0.015}_{-0.020}$	$D_{\text{M}}(0.38)$	1511.7	1519^{+30}_{-22}
A_{143}^{tSZ}	7.3	—	Ω_{m}	0.2991	$0.303^{+0.020}_{-0.015}$	$H(0.51)$	90.29	$90.04^{+0.72}_{-1.0}$
A_{100}^{PS}	250	259^{+70}_{-70}	$\Omega_{\text{m}} h^2$	0.14087	$0.1412^{+0.0024}_{-0.0023}$	$D_{\text{M}}(0.51)$	1960.2	1969^{+35}_{-26}
A_{143}^{PS}	46.2	45^{+20}_{-20}	$\Omega_\nu h^2$	0.00000	< 0.00252	$H(0.61)$	95.82	$95.60^{+0.62}_{-0.87}$
$A_{143 \times 217}^{\text{PS}}$	46.2	41^{+20}_{-20}	$\Omega_{\text{m}} h^3$	0.09667	$0.09636^{+0.00094}_{-0.0013}$	$D_{\text{M}}(0.61)$	2282.6	2292^{+39}_{-28}
A_{217}^{PS}	118.3	114^{+30}_{-30}	σ_8	0.8173	$0.802^{+0.027}_{-0.046}$	$H(2.33)$	235.31	$235.4^{+1.5}_{-1.4}$
A^{kSZ}	0.0	—	S_8	0.8161	$0.807^{+0.031}_{-0.034}$	$D_{\text{M}}(2.33)$	5738.8	5750^{+44}_{-30}
A_{100}^{dustTT}	8.87	$8.9^{+4.7}_{-4.8}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4470	$0.442^{+0.017}_{-0.019}$	$f\sigma_8(0.15)$	0.4518	$0.447^{+0.016}_{-0.018}$
A_{143}^{dustTT}	11.02	$11.0^{+4.6}_{-4.7}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6044	$0.596^{+0.020}_{-0.028}$	$\sigma_8(0.15)$	0.7563	$0.742^{+0.025}_{-0.043}$
$A_{143 \times 217}^{\text{dustTT}}$	19.7	$18.6^{+8.2}_{-8.3}$	$\sigma_8/h^{0.5}$	0.9866	$0.971^{+0.032}_{-0.046}$	$f\sigma_8(0.38)$	0.4729	$0.467^{+0.015}_{-0.019}$
A_{217}^{dustTT}	94.6	94^{+20}_{-20}	$r_{\text{drag}} h$	101.14	$100.6^{+2.1}_{-2.5}$	$\sigma_8(0.38)$	0.6716	$0.659^{+0.023}_{-0.039}$
A_{100}^{dustTE}	0.114	$0.114^{+0.098}_{-0.094}$	$\langle d^2 \rangle^{1/2}$	2.422	$2.408^{+0.061}_{-0.065}$	$f\sigma_8(0.51)$	0.4729	$0.467^{+0.015}_{-0.020}$
$A_{100 \times 143}^{\text{dustTE}}$	0.134	$0.135^{+0.076}_{-0.074}$	z_{re}	7.56	$7.6^{+2.0}_{-2.3}$	$\sigma_8(0.51)$	0.6290	$0.617^{+0.021}_{-0.037}$
$A_{100 \times 217}^{\text{dustTE}}$	0.479	$0.48^{+0.22}_{-0.21}$	$10^9 A_s$	2.088	$2.089^{+0.091}_{-0.087}$	$f\sigma_8(0.61)$	0.4688	$0.463^{+0.014}_{-0.020}$
A_{143}^{dustTE}	0.223	$0.22^{+0.14}_{-0.14}$	$10^9 A_s e^{-2\tau}$	1.8748	$1.874^{+0.027}_{-0.028}$	$\sigma_8(0.61)$	0.5987	$0.587^{+0.020}_{-0.035}$
$A_{143 \times 217}^{\text{dustTE}}$	0.664	$0.66^{+0.21}_{-0.21}$	D_{40}	1221.3	1222^{+30}_{-30}	$f\sigma_8(2.33)$	0.3014	$0.2967^{+0.0094}_{-0.016}$
A_{217}^{dustTE}	2.08	$2.06^{+0.71}_{-0.71}$	D_{220}	5736	5744^{+99}_{-100}	$\sigma_8(2.33)$	0.3118	$0.306^{+0.010}_{-0.018}$
c_{100}	0.99974	$0.9997^{+0.0016}_{-0.0016}$	D_{810}	2536.1	2537^{+34}_{-35}	f_{2000}^{143}	28.6	29^{+7}_{-7}
c_{217}	0.99819	$0.9982^{+0.0016}_{-0.0016}$	D_{1420}	817.6	818^{+12}_{-12}	$f_{2000}^{143 \times 217}$	31.78	32^{+5}_{-5}
b_{DES}^1	1.486	$1.51^{+0.20}_{-0.20}$	D_{2000}	231.24	$231.2^{+4.0}_{-4.1}$	f_{2000}^{217}	106.33	$106.7^{+4.5}_{-4.6}$
b_{DES}^2	1.684	$1.71^{+0.16}_{-0.15}$	$n_{\text{s},0.002}$	0.9691	$0.9694^{+0.0098}_{-0.010}$	χ_{small}^2	395.87	$396.9 (\nu: 1.5)$
b_{DES}^3	1.672	$1.70^{+0.14}_{-0.12}$	Y_{P}	0.245445	$0.24545^{+0.00014}_{-0.00014}$	χ_{lowl}^2	22.73	$22.63 (\nu: 0.3)$
b_{DES}^4	2.029	$2.06^{+0.17}_{-0.14}$	$Y_{\text{P}}^{\text{BBN}}$	0.246772	$0.24678^{+0.00014}_{-0.00014}$	χ_{plik}^2	2346.2	$2363.3 (\nu: 21.9)$
b_{DES}^5	2.133	$2.16^{+0.21}_{-0.21}$	$10^5 D/H$	2.562	$2.559^{+0.064}_{-0.063}$	$\chi_{6\text{DF}}^2$	0.018	$0.033 (\nu: 0.0)$
m_{DES}^1	0.014	$0.012^{+0.058}_{-0.058}$	Age/Gyr	13.742	$13.77^{+0.10}_{-0.067}$	χ_{MGS}^2	2.12	$1.84 (\nu: 0.1)$
m_{DES}^2	0.013	$0.013^{+0.057}_{-0.057}$	z_*	1089.61	$1089.56^{+0.56}_{-0.54}$	χ_{DR12BAO}^2	3.42	$3.93 (\nu: 0.4)$
m_{DES}^3	-0.005	$-0.003^{+0.051}_{-0.051}$	r_*	144.76	$144.85^{+0.58}_{-0.57}$	χ_{DES}^2	509.5	$518.3 (\nu: 11.8)$
m_{DES}^4	0.002	$0.003^{+0.052}_{-0.052}$	$100\theta_*$	1.04127	$1.04130^{+0.00074}_{-0.00075}$	χ_{prior}^2	4.2	$25 (\nu: 22.8)$
$A_{\text{IA,DES}}$	0.444	$0.47^{+0.47}_{-0.39}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.902	$13.910^{+0.056}_{-0.055}$	χ_{BAO}^2	5.56	$5.81 (\nu: 0.3)$
$\alpha_{\text{IA,DES}}$	-2.6	—	z_{drag}	1060.12	$1060.13^{+0.76}_{-0.73}$	χ_{CMB}^2	2764.8	$2782.8 (\nu: 21.5)$
$\Delta z_{\text{l,DES}}^1$	0.0033	$0.004^{+0.020}_{-0.019}$	r_{drag}	147.38	$147.47^{+0.61}_{-0.60}$			

Best-fit $\chi_{\text{eff}}^2 = 3284.12$; $\Delta\chi_{\text{eff}}^2 = -0.81$; $\bar{\chi}_{\text{eff}}^2 = 3331.54$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.52$; $R - 1 = 0.01000$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ 0.02) MGS: 2.12 (Δ 0.37) DR12BAO: 3.42 (Δ -0.04) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.87 (Δ -0.21) commander_dx12_v3_2_29: 22.73 (Δ 0.23) plik_rd12_HM_v22b_TTTEEE: 2346.19 (Δ -1.66) WL - DES_1YR_final: 509.52 (Δ 0.26)

6.27 base_mnu_plikHM_TTTEEE_lowl_lowE_DES_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022566	$0.02252^{+0.00038}_{-0.00037}$	$\alpha_{\text{IA,DES}}$	-2.4	—	$100\theta_*$	1.04131	$1.04128^{+0.00075}_{-0.00077}$
$\Omega_c h^2$	0.11794	$0.1181^{+0.0029}_{-0.0027}$	$\Delta z_{\text{l,DES}}^1$	0.0033	$0.003^{+0.020}_{-0.019}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.908	$13.907^{+0.060}_{-0.061}$
$100\theta_{\text{MC}}$	1.04118	$1.04111^{+0.00076}_{-0.00079}$	$\Delta z_{\text{l,DES}}^2$	0.0007	$0.001^{+0.017}_{-0.017}$	z_{drag}	1060.24	$1060.15^{+0.81}_{-0.75}$
τ	0.0561	$0.057^{+0.021}_{-0.019}$	$\Delta z_{\text{l,DES}}^3$	0.0035	$0.003^{+0.017}_{-0.017}$	r_{drag}	147.43	$147.43^{+0.65}_{-0.65}$
$\Sigma m_\nu [\text{eV}]$	0.000	< 0.287	$\Delta z_{\text{l,DES}}^4$	0.0008	$0.001^{+0.023}_{-0.023}$	k_{D}	0.14066	$0.14062^{+0.00076}_{-0.00076}$
$\ln(10^{10} A_{\text{s}})$	3.0445	$3.045^{+0.040}_{-0.038}$	$\Delta z_{\text{l,DES}}^5$	-0.0007	$-0.001^{+0.025}_{-0.025}$	$100\theta_{\text{D}}$	0.160597	$0.16064^{+0.00044}_{-0.00045}$
n_{s}	0.9707	$0.969^{+0.010}_{-0.010}$	$\Delta z_{\text{s,DES}}^1$	0.0009	$-0.003^{+0.037}_{-0.037}$	z_{eq}	3358	3360^{+64}_{-60}
y_{cal}	1.0008	$1.0007^{+0.0063}_{-0.0063}$	$\Delta z_{\text{s,DES}}^2$	-0.0303	$-0.031^{+0.027}_{-0.028}$	k_{eq}	0.010248	$0.01026^{+0.00019}_{-0.00018}$
A_{217}^{CIB}	45.4	47^{+20}_{-20}	$\Delta z_{\text{s,DES}}^3$	0.0033	$0.004^{+0.024}_{-0.024}$	$100\theta_{\text{eq}}$	0.8220	$0.821^{+0.012}_{-0.012}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.69	—	$\Delta z_{\text{s,DES}}^4$	-0.0301	$-0.031^{+0.047}_{-0.046}$	$100\theta_{\text{s,eq}}$	0.4538	$0.4535^{+0.0060}_{-0.0061}$
A_{143}^{tSZ}	7.15	$5.5^{+4.4}_{-4.7}$	H_0	68.84	$68.2^{+1.6}_{-3.2}$	$H(0.15)$	73.97	$73.4^{+1.4}_{-2.8}$
A_{100}^{PS}	247	258^{+70}_{-70}	Ω_{Λ}	0.7035	$0.696^{+0.019}_{-0.042}$	$D_{\text{M}}(0.15)$	630.8	636^{+29}_{-13}
A_{143}^{PS}	49.7	45^{+20}_{-20}	Ω_{m}	0.2965	$0.304^{+0.042}_{-0.019}$	$H(0.38)$	83.84	$83.4^{+1.1}_{-2.2}$
$A_{143 \times 217}^{\text{PS}}$	53.2	42^{+20}_{-20}	$\Omega_{\text{m}} h^2$	0.14051	$0.1413^{+0.0046}_{-0.0029}$	$D_{\text{M}}(0.38)$	1508.0	1518^{+58}_{-27}
A_{217}^{PS}	121.9	115^{+30}_{-30}	$\Omega_{\nu} h^2$	0.00000	< 0.00309	$H(0.51)$	90.41	$90.06^{+0.89}_{-1.8}$
A^{kSZ}	0.0	—	$\Omega_{\text{m}} h^3$	0.09674	$0.09642^{+0.00094}_{-0.0018}$	$D_{\text{M}}(0.51)$	1956	1968^{+69}_{-32}
A_{100}^{dustTT}	8.76	$8.9^{+4.6}_{-4.8}$	σ_8	0.8185	$0.807^{+0.023}_{-0.055}$	$H(0.61)$	95.92	$95.62^{+0.74}_{-1.5}$
A_{143}^{dustTT}	11.05	$10.9^{+4.7}_{-4.7}$	S_8	0.8136	$0.811^{+0.028}_{-0.027}$	$D_{\text{M}}(0.61)$	2278	2291^{+75}_{-35}
$A_{143 \times 217}^{\text{dustTT}}$	20.2	$18.6^{+8.2}_{-8.4}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4456	$0.444^{+0.015}_{-0.015}$	$H(2.33)$	235.10	$235.5^{+2.6}_{-1.8}$
A_{217}^{dustTT}	95.8	94^{+20}_{-20}	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6039	$0.599^{+0.017}_{-0.026}$	$D_{\text{M}}(2.33)$	5734	5749^{+76}_{-34}
A_{100}^{dustTE}	0.113	$0.114^{+0.098}_{-0.095}$	$\sigma_8/h^{0.5}$	0.9864	$0.977^{+0.026}_{-0.047}$	$f\sigma_8(0.15)$	0.4507	$0.450^{+0.014}_{-0.014}$
$A_{100 \times 143}^{\text{dustTE}}$	0.133	$0.134^{+0.077}_{-0.074}$	$r_{\text{drag}} h$	101.49	$100.6^{+2.7}_{-5.0}$	$\sigma_8(0.15)$	0.7577	$0.746^{+0.022}_{-0.054}$
$A_{100 \times 217}^{\text{dustTE}}$	0.480	$0.48^{+0.22}_{-0.22}$	$\langle d^2 \rangle^{1/2}$	2.421	$2.419^{+0.050}_{-0.050}$	$f\sigma_8(0.38)$	0.4724	$0.470^{+0.013}_{-0.016}$
A_{143}^{dustTE}	0.221	$0.22^{+0.14}_{-0.14}$	z_{re}	7.78	$7.8^{+2.0}_{-2.0}$	$\sigma_8(0.38)$	0.6731	$0.662^{+0.020}_{-0.052}$
$A_{143 \times 217}^{\text{dustTE}}$	0.661	$0.66^{+0.21}_{-0.20}$	$10^9 A_{\text{s}}$	2.100	$2.102^{+0.086}_{-0.079}$	$f\sigma_8(0.51)$	0.4727	$0.469^{+0.012}_{-0.019}$
A_{217}^{dustTE}	2.06	$2.06^{+0.70}_{-0.71}$	$10^9 A_{\text{s}} e^{-2\tau}$	1.8771	$1.876^{+0.027}_{-0.027}$	$\sigma_8(0.51)$	0.6305	$0.620^{+0.019}_{-0.050}$
c_{100}	0.99973	$0.9997^{+0.0016}_{-0.0016}$	D_{40}	1221.1	1225^{+30}_{-29}	$f\sigma_8(0.61)$	0.4689	$0.465^{+0.012}_{-0.021}$
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0016}$	D_{220}	5750	5750^{+99}_{-99}	$\sigma_8(0.61)$	0.6003	$0.590^{+0.018}_{-0.048}$
b_{DES}^1	1.483	$1.50^{+0.21}_{-0.20}$	D_{810}	2541.4	2539^{+34}_{-33}	$f\sigma_8(2.33)$	0.3023	$0.2981^{+0.0087}_{-0.022}$
b_{DES}^2	1.680	$1.70^{+0.17}_{-0.14}$	D_{1420}	820.0	818^{+12}_{-12}	$\sigma_8(2.33)$	0.3128	$0.308^{+0.010}_{-0.026}$
b_{DES}^3	1.669	$1.69^{+0.15}_{-0.12}$	D_{2000}	232.12	$231.4^{+4.1}_{-4.0}$	χ_{lensing}^2	8.81	9.5 (ν : 0.6)
b_{DES}^4	2.025	$2.05^{+0.18}_{-0.14}$	$n_{\text{s},0.002}$	0.9707	$0.969^{+0.010}_{-0.010}$	χ_{small}^2	396.20	397.3 (ν : 2.2)
b_{DES}^5	2.128	$2.15^{+0.22}_{-0.21}$	Y_{P}	0.245468	$0.24545^{+0.00015}_{-0.00015}$	χ_{lowl}^2	22.54	22.83 (ν : 0.3)
m_{DES}^1	0.013	$0.012^{+0.058}_{-0.059}$	$Y_{\text{P}}^{\text{BBN}}$	0.246795	$0.24678^{+0.00015}_{-0.00015}$	χ_{plik}^2	2346.8	2362.1 (ν : 18.8)
m_{DES}^2	0.014	$0.012^{+0.058}_{-0.057}$	$10^5 \text{D}/\text{H}$	2.550	$2.558^{+0.069}_{-0.068}$	χ_{DES}^2	509.0	518.5 (ν : 12.7)
m_{DES}^3	-0.003	$-0.004^{+0.052}_{-0.051}$	Age/Gyr	13.733	$13.77^{+0.17}_{-0.076}$	χ_{prior}^2	3.9	25 (ν : 23.1)
m_{DES}^4	0.002	$0.002^{+0.053}_{-0.053}$	z_*	1089.49	$1089.56^{+0.66}_{-0.62}$	χ_{CMB}^2	2774.3	2791.8 (ν : 21.8)
$A_{\text{IA,DES}}$	0.453	$0.47^{+0.46}_{-0.38}$	r_*	144.82	$144.81^{+0.62}_{-0.64}$			

Best-fit $\chi_{\text{eff}}^2 = 3287.27$; $\Delta\chi_{\text{eff}}^2 = -1.59$; $\bar{\chi}_{\text{eff}}^2 = 3335.12$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.21$; $R - 1 = 0.00852$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.81 (Δ -0.24) simall_100x143_offlike5_EE_Aplanck_B: 396.20 (Δ -0.02) commander_dx12_v3_2_29: 22.54 (Δ -0.16) plik_rd12_HM_v22b_TTTEEE: 2346.80 (Δ -0.37) WL - DES_1YR_final: 508.98 (Δ -0.53)

6.28 base_mnu_plikHM_TTTEEE_lowl_lowE_DES_post_BAO_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022515	$0.02252^{+0.00035}_{-0.00035}$	$\Delta z_{\text{l,DES}}^2$	0.0005	$0.001^{+0.017}_{-0.017}$	k_D	0.14070	$0.14063^{+0.00073}_{-0.00072}$
$\Omega_c h^2$	0.11843	$0.1182^{+0.0022}_{-0.0022}$	$\Delta z_{\text{l,DES}}^3$	0.0034	$0.003^{+0.017}_{-0.017}$	$100\theta_D$	0.160645	$0.16065^{+0.00043}_{-0.00043}$
$100\theta_{\text{MC}}$	1.04116	$1.04110^{+0.00072}_{-0.00075}$	$\Delta z_{\text{l,DES}}^4$	0.0008	$0.000^{+0.024}_{-0.023}$	z_{eq}	3368	3362^{+50}_{-50}
τ	0.0558	$0.056^{+0.021}_{-0.019}$	$\Delta z_{\text{l,DES}}^5$	-0.0005	$-0.001^{+0.025}_{-0.025}$	k_{eq}	0.010280	$0.01026^{+0.00015}_{-0.00015}$
Σm_ν [eV]	0.001	< 0.187	$\Delta z_{\text{s,DES}}^1$	0.00097	$-0.003^{+0.037}_{-0.037}$	$100\theta_{\text{eq}}$	0.8200	$0.8211^{+0.0096}_{-0.0093}$
$\ln(10^{10} A_s)$	3.0430	$3.044^{+0.040}_{-0.037}$	$\Delta z_{\text{s,DES}}^2$	-0.0303	$-0.031^{+0.028}_{-0.028}$	$100\theta_{\text{s,eq}}$	0.45275	$0.4533^{+0.0049}_{-0.0048}$
n_s	0.9686	$0.9688^{+0.0095}_{-0.0097}$	$\Delta z_{\text{s,DES}}^3$	0.0024	$0.003^{+0.025}_{-0.024}$	$H(0.15)$	73.78	$73.5^{+1.1}_{-1.3}$
y_{cal}	0.99998	$1.0007^{+0.0063}_{-0.0063}$	$\Delta z_{\text{s,DES}}^4$	-0.0323	$-0.031^{+0.046}_{-0.046}$	$D_M(0.15)$	632.7	635^{+13}_{-10}
A_{217}^{CIB}	48.3	47^{+20}_{-20}	H_0	68.62	$68.3^{+1.2}_{-1.5}$	$H(0.38)$	83.69	$83.45^{+0.81}_{-1.0}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.28	—	Ω_Λ	0.7006	$0.697^{+0.015}_{-0.018}$	$D_M(0.38)$	1511.8	1518^{+27}_{-21}
A_{143}^{tSZ}	7.38	$5.5^{+4.4}_{-4.7}$	Ω_m	0.2994	$0.303^{+0.018}_{-0.015}$	$H(0.51)$	90.30	$90.09^{+0.67}_{-0.88}$
A_{100}^{PS}	251	258^{+70}_{-70}	$\Omega_m h^2$	0.14096	$0.1413^{+0.0024}_{-0.0022}$	$D_M(0.51)$	1960.3	1967^{+32}_{-24}
A_{143}^{PS}	44.5	45^{+20}_{-20}	$\Omega_\nu h^2$	0.00001	< 0.00201	$H(0.61)$	95.83	$95.65^{+0.57}_{-0.76}$
$A_{143 \times 217}^{\text{PS}}$	42.8	42^{+20}_{-20}	$\Omega_m h^3$	0.09672	$0.09647^{+0.00087}_{-0.0011}$	$D_M(0.61)$	2282.6	2290^{+35}_{-26}
A_{217}^{PS}	117.0	115^{+30}_{-30}	σ_8	0.8190	$0.809^{+0.021}_{-0.033}$	$H(2.33)$	235.37	$235.5^{+1.5}_{-1.4}$
A^{kSZ}	0.0	—	S_8	0.8182	$0.813^{+0.025}_{-0.026}$	$D_M(2.33)$	5738.2	5748^{+38}_{-28}
A_{100}^{dustTT}	8.82	$8.9^{+4.6}_{-4.8}$	$\sigma_8 \Omega_m^{0.5}$	0.4481	$0.445^{+0.014}_{-0.014}$	$f\sigma_8(0.15)$	0.4530	$0.450^{+0.013}_{-0.013}$
A_{143}^{dustTT}	11.03	$10.9^{+4.6}_{-4.7}$	$\sigma_8 \Omega_m^{0.25}$	0.6058	$0.600^{+0.016}_{-0.020}$	$\sigma_8(0.15)$	0.7579	$0.748^{+0.020}_{-0.032}$
$A_{143 \times 217}^{\text{dustTT}}$	19.6	$18.6^{+8.2}_{-8.3}$	$\sigma_8/h^{0.5}$	0.9887	$0.978^{+0.025}_{-0.033}$	$f\sigma_8(0.38)$	0.4740	$0.470^{+0.012}_{-0.014}$
A_{217}^{dustTT}	94.5	94^{+20}_{-20}	$r_{\text{drag}} h$	101.11	$100.7^{+2.0}_{-2.3}$	$\sigma_8(0.38)$	0.6730	$0.664^{+0.018}_{-0.029}$
A_{100}^{dustTE}	0.114	$0.114^{+0.098}_{-0.094}$	$\langle d^2 \rangle^{1/2}$	2.4288	$2.420^{+0.049}_{-0.050}$	$f\sigma_8(0.51)$	0.4740	$0.470^{+0.012}_{-0.014}$
$A_{100 \times 143}^{\text{dustTE}}$	0.134	$0.135^{+0.077}_{-0.075}$	z_{re}	7.77	$7.8^{+2.0}_{-2.0}$	$\sigma_8(0.51)$	0.6303	$0.622^{+0.017}_{-0.028}$
$A_{100 \times 217}^{\text{dustTE}}$	0.482	$0.48^{+0.22}_{-0.22}$	$10^9 A_s$	2.097	$2.099^{+0.085}_{-0.077}$	$f\sigma_8(0.61)$	0.4699	$0.466^{+0.011}_{-0.014}$
A_{143}^{dustTE}	0.223	$0.22^{+0.14}_{-0.14}$	$10^9 A_s e^{-2\tau}$	1.8753	$1.876^{+0.026}_{-0.027}$	$\sigma_8(0.61)$	0.6000	$0.592^{+0.016}_{-0.026}$
$A_{143 \times 217}^{\text{dustTE}}$	0.662	$0.66^{+0.21}_{-0.20}$	D_{40}	1223.6	1225^{+29}_{-29}	$f\sigma_8(2.33)$	0.3020	$0.2987^{+0.0076}_{-0.012}$
A_{217}^{dustTE}	2.07	$2.06^{+0.71}_{-0.71}$	D_{220}	5740	5749^{+99}_{-99}	$\sigma_8(2.33)$	0.3124	$0.3083^{+0.0086}_{-0.014}$
c_{100}	0.99970	$0.9997^{+0.0016}_{-0.0015}$	D_{810}	2535.9	2539^{+34}_{-34}	f_{2000}^{143}	28.7	29^{+7}_{-7}
c_{217}	0.99819	$0.9982^{+0.0016}_{-0.0016}$	D_{1420}	817.4	818^{+12}_{-12}	$f_{2000}^{143 \times 217}$	31.75	32^{+5}_{-5}
b_{DES}^1	1.485	$1.50^{+0.19}_{-0.19}$	D_{2000}	231.20	$231.3^{+4.0}_{-4.0}$	f_{2000}^{217}	106.37	$106.7^{+4.5}_{-4.6}$
b_{DES}^2	1.680	$1.70^{+0.14}_{-0.14}$	$n_{\text{s},0.002}$	0.9686	$0.9688^{+0.0095}_{-0.0097}$	χ_{lensing}^2	8.76	$9.45 (\nu: 0.5)$
b_{DES}^3	1.669	$1.69^{+0.12}_{-0.12}$	Y_{P}	0.245450	$0.24545^{+0.00014}_{-0.00014}$	χ_{small}^2	396.19	$397.2 (\nu: 1.9)$
b_{DES}^4	2.025	$2.05^{+0.14}_{-0.14}$	$Y_{\text{P}}^{\text{BBN}}$	0.246777	$0.24678^{+0.00014}_{-0.00014}$	χ_{lowl}^2	22.92	$22.86 (\nu: 0.3)$
b_{DES}^5	2.127	$2.15^{+0.20}_{-0.21}$	$10^5 D/H$	2.559	$2.559^{+0.064}_{-0.063}$	χ_{plik}^2	2345.5	$2361.6 (\nu: 18.3)$
m_{DES}^1	0.014	$0.012^{+0.058}_{-0.059}$	Age/Gyr	13.741	$13.763^{+0.087}_{-0.063}$	$\chi_{6\text{DF}}^2$	0.016	$0.029 (\nu: 0.0)$
m_{DES}^2	0.014	$0.012^{+0.058}_{-0.057}$	z_*	1089.60	$1089.58^{+0.55}_{-0.54}$	χ_{MGS}^2	2.12	$1.87 (\nu: 0.1)$
m_{DES}^3	-0.005	$-0.005^{+0.051}_{-0.050}$	r_*	144.73	$144.80^{+0.53}_{-0.54}$	χ_{DR12BAO}^2	3.41	$3.85 (\nu: 0.3)$
m_{DES}^4	0.001	$0.001^{+0.053}_{-0.053}$	$100\theta_*$	1.04129	$1.04127^{+0.00072}_{-0.00075}$	χ_{DES}^2	509.7	$518.6 (\nu: 12.2)$
$A_{\text{IA,DES}}$	0.443	$0.48^{+0.46}_{-0.38}$	$D_M(z_*)/\text{Gpc}$	13.899	$13.906^{+0.052}_{-0.053}$	χ_{prior}^2	4.5	$25 (\nu: 23.1)$
$\alpha_{\text{IA,DES}}$	-2.6	—	z_{drag}	1060.16	$1060.14^{+0.78}_{-0.74}$	χ_{CMB}^2	2773.4	$2791.0 (\nu: 20.7)$
$\Delta z_{\text{l,DES}}^1$	0.0030	$0.003^{+0.020}_{-0.019}$	r_{drag}	147.35	$147.42^{+0.57}_{-0.57}$	χ_{BAO}^2	5.55	$5.75 (\nu: 0.3)$

Best-fit $\chi_{\text{eff}}^2 = 3293.06$; $\Delta\chi_{\text{eff}}^2 = -1.03$; $\bar{\chi}_{\text{eff}}^2 = 3340.25$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.08$; $R - 1 = 0.00952$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ 0.02) MGS: 2.12 (Δ 0.44) DR12BAO: 3.42 (Δ -0.11) CMB - smicadx12_Dec5_ftl_mv2.ndclpp_p-teb_consext8: 8.76 (Δ -0.32) small_100x143_offlike5_EE_Aplanck 396.19 (Δ -0.09) commander_dx12_v3.2_29: 22.92 (Δ 0.27) plik_rd12_HM_v22b.TTTEEE: 2345.49 (Δ -1.78) WL - DES_1YR_final: 509.67 (Δ 0.29)

6.29 base_mnu_plikHM_TTTEEE_lowl_lowE_DES_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02251^{+0.00040}_{-0.00042}$	$\Delta z_{\text{l,DES}}^1$	$0.004^{+0.019}_{-0.019}$	z_{drag}	$1060.12^{+0.84}_{-0.80}$
$\Omega_c h^2$	$0.1179^{+0.0031}_{-0.0028}$	$\Delta z_{\text{l,DES}}^2$	$0.001^{+0.017}_{-0.017}$	r_{drag}	$147.48^{+0.67}_{-0.70}$
$100\theta_{\text{MC}}$	$1.04110^{+0.00078}_{-0.00084}$	$\Delta z_{\text{l,DES}}^3$	$0.003^{+0.017}_{-0.017}$	k_{D}	$0.14057^{+0.00079}_{-0.00078}$
τ	$0.056^{+0.019}_{-0.013}$	$\Delta z_{\text{l,DES}}^4$	$0.001^{+0.023}_{-0.023}$	$100\theta_{\text{D}}$	$0.16065^{+0.00046}_{-0.00046}$
Σm_ν [eV]	< 0.575	$\Delta z_{\text{l,DES}}^5$	$-0.001^{+0.025}_{-0.025}$	z_{eq}	3356^{+68}_{-63}
$\ln(10^{10} A_{\text{s}})$	$3.042^{+0.041}_{-0.030}$	$\Delta z_{\text{s,DES}}^1$	$-0.004^{+0.036}_{-0.037}$	k_{eq}	$0.01024^{+0.00021}_{-0.00019}$
n_{s}	$0.970^{+0.011}_{-0.011}$	$\Delta z_{\text{s,DES}}^2$	$-0.031^{+0.028}_{-0.028}$	$100\theta_{\text{eq}}$	$0.822^{+0.012}_{-0.013}$
y_{cal}	$1.0005^{+0.0063}_{-0.0063}$	$\Delta z_{\text{s,DES}}^3$	$0.004^{+0.024}_{-0.025}$	$100\theta_{\text{s,eq}}$	$0.4540^{+0.0063}_{-0.0065}$
A_{217}^{CIB}	47^{+20}_{-20}	$\Delta z_{\text{s,DES}}^4$	$-0.029^{+0.048}_{-0.047}$	$H(0.15)$	$73.2^{+1.8}_{-5.1}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	H_0	$67.9^{+2.0}_{-5.8}$	$D_{\text{M}}(0.15)$	639^{+53}_{-17}
A_{143}^{tSZ}	> 0.899	Ω_{Λ}	$0.693^{+0.025}_{-0.079}$	$H(0.38)$	$83.2^{+1.3}_{-3.9}$
A_{100}^{PS}	259^{+70}_{-70}	Ω_{m}	$0.307^{+0.079}_{-0.025}$	$D_{\text{M}}(0.38)$	1525^{+110}_{-34}
A_{143}^{PS}	45^{+20}_{-20}	$\Omega_{\text{m}} h^2$	$0.1416^{+0.0076}_{-0.0034}$	$H(0.51)$	$89.9^{+1.1}_{-3.2}$
$A_{143 \times 217}^{\text{PS}}$	41^{+20}_{-20}	$\Omega_{\nu} h^2$	< 0.00619	$D_{\text{M}}(0.51)$	1976^{+130}_{-41}
A_{217}^{PS}	114^{+30}_{-30}	$\Omega_{\text{m}} h^3$	$0.0961^{+0.0012}_{-0.0035}$	$H(0.61)$	$95.44^{+0.93}_{-2.7}$
A^{kSZ}	—	σ_8	$0.795^{+0.034}_{-0.11}$	$D_{\text{M}}(0.61)$	2299^{+140}_{-44}
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.7}$	S_8	$0.804^{+0.034}_{-0.041}$	$H(2.33)$	$235.6^{+4.2}_{-2.0}$
A_{143}^{dustTT}	$11.0^{+4.7}_{-4.7}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.440^{+0.019}_{-0.023}$	$D_{\text{M}}(2.33)$	5759^{+140}_{-44}
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.3}_{-8.5}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.592^{+0.023}_{-0.055}$	$f\sigma_8(0.15)$	$0.446^{+0.018}_{-0.023}$
A_{217}^{dustTT}	94^{+20}_{-20}	$\sigma_8/h^{0.5}$	$0.965^{+0.037}_{-0.10}$	$\sigma_8(0.15)$	$0.735^{+0.032}_{-0.11}$
A_{100}^{dustTE}	$0.114^{+0.098}_{-0.096}$	$r_{\text{drag}} h$	$100.2^{+3.3}_{-8.8}$	$f\sigma_8(0.38)$	$0.465^{+0.017}_{-0.037}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.076}_{-0.075}$	$\langle d^2 \rangle^{1/2}$	$2.406^{+0.062}_{-0.060}$	$\sigma_8(0.38)$	$0.653^{+0.029}_{-0.10}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	z_{re}	< 9.50	$f\sigma_8(0.51)$	$0.464^{+0.017}_{-0.044}$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$10^9 A_{\text{s}}$	$2.095^{+0.087}_{-0.063}$	$\sigma_8(0.51)$	$0.611^{+0.027}_{-0.098}$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.874^{+0.027}_{-0.027}$	$f\sigma_8(0.61)$	$0.460^{+0.017}_{-0.048}$
A_{217}^{dustTE}	$2.06^{+0.70}_{-0.71}$	D_{40}	1221^{+31}_{-30}	$\sigma_8(0.61)$	$0.582^{+0.026}_{-0.094}$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	D_{220}	5745^{+100}_{-100}	$f\sigma_8(2.33)$	$0.294^{+0.012}_{-0.045}$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	D_{810}	2537^{+34}_{-34}	$\sigma_8(2.33)$	$0.303^{+0.014}_{-0.051}$
b_{DES}^1	$1.53^{+0.30}_{-0.21}$	D_{1420}	818^{+12}_{-12}	f_{2000}^{143}	29^{+7}_{-7}
b_{DES}^2	$1.73^{+0.30}_{-0.16}$	D_{2000}	$231.2^{+4.2}_{-4.1}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
b_{DES}^3	$1.71^{+0.27}_{-0.14}$	$n_{\text{s},0.002}$	$0.970^{+0.011}_{-0.011}$	f_{2000}^{217}	$106.7^{+4.7}_{-4.5}$
b_{DES}^4	$2.08^{+0.31}_{-0.16}$	Y_{P}	$0.24545^{+0.00016}_{-0.00016}$	χ_{simall}^2	$397.0 (\nu: 1.7)$
b_{DES}^5	$2.18^{+0.32}_{-0.23}$	$Y_{\text{P}}^{\text{BBN}}$	$0.24678^{+0.00016}_{-0.00017}$	χ_{lowl}^2	$22.56 (\nu: 0.3)$
m_{DES}^1	$0.012^{+0.058}_{-0.058}$	10^5D/H	$2.560^{+0.077}_{-0.071}$	χ_{plik}^2	$2364.3 (\nu: 23.8)$
m_{DES}^2	$0.013^{+0.058}_{-0.057}$	Age/Gyr	$13.79^{+0.32}_{-0.099}$	χ_{DES}^2	$518.1 (\nu: 12.0)$
m_{DES}^3	$-0.003^{+0.052}_{-0.052}$	z_*	$1089.56^{+0.83}_{-0.65}$	χ_{prior}^2	$25 (\nu: 23.3)$
m_{DES}^4	$0.003^{+0.054}_{-0.053}$	r_*	$144.85^{+0.65}_{-0.73}$	χ_{CMB}^2	$2783.8 (\nu: 23.2)$
$A_{\text{IA,DES}}$	$0.46^{+0.47}_{-0.39}$	$100\theta_*$	$1.04130^{+0.00076}_{-0.00079}$		
$\alpha_{\text{IA,DES}}$	—	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.911^{+0.062}_{-0.068}$		

$$\bar{\chi}_{\text{eff}}^2 = 3326.52; \Delta \bar{\chi}_{\text{eff}}^2 = 1.08; R - 1 = 0.00752$$

6.30 base_mnu_plikHM_TTTEEE_lowl_lowE_DES_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02252^{+0.00035}_{-0.00035}$	$\Delta z_{\text{l,DES}}^2$	$0.001^{+0.017}_{-0.017}$	k_{D}	$0.14057^{+0.00075}_{-0.00074}$
$\Omega_c h^2$	$0.1179^{+0.0023}_{-0.0024}$	$\Delta z_{\text{l,DES}}^3$	$0.003^{+0.017}_{-0.017}$	$100\theta_{\text{D}}$	$0.16065^{+0.00043}_{-0.00043}$
$100\theta_{\text{MC}}$	$1.04112^{+0.00073}_{-0.00076}$	$\Delta z_{\text{l,DES}}^4$	$0.001^{+0.023}_{-0.023}$	z_{eq}	3356^{+53}_{-54}
τ	$0.055^{+0.019}_{-0.013}$	$\Delta z_{\text{l,DES}}^5$	$-0.001^{+0.025}_{-0.025}$	k_{eq}	$0.01024^{+0.00016}_{-0.00017}$
Σm_ν [eV]	< 0.236	$\Delta z_{\text{s,DES}}^1$	$-0.003^{+0.037}_{-0.037}$	$100\theta_{\text{eq}}$	$0.822^{+0.011}_{-0.0098}$
$\ln(10^{10} A_{\text{s}})$	$3.041^{+0.041}_{-0.030}$	$\Delta z_{\text{s,DES}}^2$	$-0.031^{+0.028}_{-0.028}$	$100\theta_{\text{s,eq}}$	$0.4539^{+0.0054}_{-0.0050}$
n_{s}	$0.9695^{+0.0098}_{-0.0099}$	$\Delta z_{\text{s,DES}}^3$	$0.004^{+0.025}_{-0.025}$	$H(0.15)$	$73.4^{+1.1}_{-1.5}$
y_{cal}	$1.0005^{+0.0064}_{-0.0064}$	$\Delta z_{\text{s,DES}}^4$	$-0.030^{+0.046}_{-0.047}$	$D_{\text{M}}(0.15)$	636^{+15}_{-11}
A_{217}^{CIB}	47^{+20}_{-20}	H_0	$68.2^{+1.3}_{-1.7}$	$H(0.38)$	$83.40^{+0.87}_{-1.2}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Ω_{Λ}	$0.697^{+0.015}_{-0.020}$	$D_{\text{M}}(0.38)$	1519^{+30}_{-22}
A_{143}^{tSZ}	$5.5^{+4.4}_{-4.7}$	Ω_{m}	$0.303^{+0.020}_{-0.015}$	$H(0.51)$	$90.04^{+0.72}_{-1.0}$
A_{100}^{PS}	258^{+70}_{-70}	$\Omega_{\text{m}} h^2$	$0.1412^{+0.0024}_{-0.0023}$	$D_{\text{M}}(0.51)$	1969^{+36}_{-26}
A_{143}^{PS}	45^{+20}_{-20}	$\Omega_{\nu} h^2$	< 0.00254	$H(0.61)$	$95.60^{+0.62}_{-0.88}$
$A_{143 \times 217}^{\text{PS}}$	41^{+20}_{-20}	$\Omega_{\text{m}} h^3$	$0.09635^{+0.00095}_{-0.0013}$	$D_{\text{M}}(0.61)$	2292^{+39}_{-28}
A_{217}^{PS}	114^{+30}_{-30}	σ_8	$0.803^{+0.027}_{-0.046}$	$H(2.33)$	$235.4^{+1.5}_{-1.4}$
A^{kSZ}	—	S_8	$0.807^{+0.030}_{-0.034}$	$D_{\text{M}}(2.33)$	5750^{+44}_{-30}
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.8}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.442^{+0.017}_{-0.019}$	$f\sigma_8(0.15)$	$0.448^{+0.016}_{-0.018}$
A_{143}^{dustTT}	$11.0^{+4.6}_{-4.7}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.596^{+0.020}_{-0.028}$	$\sigma_8(0.15)$	$0.743^{+0.025}_{-0.043}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.2}_{-8.3}$	$\sigma_8/h^{0.5}$	$0.972^{+0.032}_{-0.047}$	$f\sigma_8(0.38)$	$0.468^{+0.015}_{-0.019}$
A_{217}^{dustTT}	94^{+20}_{-20}	$r_{\text{drag}} h$	$100.6^{+2.1}_{-2.5}$	$\sigma_8(0.38)$	$0.660^{+0.022}_{-0.040}$
A_{100}^{dustTE}	$0.114^{+0.098}_{-0.094}$	$\langle d^2 \rangle^{1/2}$	$2.410^{+0.059}_{-0.060}$	$f\sigma_8(0.51)$	$0.467^{+0.015}_{-0.020}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134^{+0.076}_{-0.074}$	z_{re}	< 9.47	$\sigma_8(0.51)$	$0.618^{+0.021}_{-0.037}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.21}$	$10^9 A_{\text{s}}$	$2.094^{+0.087}_{-0.061}$	$f\sigma_8(0.61)$	$0.463^{+0.014}_{-0.020}$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.874^{+0.027}_{-0.028}$	$\sigma_8(0.61)$	$0.588^{+0.020}_{-0.036}$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	D_{40}	1222^{+30}_{-30}	$f\sigma_8(2.33)$	$0.2970^{+0.0092}_{-0.016}$
A_{217}^{dustTE}	$2.06^{+0.71}_{-0.71}$	D_{220}	5744^{+98}_{-100}	$\sigma_8(2.33)$	$0.306^{+0.010}_{-0.018}$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	D_{810}	2537^{+35}_{-35}	f_{2000}^{143}	29^{+7}_{-7}
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	D_{1420}	818^{+12}_{-12}	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
b_{DES}^1	$1.51^{+0.20}_{-0.20}$	D_{2000}	$231.2^{+4.0}_{-4.1}$	f_{2000}^{217}	$106.7^{+4.5}_{-4.6}$
b_{DES}^2	$1.71^{+0.16}_{-0.15}$	$n_{\text{s},0.002}$	$0.9695^{+0.0098}_{-0.0099}$	χ_{simall}^2	$396.9 (\nu: 1.5)$
b_{DES}^3	$1.70^{+0.14}_{-0.12}$	Y_{P}	$0.24545^{+0.00014}_{-0.00014}$	χ_{lowl}^2	$22.64 (\nu: 0.3)$
b_{DES}^4	$2.06^{+0.16}_{-0.14}$	$Y_{\text{P}}^{\text{BBN}}$	$0.24678^{+0.00014}_{-0.00014}$	χ_{plik}^2	$2363.1 (\nu: 21.6)$
b_{DES}^5	$2.16^{+0.21}_{-0.21}$	10^5D/H	$2.559^{+0.064}_{-0.063}$	$\chi_{6\text{DF}}^2$	$0.033 (\nu: 0.0)$
m_{DES}^1	$0.012^{+0.058}_{-0.058}$	Age/Gyr	$13.77^{+0.10}_{-0.068}$	χ_{MGS}^2	$1.85 (\nu: 0.1)$
m_{DES}^2	$0.013^{+0.057}_{-0.057}$	z_*	$1089.55^{+0.55}_{-0.54}$	χ_{DR12BAO}^2	$3.93 (\nu: 0.4)$
m_{DES}^3	$-0.003^{+0.051}_{-0.051}$	r_*	$144.86^{+0.58}_{-0.56}$	χ_{DES}^2	$518.3 (\nu: 11.9)$
m_{DES}^4	$0.003^{+0.052}_{-0.053}$	$100\theta_*$	$1.04130^{+0.00074}_{-0.00075}$	χ_{prior}^2	$25 (\nu: 22.8)$
$A_{\text{IA,DES}}$	$0.47^{+0.47}_{-0.38}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.911^{+0.056}_{-0.055}$	χ_{BAO}^2	$5.81 (\nu: 0.3)$
$\alpha_{\text{IA,DES}}$	—	z_{drag}	$1060.13^{+0.75}_{-0.73}$	χ_{CMB}^2	$2782.6 (\nu: 21.0)$
$\Delta z_{\text{l,DES}}^1$	$0.004^{+0.020}_{-0.019}$	r_{drag}	$147.48^{+0.61}_{-0.60}$		

$$\bar{\chi}_{\text{eff}}^2 = 3331.28; \Delta \bar{\chi}_{\text{eff}}^2 = 0.53; R - 1 = 0.00944$$

6.31 base_mnu_plikHM_TTTEEE_lowl_lowE_DES_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02252^{+0.00038}_{-0.00037}$	$\Delta z_{\text{l,DES}}^1$	$0.003^{+0.020}_{-0.019}$	z_{drag}	$1060.15^{+0.81}_{-0.75}$
$\Omega_c h^2$	$0.1181^{+0.0029}_{-0.0027}$	$\Delta z_{\text{l,DES}}^2$	$0.001^{+0.017}_{-0.017}$	r_{drag}	$147.44^{+0.64}_{-0.65}$
$100\theta_{\text{MC}}$	$1.04111^{+0.00077}_{-0.00079}$	$\Delta z_{\text{l,DES}}^3$	$0.003^{+0.017}_{-0.017}$	k_{D}	$0.14062^{+0.00076}_{-0.00076}$
τ	$0.057^{+0.020}_{-0.015}$	$\Delta z_{\text{l,DES}}^4$	$0.001^{+0.023}_{-0.023}$	$100\theta_{\text{D}}$	$0.16064^{+0.00044}_{-0.00045}$
Σm_ν [eV]	< 0.289	$\Delta z_{\text{l,DES}}^5$	$-0.001^{+0.025}_{-0.025}$	z_{eq}	3360^{+63}_{-60}
$\ln(10^{10} A_{\text{s}})$	$3.046^{+0.039}_{-0.030}$	$\Delta z_{\text{s,DES}}^1$	$-0.003^{+0.037}_{-0.038}$	k_{eq}	$0.01025^{+0.00019}_{-0.00018}$
n_{s}	$0.969^{+0.010}_{-0.010}$	$\Delta z_{\text{s,DES}}^2$	$-0.031^{+0.027}_{-0.028}$	$100\theta_{\text{eq}}$	$0.822^{+0.012}_{-0.012}$
y_{cal}	$1.0007^{+0.0063}_{-0.0063}$	$\Delta z_{\text{s,DES}}^3$	$0.004^{+0.024}_{-0.024}$	$100\theta_{\text{s,eq}}$	$0.4536^{+0.0060}_{-0.0061}$
A_{217}^{CIB}	47^{+20}_{-20}	$\Delta z_{\text{s,DES}}^4$	$-0.031^{+0.047}_{-0.046}$	$H(0.15)$	$73.5^{+1.4}_{-2.9}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	H_0	$68.3^{+1.6}_{-3.3}$	$D_{\text{M}}(0.15)$	636^{+29}_{-13}
A_{143}^{tSZ}	$5.5^{+4.4}_{-4.7}$	Ω_{Λ}	$0.697^{+0.019}_{-0.042}$	$H(0.38)$	$83.4^{+1.1}_{-2.2}$
A_{100}^{PS}	258^{+70}_{-70}	Ω_{m}	$0.303^{+0.042}_{-0.019}$	$D_{\text{M}}(0.38)$	1518^{+59}_{-27}
A_{143}^{PS}	45^{+20}_{-20}	$\Omega_{\text{m}} h^2$	$0.1413^{+0.0047}_{-0.0029}$	$H(0.51)$	$90.07^{+0.89}_{-1.8}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	$\Omega_{\nu} h^2$	< 0.00311	$D_{\text{M}}(0.51)$	1968^{+69}_{-32}
A_{217}^{PS}	115^{+30}_{-30}	$\Omega_{\text{m}} h^3$	$0.09642^{+0.00093}_{-0.0018}$	$H(0.61)$	$95.63^{+0.74}_{-1.6}$
A^{kSZ}	—	σ_8	$0.807^{+0.023}_{-0.056}$	$D_{\text{M}}(0.61)$	2291^{+75}_{-35}
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.8}$	S_8	$0.811^{+0.027}_{-0.027}$	$H(2.33)$	$235.5^{+2.7}_{-1.8}$
A_{143}^{dustTT}	$10.9^{+4.7}_{-4.7}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.444^{+0.015}_{-0.015}$	$D_{\text{M}}(2.33)$	5749^{+76}_{-34}
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.2}_{-8.4}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.599^{+0.017}_{-0.026}$	$f\sigma_8(0.15)$	$0.450^{+0.014}_{-0.014}$
A_{217}^{dustTT}	94^{+20}_{-20}	$\sigma_8/h^{0.5}$	$0.977^{+0.026}_{-0.048}$	$\sigma_8(0.15)$	$0.747^{+0.021}_{-0.055}$
A_{100}^{dustTE}	$0.114^{+0.097}_{-0.095}$	$r_{\text{drag}} h$	$100.6^{+2.7}_{-5.0}$	$f\sigma_8(0.38)$	$0.470^{+0.013}_{-0.016}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134^{+0.077}_{-0.075}$	$\langle d^2 \rangle^{1/2}$	$2.419^{+0.050}_{-0.049}$	$\sigma_8(0.38)$	$0.663^{+0.020}_{-0.052}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	z_{re}	< 9.65	$f\sigma_8(0.51)$	$0.469^{+0.012}_{-0.019}$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$10^9 A_{\text{s}}$	$2.104^{+0.084}_{-0.063}$	$\sigma_8(0.51)$	$0.621^{+0.019}_{-0.050}$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.20}$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.876^{+0.026}_{-0.027}$	$f\sigma_8(0.61)$	$0.465^{+0.012}_{-0.021}$
A_{217}^{dustTE}	$2.06^{+0.70}_{-0.71}$	D_{40}	1225^{+30}_{-29}	$\sigma_8(0.61)$	$0.591^{+0.018}_{-0.048}$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	D_{220}	5750^{+98}_{-99}	$f\sigma_8(2.33)$	$0.2983^{+0.0086}_{-0.022}$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	D_{810}	2539^{+34}_{-33}	$\sigma_8(2.33)$	$0.3078^{+0.0099}_{-0.026}$
b_{DES}^1	$1.50^{+0.21}_{-0.20}$	D_{1420}	818^{+12}_{-12}	f_{2000}^{143}	29^{+7}_{-7}
b_{DES}^2	$1.70^{+0.17}_{-0.14}$	D_{2000}	$231.4^{+4.1}_{-4.0}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
b_{DES}^3	$1.69^{+0.15}_{-0.12}$	$n_{\text{s},0.002}$	$0.969^{+0.010}_{-0.010}$	f_{2000}^{217}	$106.7^{+4.5}_{-4.6}$
b_{DES}^4	$2.05^{+0.18}_{-0.14}$	Y_{P}	$0.24545^{+0.00015}_{-0.00015}$	χ_{lensing}^2	$9.5 (\nu: 0.5)$
b_{DES}^5	$2.15^{+0.22}_{-0.21}$	$Y_{\text{P}}^{\text{BBN}}$	$0.24678^{+0.00015}_{-0.00015}$	χ_{simall}^2	$397.3 (\nu: 2.2)$
m_{DES}^1	$0.012^{+0.058}_{-0.059}$	10^5D/H	$2.558^{+0.070}_{-0.068}$	χ_{lowl}^2	$22.82 (\nu: 0.3)$
m_{DES}^2	$0.012^{+0.058}_{-0.057}$	Age/Gyr	$13.77^{+0.17}_{-0.077}$	χ_{plik}^2	$2362.0 (\nu: 18.8)$
m_{DES}^3	$-0.004^{+0.052}_{-0.051}$	z_*	$1089.56^{+0.66}_{-0.62}$	χ_{DES}^2	$518.5 (\nu: 12.7)$
m_{DES}^4	$0.002^{+0.053}_{-0.053}$	r_*	$144.82^{+0.62}_{-0.64}$	χ_{prior}^2	$25 (\nu: 23.1)$
$A_{\text{IA,DES}}$	$0.47^{+0.46}_{-0.38}$	$100\theta_*$	$1.04128^{+0.00074}_{-0.00077}$	χ_{CMB}^2	$2791.7 (\nu: 21.7)$
$\alpha_{\text{IA,DES}}$	—	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.908^{+0.059}_{-0.061}$		

$$\bar{\chi}_{\text{eff}}^2 = 3334.99; \Delta \bar{\chi}_{\text{eff}}^2 = 0.24; R - 1 = 0.00823$$

6.32 base_mnu_plikHM_TTTEEE_lowl_lowE_DES_post_BAO_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02252^{+0.00035}_{-0.00034}$	$\Delta z_{\text{l,DES}}^2$	$0.001^{+0.017}_{-0.017}$	k_{D}	$0.14063^{+0.00072}_{-0.00071}$
$\Omega_c h^2$	$0.1182^{+0.0021}_{-0.0022}$	$\Delta z_{\text{l,DES}}^3$	$0.003^{+0.017}_{-0.017}$	$100\theta_{\text{D}}$	$0.16065^{+0.00043}_{-0.00043}$
$100\theta_{\text{MC}}$	$1.04111^{+0.00072}_{-0.00075}$	$\Delta z_{\text{l,DES}}^4$	$0.000^{+0.024}_{-0.023}$	z_{eq}	3362^{+49}_{-50}
τ	$0.057^{+0.019}_{-0.014}$	$\Delta z_{\text{l,DES}}^5$	$-0.001^{+0.025}_{-0.025}$	k_{eq}	$0.01026^{+0.00015}_{-0.00015}$
Σm_ν [eV]	< 0.188	$\Delta z_{\text{s,DES}}^1$	$-0.003^{+0.037}_{-0.038}$	$100\theta_{\text{eq}}$	$0.8212^{+0.0096}_{-0.0092}$
$\ln(10^{10} A_{\text{s}})$	$3.045^{+0.039}_{-0.029}$	$\Delta z_{\text{s,DES}}^2$	$-0.031^{+0.028}_{-0.028}$	$100\theta_{\text{s,eq}}$	$0.4534^{+0.0049}_{-0.0046}$
n_{s}	$0.9688^{+0.0095}_{-0.0097}$	$\Delta z_{\text{s,DES}}^3$	$0.003^{+0.025}_{-0.024}$	$H(0.15)$	$73.5^{+1.1}_{-1.3}$
y_{cal}	$1.0007^{+0.0063}_{-0.0063}$	$\Delta z_{\text{s,DES}}^4$	$-0.031^{+0.046}_{-0.046}$	$D_{\text{M}}(0.15)$	635^{+13}_{-10}
A_{217}^{CIB}	47^{+20}_{-20}	H_0	$68.3^{+1.2}_{-1.5}$	$H(0.38)$	$83.46^{+0.81}_{-1.0}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Ω_{Λ}	$0.697^{+0.015}_{-0.018}$	$D_{\text{M}}(0.38)$	1518^{+27}_{-21}
A_{143}^{tSZ}	$5.5^{+4.4}_{-4.7}$	Ω_{m}	$0.303^{+0.018}_{-0.015}$	$H(0.51)$	$90.09^{+0.67}_{-0.89}$
A_{100}^{PS}	258^{+70}_{-70}	$\Omega_{\text{m}} h^2$	$0.1413^{+0.0024}_{-0.0022}$	$D_{\text{M}}(0.51)$	1967^{+32}_{-24}
A_{143}^{PS}	45^{+20}_{-20}	$\Omega_{\nu} h^2$	< 0.00202	$H(0.61)$	$95.65^{+0.58}_{-0.77}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	$\Omega_{\text{m}} h^3$	$0.09647^{+0.00086}_{-0.0011}$	$D_{\text{M}}(0.61)$	2290^{+35}_{-26}
A_{217}^{PS}	115^{+30}_{-30}	σ_8	$0.809^{+0.021}_{-0.033}$	$H(2.33)$	$235.5^{+1.5}_{-1.4}$
A^{kSZ}	—	S_8	$0.813^{+0.025}_{-0.026}$	$D_{\text{M}}(2.33)$	5748^{+38}_{-28}
A_{100}^{dustTT}	$8.9^{+4.6}_{-4.8}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.445^{+0.014}_{-0.014}$	$f\sigma_8(0.15)$	$0.450^{+0.013}_{-0.013}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.7}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.600^{+0.016}_{-0.020}$	$\sigma_8(0.15)$	$0.748^{+0.020}_{-0.032}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.1}_{-8.3}$	$\sigma_8/h^{0.5}$	$0.979^{+0.025}_{-0.033}$	$f\sigma_8(0.38)$	$0.471^{+0.012}_{-0.014}$
A_{217}^{dustTT}	94^{+20}_{-20}	$r_{\text{drag}} h$	$100.7^{+2.0}_{-2.3}$	$\sigma_8(0.38)$	$0.664^{+0.018}_{-0.029}$
A_{100}^{dustTE}	$0.114^{+0.097}_{-0.094}$	$\langle d^2 \rangle^{1/2}$	$2.420^{+0.049}_{-0.048}$	$f\sigma_8(0.51)$	$0.470^{+0.011}_{-0.014}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.077}_{-0.075}$	z_{re}	< 9.57	$\sigma_8(0.51)$	$0.622^{+0.017}_{-0.028}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	$10^9 A_{\text{s}}$	$2.102^{+0.083}_{-0.061}$	$f\sigma_8(0.61)$	$0.466^{+0.011}_{-0.014}$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.13}$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.876^{+0.026}_{-0.027}$	$\sigma_8(0.61)$	$0.592^{+0.016}_{-0.027}$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	D_{40}	1225^{+29}_{-29}	$f\sigma_8(2.33)$	$0.2988^{+0.0075}_{-0.012}$
A_{217}^{dustTE}	$2.06^{+0.71}_{-0.72}$	D_{220}	5749^{+99}_{-99}	$\sigma_8(2.33)$	$0.3084^{+0.0085}_{-0.014}$
c_{100}	$0.9997^{+0.0016}_{-0.0015}$	D_{810}	2538^{+34}_{-34}	f_{2000}^{143}	29^{+7}_{-7}
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	D_{1420}	818^{+12}_{-12}	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
b_{DES}^1	$1.50^{+0.19}_{-0.19}$	D_{2000}	$231.3^{+4.1}_{-4.0}$	f_{2000}^{217}	$106.7^{+4.4}_{-4.6}$
b_{DES}^2	$1.70^{+0.14}_{-0.14}$	$n_{\text{s},0.002}$	$0.9688^{+0.0095}_{-0.0097}$	χ_{lensing}^2	$9.40 (\nu: 0.4)$
b_{DES}^3	$1.69^{+0.12}_{-0.12}$	Y_{P}	$0.24545^{+0.00014}_{-0.00014}$	χ_{simall}^2	$397.2 (\nu: 1.9)$
b_{DES}^4	$2.05^{+0.14}_{-0.14}$	$Y_{\text{P}}^{\text{BBN}}$	$0.24678^{+0.00014}_{-0.00014}$	χ_{lowl}^2	$22.86 (\nu: 0.3)$
b_{DES}^5	$2.15^{+0.20}_{-0.21}$	10^5D/H	$2.559^{+0.064}_{-0.063}$	χ_{plik}^2	$2361.5 (\nu: 18.2)$
m_{DES}^1	$0.012^{+0.058}_{-0.059}$	Age/Gyr	$13.763^{+0.087}_{-0.063}$	$\chi_{6\text{DF}}^2$	$0.030 (\nu: 0.0)$
m_{DES}^2	$0.012^{+0.058}_{-0.057}$	z_*	$1089.57^{+0.54}_{-0.54}$	χ_{MGS}^2	$1.88 (\nu: 0.1)$
m_{DES}^3	$-0.005^{+0.051}_{-0.050}$	r_*	$144.80^{+0.53}_{-0.53}$	χ_{DR12BAO}^2	$3.85 (\nu: 0.3)$
m_{DES}^4	$0.001^{+0.053}_{-0.053}$	$100\theta_*$	$1.04128^{+0.00072}_{-0.00075}$	χ_{DES}^2	$518.6 (\nu: 12.2)$
$A_{\text{IA,DES}}$	$0.48^{+0.47}_{-0.38}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.906^{+0.052}_{-0.052}$	χ_{prior}^2	$25 (\nu: 23.1)$
$\alpha_{\text{IA,DES}}$	—	z_{drag}	$1060.14^{+0.78}_{-0.74}$	χ_{CMB}^2	$2790.9 (\nu: 20.4)$
$\Delta z_{\text{l,DES}}^1$	$0.003^{+0.020}_{-0.019}$	r_{drag}	$147.42^{+0.57}_{-0.57}$	χ_{BAO}^2	$5.76 (\nu: 0.3)$

$$\bar{\chi}_{\text{eff}}^2 = 3340.12; \Delta \bar{\chi}_{\text{eff}}^2 = 0.09; R - 1 = 0.00912$$

6.33 base_mnu_plikHM_TTTEEE_lowl_lowE_DESlens

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022462	$0.02243^{+0.00039}_{-0.00037}$	$\Delta z_{s,DES}^2$	-0.0205	$-0.021^{+0.029}_{-0.030}$	k_D	0.14076	$0.14072^{+0.00079}_{-0.00078}$
$\Omega_c h^2$	0.11903	$0.1190^{+0.0029}_{-0.0029}$	$\Delta z_{s,DES}^3$	0.0047	$0.004^{+0.027}_{-0.026}$	$100\theta_D$	0.160687	$0.16072^{+0.00044}_{-0.00045}$
$100\theta_{MC}$	1.04107	$1.04100^{+0.00080}_{-0.00079}$	$\Delta z_{s,DES}^4$	-0.021	$-0.022^{+0.052}_{-0.052}$	z_{eq}	3381	3381^{+66}_{-66}
τ	0.0535	$0.054^{+0.021}_{-0.021}$	H_0	68.33	$67.6^{+1.8}_{-3.9}$	k_{eq}	0.010320	$0.01032^{+0.00020}_{-0.00020}$
Σm_ν [eV]	0.002	< 0.390	Ω_Λ	0.6969	$0.688^{+0.023}_{-0.052}$	$100\theta_{eq}$	0.8174	$0.817^{+0.013}_{-0.012}$
$\ln(10^{10} A_s)$	3.0406	$3.040^{+0.041}_{-0.043}$	Ω_m	0.3031	$0.312^{+0.052}_{-0.023}$	$100\theta_{s,eq}$	0.4514	$0.4515^{+0.0064}_{-0.0063}$
n_s	0.9682	$0.967^{+0.010}_{-0.010}$	$\Omega_m h^2$	0.14152	$0.1424^{+0.0053}_{-0.0032}$	$H(0.15)$	73.53	$72.9^{+1.6}_{-3.4}$
y_{cal}	1.0004	$1.0004^{+0.0064}_{-0.0066}$	$\Omega_\nu h^2$	0.00003	< 0.00420	$D_M(0.15)$	635.1	641^{+35}_{-16}
A_{217}^{CIB}	47.0	47^{+20}_{-20}	$\Omega_m h^3$	0.09670	$0.0962^{+0.0011}_{-0.0024}$	$H(0.38)$	83.51	$83.0^{+1.2}_{-2.6}$
$\xi^{tSZ \times CIB}$	0.47	—	σ_8	0.820	$0.802^{+0.033}_{-0.068}$	$D_M(0.38)$	1517	1530^{+71}_{-32}
A_{143}^{tSZ}	7.21	> 1.03	S_8	0.8243	$0.818^{+0.034}_{-0.036}$	$H(0.51)$	90.15	$89.7^{+1.0}_{-2.2}$
A_{100}^{PS}	249	258^{+70}_{-70}	$\sigma_8 \Omega_m^{0.5}$	0.4515	$0.448^{+0.018}_{-0.020}$	$D_M(0.51)$	1966	1982^{+84}_{-37}
A_{143}^{PS}	47.2	45^{+20}_{-20}	$\sigma_8 \Omega_m^{0.25}$	0.6085	$0.599^{+0.022}_{-0.038}$	$H(0.61)$	95.72	$95.34^{+0.85}_{-1.8}$
$A_{143 \times 217}^{PS}$	47.9	42^{+20}_{-20}	$\sigma_8/h^{0.5}$	0.992	$0.976^{+0.034}_{-0.069}$	$D_M(0.61)$	2289	2306^{+92}_{-41}
A_{217}^{PS}	119.5	114^{+30}_{-30}	$r_{drag} h$	100.61	$99.6^{+3.0}_{-6.0}$	$H(2.33)$	235.70	$236.1^{+2.9}_{-2.0}$
A^{kSZ}	0.0	—	$\langle d^2 \rangle^{1/2}$	2.433	$2.423^{+0.062}_{-0.065}$	$D_M(2.33)$	5743	5762^{+94}_{-40}
A_{100}^{dustTT}	8.86	$8.9^{+4.7}_{-4.8}$	z_{re}	7.55	$7.6^{+2.0}_{-2.3}$	$f\sigma_8(0.15)$	0.4560	$0.453^{+0.017}_{-0.019}$
A_{143}^{dustTT}	11.01	$11.0^{+4.7}_{-4.6}$	$10^9 A_s$	2.092	$2.091^{+0.088}_{-0.088}$	$\sigma_8(0.15)$	0.7585	$0.741^{+0.031}_{-0.066}$
$A_{143 \times 217}^{dustTT}$	19.8	$18.7^{+8.4}_{-8.4}$	$10^9 A_s e^{-2\tau}$	1.8796	$1.878^{+0.028}_{-0.030}$	$f\sigma_8(0.38)$	0.4763	$0.471^{+0.016}_{-0.025}$
A_{217}^{dustTT}	95.0	94^{+20}_{-20}	D_{40}	1224.2	1226^{+30}_{-31}	$\sigma_8(0.38)$	0.6731	$0.657^{+0.029}_{-0.067}$
A_{100}^{dustTE}	0.113	$0.114^{+0.10}_{-0.093}$	D_{220}	5736	5736^{+100}_{-100}	$f\sigma_8(0.51)$	0.4758	$0.470^{+0.016}_{-0.029}$
$A_{100 \times 143}^{dustTE}$	0.134	$0.135^{+0.075}_{-0.075}$	D_{810}	2539.5	2537^{+34}_{-36}	$\sigma_8(0.51)$	0.6302	$0.615^{+0.027}_{-0.064}$
$A_{100 \times 217}^{dustTE}$	0.481	$0.48^{+0.22}_{-0.22}$	D_{1420}	818.5	817^{+12}_{-12}	$f\sigma_8(0.61)$	0.4714	$0.465^{+0.015}_{-0.031}$
A_{143}^{dustTE}	0.226	$0.22^{+0.14}_{-0.14}$	D_{2000}	231.50	$230.9^{+4.1}_{-4.1}$	$\sigma_8(0.61)$	0.5998	$0.585^{+0.026}_{-0.062}$
$A_{143 \times 217}^{dustTE}$	0.666	$0.66^{+0.21}_{-0.21}$	$n_{s,0.002}$	0.9682	$0.967^{+0.010}_{-0.010}$	$f\sigma_8(2.33)$	0.3018	$0.296^{+0.011}_{-0.030}$
A_{217}^{dustTE}	2.09	$2.07^{+0.70}_{-0.71}$	Y_P	0.245431	$0.24542^{+0.00015}_{-0.00015}$	$\sigma_8(2.33)$	0.3120	$0.304^{+0.012}_{-0.035}$
c_{100}	0.99972	$0.9997^{+0.0016}_{-0.0016}$	Y_P^{BBN}	0.246757	$0.24674^{+0.00015}_{-0.00015}$	f_{2000}^{143}	28.4	29^{+7}_{-7}
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0016}$	$10^5 D/H$	2.569	$2.575^{+0.070}_{-0.070}$	$f_{2000}^{143 \times 217}$	31.67	32^{+5}_{-5}
m_{DES}^1	0.014	$0.014^{+0.059}_{-0.058}$	Age/Gyr	13.751	$13.79^{+0.22}_{-0.089}$	f_{2000}^{217}	106.30	$106.9^{+4.6}_{-4.5}$
m_{DES}^2	0.012	$0.012^{+0.057}_{-0.057}$	z_*	1089.71	$1089.76^{+0.67}_{-0.65}$	χ_{small}^2	395.86	$397.0 (\nu: 1.4)$
m_{DES}^3	-0.007	$-0.008^{+0.052}_{-0.051}$	r_*	144.62	$144.63^{+0.67}_{-0.67}$	χ_{lowl}^2	22.90	$22.99 (\nu: 0.3)$
m_{DES}^4	0.012	$0.011^{+0.054}_{-0.053}$	$100\theta_*$	1.04121	$1.04119^{+0.00077}_{-0.00076}$	χ_{plik}^2	2344.9	$2361.4 (\nu: 19.6)$
$A_{IA,DES}$	1.43	$1.2^{+1.3}_{-1.2}$	$D_M(z_*)/Gpc$	13.889	$13.891^{+0.063}_{-0.063}$	χ_{DES}^2	229.2	$232.0 (\nu: 3.2)$
$\alpha_{IA,DES}$	2.4	—	z_{drag}	1060.09	$1060.01^{+0.80}_{-0.73}$	χ_{prior}^2	2.7	$19.6 (\nu: 17.8)$
$\Delta z_{s,DES}^1$	0.0045	$0.005^{+0.037}_{-0.038}$	r_{drag}	147.25	$147.28^{+0.68}_{-0.68}$	χ_{CMB}^2	2763.6	$2781.4 (\nu: 19.3)$

Best-fit $\chi_{eff}^2 = 2995.54$; $\Delta\chi_{eff}^2 = -1.13$; $\bar{\chi}_{eff}^2 = 3033.01$; $\Delta\bar{\chi}_{eff}^2 = 0.68$; $R - 1 = 0.00759$
 χ_{eff}^2 : CMB - small_100x143_offlike5_EE_Aplanck_B: 395.86 (Δ -0.00) commander_dx12_v3.2_29: 22.90 (Δ 0.07) plik_rd12_HM_v22b_TTTEEE: 2344.87 (Δ -1.15) WL - DES_1YR_final: 229.21 (Δ 0.02)

6.34 base_mnu_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022444	$0.02246^{+0.00036}_{-0.00033}$	$\Delta z_{s,DES}^4$	-0.022	$-0.022^{+0.050}_{-0.050}$	$100\theta_{eq}$	0.8173	$0.819^{+0.011}_{-0.010}$
$\Omega_c h^2$	0.11906	$0.1188^{+0.0024}_{-0.0024}$	H_0	68.29	$68.0^{+1.2}_{-1.5}$	$100\theta_{s,eq}$	0.4514	$0.4521^{+0.0054}_{-0.0052}$
$100\theta_{MC}$	1.04104	$1.04105^{+0.00076}_{-0.00074}$	Ω_Λ	0.6965	$0.693^{+0.015}_{-0.018}$	$H(0.15)$	73.49	$73.2^{+1.1}_{-1.3}$
τ	0.0532	$0.054^{+0.021}_{-0.021}$	Ω_m	0.3035	$0.307^{+0.018}_{-0.015}$	$D_M(0.15)$	635.4	638^{+13}_{-10}
Σm_ν [eV]	0.002	< 0.192	$\Omega_m h^2$	0.14153	$0.1418^{+0.0024}_{-0.0023}$	$H(0.38)$	83.48	$83.27^{+0.83}_{-1.0}$
$\ln(10^{10} A_s)$	3.0387	$3.040^{+0.042}_{-0.043}$	$\Omega_\nu h^2$	0.00003	< 0.00206	$D_M(0.38)$	1517.3	1523^{+26}_{-21}
n_s	0.9684	$0.9680^{+0.0093}_{-0.0093}$	$\Omega_m h^3$	0.09665	$0.09643^{+0.00091}_{-0.0012}$	$H(0.51)$	90.13	$89.94^{+0.69}_{-0.86}$
y_{cal}	0.9998	$1.0004^{+0.0062}_{-0.0065}$	σ_8	0.8194	$0.808^{+0.024}_{-0.039}$	$D_M(0.51)$	1966.8	1973^{+31}_{-25}
A_{217}^{CIB}	46.8	47^{+20}_{-20}	S_8	0.8242	$0.818^{+0.031}_{-0.033}$	$H(0.61)$	95.69	$95.53^{+0.59}_{-0.75}$
$\xi^{tSZ \times CIB}$	0.48	—	$\sigma_8 \Omega_m^{0.5}$	0.4514	$0.448^{+0.017}_{-0.018}$	$D_M(0.61)$	2289.7	2297^{+34}_{-27}
A_{143}^{tSZ}	7.30	> 0.899	$\sigma_8 \Omega_m^{0.25}$	0.6082	$0.602^{+0.019}_{-0.025}$	$H(2.33)$	235.70	$235.8^{+1.5}_{-1.5}$
A_{100}^{PS}	248	258^{+70}_{-70}	$\sigma_8/h^{0.5}$	0.9916	$0.980^{+0.030}_{-0.041}$	$D_M(2.33)$	5744.3	5753^{+38}_{-28}
A_{143}^{PS}	47.3	45^{+20}_{-20}	$r_{drag} h$	100.57	$100.2^{+2.1}_{-2.3}$	$f\sigma_8(0.15)$	0.4559	$0.453^{+0.016}_{-0.017}$
$A_{143 \times 217}^{PS}$	48.3	42^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.431	$2.423^{+0.059}_{-0.064}$	$\sigma_8(0.15)$	0.7579	$0.748^{+0.022}_{-0.036}$
A_{217}^{PS}	119.7	115^{+30}_{-30}	z_{re}	7.53	$7.6^{+2.0}_{-2.3}$	$f\sigma_8(0.38)$	0.4761	$0.472^{+0.014}_{-0.017}$
A^{kSZ}	0.0	—	$10^9 A_s$	2.088	$2.091^{+0.089}_{-0.088}$	$\sigma_8(0.38)$	0.6725	$0.663^{+0.020}_{-0.033}$
A_{100}^{dustTT}	8.89	$8.9^{+4.8}_{-4.8}$	$10^9 A_s e^{-2\tau}$	1.8769	$1.877^{+0.026}_{-0.029}$	$f\sigma_8(0.51)$	0.4756	$0.471^{+0.014}_{-0.018}$
A_{143}^{dustTT}	11.07	$10.9^{+4.7}_{-4.5}$	D_{40}	1221.9	1225^{+30}_{-30}	$\sigma_8(0.51)$	0.6296	$0.621^{+0.019}_{-0.031}$
$A_{143 \times 217}^{dustTT}$	19.9	$18.6^{+8.4}_{-8.3}$	D_{220}	5725	5736^{+99}_{-100}	$f\sigma_8(0.61)$	0.4712	$0.467^{+0.013}_{-0.018}$
A_{217}^{dustTT}	95.0	94^{+20}_{-20}	D_{810}	2536.0	2537^{+33}_{-36}	$\sigma_8(0.61)$	0.5992	$0.591^{+0.018}_{-0.030}$
A_{100}^{dustTE}	0.115	$0.114^{+0.099}_{-0.096}$	D_{1420}	817.4	818^{+12}_{-12}	$f\sigma_8(2.33)$	0.3015	$0.2981^{+0.0084}_{-0.013}$
$A_{100 \times 143}^{dustTE}$	0.134	$0.134^{+0.076}_{-0.074}$	D_{2000}	231.15	$231.1^{+4.0}_{-4.1}$	$\sigma_8(2.33)$	0.3116	$0.3075^{+0.0094}_{-0.015}$
$A_{100 \times 217}^{dustTE}$	0.480	$0.48^{+0.22}_{-0.22}$	$n_{s,0.002}$	0.9684	$0.9680^{+0.0093}_{-0.0093}$	f_{2000}^{143}	28.5	29^{+7}_{-7}
A_{143}^{dustTE}	0.223	$0.22^{+0.14}_{-0.14}$	Y_P	0.245424	$0.24543^{+0.00014}_{-0.00013}$	$f_{2000}^{143 \times 217}$	31.74	32^{+5}_{-5}
$A_{143 \times 217}^{dustTE}$	0.663	$0.66^{+0.21}_{-0.21}$	Y_P^{BBN}	0.246751	$0.24675^{+0.00014}_{-0.00013}$	f_{2000}^{217}	106.27	$106.7^{+4.5}_{-4.5}$
A_{217}^{dustTE}	2.07	$2.07^{+0.70}_{-0.69}$	$10^5 D/H$	2.572	$2.570^{+0.062}_{-0.065}$	χ_{simall}^2	395.84	$397.0 (\nu: 1.4)$
c_{100}	0.99970	$0.9997^{+0.0016}_{-0.0016}$	Age/Gyr	13.754	$13.774^{+0.087}_{-0.064}$	χ_{lowl}^2	22.84	$22.92 (\nu: 0.3)$
c_{217}	0.99817	$0.9982^{+0.0016}_{-0.0016}$	z_*	1089.74	$1089.70^{+0.52}_{-0.56}$	χ_{plik}^2	2345.0	$2360.9 (\nu: 18.4)$
m_{DES}^1	0.015	$0.014^{+0.059}_{-0.059}$	r_*	144.62	$144.69^{+0.59}_{-0.57}$	χ_{6DF}^2	0.000	$0.033 (\nu: 0.0)$
m_{DES}^2	0.012	$0.012^{+0.056}_{-0.057}$	$100\theta_*$	1.04119	$1.04123^{+0.00075}_{-0.00074}$	χ_{MGS}^2	1.75	$1.57 (\nu: 0.1)$
m_{DES}^3	-0.007	$-0.007^{+0.052}_{-0.052}$	$D_M(z_*)/\text{Gpc}$	13.890	$13.896^{+0.055}_{-0.055}$	$\chi_{DR12BAO}^2$	3.47	$4.2 (\nu: 0.6)$
m_{DES}^4	0.012	$0.011^{+0.055}_{-0.054}$	z_{drag}	1060.05	$1060.05^{+0.76}_{-0.73}$	χ_{DES}^2	229.2	$231.9 (\nu: 3.0)$
$A_{IA,DES}$	1.45	$1.2^{+1.3}_{-1.2}$	r_{drag}	147.26	$147.33^{+0.61}_{-0.61}$	χ_{prior}^2	2.8	$19.4 (\nu: 17.8)$
$\alpha_{IA,DES}$	2.5	—	k_D	0.14073	$0.14068^{+0.00075}_{-0.00074}$	χ_{BAO}^2	5.22	$5.78 (\nu: 0.3)$
$\Delta z_{s,DES}^1$	0.0044	$0.004^{+0.037}_{-0.037}$	$100\theta_D$	0.160707	$0.16070^{+0.00044}_{-0.00044}$	χ_{CMB}^2	2763.7	$2780.8 (\nu: 18.0)$
$\Delta z_{s,DES}^2$	-0.0207	$-0.021^{+0.029}_{-0.029}$	z_{eq}	3382	3375^{+55}_{-55}			
$\Delta z_{s,DES}^3$	0.0050	$0.005^{+0.027}_{-0.025}$	k_{eq}	0.010320	$0.01030^{+0.00017}_{-0.00017}$			

Best-fit $\chi_{eff}^2 = 3000.82$; $\Delta\chi_{eff}^2 = -1.30$; $\bar{\chi}_{eff}^2 = 3037.89$; $\Delta\bar{\chi}_{eff}^2 = 0.12$; $R - 1 = 0.00772$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.01) MGS: 1.75 (Δ 0.34) DR12BAO: 3.47 (Δ -0.47) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.84 (Δ -0.21) commander_dx12_v3_2_29: 22.84 (Δ 0.17) plik_rd12_HM_v22b_TTTEEE: 2344.98 (Δ -1.38) WL - DES_1YR_final: 229.17 (Δ 0.11)

6.35 base_mnu_plikHM_TTTEEE_lowl_lowE_DESlens_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022472	$0.02244^{+0.00038}_{-0.00037}$	$\Delta z_{s,DES}^3$	0.0048	$0.004^{+0.026}_{-0.026}$	z_{eq}	3381	3382^{+64}_{-62}
$\Omega_c h^2$	0.11899	$0.1191^{+0.0029}_{-0.0028}$	$\Delta z_{s,DES}^4$	-0.022	$-0.023^{+0.051}_{-0.050}$	k_{eq}	0.010318	$0.01032^{+0.00020}_{-0.00019}$
$100\theta_{MC}$	1.04104	$1.04100^{+0.00079}_{-0.00078}$	H_0	68.34	$67.7^{+1.7}_{-3.1}$	$100\theta_{eq}$	0.8175	$0.817^{+0.012}_{-0.012}$
τ	0.0540	$0.055^{+0.021}_{-0.019}$	Ω_Λ	0.6971	$0.689^{+0.021}_{-0.041}$	$100\theta_{s,eq}$	0.4515	$0.4513^{+0.0062}_{-0.0061}$
Σm_ν [eV]	0.001	< 0.284	Ω_m	0.3029	$0.311^{+0.041}_{-0.021}$	$H(0.15)$	73.54	$73.0^{+1.5}_{-2.7}$
$\ln(10^{10} A_s)$	3.0418	$3.043^{+0.039}_{-0.037}$	$\Omega_m h^2$	0.14148	$0.1423^{+0.0045}_{-0.0030}$	$D_M(0.15)$	635.0	640^{+27}_{-14}
n_s	0.9689	$0.967^{+0.010}_{-0.010}$	$\Omega_\nu h^2$	0.00001	< 0.00305	$H(0.38)$	83.52	$83.1^{+1.1}_{-2.1}$
y_{cal}	1.0005	$1.0006^{+0.0062}_{-0.0064}$	$\Omega_m h^3$	0.09669	$0.09635^{+0.00098}_{-0.0017}$	$D_M(0.38)$	1516.4	1528^{+56}_{-29}
A_{217}^{CIB}	45.1	47^{+20}_{-20}	σ_8	0.8206	$0.807^{+0.023}_{-0.051}$	$H(0.51)$	90.16	$89.80^{+0.92}_{-1.7}$
$\xi^{tSZ \times CIB}$	0.80	—	S_8	0.8246	$0.821^{+0.028}_{-0.028}$	$D_M(0.51)$	1966	1979^{+66}_{-34}
A_{143}^{tSZ}	7.09	> 0.874	$\sigma_8 \Omega_m^{0.5}$	0.4517	$0.450^{+0.015}_{-0.015}$	$H(0.61)$	95.72	$95.41^{+0.78}_{-1.4}$
A_{100}^{PS}	246	258^{+70}_{-70}	$\sigma_8 \Omega_m^{0.25}$	0.6088	$0.602^{+0.017}_{-0.024}$	$D_M(0.61)$	2288	2303^{+72}_{-37}
A_{143}^{PS}	51.7	45^{+20}_{-20}	$\sigma_8/h^{0.5}$	0.9927	$0.981^{+0.026}_{-0.045}$	$H(2.33)$	235.68	$236.1^{+2.6}_{-1.8}$
$A_{143 \times 217}^{PS}$	56.4	42^{+20}_{-20}	$r_{drag} h$	100.64	$99.7^{+2.8}_{-4.8}$	$D_M(2.33)$	5743	5758^{+72}_{-36}
A_{217}^{PS}	122.9	115^{+30}_{-30}	$\langle d^2 \rangle^{1/2}$	2.433	$2.430^{+0.050}_{-0.050}$	$f\sigma_8(0.15)$	0.4562	$0.455^{+0.014}_{-0.014}$
A^{kSZ}	0.0	—	z_{re}	7.60	$7.7^{+2.0}_{-2.1}$	$\sigma_8(0.15)$	0.7590	$0.746^{+0.022}_{-0.049}$
A_{100}^{dustTT}	8.85	$8.9^{+4.7}_{-4.8}$	$10^9 A_s$	2.094	$2.098^{+0.084}_{-0.077}$	$f\sigma_8(0.38)$	0.4765	$0.473^{+0.013}_{-0.016}$
A_{143}^{dustTT}	10.99	$10.9^{+4.7}_{-4.4}$	$10^9 A_s e^{-2\tau}$	1.8801	$1.879^{+0.027}_{-0.027}$	$\sigma_8(0.38)$	0.6736	$0.661^{+0.020}_{-0.047}$
$A_{143 \times 217}^{dustTT}$	20.3	$18.6^{+8.4}_{-8.3}$	D_{40}	1223.3	1228^{+29}_{-29}	$f\sigma_8(0.51)$	0.4761	$0.472^{+0.012}_{-0.018}$
A_{217}^{dustTT}	95.8	94^{+20}_{-20}	D_{220}	5736	5740^{+100}_{-100}	$\sigma_8(0.51)$	0.6307	$0.619^{+0.019}_{-0.045}$
A_{100}^{dustTE}	0.114	$0.114^{+0.099}_{-0.094}$	D_{810}	2540.7	2539^{+33}_{-35}	$f\sigma_8(0.61)$	0.4717	$0.467^{+0.012}_{-0.020}$
$A_{100 \times 143}^{dustTE}$	0.134	$0.134^{+0.074}_{-0.074}$	D_{1420}	819.2	818^{+12}_{-12}	$\sigma_8(0.61)$	0.6002	$0.589^{+0.019}_{-0.043}$
$A_{100 \times 217}^{dustTE}$	0.479	$0.48^{+0.22}_{-0.22}$	D_{2000}	231.77	$231.1^{+4.1}_{-4.1}$	$f\sigma_8(2.33)$	0.3020	$0.2973^{+0.0090}_{-0.020}$
A_{143}^{dustTE}	0.224	$0.22^{+0.14}_{-0.14}$	$n_{s,0.002}$	0.9689	$0.967^{+0.010}_{-0.010}$	$\sigma_8(2.33)$	0.3122	$0.306^{+0.010}_{-0.024}$
$A_{143 \times 217}^{dustTE}$	0.665	$0.66^{+0.21}_{-0.21}$	Y_P	0.245434	$0.24542^{+0.00014}_{-0.00015}$	f_{2000}^{143}	28.1	29^{+7}_{-7}
A_{217}^{dustTE}	2.07	$2.07^{+0.69}_{-0.70}$	Y_P^{BBN}	0.246761	$0.24675^{+0.00015}_{-0.00015}$	$f_{2000}^{143 \times 217}$	31.64	32^{+5}_{-5}
c_{100}	0.99977	$0.9997^{+0.0016}_{-0.0016}$	$10^5 D/H$	2.567	$2.573^{+0.069}_{-0.068}$	f_{2000}^{217}	106.07	$106.8^{+4.5}_{-4.5}$
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0017}$	Age/Gyr	13.751	$13.79^{+0.16}_{-0.081}$	$\chi_{lensing}^2$	8.84	$9.29 (\nu: 0.3)$
m_{DES}^1	0.015	$0.014^{+0.060}_{-0.058}$	z_*	1089.70	$1089.75^{+0.65}_{-0.63}$	χ_{small}^2	395.92	$397.1 (\nu: 1.6)$
m_{DES}^2	0.013	$0.011^{+0.057}_{-0.058}$	r_*	144.62	$144.61^{+0.62}_{-0.66}$	χ_{lowl}^2	22.80	$23.13 (\nu: 0.3)$
m_{DES}^3	-0.007	$-0.009^{+0.051}_{-0.051}$	$100\theta_*$	1.04118	$1.04118^{+0.00077}_{-0.00075}$	χ_{plik}^2	2345.2	$2360.4 (\nu: 16.7)$
m_{DES}^4	0.013	$0.010^{+0.056}_{-0.053}$	$D_M(z_*)/\text{Gpc}$	13.890	$13.889^{+0.058}_{-0.061}$	χ_{DES}^2	229.2	$232.1 (\nu: 3.3)$
$A_{IA,DES}$	1.46	$1.3^{+1.2}_{-1.2}$	z_{drag}	1060.09	$1060.03^{+0.78}_{-0.75}$	χ_{prior}^2	2.5	$19.6 (\nu: 17.9)$
$\alpha_{IA,DES}$	2.5	—	r_{drag}	147.25	$147.25^{+0.64}_{-0.66}$	χ_{CMB}^2	2772.7	$2789.9 (\nu: 18.2)$
$\Delta z_{s,DES}^1$	0.0050	$0.005^{+0.037}_{-0.038}$	k_D	0.14077	$0.14075^{+0.00075}_{-0.00076}$			
$\Delta z_{s,DES}^2$	-0.0205	$-0.021^{+0.029}_{-0.029}$	$100\theta_D$	0.160670	$0.16071^{+0.00045}_{-0.00044}$			

Best-fit $\chi_{eff}^2 = 3004.39$; $\Delta\chi_{eff}^2 = -1.10$; $\bar{\chi}_{eff}^2 = 3041.59$; $\Delta\bar{\chi}_{eff}^2 = 0.43$; $R - 1 = 0.00745$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.84 (Δ 0.07) simall_100x143_offlike5_EE_Aplanck.B: 395.92 (Δ -0.29) commander_dx12.v3.2.29: 22.80 (Δ -0.04) plik_rd12_HM.v22b_TTTEEE: 2345.16 (Δ -0.59) WL - DES.1YR_final: 229.17 (Δ -0.13)

6.36 base_mnu_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022459	$0.02246^{+0.00036}_{-0.00033}$	$\Delta z_{s,DES}^4$	-0.022	$-0.022^{+0.050}_{-0.050}$	$100\theta_{eq}$	0.8171	$0.8182^{+0.0097}_{-0.0095}$
$\Omega_c h^2$	0.11909	$0.1189^{+0.0022}_{-0.0022}$	H_0	68.30	$68.0^{+1.2}_{-1.4}$	$100\theta_{s,eq}$	0.45130	$0.4519^{+0.0050}_{-0.0049}$
$100\theta_{MC}$	1.04105	$1.04104^{+0.00075}_{-0.00073}$	Ω_Λ	0.6965	$0.693^{+0.015}_{-0.018}$	$H(0.15)$	73.50	$73.2^{+1.1}_{-1.2}$
τ	0.0539	$0.055^{+0.020}_{-0.019}$	Ω_m	0.3035	$0.307^{+0.018}_{-0.015}$	$D_M(0.15)$	635.3	638^{+12}_{-10}
Σm_ν [eV]	0.000	< 0.171	$\Omega_m h^2$	0.14156	$0.1418^{+0.0023}_{-0.0022}$	$H(0.38)$	83.49	$83.29^{+0.81}_{-0.97}$
$\ln(10^{10} A_s)$	3.0415	$3.043^{+0.039}_{-0.037}$	$\Omega_\nu h^2$	0.00000	< 0.00184	$D_M(0.38)$	1517.1	1522^{+25}_{-21}
n_s	0.9684	$0.9676^{+0.0092}_{-0.0091}$	$\Omega_m h^3$	0.09668	$0.09647^{+0.00088}_{-0.0010}$	$H(0.51)$	90.14	$89.96^{+0.67}_{-0.81}$
y_{cal}	1.0003	$1.0005^{+0.0060}_{-0.0064}$	σ_8	0.8208	$0.811^{+0.020}_{-0.030}$	$D_M(0.51)$	1966.6	1973^{+30}_{-25}
A_{217}^{CIB}	45.6	47^{+20}_{-20}	S_8	0.8255	$0.820^{+0.025}_{-0.026}$	$H(0.61)$	95.70	$95.55^{+0.57}_{-0.70}$
$\xi^{tSZ \times CIB}$	0.71	—	$\sigma_8 \Omega_m^{0.5}$	0.4522	$0.449^{+0.014}_{-0.014}$	$D_M(0.61)$	2289.4	2296^{+32}_{-27}
A_{143}^{tSZ}	7.08	> 0.893	$\sigma_8 \Omega_m^{0.25}$	0.6092	$0.604^{+0.015}_{-0.019}$	$H(2.33)$	235.73	$235.8^{+1.4}_{-1.4}$
A_{100}^{PS}	246	257^{+70}_{-70}	$\sigma_8/h^{0.5}$	0.9932	$0.984^{+0.023}_{-0.031}$	$D_M(2.33)$	5743.6	5752^{+35}_{-27}
A_{143}^{PS}	50.7	45^{+20}_{-20}	$r_{drag} h$	100.56	$100.2^{+2.0}_{-2.2}$	$f\sigma_8(0.15)$	0.4567	$0.454^{+0.013}_{-0.013}$
$A_{143 \times 217}^{PS}$	54.0	42^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.4346	$2.429^{+0.049}_{-0.049}$	$\sigma_8(0.15)$	0.7591	$0.750^{+0.018}_{-0.028}$
A_{217}^{PS}	122.1	115^{+30}_{-30}	z_{re}	7.59	$7.7^{+1.9}_{-2.0}$	$f\sigma_8(0.38)$	0.4769	$0.473^{+0.011}_{-0.013}$
A^{kSZ}	0.0	—	$10^9 A_s$	2.094	$2.097^{+0.083}_{-0.076}$	$\sigma_8(0.38)$	0.6736	$0.665^{+0.017}_{-0.026}$
A_{100}^{dustTT}	8.80	$8.9^{+4.8}_{-4.7}$	$10^9 A_s e^{-2\tau}$	1.8798	$1.878^{+0.025}_{-0.027}$	$f\sigma_8(0.51)$	0.4763	$0.473^{+0.011}_{-0.013}$
A_{143}^{dustTT}	11.06	$10.9^{+4.7}_{-4.4}$	D_{40}	1223.9	1226^{+29}_{-28}	$\sigma_8(0.51)$	0.6306	$0.623^{+0.016}_{-0.025}$
$A_{143 \times 217}^{dustTT}$	20.2	$18.6^{+8.4}_{-8.5}$	D_{220}	5734	5740^{+99}_{-100}	$f\sigma_8(0.61)$	0.4719	$0.468^{+0.010}_{-0.013}$
A_{217}^{dustTT}	95.5	94^{+20}_{-20}	D_{810}	2539.7	2538^{+32}_{-35}	$\sigma_8(0.61)$	0.6002	$0.593^{+0.015}_{-0.024}$
A_{100}^{dustTE}	0.116	$0.114^{+0.10}_{-0.094}$	D_{1420}	818.6	818^{+12}_{-12}	$f\sigma_8(2.33)$	0.3020	$0.2990^{+0.0072}_{-0.010}$
$A_{100 \times 143}^{dustTE}$	0.134	$0.134^{+0.075}_{-0.074}$	D_{2000}	231.57	$231.2^{+4.0}_{-4.1}$	$\sigma_8(2.33)$	0.3121	$0.3085^{+0.0082}_{-0.012}$
$A_{100 \times 217}^{dustTE}$	0.482	$0.48^{+0.22}_{-0.22}$	$n_{s,0.002}$	0.9684	$0.9676^{+0.0092}_{-0.0091}$	f_{2000}^{143}	28.3	29^{+7}_{-7}
A_{143}^{dustTE}	0.223	$0.22^{+0.14}_{-0.14}$	Y_P	0.245430	$0.24543^{+0.00014}_{-0.00013}$	$f_{2000}^{143 \times 217}$	31.66	32^{+5}_{-5}
$A_{143 \times 217}^{dustTE}$	0.664	$0.66^{+0.21}_{-0.20}$	Y_P^{BBN}	0.246756	$0.24676^{+0.00014}_{-0.00013}$	f_{2000}^{217}	106.16	$106.7^{+4.5}_{-4.4}$
A_{217}^{dustTE}	2.07	$2.07^{+0.70}_{-0.69}$	$10^5 D/H$	2.569	$2.569^{+0.062}_{-0.065}$	$\chi^2_{lensing}$	8.85	$9.24 (\nu: 0.2)$
c_{100}	0.99972	$0.9997^{+0.0016}_{-0.0016}$	Age/Gyr	13.752	$13.771^{+0.080}_{-0.063}$	χ^2_{small}	395.93	$397.0 (\nu: 1.5)$
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0017}$	z_*	1089.72	$1089.71^{+0.51}_{-0.55}$	χ^2_{lowl}	22.90	$23.04 (\nu: 0.3)$
m_{DES}^1	0.015	$0.014^{+0.060}_{-0.058}$	r_*	144.60	$144.66^{+0.53}_{-0.54}$	χ^2_{plik}	2344.9	$2360.1 (\nu: 16.5)$
m_{DES}^2	0.013	$0.011^{+0.056}_{-0.058}$	$100\theta_*$	1.04119	$1.04121^{+0.00074}_{-0.00073}$	χ^2_{6DF}	0.000	$0.031 (\nu: 0.0)$
m_{DES}^3	-0.008	$-0.008^{+0.052}_{-0.051}$	$D_M(z_*)/\text{Gpc}$	13.888	$13.894^{+0.051}_{-0.052}$	χ^2_{MGS}	1.75	$1.58 (\nu: 0.1)$
m_{DES}^4	0.012	$0.011^{+0.056}_{-0.055}$	z_{drag}	1060.09	$1060.06^{+0.75}_{-0.74}$	$\chi^2_{DR12BAO}$	3.48	$4.1 (\nu: 0.5)$
$A_{IA,DES}$	1.46	$1.3^{+1.2}_{-1.1}$	r_{drag}	147.24	$147.30^{+0.57}_{-0.58}$	χ^2_{DES}	229.2	$232.0 (\nu: 3.1)$
$\alpha_{IA,DES}$	2.5	—	k_D	0.14077	$0.14071^{+0.00073}_{-0.00073}$	χ^2_{prior}	2.6	$19.4 (\nu: 17.9)$
$\Delta z_{s,DES}^1$	0.0049	$0.004^{+0.037}_{-0.037}$	$100\theta_D$	0.160686	$0.16069^{+0.00044}_{-0.00044}$	χ^2_{CMB}	2772.6	$2789.4 (\nu: 17.5)$
$\Delta z_{s,DES}^2$	-0.0209	$-0.021^{+0.029}_{-0.029}$	z_{eq}	3383	3377^{+51}_{-51}	χ^2_{BAO}	5.22	$5.75 (\nu: 0.3)$
$\Delta z_{s,DES}^3$	0.0049	$0.004^{+0.027}_{-0.025}$	k_{eq}	0.010324	$0.01031^{+0.00016}_{-0.00016}$			

Best-fit $\chi^2_{eff} = 3009.63$; $\Delta\chi^2_{eff} = -1.38$; $\bar{\chi}^2_{eff} = 3046.60$; $\Delta\bar{\chi}^2_{eff} = -0.08$; $R - 1 = 0.00939$
 χ^2_{eff} : BAO - 6DF: 0.00 (Δ -0.01) MGS: 1.75 (Δ 0.34) DR12BAO: 3.48 (Δ -0.46) CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.85 (Δ -0.01) small_100x143.offlike5_EE_Aplanc
395.93 (Δ -0.27) commander_dx12_v3.2_29: 22.90 (Δ 0.16) plik_rd12_HM_v22b.TTTEEE: 2344.91 (Δ -1.24) WL - DES_1YR_final: 229.18 (Δ 0.12)

6.37 base_mnu_plikHM_TTTEEE_lowl_lowE_DESlens_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02244^{+0.00039}_{-0.00037}$	$\Delta z_{s,\text{DES}}^2$	$-0.021^{+0.029}_{-0.030}$	k_D	$0.14071^{+0.00079}_{-0.00078}$
$\Omega_c h^2$	$0.1190^{+0.0029}_{-0.0029}$	$\Delta z_{s,\text{DES}}^3$	$0.004^{+0.027}_{-0.025}$	$100\theta_D$	$0.16071^{+0.00044}_{-0.00045}$
$100\theta_{\text{MC}}$	$1.04101^{+0.00079}_{-0.00079}$	$\Delta z_{s,\text{DES}}^4$	$-0.023^{+0.052}_{-0.052}$	z_{eq}	3379^{+66}_{-66}
τ	$0.055^{+0.019}_{-0.013}$	H_0	$67.6^{+1.8}_{-4.0}$	k_{eq}	$0.01031^{+0.00020}_{-0.00020}$
$\Sigma m_\nu [\text{eV}]$	< 0.398	Ω_Λ	$0.688^{+0.023}_{-0.053}$	$100\theta_{\text{eq}}$	$0.818^{+0.012}_{-0.012}$
$\ln(10^{10} A_s)$	$3.043^{+0.040}_{-0.029}$	Ω_m	$0.312^{+0.053}_{-0.023}$	$100\theta_{s,\text{eq}}$	$0.4516^{+0.0063}_{-0.0063}$
n_s	$0.967^{+0.010}_{-0.010}$	$\Omega_m h^2$	$0.1424^{+0.0054}_{-0.0032}$	$H(0.15)$	$72.9^{+1.6}_{-3.5}$
y_{cal}	$1.0004^{+0.0064}_{-0.0065}$	$\Omega_\nu h^2$	< 0.00428	$D_M(0.15)$	641^{+36}_{-15}
A_{217}^{CIB}	47^{+20}_{-20}	$\Omega_m h^3$	$0.0962^{+0.0011}_{-0.0024}$	$H(0.38)$	$83.0^{+1.2}_{-2.7}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	σ_8	$0.803^{+0.033}_{-0.072}$	$D_M(0.38)$	1529^{+73}_{-31}
A_{143}^{tSZ}	> 1.03	S_8	$0.818^{+0.034}_{-0.036}$	$H(0.51)$	$89.7^{+1.0}_{-2.2}$
A_{100}^{PS}	258^{+70}_{-70}	$\sigma_8 \Omega_m^{0.5}$	$0.448^{+0.019}_{-0.020}$	$D_M(0.51)$	1981^{+86}_{-37}
A_{143}^{PS}	45^{+20}_{-20}	$\sigma_8 \Omega_m^{0.25}$	$0.600^{+0.022}_{-0.039}$	$H(0.61)$	$95.35^{+0.85}_{-1.9}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	$\sigma_8/h^{0.5}$	$0.977^{+0.034}_{-0.070}$	$D_M(0.61)$	2305^{+94}_{-40}
A_{217}^{PS}	114^{+30}_{-30}	$r_{\text{drag}} h$	$99.6^{+3.0}_{-6.1}$	$H(2.33)$	$236.1^{+3.0}_{-2.0}$
A^{kSZ}	—	$\langle d^2 \rangle^{1/2}$	$2.425^{+0.061}_{-0.061}$	$D_M(2.33)$	5761^{+96}_{-39}
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.8}$	z_{re}	< 9.43	$f\sigma_8(0.15)$	$0.453^{+0.017}_{-0.019}$
A_{143}^{dustTT}	$11.0^{+4.7}_{-4.5}$	$10^9 A_s$	$2.096^{+0.084}_{-0.061}$	$\sigma_8(0.15)$	$0.742^{+0.031}_{-0.073}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.7^{+8.3}_{-8.4}$	$10^9 A_s e^{-2\tau}$	$1.878^{+0.028}_{-0.030}$	$f\sigma_8(0.38)$	$0.471^{+0.016}_{-0.026}$
A_{217}^{dustTT}	94^{+20}_{-20}	D_{40}	1226^{+30}_{-31}	$\sigma_8(0.38)$	$0.658^{+0.028}_{-0.069}$
A_{100}^{dustTE}	$0.114^{+0.10}_{-0.093}$	D_{220}	5735^{+100}_{-100}	$f\sigma_8(0.51)$	$0.470^{+0.015}_{-0.030}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134^{+0.075}_{-0.074}$	D_{810}	2537^{+34}_{-35}	$\sigma_8(0.51)$	$0.616^{+0.027}_{-0.067}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	D_{1420}	817^{+12}_{-12}	$f\sigma_8(0.61)$	$0.465^{+0.015}_{-0.032}$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	D_{2000}	$231.0^{+4.1}_{-4.1}$	$\sigma_8(0.61)$	$0.586^{+0.025}_{-0.064}$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	$n_{s,0.002}$	$0.967^{+0.010}_{-0.010}$	$f\sigma_8(2.33)$	$0.296^{+0.010}_{-0.031}$
A_{217}^{dustTE}	$2.07^{+0.70}_{-0.71}$	Y_P	$0.24542^{+0.00015}_{-0.00015}$	$\sigma_8(2.33)$	$0.305^{+0.012}_{-0.036}$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	Y_P^{BBN}	$0.24675^{+0.00015}_{-0.00015}$	f_{2000}^{143}	29^{+7}_{-7}
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$10^5 D/H$	$2.574^{+0.069}_{-0.069}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
m_{DES}^1	$0.014^{+0.060}_{-0.057}$	Age/Gyr	$13.79^{+0.22}_{-0.089}$	f_{2000}^{217}	$106.8^{+4.6}_{-4.5}$
m_{DES}^2	$0.012^{+0.057}_{-0.057}$	z_*	$1089.75^{+0.65}_{-0.65}$	χ_{simall}^2	$396.9 (\nu: 1.4)$
m_{DES}^3	$-0.008^{+0.052}_{-0.051}$	r_*	$144.64^{+0.67}_{-0.67}$	χ_{lowl}^2	$22.99 (\nu: 0.3)$
m_{DES}^4	$0.011^{+0.054}_{-0.053}$	$100\theta_*$	$1.04120^{+0.00077}_{-0.00076}$	χ_{plik}^2	$2361.2 (\nu: 19.4)$
$A_{\text{IA,DES}}$	$1.2^{+1.3}_{-1.2}$	$D_M(z_*)/\text{Gpc}$	$13.892^{+0.062}_{-0.063}$	χ_{DES}^2	$232.1 (\nu: 3.2)$
$\alpha_{\text{IA,DES}}$	—	z_{drag}	$1060.02^{+0.79}_{-0.73}$	χ_{prior}^2	$19.6 (\nu: 17.9)$
$\Delta z_{s,\text{DES}}^1$	$0.005^{+0.037}_{-0.037}$	r_{drag}	$147.29^{+0.68}_{-0.68}$	χ_{CMB}^2	$2781.1 (\nu: 18.7)$

$$\bar{\chi}_{\text{eff}}^2 = 3032.75; \Delta \bar{\chi}_{\text{eff}}^2 = 0.68; R - 1 = 0.00988$$

6.38 base_mnu_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02246^{+0.00036}_{-0.00033}$	$\Delta z_{s,\text{DES}}^4$	$-0.022^{+0.050}_{-0.050}$	$100\theta_{\text{eq}}$	$0.819^{+0.011}_{-0.010}$
$\Omega_c h^2$	$0.1187^{+0.0024}_{-0.0024}$	H_0	$68.0^{+1.2}_{-1.5}$	$100\theta_{s,\text{eq}}$	$0.4522^{+0.0054}_{-0.0052}$
$100\theta_{\text{MC}}$	$1.04106^{+0.00076}_{-0.00074}$	Ω_Λ	$0.693^{+0.015}_{-0.018}$	$H(0.15)$	$73.2^{+1.1}_{-1.3}$
τ	$0.055^{+0.018}_{-0.013}$	Ω_m	$0.307^{+0.018}_{-0.015}$	$D_M(0.15)$	638^{+13}_{-10}
$\Sigma m_\nu [\text{eV}]$	< 0.194	$\Omega_m h^2$	$0.1418^{+0.0024}_{-0.0023}$	$H(0.38)$	$83.27^{+0.83}_{-1.0}$
$\ln(10^{10} A_s)$	$3.043^{+0.040}_{-0.029}$	$\Omega_\nu h^2$	< 0.00208	$D_M(0.38)$	1522^{+26}_{-21}
n_s	$0.9681^{+0.0092}_{-0.0092}$	$\Omega_m h^3$	$0.09643^{+0.00091}_{-0.0012}$	$H(0.51)$	$89.95^{+0.69}_{-0.87}$
y_{cal}	$1.0004^{+0.0062}_{-0.0064}$	σ_8	$0.809^{+0.023}_{-0.039}$	$D_M(0.51)$	1973^{+31}_{-25}
A_{217}^{CIB}	47^{+20}_{-20}	S_8	$0.818^{+0.030}_{-0.033}$	$H(0.61)$	$95.53^{+0.59}_{-0.76}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$\sigma_8 \Omega_m^{0.5}$	$0.448^{+0.017}_{-0.018}$	$D_M(0.61)$	2296^{+34}_{-27}
A_{143}^{tSZ}	> 0.899	$\sigma_8 \Omega_m^{0.25}$	$0.602^{+0.019}_{-0.025}$	$H(2.33)$	$235.8^{+1.5}_{-1.4}$
A_{100}^{PS}	257^{+70}_{-70}	$\sigma_8/h^{0.5}$	$0.981^{+0.029}_{-0.041}$	$D_M(2.33)$	5753^{+38}_{-28}
A_{143}^{PS}	45^{+20}_{-20}	$r_{\text{drag}} h$	$100.2^{+2.0}_{-2.3}$	$f\sigma_8(0.15)$	$0.453^{+0.016}_{-0.017}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	$2.425^{+0.058}_{-0.059}$	$\sigma_8(0.15)$	$0.748^{+0.021}_{-0.037}$
A_{217}^{PS}	115^{+30}_{-30}	z_{re}	< 9.42	$f\sigma_8(0.38)$	$0.472^{+0.014}_{-0.018}$
A^{kSZ}	—	$10^9 A_s$	$2.096^{+0.085}_{-0.060}$	$\sigma_8(0.38)$	$0.664^{+0.019}_{-0.033}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.8}$	$10^9 A_s e^{-2\tau}$	$1.877^{+0.027}_{-0.029}$	$f\sigma_8(0.51)$	$0.472^{+0.013}_{-0.018}$
A_{143}^{dustTT}	$10.9^{+4.7}_{-4.5}$	D_{40}	1224^{+30}_{-30}	$\sigma_8(0.51)$	$0.621^{+0.018}_{-0.032}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.7^{+8.4}_{-8.4}$	D_{220}	5736^{+100}_{-100}	$f\sigma_8(0.61)$	$0.467^{+0.013}_{-0.018}$
A_{217}^{dustTT}	94^{+20}_{-20}	D_{810}	2537^{+33}_{-35}	$\sigma_8(0.61)$	$0.591^{+0.017}_{-0.030}$
A_{100}^{dustTE}	$0.114^{+0.10}_{-0.095}$	D_{1420}	818^{+12}_{-12}	$f\sigma_8(2.33)$	$0.2984^{+0.0082}_{-0.013}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.076}_{-0.074}$	D_{2000}	$231.1^{+4.1}_{-4.2}$	$\sigma_8(2.33)$	$0.3078^{+0.0092}_{-0.015}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	$n_{s,0.002}$	$0.9681^{+0.0092}_{-0.0092}$	f_{2000}^{143}	29^{+7}_{-7}
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	Y_{P}	$0.24543^{+0.00014}_{-0.00013}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.20}$	$Y_{\text{P}}^{\text{BBN}}$	$0.24676^{+0.00014}_{-0.00013}$	f_{2000}^{217}	$106.7^{+4.5}_{-4.5}$
A_{217}^{dustTE}	$2.07^{+0.70}_{-0.69}$	10^5D/H	$2.569^{+0.062}_{-0.065}$	χ_{simall}^2	$396.9 (\nu: 1.5)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	Age/Gyr	$13.774^{+0.087}_{-0.064}$	χ_{lowl}^2	$22.92 (\nu: 0.3)$
c_{217}	$0.9982^{+0.0016}_{-0.0017}$	z_*	$1089.69^{+0.52}_{-0.56}$	χ_{plik}^2	$2360.7 (\nu: 18.1)$
m_{DES}^1	$0.014^{+0.059}_{-0.058}$	r_*	$144.70^{+0.58}_{-0.57}$	$\chi_{6\text{DF}}^2$	$0.032 (\nu: 0.0)$
m_{DES}^2	$0.011^{+0.056}_{-0.057}$	$100\theta_*$	$1.04123^{+0.00074}_{-0.00073}$	χ_{MGS}^2	$1.58 (\nu: 0.1)$
m_{DES}^3	$-0.007^{+0.052}_{-0.052}$	$D_M(z_*)/\text{Gpc}$	$13.897^{+0.055}_{-0.054}$	χ_{DR12BAO}^2	$4.2 (\nu: 0.6)$
m_{DES}^4	$0.011^{+0.055}_{-0.055}$	z_{drag}	$1060.05^{+0.76}_{-0.73}$	χ_{DES}^2	$231.9 (\nu: 3.0)$
$A_{\text{IA,DES}}$	$1.2^{+1.3}_{-1.2}$	r_{drag}	$147.33^{+0.61}_{-0.61}$	χ_{prior}^2	$19.4 (\nu: 17.9)$
$\alpha_{\text{IA,DES}}$	—	k_{D}	$0.14068^{+0.00075}_{-0.00074}$	χ_{BAO}^2	$5.77 (\nu: 0.3)$
$\Delta z_{s,\text{DES}}^1$	$0.004^{+0.037}_{-0.037}$	$100\theta_{\text{D}}$	$0.16070^{+0.00045}_{-0.00044}$	χ_{CMB}^2	$2780.5 (\nu: 17.4)$
$\Delta z_{s,\text{DES}}^2$	$-0.021^{+0.030}_{-0.029}$	z_{eq}	3374^{+55}_{-55}		
$\Delta z_{s,\text{DES}}^3$	$0.005^{+0.026}_{-0.025}$	k_{eq}	$0.01030^{+0.00017}_{-0.00017}$		

$\bar{\chi}_{\text{eff}}^2 = 3037.64$; $\Delta \bar{\chi}_{\text{eff}}^2 = 0.11$; $R - 1 = 0.00834$

6.39 base_mnu_plikHM_TTTEEE_lowl_lowE_DESlens_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02244^{+0.00038}_{-0.00037}$	$\Delta z_{\text{s,DES}}^3$	$0.004^{+0.026}_{-0.025}$	z_{eq}	3381^{+63}_{-61}
$\Omega_c h^2$	$0.1190^{+0.0028}_{-0.0027}$	$\Delta z_{\text{s,DES}}^4$	$-0.023^{+0.051}_{-0.051}$	k_{eq}	$0.01032^{+0.00019}_{-0.00019}$
$100\theta_{\text{MC}}$	$1.04100^{+0.00078}_{-0.00078}$	H_0	$67.7^{+1.7}_{-3.1}$	$100\theta_{\text{eq}}$	$0.817^{+0.012}_{-0.012}$
τ	$0.056^{+0.019}_{-0.014}$	Ω_{Λ}	$0.690^{+0.021}_{-0.041}$	$100\theta_{\text{s,eq}}$	$0.4515^{+0.0061}_{-0.0061}$
$\Sigma m_{\nu} [\text{eV}]$	< 0.285	Ω_{m}	$0.310^{+0.041}_{-0.021}$	$H(0.15)$	$73.0^{+1.5}_{-2.8}$
$\ln(10^{10} A_{\text{s}})$	$3.045^{+0.038}_{-0.029}$	$\Omega_{\text{m}} h^2$	$0.1423^{+0.0046}_{-0.0030}$	$D_{\text{M}}(0.15)$	640^{+28}_{-14}
n_{s}	$0.9671^{+0.0099}_{-0.010}$	$\Omega_{\nu} h^2$	< 0.00307	$H(0.38)$	$83.1^{+1.1}_{-2.1}$
y_{cal}	$1.0006^{+0.0062}_{-0.0064}$	$\Omega_{\text{m}} h^3$	$0.09634^{+0.00098}_{-0.0017}$	$D_{\text{M}}(0.38)$	1527^{+57}_{-29}
A_{217}^{CIB}	47^{+20}_{-20}	σ_8	$0.808^{+0.023}_{-0.052}$	$H(0.51)$	$89.80^{+0.92}_{-1.7}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	S_8	$0.821^{+0.028}_{-0.028}$	$D_{\text{M}}(0.51)$	1979^{+67}_{-34}
A_{143}^{tSZ}	> 0.883	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.450^{+0.015}_{-0.015}$	$H(0.61)$	$95.41^{+0.78}_{-1.5}$
A_{100}^{PS}	258^{+70}_{-70}	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.603^{+0.017}_{-0.025}$	$D_{\text{M}}(0.61)$	2303^{+73}_{-37}
A_{143}^{PS}	45^{+20}_{-20}	$\sigma_8 / h^{0.5}$	$0.981^{+0.026}_{-0.045}$	$H(2.33)$	$236.1^{+2.6}_{-1.8}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	$r_{\text{drag}} h$	$99.7^{+2.8}_{-4.8}$	$D_{\text{M}}(2.33)$	5758^{+72}_{-36}
A_{217}^{PS}	115^{+30}_{-30}	$\langle d^2 \rangle^{1/2}$	$2.431^{+0.049}_{-0.049}$	$f\sigma_8(0.15)$	$0.455^{+0.014}_{-0.014}$
A^{kSZ}	—	z_{re}	< 9.49	$\sigma_8(0.15)$	$0.746^{+0.022}_{-0.050}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.8}$	$10^9 A_{\text{s}}$	$2.101^{+0.081}_{-0.060}$	$f\sigma_8(0.38)$	$0.473^{+0.013}_{-0.016}$
A_{143}^{dustTT}	$10.9^{+4.7}_{-4.4}$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.879^{+0.027}_{-0.027}$	$\sigma_8(0.38)$	$0.662^{+0.020}_{-0.047}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.4}_{-8.4}$	D_{40}	1227^{+29}_{-29}	$f\sigma_8(0.51)$	$0.472^{+0.012}_{-0.018}$
A_{217}^{dustTT}	94^{+20}_{-20}	D_{220}	5740^{+100}_{-100}	$\sigma_8(0.51)$	$0.619^{+0.019}_{-0.045}$
A_{100}^{dustTE}	$0.114^{+0.10}_{-0.094}$	D_{810}	2538^{+33}_{-34}	$f\sigma_8(0.61)$	$0.467^{+0.011}_{-0.020}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134^{+0.074}_{-0.074}$	D_{1420}	818^{+12}_{-12}	$\sigma_8(0.61)$	$0.589^{+0.019}_{-0.044}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	D_{2000}	$231.1^{+4.1}_{-4.1}$	$f\sigma_8(2.33)$	$0.2975^{+0.0089}_{-0.020}$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$n_{\text{s},0.002}$	$0.9671^{+0.0099}_{-0.010}$	$\sigma_8(2.33)$	$0.307^{+0.010}_{-0.024}$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.20}$	Y_{P}	$0.24542^{+0.00014}_{-0.00015}$	f_{2000}^{143}	29^{+7}_{-7}
A_{217}^{dustTE}	$2.07^{+0.69}_{-0.70}$	$Y_{\text{P}}^{\text{BBN}}$	$0.24675^{+0.00014}_{-0.00015}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	10^5D/H	$2.572^{+0.069}_{-0.068}$	f_{2000}^{217}	$106.8^{+4.6}_{-4.4}$
c_{217}	$0.9982^{+0.0016}_{-0.0017}$	Age/Gyr	$13.79^{+0.16}_{-0.081}$	χ_{lensing}^2	$9.25 (\nu: 0.3)$
m_{DES}^1	$0.014^{+0.059}_{-0.058}$	z_*	$1089.74^{+0.64}_{-0.62}$	χ_{simall}^2	$397.0 (\nu: 1.7)$
m_{DES}^2	$0.011^{+0.057}_{-0.057}$	r_*	$144.62^{+0.61}_{-0.64}$	χ_{lowl}^2	$23.12 (\nu: 0.3)$
m_{DES}^3	$-0.009^{+0.051}_{-0.051}$	$100\theta_*$	$1.04119^{+0.00076}_{-0.00075}$	χ_{plik}^2	$2360.3 (\nu: 16.6)$
m_{DES}^4	$0.010^{+0.056}_{-0.053}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.890^{+0.058}_{-0.061}$	χ_{DES}^2	$232.1 (\nu: 3.3)$
$A_{\text{IA,DES}}$	$1.3^{+1.3}_{-1.2}$	z_{drag}	$1060.04^{+0.77}_{-0.75}$	χ_{prior}^2	$19.5 (\nu: 17.9)$
$\alpha_{\text{IA,DES}}$	—	r_{drag}	$147.26^{+0.63}_{-0.65}$	χ_{CMB}^2	$2789.7 (\nu: 17.9)$
$\Delta z_{\text{s,DES}}^1$	$0.005^{+0.037}_{-0.038}$	k_{D}	$0.14074^{+0.00075}_{-0.00075}$		
$\Delta z_{\text{s,DES}}^2$	$-0.021^{+0.029}_{-0.029}$	$100\theta_{\text{D}}$	$0.16070^{+0.00045}_{-0.00044}$		

$\bar{\chi}_{\text{eff}}^2 = 3041.41$; $\Delta \bar{\chi}_{\text{eff}}^2 = 0.47$; $R - 1 = 0.00879$

6.40 base_mnu_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02246^{+0.00036}_{-0.00033}$	$\Delta z_{s,\text{DES}}^4$	$-0.023^{+0.050}_{-0.050}$	$100\theta_{\text{eq}}$	$0.8183^{+0.0096}_{-0.0093}$
$\Omega_c h^2$	$0.1188^{+0.0022}_{-0.0022}$	H_0	$68.0^{+1.2}_{-1.4}$	$100\theta_{s,\text{eq}}$	$0.4519^{+0.0049}_{-0.0048}$
$100\theta_{\text{MC}}$	$1.04104^{+0.00075}_{-0.00073}$	Ω_Λ	$0.693^{+0.015}_{-0.018}$	$H(0.15)$	$73.3^{+1.1}_{-1.3}$
τ	$0.056^{+0.018}_{-0.014}$	Ω_{m}	$0.307^{+0.018}_{-0.015}$	$D_{\text{M}}(0.15)$	638^{+12}_{-10}
$\Sigma m_\nu [\text{eV}]$	< 0.173	$\Omega_{\text{m}} h^2$	$0.1418^{+0.0023}_{-0.0022}$	$H(0.38)$	$83.29^{+0.81}_{-0.97}$
$\ln(10^{10} A_s)$	$3.045^{+0.038}_{-0.029}$	$\Omega_\nu h^2$	< 0.00186	$D_{\text{M}}(0.38)$	1522^{+25}_{-21}
n_s	$0.9678^{+0.0091}_{-0.0090}$	$\Omega_{\text{m}} h^3$	$0.09647^{+0.00088}_{-0.0010}$	$H(0.51)$	$89.96^{+0.67}_{-0.82}$
y_{cal}	$1.0005^{+0.0060}_{-0.0064}$	σ_8	$0.812^{+0.019}_{-0.030}$	$D_{\text{M}}(0.51)$	1972^{+30}_{-25}
A_{217}^{CIB}	47^{+20}_{-20}	S_8	$0.820^{+0.025}_{-0.026}$	$H(0.61)$	$95.55^{+0.57}_{-0.71}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.449^{+0.014}_{-0.014}$	$D_{\text{M}}(0.61)$	2296^{+33}_{-27}
A_{143}^{tSZ}	> 0.899	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.604^{+0.015}_{-0.019}$	$H(2.33)$	$235.8^{+1.4}_{-1.4}$
A_{100}^{PS}	257^{+70}_{-70}	$\sigma_8/h^{0.5}$	$0.984^{+0.023}_{-0.031}$	$D_{\text{M}}(2.33)$	5752^{+35}_{-27}
A_{143}^{PS}	45^{+20}_{-20}	$r_{\text{drag}} h$	$100.2^{+2.0}_{-2.2}$	$f\sigma_8(0.15)$	$0.454^{+0.013}_{-0.013}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	$2.430^{+0.048}_{-0.048}$	$\sigma_8(0.15)$	$0.750^{+0.018}_{-0.029}$
A_{217}^{PS}	115^{+30}_{-30}	z_{re}	< 9.44	$f\sigma_8(0.38)$	$0.474^{+0.011}_{-0.013}$
A^{kSZ}	—	$10^9 A_s$	$2.101^{+0.080}_{-0.059}$	$\sigma_8(0.38)$	$0.666^{+0.016}_{-0.026}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.8}$	$10^9 A_s e^{-2\tau}$	$1.878^{+0.025}_{-0.027}$	$f\sigma_8(0.51)$	$0.473^{+0.011}_{-0.013}$
A_{143}^{dustTT}	$10.9^{+4.7}_{-4.4}$	D_{40}	1226^{+29}_{-28}	$\sigma_8(0.51)$	$0.623^{+0.016}_{-0.025}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.4}_{-8.5}$	D_{220}	5740^{+98}_{-100}	$f\sigma_8(0.61)$	$0.468^{+0.010}_{-0.013}$
A_{217}^{dustTT}	94^{+20}_{-20}	D_{810}	2538^{+32}_{-35}	$\sigma_8(0.61)$	$0.593^{+0.015}_{-0.024}$
A_{100}^{dustTE}	$0.114^{+0.10}_{-0.094}$	D_{1420}	818^{+12}_{-12}	$f\sigma_8(2.33)$	$0.2991^{+0.0072}_{-0.011}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134^{+0.075}_{-0.074}$	D_{2000}	$231.2^{+4.0}_{-4.1}$	$\sigma_8(2.33)$	$0.3086^{+0.0081}_{-0.013}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	$n_{s,0.002}$	$0.9678^{+0.0091}_{-0.0090}$	f_{2000}^{143}	29^{+7}_{-7}
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	Y_{P}	$0.24543^{+0.00014}_{-0.00013}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.20}$	$Y_{\text{P}}^{\text{BBN}}$	$0.24676^{+0.00014}_{-0.00013}$	f_{2000}^{217}	$106.7^{+4.5}_{-4.3}$
A_{217}^{dustTE}	$2.07^{+0.71}_{-0.69}$	10^5D/H	$2.569^{+0.062}_{-0.064}$	χ_{lensing}^2	$9.21 (\nu: 0.2)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	Age/Gyr	$13.771^{+0.081}_{-0.063}$	χ_{simall}^2	$397.0 (\nu: 1.6)$
c_{217}	$0.9982^{+0.0016}_{-0.0017}$	z_*	$1089.70^{+0.51}_{-0.55}$	χ_{lowl}^2	$23.04 (\nu: 0.3)$
m_{DES}^1	$0.014^{+0.060}_{-0.058}$	r_*	$144.67^{+0.53}_{-0.53}$	χ_{plik}^2	$2360.0 (\nu: 16.3)$
m_{DES}^2	$0.011^{+0.056}_{-0.058}$	$100\theta_*$	$1.04121^{+0.00074}_{-0.00073}$	$\chi_{6\text{DF}}^2$	$0.030 (\nu: 0.0)$
m_{DES}^3	$-0.008^{+0.052}_{-0.051}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.895^{+0.051}_{-0.051}$	χ_{MGS}^2	$1.59 (\nu: 0.1)$
m_{DES}^4	$0.011^{+0.056}_{-0.055}$	z_{drag}	$1060.06^{+0.75}_{-0.74}$	χ_{DR12BAO}^2	$4.1 (\nu: 0.5)$
$A_{\text{IA,DES}}$	$1.3^{+1.3}_{-1.1}$	r_{drag}	$147.31^{+0.57}_{-0.57}$	χ_{DES}^2	$232.0 (\nu: 3.1)$
$\alpha_{\text{IA,DES}}$	—	k_{D}	$0.14071^{+0.00072}_{-0.00073}$	χ_{prior}^2	$19.4 (\nu: 18.0)$
$\Delta z_{s,\text{DES}}^1$	$0.004^{+0.037}_{-0.037}$	$100\theta_{\text{D}}$	$0.16069^{+0.00045}_{-0.00044}$	χ_{CMB}^2	$2789.3 (\nu: 17.1)$
$\Delta z_{s,\text{DES}}^2$	$-0.021^{+0.029}_{-0.029}$	z_{eq}	3376^{+50}_{-51}	χ_{BAO}^2	$5.74 (\nu: 0.3)$
$\Delta z_{s,\text{DES}}^3$	$0.004^{+0.027}_{-0.025}$	k_{eq}	$0.01030^{+0.00015}_{-0.00015}$		

$\bar{\chi}_{\text{eff}}^2 = 3046.43$; $\Delta \bar{\chi}_{\text{eff}}^2 = -0.06$; $R - 1 = 0.00976$

7 nnu

7.1 base_nnu_plikHM_TT_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02202	$0.02207^{+0.00078}_{-0.00079}$	$\sigma_8 \Omega_m^{0.5}$	0.4621	$0.460^{+0.035}_{-0.034}$	$100\theta_{s,eq}$	0.4460	$0.448^{+0.016}_{-0.015}$
$\Omega_c h^2$	0.1188	$0.120^{+0.010}_{-0.0099}$	$\sigma_8 \Omega_m^{0.25}$	0.6108	$0.610^{+0.030}_{-0.030}$	$H(0.15)$	71.1	$71.9^{+6.0}_{-5.5}$
$100\theta_{MC}$	1.04093	$1.0409^{+0.0015}_{-0.0015}$	$\sigma_8/h^{0.5}$	0.9958	$0.993^{+0.041}_{-0.043}$	$D_M(0.15)$	658	652^{+56}_{-53}
τ	0.0519	$0.051^{+0.022}_{-0.021}$	$r_{drag}h$	97.6	$98.2^{+5.8}_{-5.3}$	$H(0.38)$	81.4	$82.2^{+5.7}_{-5.3}$
N_{eff}	2.90	$3.00^{+0.74}_{-0.69}$	$\langle d^2 \rangle^{1/2}$	2.467	$2.46^{+0.12}_{-0.12}$	$D_M(0.38)$	1566	1551^{+120}_{-120}
$\ln(10^{10} A_s)$	3.035	$3.037^{+0.052}_{-0.054}$	z_{re}	7.47	$7.4^{+2.2}_{-2.4}$	$H(0.51)$	88.2	$89.0^{+5.7}_{-5.2}$
n_s	0.9575	$0.961^{+0.034}_{-0.033}$	$10^9 A_s$	2.081	$2.08^{+0.11}_{-0.11}$	$D_M(0.51)$	2026	2007^{+150}_{-150}
y_{cal}	1.0005	$1.0005^{+0.0065}_{-0.0063}$	$10^9 A_s e^{-2\tau}$	1.876	$1.881^{+0.056}_{-0.059}$	$H(0.61)$	93.9	$94.7^{+5.7}_{-5.2}$
A_{217}^{CIB}	46.8	48^{+20}_{-20}	D_{40}	1240	1237^{+56}_{-55}	$D_M(0.61)$	2356	2334^{+170}_{-170}
$\xi^{tSZ \times CIB}$	0.55	—	D_{220}	5710	5713^{+110}_{-100}	$H(2.33)$	235.0	$236.1^{+9.3}_{-9.1}$
A_{143}^{tSZ}	7.0	—	D_{810}	2536.8	2536^{+37}_{-36}	$D_M(2.33)$	5844	5801^{+320}_{-320}
A_{100}^{PS}	250	262^{+70}_{-70}	D_{1420}	816.5	815^{+13}_{-13}	$f\sigma_8(0.15)$	0.4653	$0.464^{+0.031}_{-0.032}$
A_{143}^{PS}	50.6	49^{+20}_{-20}	D_{2000}	230.9	$229.9^{+5.8}_{-5.7}$	$\sigma_8(0.15)$	0.7445	$0.747^{+0.033}_{-0.032}$
$A_{143 \times 217}^{PS}$	51.5	44^{+20}_{-20}	$n_{s,0.002}$	0.9575	$0.961^{+0.034}_{-0.033}$	$f\sigma_8(0.38)$	0.4800	$0.479^{+0.024}_{-0.025}$
A_{217}^{PS}	121.2	115^{+30}_{-30}	Y_P	0.2432	$0.2446^{+0.0098}_{-0.0099}$	$\sigma_8(0.38)$	0.6582	$0.661^{+0.031}_{-0.030}$
A^{kSZ}	0.0	—	Y_P^{BBN}	0.2445	$0.2459^{+0.0098}_{-0.010}$	$f\sigma_8(0.51)$	0.4767	$0.477^{+0.021}_{-0.022}$
A_{100}^{dustTT}	8.77	$8.9^{+4.7}_{-4.6}$	$10^5 D/H$	2.599	$2.62^{+0.18}_{-0.17}$	$\sigma_8(0.51)$	0.6153	$0.618^{+0.031}_{-0.029}$
A_{143}^{dustTT}	10.74	$10.7^{+4.6}_{-4.6}$	Age/Gyr	13.99	$13.89^{+0.77}_{-0.75}$	$f\sigma_8(0.61)$	0.4705	$0.471^{+0.020}_{-0.020}$
$A_{143 \times 217}^{dustTT}$	19.7	$18.2^{+8.4}_{-8.6}$	z_*	1090.11	$1090.2^{+1.3}_{-1.3}$	$\sigma_8(0.61)$	0.5850	$0.588^{+0.030}_{-0.028}$
A_{217}^{dustTT}	95.2	93^{+20}_{-20}	r_*	145.8	$144.9^{+6.6}_{-6.3}$	$f\sigma_8(2.33)$	0.2944	$0.296^{+0.016}_{-0.015}$
c_{100}	0.99966	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	1.04126	$1.0411^{+0.0019}_{-0.0018}$	$\sigma_8(2.33)$	0.3028	$0.305^{+0.018}_{-0.017}$
c_{217}	0.99824	$0.9982^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	14.00	$13.92^{+0.61}_{-0.59}$	f_{2000}^{143}	29.2	31^{+9}_{-9}
H_0	65.7	$66.5^{+6.2}_{-5.7}$	z_{drag}	1058.94	$1059.2^{+2.8}_{-2.8}$	$f_{2000}^{143 \times 217}$	32.4	33^{+7}_{-7}
Ω_Λ	0.6725	$0.677^{+0.045}_{-0.049}$	r_{drag}	148.6	$147.7^{+6.9}_{-6.5}$	f_{2000}^{217}	106.9	$107.9^{+6.1}_{-5.9}$
Ω_m	0.3275	$0.323^{+0.049}_{-0.045}$	k_D	0.13965	$0.1402^{+0.0048}_{-0.0047}$	χ_{simall}^2	395.85	$396.9 (\nu: 1.2)$
$\Omega_m h^2$	0.1415	$0.143^{+0.011}_{-0.010}$	$100\theta_D$	0.16071	$0.1610^{+0.0017}_{-0.0017}$	χ_{lowl}^2	24.5	$24.4 (\nu: 2.5)$
$\Omega_m h^3$	0.0930	$0.095^{+0.015}_{-0.013}$	z_{eq}	3436	3419^{+170}_{-160}	χ_{plik}^2	757.7	$771.7 (\nu: 17.1)$
σ_8	0.8074	$0.810^{+0.035}_{-0.034}$	k_{eq}	0.010379	$0.01040^{+0.00041}_{-0.00040}$	χ_{prior}^2	1.3	$7.3 (\nu: 6.5)$
S_8	0.844	$0.840^{+0.064}_{-0.062}$	$100\theta_{eq}$	0.8063	$0.810^{+0.032}_{-0.030}$	χ_{CMB}^2	1178.0	$1192.9 (\nu: 15.6)$

Best-fit $\chi_{eff}^2 = 1179.27$; $\Delta\chi_{eff}^2 = -0.31$; $\bar{\chi}_{eff}^2 = 1200.18$; $\Delta\bar{\chi}_{eff}^2 = 0.61$; $R - 1 = 0.00449$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.85 (Δ -0.02) commander_dx12_v3_2_29: 24.50 (Δ 0.89) plik_rd12_HM_v22_TT: 757.66 (Δ -1.09)

7.2 base_nnu_plikHM_TT_lowl_lowE_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02201	$0.02206^{+0.00074}_{-0.00078}$	$\sigma_8 \Omega_m^{0.25}$	0.6060	$0.607^{+0.021}_{-0.021}$	$D_M(0.15)$	661	653^{+53}_{-50}
$\Omega_c h^2$	0.1175	$0.119^{+0.011}_{-0.0095}$	$\sigma_8/h^{0.5}$	0.9906	$0.990^{+0.027}_{-0.027}$	$H(0.38)$	81.1	$81.9^{+5.4}_{-5.1}$
$100\theta_{MC}$	1.04110	$1.0410^{+0.0015}_{-0.0014}$	$r_{drag}h$	97.78	$98.3^{+4.6}_{-4.3}$	$D_M(0.38)$	1572	1555^{+120}_{-110}
τ	0.0503	$0.051^{+0.022}_{-0.021}$	$\langle d^2 \rangle^{1/2}$	2.459	$2.454^{+0.080}_{-0.081}$	$H(0.51)$	87.8	$88.7^{+5.4}_{-5.2}$
N_{eff}	2.83	$2.95^{+0.73}_{-0.69}$	z_{re}	7.28	$7.4^{+2.1}_{-2.3}$	$D_M(0.51)$	2034	2013^{+150}_{-140}
$\ln(10^{10} A_s)$	3.028	$3.034^{+0.051}_{-0.052}$	$10^9 A_s$	2.066	$2.08^{+0.11}_{-0.11}$	$H(0.61)$	93.5	$94.3^{+5.4}_{-5.3}$
n_s	0.9559	$0.959^{+0.031}_{-0.030}$	$10^9 A_s e^{-2\tau}$	1.868	$1.876^{+0.055}_{-0.060}$	$D_M(0.61)$	2365	2341^{+170}_{-160}
y_{cal}	1.0003	$1.0005^{+0.0066}_{-0.0064}$	D_{40}	1240.1	1237^{+48}_{-48}	$H(2.33)$	233.8	$235.2^{+9.5}_{-9.2}$
A_{217}^{CIB}	46.8	47^{+20}_{-20}	D_{220}	5712	5715^{+110}_{-100}	$D_M(2.33)$	5869	5821^{+330}_{-300}
$\xi^{tSZ \times CIB}$	0.53	—	D_{810}	2534.5	2535^{+37}_{-37}	$f\sigma_8(0.15)$	0.4615	$0.461^{+0.021}_{-0.021}$
A_{143}^{tSZ}	7.0	—	D_{1420}	816.7	815^{+13}_{-13}	$\sigma_8(0.15)$	0.7393	$0.744^{+0.033}_{-0.032}$
A_{100}^{PS}	248	261^{+70}_{-70}	D_{2000}	231.2	$230.1^{+5.8}_{-5.7}$	$f\sigma_8(0.38)$	0.4762	$0.477^{+0.017}_{-0.017}$
A_{143}^{PS}	49.2	48^{+20}_{-20}	$n_{s,0.002}$	0.9559	$0.959^{+0.031}_{-0.030}$	$\sigma_8(0.38)$	0.6538	$0.658^{+0.031}_{-0.031}$
$A_{143 \times 217}^{PS}$	50.2	43^{+20}_{-20}	Y_P	0.2423	$0.2439^{+0.0097}_{-0.010}$	$f\sigma_8(0.51)$	0.4731	$0.474^{+0.016}_{-0.016}$
A_{217}^{PS}	120.4	115^{+30}_{-30}	Y_P^{BBN}	0.2436	$0.2452^{+0.0097}_{-0.010}$	$\sigma_8(0.51)$	0.6112	$0.616^{+0.030}_{-0.030}$
A^{kSZ}	0.0	—	$10^5 D/H$	2.578	$2.61^{+0.18}_{-0.17}$	$f\sigma_8(0.61)$	0.4670	$0.469^{+0.016}_{-0.016}$
A_{100}^{dustTT}	8.82	$9.0^{+4.8}_{-4.6}$	Age/Gyr	14.05	$13.93^{+0.77}_{-0.72}$	$\sigma_8(0.61)$	0.5812	$0.585^{+0.030}_{-0.029}$
A_{143}^{dustTT}	10.70	$10.7^{+4.5}_{-4.7}$	z_*	1089.93	$1090.1^{+1.2}_{-1.2}$	$f\sigma_8(2.33)$	0.2925	$0.295^{+0.016}_{-0.016}$
$A_{143 \times 217}^{dustTT}$	19.4	$18.2^{+8.4}_{-8.6}$	r_*	146.5	$145.5^{+6.8}_{-6.3}$	$\sigma_8(2.33)$	0.3009	$0.303^{+0.018}_{-0.018}$
A_{217}^{dustTT}	94.7	93^{+20}_{-20}	$100\theta_*$	1.04145	$1.0412^{+0.0019}_{-0.0018}$	f_{2000}^{143}	28.7	30^{+9}_{-9}
c_{100}	0.99964	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	14.06	$13.97^{+0.61}_{-0.59}$	$f_{2000}^{143 \times 217}$	32.0	33^{+6}_{-6}
c_{217}	0.99821	$0.9982^{+0.0015}_{-0.0016}$	z_{drag}	1058.75	$1059.1^{+2.7}_{-2.8}$	f_{2000}^{217}	106.5	$107.6^{+6.2}_{-5.8}$
H_0	65.5	$66.3^{+5.7}_{-5.3}$	r_{drag}	149.3	$148.3^{+7.0}_{-6.6}$	$\chi^2_{lensing}$	8.61	$9.37 (\nu: 0.5)$
Ω_Λ	0.6734	$0.678^{+0.037}_{-0.039}$	k_D	0.13915	$0.1398^{+0.0048}_{-0.0048}$	χ^2_{small}	395.69	$396.8 (\nu: 1.1)$
Ω_m	0.3266	$0.322^{+0.039}_{-0.037}$	$100\theta_D$	0.16054	$0.1608^{+0.0017}_{-0.0016}$	χ^2_{lowl}	24.61	$24.4 (\nu: 1.8)$
$\Omega_m h^2$	0.1401	$0.142^{+0.011}_{-0.010}$	z_{eq}	3432	3416^{+130}_{-130}	χ^2_{plik}	757.8	$771.1 (\nu: 15.2)$
$\Omega_m h^3$	0.0918	$0.094^{+0.015}_{-0.013}$	k_{eq}	0.010323	$0.01035^{+0.00035}_{-0.00034}$	χ^2_{prior}	1.3	$7.3 (\nu: 6.6)$
σ_8	0.8017	$0.806^{+0.034}_{-0.033}$	$100\theta_{eq}$	0.8070	$0.810^{+0.026}_{-0.023}$	χ^2_{CMB}	1186.7	$1201.7 (\nu: 15.8)$
S_8	0.8365	$0.835^{+0.042}_{-0.041}$	$100\theta_{s,eq}$	0.4464	$0.448^{+0.013}_{-0.012}$			
$\sigma_8 \Omega_m^{0.5}$	0.4582	$0.458^{+0.023}_{-0.023}$	$H(0.15)$	70.9	$71.7^{+5.6}_{-5.2}$			

Best-fit $\chi^2_{eff} = 1188.03$; $\Delta\chi^2_{eff} = -0.54$; $\bar{\chi}^2_{eff} = 1208.98$; $\Delta\bar{\chi}^2_{eff} = 0.57$; $R - 1 = 0.00963$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.62 (Δ -0.29) small_100x143_offlike5_EE_Aplanck_B: 395.69 (Δ -0.17) commander_dx12_v3_2_29: 24.61 (Δ 1.37) plik_rd12_HM_v22_TT: 757.83 (Δ -1.49)

7.3 base_nnu_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}} h^2$	$0.02210^{+0.00077}_{-0.00078}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.460^{+0.035}_{-0.034}$	$100\theta_{\mathrm{s,eq}}$	$0.448^{+0.016}_{-0.015}$
$\Omega_{\mathrm{c}} h^2$	$0.120^{+0.010}_{-0.0099}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.611^{+0.030}_{-0.029}$	$H(0.15)$	$72.1^{+5.9}_{-5.5}$
$100\theta_{\mathrm{MC}}$	$1.0408^{+0.0015}_{-0.0015}$	$\sigma_8/h^{0.5}$	$0.994^{+0.041}_{-0.042}$	$D_{\mathrm{M}}(0.15)$	650^{+56}_{-52}
τ	$0.053^{+0.018}_{-0.012}$	$r_{\mathrm{drag}} h$	$98.4^{+5.7}_{-5.3}$	$H(0.38)$	$82.3^{+5.7}_{-5.3}$
N_{eff}	$3.02^{+0.73}_{-0.69}$	$\langle d^2 \rangle^{1/2}$	$2.46^{+0.12}_{-0.11}$	$D_{\mathrm{M}}(0.38)$	1548^{+120}_{-120}
$\ln(10^{10} A_{\mathrm{s}})$	$3.041^{+0.048}_{-0.042}$	z_{re}	< 9.37	$H(0.51)$	$89.1^{+5.6}_{-5.2}$
n_{s}	$0.962^{+0.033}_{-0.033}$	$10^9 A_{\mathrm{s}}$	$2.09^{+0.10}_{-0.086}$	$D_{\mathrm{M}}(0.51)$	2003^{+150}_{-140}
y_{cal}	$1.0005^{+0.0065}_{-0.0063}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.882^{+0.056}_{-0.059}$	$H(0.61)$	$94.8^{+5.6}_{-5.3}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{40}	1235^{+56}_{-54}	$D_{\mathrm{M}}(0.61)$	2330^{+170}_{-160}
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{220}	5713^{+110}_{-100}	$H(2.33)$	$236.3^{+9.3}_{-9.0}$
A_{143}^{tSZ}	—	D_{810}	2536^{+37}_{-35}	$D_{\mathrm{M}}(2.33)$	5793^{+320}_{-310}
A_{100}^{PS}	262^{+70}_{-70}	D_{1420}	815^{+13}_{-13}	$f\sigma_8(0.15)$	$0.464^{+0.032}_{-0.032}$
A_{143}^{PS}	49^{+20}_{-20}	D_{2000}	$229.8^{+5.9}_{-5.6}$	$\sigma_8(0.15)$	$0.749^{+0.032}_{-0.031}$
$A_{143 \times 217}^{\mathrm{PS}}$	44^{+20}_{-20}	$n_{\mathrm{s},0.002}$	$0.962^{+0.033}_{-0.033}$	$f\sigma_8(0.38)$	$0.480^{+0.024}_{-0.024}$
A_{217}^{PS}	115^{+30}_{-30}	Y_{P}	$0.2448^{+0.0096}_{-0.010}$	$\sigma_8(0.38)$	$0.663^{+0.030}_{-0.029}$
A^{kSZ}	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2461^{+0.0097}_{-0.010}$	$f\sigma_8(0.51)$	$0.477^{+0.021}_{-0.021}$
$A_{100}^{\mathrm{dust}TT}$	$8.9^{+4.6}_{-4.6}$	$10^5 \mathrm{D}/\mathrm{H}$	$2.63^{+0.18}_{-0.17}$	$\sigma_8(0.51)$	$0.620^{+0.029}_{-0.028}$
$A_{143}^{\mathrm{dust}TT}$	$10.7^{+4.6}_{-4.6}$	$\mathrm{Age}/\mathrm{Gyr}$	$13.87^{+0.77}_{-0.74}$	$f\sigma_8(0.61)$	$0.472^{+0.020}_{-0.020}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.2^{+8.3}_{-8.6}$	z_*	$1090.2^{+1.3}_{-1.3}$	$\sigma_8(0.61)$	$0.589^{+0.029}_{-0.027}$
$A_{217}^{\mathrm{dust}TT}$	93^{+20}_{-20}	r_*	$144.8^{+6.6}_{-6.2}$	$f\sigma_8(2.33)$	$0.297^{+0.016}_{-0.015}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	$1.0411^{+0.0019}_{-0.0017}$	$\sigma_8(2.33)$	$0.306^{+0.018}_{-0.016}$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.91^{+0.61}_{-0.58}$	f_{2000}^{143}	31^{+9}_{-9}
H_0	$66.7^{+6.1}_{-5.6}$	z_{drag}	$1059.3^{+2.8}_{-2.7}$	$f_{2000}^{143 \times 217}$	33^{+7}_{-7}
Ω_{Λ}	$0.678^{+0.044}_{-0.048}$	r_{drag}	$147.6^{+6.8}_{-6.5}$	f_{2000}^{217}	$107.9^{+6.1}_{-6.0}$
Ω_{m}	$0.322^{+0.048}_{-0.044}$	k_{D}	$0.1403^{+0.0048}_{-0.0047}$	χ_{simall}^2	$396.7 (\nu: 1.2)$
$\Omega_{\mathrm{m}} h^2$	$0.143^{+0.011}_{-0.010}$	$100\theta_{\mathrm{D}}$	$0.1610^{+0.0017}_{-0.0016}$	χ_{lowl}^2	$24.2 (\nu: 2.4)$
$\Omega_{\mathrm{m}} h^3$	$0.095^{+0.015}_{-0.013}$	z_{eq}	3415^{+160}_{-160}	χ_{plik}^2	$771.7 (\nu: 17.1)$
σ_8	$0.811^{+0.033}_{-0.033}$	k_{eq}	$0.01040^{+0.00041}_{-0.00040}$	χ_{prior}^2	$7.3 (\nu: 6.5)$
S_8	$0.840^{+0.065}_{-0.062}$	$100\theta_{\mathrm{eq}}$	$0.810^{+0.032}_{-0.030}$	χ_{CMB}^2	$1192.7 (\nu: 15.3)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 1199.93; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.61; R - 1 = 0.00341$$

7.4 base_nnu_plikHM_TT_lowl_lowE_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02209^{+0.00074}_{-0.00075}$	$\sigma_8 \Omega_m^{0.25}$	$0.608^{+0.021}_{-0.021}$	$D_M(0.15)$	651^{+54}_{-48}
$\Omega_c h^2$	$0.119^{+0.011}_{-0.0095}$	$\sigma_8/h^{0.5}$	$0.990^{+0.027}_{-0.027}$	$H(0.38)$	$82.1^{+5.3}_{-5.3}$
$100\theta_{MC}$	$1.0409^{+0.0015}_{-0.0014}$	$r_{drag}h$	$98.5^{+4.5}_{-4.2}$	$D_M(0.38)$	1551^{+120}_{-110}
τ	$0.053^{+0.018}_{-0.012}$	$\langle d^2 \rangle^{1/2}$	$2.454^{+0.080}_{-0.081}$	$H(0.51)$	$88.9^{+5.3}_{-5.3}$
N_{eff}	$2.97^{+0.72}_{-0.69}$	z_{re}	< 9.31	$D_M(0.51)$	2008^{+150}_{-140}
$\ln(10^{10} A_s)$	$3.038^{+0.047}_{-0.043}$	$10^9 A_s$	$2.09^{+0.10}_{-0.087}$	$H(0.61)$	$94.5^{+5.3}_{-5.3}$
n_s	$0.961^{+0.031}_{-0.031}$	$10^9 A_s e^{-2\tau}$	$1.876^{+0.054}_{-0.060}$	$D_M(0.61)$	2335^{+170}_{-150}
y_{cal}	$1.0004^{+0.0066}_{-0.0064}$	D_{40}	1236^{+49}_{-47}	$H(2.33)$	$235.4^{+9.4}_{-9.1}$
A_{217}^{CIB}	47^{+20}_{-20}	D_{220}	5716^{+110}_{-100}	$D_M(2.33)$	5811^{+330}_{-300}
$\xi^{tSZ \times CIB}$	—	D_{810}	2535^{+37}_{-37}	$f\sigma_8(0.15)$	$0.461^{+0.021}_{-0.021}$
A_{143}^{tSZ}	—	D_{1420}	815^{+14}_{-13}	$\sigma_8(0.15)$	$0.746^{+0.032}_{-0.031}$
A_{100}^{PS}	261^{+70}_{-70}	D_{2000}	$230.1^{+5.9}_{-5.6}$	$f\sigma_8(0.38)$	$0.477^{+0.017}_{-0.017}$
A_{143}^{PS}	48^{+20}_{-20}	$n_{s,0.002}$	$0.961^{+0.031}_{-0.031}$	$\sigma_8(0.38)$	$0.660^{+0.031}_{-0.030}$
$A_{143 \times 217}^{PS}$	43^{+20}_{-20}	Y_P	$0.2442^{+0.0095}_{-0.0099}$	$f\sigma_8(0.51)$	$0.475^{+0.016}_{-0.016}$
A_{217}^{PS}	115^{+30}_{-30}	Y_P^{BBN}	$0.2455^{+0.0096}_{-0.0099}$	$\sigma_8(0.51)$	$0.617^{+0.030}_{-0.030}$
A^{kSZ}	—	$10^5 D/H$	$2.61^{+0.18}_{-0.17}$	$f\sigma_8(0.61)$	$0.469^{+0.016}_{-0.016}$
A_{100}^{dustTT}	$9.0^{+4.8}_{-4.6}$	Age/Gyr	$13.91^{+0.78}_{-0.71}$	$\sigma_8(0.61)$	$0.587^{+0.029}_{-0.029}$
A_{143}^{dustTT}	$10.7^{+4.5}_{-4.6}$	z_*	$1090.1^{+1.2}_{-1.2}$	$f\sigma_8(2.33)$	$0.296^{+0.015}_{-0.015}$
$A_{143 \times 217}^{dustTT}$	$18.2^{+8.2}_{-8.6}$	r_*	$145.3^{+6.6}_{-6.3}$	$\sigma_8(2.33)$	$0.305^{+0.018}_{-0.017}$
A_{217}^{dustTT}	93^{+20}_{-20}	$100\theta_*$	$1.0412^{+0.0019}_{-0.0017}$	f_{2000}^{143}	31^{+9}_{-9}
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	$13.96^{+0.61}_{-0.58}$	$f_{2000}^{143 \times 217}$	33^{+6}_{-7}
c_{217}	$0.9982^{+0.0015}_{-0.0016}$	z_{drag}	$1059.2^{+2.7}_{-2.8}$	f_{2000}^{217}	$107.7^{+6.2}_{-5.8}$
H_0	$66.6^{+5.5}_{-5.4}$	r_{drag}	$148.1^{+6.9}_{-6.5}$	$\chi_{lensing}^2$	$9.38 (\nu: 0.5)$
Ω_Λ	$0.679^{+0.035}_{-0.037}$	k_D	$0.1399^{+0.0048}_{-0.0048}$	χ_{simall}^2	$396.7 (\nu: 1.1)$
Ω_m	$0.321^{+0.037}_{-0.035}$	$100\theta_D$	$0.1609^{+0.0017}_{-0.0016}$	χ_{lowl}^2	$24.2 (\nu: 1.7)$
$\Omega_m h^2$	$0.142^{+0.011}_{-0.010}$	z_{eq}	3410^{+120}_{-130}	χ_{plik}^2	$771.2 (\nu: 15.2)$
$\Omega_m h^3$	$0.094^{+0.015}_{-0.013}$	k_{eq}	$0.01035^{+0.00035}_{-0.00033}$	χ_{prior}^2	$7.3 (\nu: 6.6)$
σ_8	$0.808^{+0.033}_{-0.032}$	$100\theta_{eq}$	$0.811^{+0.025}_{-0.023}$	χ_{CMB}^2	$1201.4 (\nu: 15.6)$
S_8	$0.835^{+0.042}_{-0.041}$	$100\theta_{s,eq}$	$0.449^{+0.013}_{-0.012}$		
$\sigma_8 \Omega_m^{0.5}$	$0.457^{+0.023}_{-0.023}$	$H(0.15)$	$71.9^{+5.4}_{-5.3}$		

$$\bar{\chi}_{eff}^2 = 1208.73; \Delta\bar{\chi}_{eff}^2 = 0.57; R - 1 = 0.01118$$

7.5 base_nnu_plikHM_TTTEE_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02219	$0.02225^{+0.00058}_{-0.00054}$	$\Omega_m h^2$	0.1401	$0.1413^{+0.0081}_{-0.0078}$	k_{eq}	0.010317	$0.01035^{+0.00030}_{-0.00030}$
$\Omega_c h^2$	0.1172	$0.1184^{+0.0078}_{-0.0075}$	$\Omega_m h^3$	0.0922	$0.0938^{+0.0096}_{-0.0093}$	$100\theta_{\text{eq}}$	0.8082	$0.810^{+0.018}_{-0.017}$
$100\theta_{\text{MC}}$	1.04123	$1.0411^{+0.0011}_{-0.0011}$	σ_8	0.8040	$0.806^{+0.028}_{-0.028}$	$100\theta_{\text{s,eq}}$	0.4468	$0.4477^{+0.0090}_{-0.0087}$
τ	0.0538	$0.053^{+0.021}_{-0.020}$	S_8	0.8347	$0.833^{+0.041}_{-0.040}$	$H(0.15)$	71.15	$71.7^{+3.5}_{-3.6}$
N_{eff}	2.836	$2.92^{+0.48}_{-0.48}$	$\sigma_8 \Omega_m^{0.5}$	0.4572	$0.456^{+0.022}_{-0.022}$	$D_{\text{M}}(0.15)$	657.8	653^{+36}_{-33}
$\ln(10^{10} A_s)$	3.0365	$3.038^{+0.048}_{-0.048}$	$\sigma_8 \Omega_m^{0.25}$	0.6063	$0.607^{+0.022}_{-0.023}$	$H(0.38)$	81.33	$81.9^{+3.5}_{-3.5}$
n_s	0.9579	$0.960^{+0.022}_{-0.022}$	$\sigma_8/h^{0.5}$	0.9910	$0.989^{+0.030}_{-0.030}$	$D_{\text{M}}(0.38)$	1566	1554^{+79}_{-72}
y_{cal}	1.0005	$1.0008^{+0.0066}_{-0.0063}$	$r_{\text{drag}} h$	98.15	$98.5^{+3.3}_{-3.1}$	$H(0.51)$	88.07	$88.7^{+3.5}_{-3.5}$
A_{217}^{CIB}	43.5	46^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.460	$2.456^{+0.077}_{-0.076}$	$D_{\text{M}}(0.51)$	2026	2012^{+98}_{-91}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.96	—	z_{re}	7.60	$7.5^{+2.1}_{-2.2}$	$H(0.61)$	93.70	$94.3^{+3.5}_{-3.6}$
A_{143}^{tSZ}	6.85	> 0.974	$10^9 A_s$	2.083	$2.09^{+0.10}_{-0.098}$	$D_{\text{M}}(0.61)$	2357	2340^{+110}_{-100}
A_{100}^{PS}	244	256^{+70}_{-70}	$10^9 A_s e^{-2\tau}$	1.8707	$1.876^{+0.044}_{-0.046}$	$H(2.33)$	233.9	$234.9^{+6.8}_{-6.8}$
A_{143}^{PS}	52.4	45^{+20}_{-20}	D_{40}	1239.7	1239^{+42}_{-39}	$D_{\text{M}}(2.33)$	5857	5822^{+220}_{-200}
$A_{143 \times 217}^{\text{PS}}$	58.7	42^{+20}_{-20}	D_{220}	5730	5734^{+98}_{-96}	$f\sigma_8(0.15)$	0.4608	$0.460^{+0.021}_{-0.021}$
A_{217}^{PS}	124.4	115^{+30}_{-30}	D_{810}	2539.3	2539^{+37}_{-33}	$\sigma_8(0.15)$	0.7418	$0.744^{+0.027}_{-0.027}$
A^{kSZ}	0.0	—	D_{1420}	819.7	818^{+13}_{-13}	$f\sigma_8(0.38)$	0.4763	$0.476^{+0.018}_{-0.018}$
A_{100}^{dustTT}	8.70	$8.9^{+4.7}_{-4.7}$	D_{2000}	232.48	$231.6^{+4.7}_{-4.7}$	$\sigma_8(0.38)$	0.6563	$0.659^{+0.025}_{-0.025}$
A_{143}^{dustTT}	10.90	$10.8^{+4.6}_{-4.6}$	$n_{\text{s},0.002}$	0.9579	$0.960^{+0.022}_{-0.022}$	$f\sigma_8(0.51)$	0.4736	$0.474^{+0.016}_{-0.017}$
$A_{143 \times 217}^{\text{dustTT}}$	20.2	$18.4^{+8.5}_{-8.6}$	Y_{P}	0.2425	$0.2436^{+0.0065}_{-0.0069}$	$\sigma_8(0.51)$	0.6137	$0.616^{+0.024}_{-0.023}$
A_{217}^{dustTT}	96.0	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.2438	$0.2449^{+0.0065}_{-0.0069}$	$f\sigma_8(0.61)$	0.4677	$0.468^{+0.016}_{-0.016}$
A_{100}^{dustTE}	0.114	$0.114^{+0.10}_{-0.096}$	10^5D/H	2.546	$2.56^{+0.12}_{-0.11}$	$\sigma_8(0.61)$	0.5836	$0.586^{+0.023}_{-0.023}$
$A_{100 \times 143}^{\text{dustTE}}$	0.134	$0.135^{+0.075}_{-0.076}$	Age/Gyr	14.02	$13.94^{+0.52}_{-0.48}$	$f\sigma_8(2.33)$	0.2938	$0.295^{+0.012}_{-0.012}$
$A_{100 \times 217}^{\text{dustTE}}$	0.482	$0.48^{+0.22}_{-0.22}$	z_*	1089.69	$1089.81^{+0.90}_{-0.84}$	$\sigma_8(2.33)$	0.3024	$0.304^{+0.013}_{-0.013}$
A_{143}^{dustTE}	0.225	$0.23^{+0.14}_{-0.14}$	r_*	146.36	$145.6^{+4.8}_{-4.4}$	f_{2000}^{143}	27.2	29^{+8}_{-7}
$A_{143 \times 217}^{\text{dustTE}}$	0.668	$0.67^{+0.20}_{-0.21}$	$100\theta_*$	1.04156	$1.0414^{+0.0014}_{-0.0013}$	$f_{2000}^{143 \times 217}$	30.9	32^{+5}_{-5}
A_{217}^{dustTE}	2.09	$2.09^{+0.70}_{-0.71}$	$D_{\text{M}}(z_*)/\text{Gpc}$	14.052	$13.98^{+0.44}_{-0.41}$	f_{2000}^{217}	105.44	$106.5^{+4.9}_{-5.0}$
c_{100}	0.99976	$0.9997^{+0.0016}_{-0.0016}$	z_{drag}	1059.17	$1059.4^{+2.0}_{-2.0}$	χ_{simall}^2	396.03	$397.0 (\nu: 1.5)$
c_{217}	0.99816	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	149.11	$148.3^{+5.0}_{-4.6}$	χ_{lowl}^2	24.41	$24.3 (\nu: 1.2)$
H_0	65.82	$66.4^{+3.7}_{-3.6}$	k_{D}	0.13944	$0.1400^{+0.0035}_{-0.0036}$	χ_{plik}^2	2343.0	$2359.2 (\nu: 18.0)$
Ω_{Λ}	0.6767	$0.679^{+0.026}_{-0.028}$	$100\theta_{\text{D}}$	0.16033	$0.1605^{+0.0010}_{-0.0011}$	χ_{prior}^2	1.3	$11.6 (\nu: 10.5)$
Ω_{m}	0.3233	$0.321^{+0.028}_{-0.026}$	z_{eq}	3429	3420^{+94}_{-92}	χ_{CMB}^2	2763.4	$2780.5 (\nu: 17.8)$

Best-fit $\chi_{\text{eff}}^2 = 2764.72$; $\Delta\chi_{\text{eff}}^2 = -1.05$; $\bar{\chi}_{\text{eff}}^2 = 2792.10$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.33$; $R - 1 = 0.01315$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.03 (Δ -0.02) commander_dx12_v3.2.29: 24.41 (Δ 1.15) plik_rd12_HM_v22b_TTTEE: 2342.95 (Δ -1.69)

7.6 base_nnu_plikHM_TTTEEE_lowl_lowE_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02220	$0.02224^{+0.00057}_{-0.00055}$	$\Omega_m h^3$	0.0918	$0.0933^{+0.0096}_{-0.0092}$	$100\theta_{s,eq}$	0.4472	$0.4478^{+0.0085}_{-0.0082}$
$\Omega_c h^2$	0.1167	$0.1179^{+0.0073}_{-0.0072}$	σ_8	0.8018	$0.804^{+0.026}_{-0.025}$	$H(0.15)$	71.10	$71.6^{+3.5}_{-3.5}$
$100\theta_{MC}$	1.04130	$1.0412^{+0.0011}_{-0.0011}$	S_8	0.8312	$0.831^{+0.032}_{-0.033}$	$D_M(0.15)$	658.2	654^{+35}_{-33}
τ	0.0533	$0.053^{+0.020}_{-0.019}$	$\sigma_8 \Omega_m^{0.5}$	0.4553	$0.455^{+0.018}_{-0.018}$	$H(0.38)$	81.25	$81.8^{+3.5}_{-3.5}$
N_{eff}	2.815	$2.89^{+0.47}_{-0.47}$	$\sigma_8 \Omega_m^{0.25}$	0.6042	$0.605^{+0.018}_{-0.018}$	$D_M(0.38)$	1567	1557^{+78}_{-73}
$\ln(10^{10} A_s)$	3.0339	$3.036^{+0.044}_{-0.043}$	$\sigma_8/h^{0.5}$	0.9885	$0.988^{+0.023}_{-0.023}$	$H(0.51)$	87.97	$88.5^{+3.5}_{-3.5}$
n_s	0.9577	$0.959^{+0.022}_{-0.023}$	$r_{drag} h$	98.27	$98.5^{+3.0}_{-2.9}$	$D_M(0.51)$	2028	2015^{+98}_{-91}
y_{cal}	1.0005	$1.0007^{+0.0067}_{-0.0063}$	$\langle d^2 \rangle^{1/2}$	2.456	$2.454^{+0.065}_{-0.061}$	$H(0.61)$	93.59	$94.1^{+3.6}_{-3.6}$
A_{217}^{CIB}	43.4	46^{+20}_{-20}	z_{re}	7.53	$7.5^{+1.9}_{-2.0}$	$D_M(0.61)$	2359	2344^{+110}_{-100}
$\xi^{tSZ \times CIB}$	0.98	—	$10^9 A_s$	2.078	$2.083^{+0.093}_{-0.087}$	$H(2.33)$	233.5	$234.5^{+6.5}_{-6.8}$
A_{143}^{tSZ}	6.9	—	$10^9 A_s e^{-2\tau}$	1.8679	$1.873^{+0.042}_{-0.045}$	$D_M(2.33)$	5864	5832^{+220}_{-210}
A_{100}^{PS}	242	256^{+70}_{-70}	D_{40}	1239.1	1240^{+39}_{-36}	$f\sigma_8(0.15)$	0.4589	$0.459^{+0.016}_{-0.017}$
A_{143}^{PS}	52.0	44^{+20}_{-20}	D_{220}	5730	5736^{+95}_{-94}	$\sigma_8(0.15)$	0.7399	$0.742^{+0.025}_{-0.025}$
$A_{143 \times 217}^{PS}$	59.1	42^{+20}_{-20}	D_{810}	2538.8	2538^{+37}_{-33}	$f\sigma_8(0.38)$	0.4747	$0.475^{+0.014}_{-0.014}$
A_{217}^{PS}	124.4	115^{+30}_{-30}	D_{1420}	819.9	818^{+13}_{-12}	$\sigma_8(0.38)$	0.6547	$0.657^{+0.023}_{-0.023}$
A^{kSZ}	0.0	—	D_{2000}	232.64	$231.7^{+4.8}_{-4.6}$	$f\sigma_8(0.51)$	0.4720	$0.473^{+0.014}_{-0.014}$
A_{100}^{dustTT}	8.69	$8.9^{+4.8}_{-4.6}$	$n_{s,0.002}$	0.9577	$0.959^{+0.022}_{-0.023}$	$\sigma_8(0.51)$	0.6122	$0.615^{+0.022}_{-0.022}$
A_{143}^{dustTT}	10.89	$10.8^{+4.6}_{-4.6}$	Y_P	0.2422	$0.2433^{+0.0064}_{-0.0068}$	$f\sigma_8(0.61)$	0.4662	$0.467^{+0.014}_{-0.014}$
$A_{143 \times 217}^{dustTT}$	20.3	$18.4^{+8.5}_{-9.0}$	Y_P^{BBN}	0.2435	$0.2446^{+0.0065}_{-0.0068}$	$\sigma_8(0.61)$	0.5822	$0.585^{+0.022}_{-0.022}$
A_{217}^{dustTT}	96.1	94^{+20}_{-20}	$10^5 D/H$	2.538	$2.56^{+0.11}_{-0.11}$	$f\sigma_8(2.33)$	0.2932	$0.294^{+0.012}_{-0.011}$
A_{100}^{dustTE}	0.113	$0.114^{+0.10}_{-0.096}$	Age/Gyr	14.04	$13.96^{+0.52}_{-0.49}$	$\sigma_8(2.33)$	0.3018	$0.303^{+0.013}_{-0.013}$
$A_{100 \times 143}^{dustTE}$	0.136	$0.135^{+0.074}_{-0.076}$	z_*	1089.62	$1089.75^{+0.83}_{-0.83}$	f_{2000}^{143}	26.9	29^{+8}_{-8}
$A_{100 \times 217}^{dustTE}$	0.482	$0.48^{+0.22}_{-0.22}$	r_*	146.61	$145.9^{+4.8}_{-4.4}$	$f_{2000}^{143 \times 217}$	30.8	31^{+5}_{-5}
A_{143}^{dustTE}	0.228	$0.22^{+0.14}_{-0.13}$	$100\theta_*$	1.04165	$1.0415^{+0.0014}_{-0.0013}$	f_{2000}^{217}	105.29	$106.4^{+4.9}_{-5.0}$
$A_{143 \times 217}^{dustTE}$	0.669	$0.67^{+0.19}_{-0.21}$	$D_M(z_*)/\text{Gpc}$	14.075	$14.01^{+0.45}_{-0.41}$	$\chi^2_{lensing}$	8.50	$9.02 (\nu: 0.2)$
A_{217}^{dustTE}	2.09	$2.08^{+0.71}_{-0.73}$	z_{drag}	1059.09	$1059.3^{+2.0}_{-2.0}$	χ^2_{small}	395.95	$396.8 (\nu: 1.1)$
c_{100}	0.99976	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	149.36	$148.6^{+5.1}_{-4.6}$	χ^2_{lowl}	24.36	$24.4 (\nu: 1.1)$
c_{217}	0.99816	$0.9982^{+0.0016}_{-0.0016}$	k_D	0.13926	$0.1398^{+0.0035}_{-0.0035}$	χ^2_{plik}	2343.0	$2359.1 (\nu: 17.2)$
H_0	65.79	$66.3^{+3.6}_{-3.6}$	$100\theta_D$	0.16027	$0.1605^{+0.0010}_{-0.0010}$	χ^2_{prior}	1.4	$11.6 (\nu: 10.5)$
Ω_Λ	0.6776	$0.679^{+0.025}_{-0.025}$	z_{eq}	3426	3419^{+87}_{-86}	χ^2_{CMB}	2771.9	$2789.3 (\nu: 17.7)$
Ω_m	0.3224	$0.321^{+0.025}_{-0.025}$	k_{eq}	0.010292	$0.01033^{+0.00028}_{-0.00028}$			
$\Omega_m h^2$	0.1395	$0.1408^{+0.0076}_{-0.0076}$	$100\theta_{eq}$	0.8088	$0.810^{+0.017}_{-0.016}$			

Best-fit $\chi^2_{eff} = 2773.28$; $\Delta\chi^2_{eff} = -1.35$; $\bar{\chi}^2_{eff} = 2800.86$; $\Delta\bar{\chi}^2_{eff} = 0.17$; $R - 1 = 0.01957$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.50 (Δ -0.37) small_100x143_offlike5_EE_Aplanck_B: 395.95 (Δ -0.10) commander_dx12_v3_2_29: 24.36 (Δ 1.11) plik_rd12_HM_v22b_TTTEEE: 2343.04 (Δ -1.89)

7.7 base_nnu_plikHM_TTTEE_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02225^{+0.00058}_{-0.00054}$	$\Omega_m h^2$	$0.1413^{+0.0080}_{-0.0078}$	k_{eq}	$0.01035^{+0.00030}_{-0.00030}$
$\Omega_c h^2$	$0.1184^{+0.0077}_{-0.0075}$	$\Omega_m h^3$	$0.0939^{+0.0096}_{-0.0093}$	$100\theta_{\text{eq}}$	$0.810^{+0.018}_{-0.017}$
$100\theta_{\text{MC}}$	$1.0411^{+0.0011}_{-0.0011}$	σ_8	$0.807^{+0.028}_{-0.025}$	$100\theta_{\text{s,eq}}$	$0.4479^{+0.0090}_{-0.0087}$
τ	$0.055^{+0.019}_{-0.013}$	S_8	$0.834^{+0.040}_{-0.039}$	$H(0.15)$	$71.8^{+3.6}_{-3.5}$
N_{eff}	$2.92^{+0.48}_{-0.47}$	$\sigma_8 \Omega_m^{0.5}$	$0.457^{+0.022}_{-0.022}$	$D_{\text{M}}(0.15)$	652^{+35}_{-33}
$\ln(10^{10} A_s)$	$3.041^{+0.046}_{-0.036}$	$\sigma_8 \Omega_m^{0.25}$	$0.607^{+0.022}_{-0.021}$	$H(0.38)$	$82.0^{+3.5}_{-3.5}$
n_s	$0.960^{+0.021}_{-0.022}$	$\sigma_8/h^{0.5}$	$0.991^{+0.030}_{-0.028}$	$D_{\text{M}}(0.38)$	1553^{+78}_{-73}
y_{cal}	$1.0007^{+0.0064}_{-0.0063}$	$r_{\text{drag}} h$	$98.5^{+3.3}_{-3.1}$	$H(0.51)$	$88.7^{+3.5}_{-3.5}$
A_{217}^{CIB}	46^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	$2.458^{+0.076}_{-0.073}$	$D_{\text{M}}(0.51)$	2011^{+97}_{-91}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	< 9.40	$H(0.61)$	$94.3^{+3.5}_{-3.6}$
A_{143}^{tSZ}	> 0.979	$10^9 A_s$	$2.092^{+0.098}_{-0.074}$	$D_{\text{M}}(0.61)$	2338^{+110}_{-100}
A_{100}^{PS}	256^{+70}_{-70}	$10^9 A_s e^{-2\tau}$	$1.876^{+0.044}_{-0.045}$	$H(2.33)$	$235.0^{+6.7}_{-6.9}$
A_{143}^{PS}	45^{+20}_{-20}	D_{40}	1239^{+42}_{-39}	$D_{\text{M}}(2.33)$	5819^{+220}_{-200}
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{220}	5734^{+96}_{-96}	$f\sigma_8(0.15)$	$0.461^{+0.020}_{-0.020}$
A_{217}^{PS}	115^{+30}_{-30}	D_{810}	2538^{+35}_{-34}	$\sigma_8(0.15)$	$0.745^{+0.026}_{-0.024}$
A^{kSZ}	—	D_{1420}	818^{+12}_{-13}	$f\sigma_8(0.38)$	$0.477^{+0.017}_{-0.017}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.7}$	D_{2000}	$231.6^{+4.7}_{-4.7}$	$\sigma_8(0.38)$	$0.660^{+0.024}_{-0.022}$
A_{143}^{dustTT}	$10.8^{+4.6}_{-4.6}$	$n_{\text{s},0.002}$	$0.960^{+0.021}_{-0.022}$	$f\sigma_8(0.51)$	$0.475^{+0.016}_{-0.016}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.4^{+8.5}_{-8.6}$	Y_{P}	$0.2437^{+0.0065}_{-0.0068}$	$\sigma_8(0.51)$	$0.617^{+0.023}_{-0.021}$
A_{217}^{dustTT}	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.2450^{+0.0065}_{-0.0069}$	$f\sigma_8(0.61)$	$0.469^{+0.015}_{-0.015}$
A_{100}^{dustTE}	$0.114^{+0.10}_{-0.097}$	$10^5 \text{D}/\text{H}$	$2.56^{+0.12}_{-0.11}$	$\sigma_8(0.61)$	$0.587^{+0.022}_{-0.020}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.075}_{-0.076}$	Age/Gyr	$13.93^{+0.52}_{-0.48}$	$f\sigma_8(2.33)$	$0.296^{+0.011}_{-0.011}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	z_*	$1089.81^{+0.90}_{-0.84}$	$\sigma_8(2.33)$	$0.304^{+0.013}_{-0.012}$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.13}$	r_*	$145.6^{+4.8}_{-4.4}$	f_{2000}^{143}	29^{+8}_{-7}
$A_{143 \times 217}^{\text{dustTE}}$	$0.67^{+0.20}_{-0.21}$	$100\theta_*$	$1.0414^{+0.0014}_{-0.0013}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
A_{217}^{dustTE}	$2.08^{+0.70}_{-0.71}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.98^{+0.45}_{-0.41}$	f_{2000}^{217}	$106.5^{+4.9}_{-5.0}$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	z_{drag}	$1059.4^{+2.0}_{-2.0}$	χ_{small}^2	$396.9 (\nu: 1.6)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	$148.3^{+5.0}_{-4.6}$	χ_{lowl}^2	$24.3 (\nu: 1.2)$
H_0	$66.4^{+3.7}_{-3.6}$	k_{D}	$0.1400^{+0.0035}_{-0.0036}$	χ_{plik}^2	$2359.1 (\nu: 18.0)$
Ω_{Λ}	$0.680^{+0.026}_{-0.027}$	$100\theta_{\text{D}}$	$0.1605^{+0.0010}_{-0.0011}$	χ_{prior}^2	$11.5 (\nu: 10.5)$
Ω_{m}	$0.320^{+0.027}_{-0.026}$	z_{eq}	3418^{+94}_{-92}	χ_{CMB}^2	$2780.3 (\nu: 17.5)$

$$\bar{\chi}_{\text{eff}}^2 = 2791.81; \Delta \bar{\chi}_{\text{eff}}^2 = 0.28; R - 1 = 0.01491$$

7.8 base_nnu_plikHM_TTTEEE_lowl_lowE_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02224^{+0.00058}_{-0.00055}$	$\Omega_m h^3$	$0.0934^{+0.0095}_{-0.0092}$	$100\theta_{s,eq}$	$0.4480^{+0.0085}_{-0.0081}$
$\Omega_c h^2$	$0.1179^{+0.0073}_{-0.0073}$	σ_8	$0.805^{+0.025}_{-0.024}$	$H(0.15)$	$71.7^{+3.6}_{-3.6}$
$100\theta_{MC}$	$1.0412^{+0.0011}_{-0.0011}$	S_8	$0.831^{+0.032}_{-0.032}$	$D_M(0.15)$	653^{+36}_{-33}
τ	$0.054^{+0.017}_{-0.012}$	$\sigma_8 \Omega_m^{0.5}$	$0.455^{+0.018}_{-0.018}$	$H(0.38)$	$81.8^{+3.5}_{-3.5}$
N_{eff}	$2.90^{+0.47}_{-0.47}$	$\sigma_8 \Omega_m^{0.25}$	$0.606^{+0.018}_{-0.018}$	$D_M(0.38)$	1555^{+79}_{-72}
$\ln(10^{10} A_s)$	$3.038^{+0.042}_{-0.033}$	$\sigma_8/h^{0.5}$	$0.989^{+0.022}_{-0.023}$	$H(0.51)$	$88.6^{+3.5}_{-3.5}$
n_s	$0.959^{+0.022}_{-0.022}$	$r_{drag} h$	$98.6^{+3.0}_{-2.9}$	$D_M(0.51)$	2014^{+98}_{-90}
y_{cal}	$1.0007^{+0.0066}_{-0.0063}$	$\langle d^2 \rangle^{1/2}$	$2.455^{+0.064}_{-0.062}$	$H(0.61)$	$94.2^{+3.6}_{-3.4}$
A_{217}^{CIB}	46^{+20}_{-20}	z_{re}	< 9.22	$D_M(0.61)$	2342^{+110}_{-100}
$\xi^{tSZ \times CIB}$	—	$10^9 A_s$	$2.087^{+0.089}_{-0.068}$	$H(2.33)$	$234.6^{+6.5}_{-6.8}$
A_{143}^{tSZ}	—	$10^9 A_s e^{-2\tau}$	$1.873^{+0.042}_{-0.045}$	$D_M(2.33)$	5829^{+220}_{-200}
A_{100}^{PS}	256^{+70}_{-70}	D_{40}	1239^{+39}_{-36}	$f\sigma_8(0.15)$	$0.459^{+0.016}_{-0.017}$
A_{143}^{PS}	44^{+20}_{-20}	D_{220}	5735^{+92}_{-95}	$\sigma_8(0.15)$	$0.743^{+0.024}_{-0.023}$
$A_{143 \times 217}^{PS}$	42^{+20}_{-20}	D_{810}	2538^{+34}_{-33}	$f\sigma_8(0.38)$	$0.476^{+0.014}_{-0.014}$
A_{217}^{PS}	115^{+30}_{-30}	D_{1420}	818^{+13}_{-12}	$\sigma_8(0.38)$	$0.658^{+0.022}_{-0.021}$
A^{kSZ}	—	D_{2000}	$231.6^{+4.8}_{-4.6}$	$f\sigma_8(0.51)$	$0.473^{+0.014}_{-0.013}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.6}$	$n_{s,0.002}$	$0.959^{+0.022}_{-0.022}$	$\sigma_8(0.51)$	$0.615^{+0.022}_{-0.021}$
A_{143}^{dustTT}	$10.8^{+4.6}_{-4.6}$	Y_P	$0.2433^{+0.0064}_{-0.0068}$	$f\sigma_8(0.61)$	$0.468^{+0.014}_{-0.013}$
$A_{143 \times 217}^{dustTT}$	$18.4^{+8.5}_{-8.8}$	Y_P^{BBN}	$0.2446^{+0.0065}_{-0.0068}$	$\sigma_8(0.61)$	$0.585^{+0.021}_{-0.020}$
A_{217}^{dustTT}	94^{+20}_{-20}	$10^5 D/H$	$2.56^{+0.11}_{-0.11}$	$f\sigma_8(2.33)$	$0.295^{+0.011}_{-0.011}$
A_{100}^{dustTE}	$0.114^{+0.10}_{-0.096}$	Age/Gyr	$13.95^{+0.52}_{-0.49}$	$\sigma_8(2.33)$	$0.304^{+0.012}_{-0.012}$
$A_{100 \times 143}^{dustTE}$	$0.135^{+0.072}_{-0.076}$	z_*	$1089.75^{+0.83}_{-0.82}$	f_{2000}^{143}	29^{+8}_{-8}
$A_{100 \times 217}^{dustTE}$	$0.48^{+0.22}_{-0.22}$	r_*	$145.9^{+4.8}_{-4.4}$	$f_{2000}^{143 \times 217}$	31^{+5}_{-5}
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.13}$	$100\theta_*$	$1.0415^{+0.0014}_{-0.0013}$	f_{2000}^{217}	$106.4^{+4.9}_{-5.0}$
$A_{143 \times 217}^{dustTE}$	$0.67^{+0.19}_{-0.21}$	$D_M(z_*)/\text{Gpc}$	$14.01^{+0.44}_{-0.41}$	$\chi_{lensing}^2$	$9.01 (\nu: 0.2)$
A_{217}^{dustTE}	$2.08^{+0.72}_{-0.72}$	z_{drag}	$1059.4^{+2.0}_{-2.0}$	χ_{simall}^2	$396.8 (\nu: 1.2)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	$148.6^{+5.0}_{-4.6}$	χ_{lowl}^2	$24.4 (\nu: 1.1)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	k_D	$0.1398^{+0.0034}_{-0.0035}$	χ_{plik}^2	$2358.9 (\nu: 17.3)$
H_0	$66.3^{+3.6}_{-3.6}$	$100\theta_D$	$0.1605^{+0.0010}_{-0.0010}$	χ_{prior}^2	$11.5 (\nu: 10.4)$
Ω_Λ	$0.680^{+0.024}_{-0.025}$	z_{eq}	3417^{+87}_{-86}	χ_{CMB}^2	$2789.1 (\nu: 17.5)$
Ω_m	$0.320^{+0.025}_{-0.024}$	k_{eq}	$0.01032^{+0.00028}_{-0.00027}$		
$\Omega_m h^2$	$0.1408^{+0.0076}_{-0.0076}$	$100\theta_{eq}$	$0.810^{+0.017}_{-0.016}$		

$$\bar{\chi}_{eff}^2 = 2800.61; \Delta \bar{\chi}_{eff}^2 = 0.11; R - 1 = 0.02136$$

7.9 base_nnu_plikHM_TT_lowl_lowE_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02224	$0.02227^{+0.00059}_{-0.00058}$	$\sigma_8/h^{0.5}$	0.9823	$0.983^{+0.033}_{-0.031}$	$D_M(0.38)$	1525	1518^{+76}_{-76}
$\Omega_c h^2$	0.1193	$0.121^{+0.010}_{-0.0093}$	$r_{\text{drag}} h$	99.87	$99.96^{+2.8}_{-2.6}$	$H(0.51)$	89.87	$90.3^{+4.1}_{-3.9}$
$100\theta_{\text{MC}}$	1.04094	$1.0408^{+0.0015}_{-0.0014}$	$\langle d^2 \rangle^{1/2}$	2.425	$2.426^{+0.073}_{-0.073}$	$D_M(0.51)$	1976	1967^{+96}_{-95}
τ	0.0545	$0.054^{+0.022}_{-0.022}$	z_{re}	7.72	$7.7^{+2.2}_{-2.4}$	$H(0.61)$	95.47	$96.0^{+4.2}_{-4.0}$
N_{eff}	3.07	$3.15^{+0.62}_{-0.56}$	$10^9 A_s$	2.095	$2.10^{+0.11}_{-0.11}$	$D_M(0.61)$	2300	2289^{+110}_{-110}
$\ln(10^{10} A_s)$	3.042	$3.044^{+0.053}_{-0.053}$	$10^9 A_s e^{-2\tau}$	1.879	$1.885^{+0.055}_{-0.053}$	$H(2.33)$	236.1	$237.1^{+8.9}_{-8.2}$
n_s	0.9686	$0.970^{+0.022}_{-0.021}$	D_{40}	1221.3	1222^{+38}_{-38}	$D_M(2.33)$	5754	5728^{+240}_{-240}
y_{cal}	1.0003	$1.0006^{+0.0063}_{-0.0065}$	D_{220}	5714	5719^{+100}_{-110}	$f\sigma_8(0.15)$	0.4546	$0.456^{+0.023}_{-0.022}$
A_{217}^{CIB}	49.7	48^{+20}_{-20}	D_{810}	2536.1	2537^{+36}_{-37}	$\sigma_8(0.15)$	0.7477	$0.750^{+0.033}_{-0.032}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.19	—	D_{1420}	815.8	815^{+13}_{-14}	$f\sigma_8(0.38)$	0.4734	$0.475^{+0.021}_{-0.020}$
A_{143}^{tSZ}	7.0	—	D_{2000}	230.0	$229.4^{+5.6}_{-5.7}$	$\sigma_8(0.38)$	0.6630	$0.666^{+0.030}_{-0.029}$
A_{100}^{PS}	257	266^{+70}_{-70}	$n_{s,0.002}$	0.9686	$0.970^{+0.022}_{-0.021}$	$f\sigma_8(0.51)$	0.4723	$0.474^{+0.021}_{-0.019}$
A_{143}^{PS}	47.6	50^{+20}_{-20}	Y_{P}	0.2457	$0.2466^{+0.0080}_{-0.0078}$	$\sigma_8(0.51)$	0.6206	$0.623^{+0.029}_{-0.027}$
$A_{143 \times 217}^{\text{PS}}$	43.4	44^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.2471	$0.2480^{+0.0080}_{-0.0078}$	$f\sigma_8(0.61)$	0.4675	$0.469^{+0.020}_{-0.019}$
A_{217}^{PS}	117.6	115^{+30}_{-30}	10^5D/H	2.620	$2.64^{+0.19}_{-0.16}$	$\sigma_8(0.61)$	0.5906	$0.593^{+0.028}_{-0.026}$
A^{kSZ}	0.0	—	Age/Gyr	13.78	$13.71^{+0.57}_{-0.57}$	$f\sigma_8(2.33)$	0.2979	$0.299^{+0.014}_{-0.013}$
A_{100}^{dustTT}	8.86	$9.0^{+4.7}_{-4.7}$	z_*	1090.05	$1090.2^{+1.3}_{-1.2}$	$\sigma_8(2.33)$	0.3072	$0.308^{+0.015}_{-0.014}$
A_{143}^{dustTT}	10.81	$10.8^{+4.7}_{-4.6}$	r_*	144.6	$143.9^{+5.6}_{-5.6}$	f_{2000}^{143}	30.5	32^{+9}_{-9}
$A_{143 \times 217}^{\text{dustTT}}$	19.1	$18.3^{+8.5}_{-8.7}$	$100\theta_*$	1.04111	$1.0410^{+0.0017}_{-0.0017}$	$f_{2000}^{143 \times 217}$	33.2	34^{+6}_{-6}
A_{217}^{dustTT}	94.1	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.88	$13.82^{+0.51}_{-0.52}$	f_{2000}^{217}	107.7	$108.5^{+5.9}_{-5.7}$
c_{100}	0.99965	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	1059.63	$1059.8^{+2.2}_{-2.2}$	χ_{small}^2	396.05	$397.1 (\nu: 1.8)$
c_{217}	0.99825	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	147.3	$146.6^{+5.7}_{-5.8}$	χ_{lowl}^2	22.69	$22.8 (\nu: 0.7)$
H_0	67.82	$68.2^{+3.8}_{-3.6}$	k_{D}	0.14048	$0.1410^{+0.0044}_{-0.0041}$	χ_{plik}^2	760.2	$773.2 (\nu: 16.2)$
Ω_{Λ}	0.6908	$0.691^{+0.022}_{-0.021}$	$100\theta_{\text{D}}$	0.16107	$0.1612^{+0.0016}_{-0.0014}$	$\chi_{6\text{DF}}^2$	0.016	$0.057 (\nu: 0.0)$
Ω_{m}	0.3092	$0.309^{+0.021}_{-0.022}$	z_{eq}	3370	3368^{+81}_{-81}	χ_{MGS}^2	1.34	$1.47 (\nu: 0.2)$
$\Omega_{\text{m}} h^2$	0.1422	$0.143^{+0.011}_{-0.0096}$	k_{eq}	0.010307	$0.01035^{+0.00039}_{-0.00036}$	χ_{DR12BAO}^2	4.05	$4.7 (\nu: 1.2)$
$\Omega_{\text{m}} h^3$	0.0965	$0.098^{+0.012}_{-0.011}$	$100\theta_{\text{eq}}$	0.8187	$0.819^{+0.016}_{-0.015}$	χ_{prior}^2	1.4	$7.3 (\nu: 6.7)$
σ_8	0.8089	$0.812^{+0.036}_{-0.034}$	$100\theta_{s,\text{eq}}$	0.4523	$0.4525^{+0.0080}_{-0.0076}$	χ_{BAO}^2	5.41	$6.2 (\nu: 0.9)$
S_8	0.8213	$0.823^{+0.043}_{-0.041}$	$H(0.15)$	73.08	$73.5^{+3.9}_{-3.6}$	χ_{CMB}^2	1178.9	$1193.0 (\nu: 15.8)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4498	$0.451^{+0.023}_{-0.022}$	$D_M(0.15)$	639.4	636^{+34}_{-33}			
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6032	$0.605^{+0.027}_{-0.025}$	$H(0.38)$	83.17	$83.6^{+4.0}_{-3.7}$			

Best-fit $\chi_{\text{eff}}^2 = 1185.72$; $\Delta\chi_{\text{eff}}^2 = -0.03$; $\bar{\chi}_{\text{eff}}^2 = 1206.54$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.52$; $R - 1 = 0.01083$

χ_{eff}^2 : BAO - 6DF: 0.02 (Δ -0.01) MGS: 1.34 (Δ 0.06) DR12BAO: 4.05 (Δ -0.14) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.05 (Δ 0.16) commander_dx12_v3_2_29: 22.69 (Δ -0.14) plik_rd12_HM_v22_TT: 760.20 (Δ 0.10)

7.10 base_nnu_plikHM_TT_lowl_lowE_BAO_post_lensing_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02228	$0.02228^{+0.00058}_{-0.00057}$	$\sigma_8/h^{0.5}$	0.9832	$0.984^{+0.024}_{-0.023}$	$D_M(0.38)$	1523	1519^{+74}_{-72}
$\Omega_c h^2$	0.1197	$0.1203^{+0.0096}_{-0.0087}$	$r_{\text{drag}} h$	99.88	$99.96^{+2.5}_{-2.4}$	$H(0.51)$	90.00	$90.2^{+3.9}_{-3.7}$
$100\theta_{\text{MC}}$	1.04093	$1.0409^{+0.0013}_{-0.0014}$	$\langle d^2 \rangle^{1/2}$	2.427	$2.430^{+0.058}_{-0.058}$	$D_M(0.51)$	1974	1968^{+94}_{-91}
τ	0.0545	$0.055^{+0.021}_{-0.019}$	z_{re}	7.72	$7.8^{+2.0}_{-2.0}$	$H(0.61)$	95.61	$95.9^{+4.0}_{-3.8}$
N_{eff}	3.09	$3.13^{+0.59}_{-0.54}$	$10^9 A_s$	2.099	$2.106^{+0.099}_{-0.092}$	$D_M(0.61)$	2297	2291^{+110}_{-100}
$\ln(10^{10} A_s)$	3.0441	$3.047^{+0.046}_{-0.044}$	$10^9 A_s e^{-2\tau}$	1.8823	$1.885^{+0.049}_{-0.049}$	$H(2.33)$	236.4	$236.9^{+8.3}_{-7.7}$
n_s	0.9689	$0.969^{+0.021}_{-0.021}$	D_{40}	1222.7	1224^{+36}_{-36}	$D_M(2.33)$	5746	5733^{+230}_{-230}
y_{cal}	1.0007	$1.0007^{+0.0063}_{-0.0063}$	D_{220}	5722	5725^{+100}_{-100}	$f\sigma_8(0.15)$	0.4553	$0.456^{+0.017}_{-0.017}$
A_{217}^{CIB}	49.2	48^{+20}_{-20}	D_{810}	2539.1	2538^{+35}_{-35}	$\sigma_8(0.15)$	0.7490	$0.751^{+0.029}_{-0.028}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.25	—	D_{1420}	816.6	815^{+13}_{-13}	$f\sigma_8(0.38)$	0.4742	$0.475^{+0.017}_{-0.016}$
A_{143}^{tSZ}	7.1	—	D_{2000}	230.2	$229.6^{+5.5}_{-5.5}$	$\sigma_8(0.38)$	0.6642	$0.666^{+0.027}_{-0.026}$
A_{100}^{PS}	256	265^{+80}_{-70}	$n_{s,0.002}$	0.9689	$0.969^{+0.021}_{-0.021}$	$f\sigma_8(0.51)$	0.4731	$0.474^{+0.016}_{-0.016}$
A_{143}^{PS}	48.4	49^{+20}_{-20}	Y_{P}	0.2460	$0.2464^{+0.0076}_{-0.0074}$	$\sigma_8(0.51)$	0.6217	$0.623^{+0.025}_{-0.025}$
$A_{143 \times 217}^{\text{PS}}$	45.1	43^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.2473	$0.2478^{+0.0076}_{-0.0075}$	$f\sigma_8(0.61)$	0.4683	$0.469^{+0.017}_{-0.016}$
A_{217}^{PS}	118.5	115^{+30}_{-30}	$10^5 \text{D}/\text{H}$	2.619	$2.63^{+0.17}_{-0.16}$	$\sigma_8(0.61)$	0.5916	$0.593^{+0.024}_{-0.024}$
A^{kSZ}	0.0	—	Age/Gyr	13.76	$13.73^{+0.55}_{-0.54}$	$f\sigma_8(2.33)$	0.2984	$0.299^{+0.013}_{-0.012}$
A_{100}^{dustTT}	8.89	$9.0^{+4.7}_{-4.7}$	z_*	1090.05	$1090.1^{+1.2}_{-1.2}$	$\sigma_8(2.33)$	0.3077	$0.309^{+0.014}_{-0.013}$
A_{143}^{dustTT}	10.78	$10.7^{+4.8}_{-4.6}$	r_*	144.4	$144.0^{+5.2}_{-5.3}$	f_{2000}^{143}	30.4	31^{+9}_{-9}
$A_{143 \times 217}^{\text{dustTT}}$	19.4	$18.3^{+8.4}_{-8.6}$	$100\theta_*$	1.04109	$1.0410^{+0.0016}_{-0.0017}$	$f_{2000}^{143 \times 217}$	33.2	34^{+6}_{-6}
A_{217}^{dustTT}	94.6	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.865	$13.84^{+0.49}_{-0.49}$	f_{2000}^{217}	107.7	$108.3^{+5.8}_{-5.7}$
c_{100}	0.99967	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	1059.74	$1059.8^{+2.2}_{-2.1}$	χ_{lensing}^2	8.98	$9.45 (\nu: 0.3)$
c_{217}	0.99827	$0.9983^{+0.0016}_{-0.0015}$	r_{drag}	147.0	$146.7^{+5.4}_{-5.4}$	χ_{simall}^2	396.05	$397.2 (\nu: 1.8)$
H_0	67.92	$68.1^{+3.6}_{-3.4}$	k_{D}	0.14067	$0.1409^{+0.0040}_{-0.0039}$	χ_{lowl}^2	22.70	$22.9 (\nu: 0.6)$
Ω_{Λ}	0.6909	$0.691^{+0.019}_{-0.020}$	$100\theta_{\text{D}}$	0.16107	$0.1612^{+0.0015}_{-0.0014}$	χ_{plik}^2	760.1	$772.6 (\nu: 15.2)$
Ω_{m}	0.3091	$0.309^{+0.020}_{-0.019}$	z_{eq}	3372	3369^{+72}_{-75}	χ_{JLA}^2	1034.95	$1035.04 (\nu: 0.1)$
$\Omega_{\text{m}} h^2$	0.1426	$0.1432^{+0.0099}_{-0.0089}$	k_{eq}	0.010323	$0.01034^{+0.00034}_{-0.00033}$	$\chi_{6\text{DF}}^2$	0.016	$0.048 (\nu: 0.0)$
$\Omega_{\text{m}} h^3$	0.0969	$0.098^{+0.012}_{-0.010}$	$100\theta_{\text{eq}}$	0.8185	$0.819^{+0.014}_{-0.013}$	χ_{MGS}^2	1.34	$1.45 (\nu: 0.1)$
σ_8	0.8103	$0.812^{+0.031}_{-0.030}$	$100\theta_{\text{s,eq}}$	0.4522	$0.4525^{+0.0073}_{-0.0068}$	χ_{DR12BAO}^2	4.05	$4.5 (\nu: 0.9)$
S_8	0.8226	$0.824^{+0.033}_{-0.032}$	$H(0.15)$	73.19	$73.4^{+3.7}_{-3.5}$	χ_{prior}^2	1.4	$7.3 (\nu: 6.6)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4506	$0.451^{+0.018}_{-0.017}$	$D_M(0.15)$	638.4	637^{+32}_{-32}	χ_{CMB}^2	1187.9	$1202.1 (\nu: 15.9)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6042	$0.605^{+0.021}_{-0.021}$	$H(0.38)$	83.29	$83.5^{+3.8}_{-3.6}$	χ_{BAO}^2	5.41	$6.0 (\nu: 0.6)$

Best-fit $\chi_{\text{eff}}^2 = 2229.65$; $\Delta\chi_{\text{eff}}^2 = -0.06$; $\bar{\chi}_{\text{eff}}^2 = 2250.41$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.64$; $R - 1 = 0.01118$

χ_{eff}^2 : BAO - 6DF: 0.02 (Δ 0.00) MGS: 1.34 (Δ 0.00) DR12BAO: 4.05 (Δ 0.02) CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.98 (Δ 0.10) simall_100x143_offlike5_EE_Aplanck.L: 396.06 (Δ -0.31) commander_dx12_v3.2_29: 22.70 (Δ -0.11) plik_rd12_HM_v22_TT: 760.14 (Δ 0.35) SN - JLA Pantheon18: 1034.95 (Δ -0.01)

7.11 base_nnu_plikHM_TT_lowl_lowE_BAO_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02224	$0.02225^{+0.00059}_{-0.00056}$	$\sigma_8/h^{0.5}$	0.9835	$0.985^{+0.024}_{-0.023}$	$D_M(0.38)$	1530	1523^{+77}_{-75}
$\Omega_c h^2$	0.1192	$0.1201^{+0.0097}_{-0.0087}$	$r_{\text{drag}} h$	99.65	$99.8^{+2.7}_{-2.5}$	$H(0.51)$	89.67	$90.1^{+4.0}_{-3.8}$
$100\theta_{\text{MC}}$	1.04095	$1.0409^{+0.0014}_{-0.0014}$	$\langle d^2 \rangle^{1/2}$	2.431	$2.432^{+0.059}_{-0.059}$	$D_M(0.51)$	1982	1973^{+97}_{-94}
τ	0.0544	$0.055^{+0.021}_{-0.019}$	z_{re}	7.70	$7.8^{+2.0}_{-2.0}$	$H(0.61)$	95.29	$95.7^{+4.1}_{-3.9}$
N_{eff}	3.05	$3.11^{+0.59}_{-0.55}$	$10^9 A_s$	2.095	$2.10^{+0.10}_{-0.094}$	$D_M(0.61)$	2306	2296^{+110}_{-110}
$\ln(10^{10} A_s)$	3.0420	$3.046^{+0.047}_{-0.045}$	$10^9 A_s e^{-2\tau}$	1.8789	$1.884^{+0.050}_{-0.049}$	$H(2.33)$	235.9	$236.7^{+8.3}_{-7.7}$
n_s	0.9671	$0.968^{+0.021}_{-0.021}$	D_{40}	1224.7	1225^{+37}_{-37}	$D_M(2.33)$	5765	5742^{+240}_{-230}
y_{cal}	1.0005	$1.0007^{+0.0062}_{-0.0063}$	D_{220}	5720	5724^{+100}_{-100}	$f\sigma_8(0.15)$	0.4555	$0.456^{+0.017}_{-0.017}$
A_{217}^{CIB}	49.2	48^{+20}_{-20}	D_{810}	2537.2	2538^{+35}_{-35}	$\sigma_8(0.15)$	0.7472	$0.750^{+0.029}_{-0.028}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.23	—	D_{1420}	816.3	815^{+13}_{-13}	$f\sigma_8(0.38)$	0.4740	$0.475^{+0.017}_{-0.016}$
A_{143}^{tSZ}	7.2	—	D_{2000}	230.3	$229.7^{+5.5}_{-5.5}$	$\sigma_8(0.38)$	0.6624	$0.665^{+0.027}_{-0.026}$
A_{100}^{PS}	254	265^{+80}_{-70}	$n_{s,0.002}$	0.9671	$0.968^{+0.021}_{-0.021}$	$f\sigma_8(0.51)$	0.4726	$0.474^{+0.017}_{-0.016}$
A_{143}^{PS}	47.5	49^{+20}_{-20}	Y_P	0.2454	$0.2462^{+0.0077}_{-0.0077}$	$\sigma_8(0.51)$	0.6199	$0.623^{+0.026}_{-0.025}$
$A_{143 \times 217}^{\text{PS}}$	44.2	43^{+20}_{-20}	Y_P^{BBN}	0.2467	$0.2475^{+0.0078}_{-0.0077}$	$f\sigma_8(0.61)$	0.4677	$0.469^{+0.017}_{-0.016}$
A_{217}^{PS}	118.0	115^{+30}_{-30}	$10^5 D/H$	2.611	$2.63^{+0.17}_{-0.16}$	$\sigma_8(0.61)$	0.5899	$0.592^{+0.025}_{-0.024}$
A^{kSZ}	0.1	—	Age/Gyr	13.80	$13.75^{+0.57}_{-0.55}$	$f\sigma_8(2.33)$	0.2975	$0.299^{+0.013}_{-0.012}$
A_{100}^{dustTT}	9.00	$9.0^{+4.7}_{-4.7}$	z_*	1090.01	$1090.1^{+1.2}_{-1.1}$	$\sigma_8(2.33)$	0.3067	$0.308^{+0.014}_{-0.013}$
A_{143}^{dustTT}	10.76	$10.7^{+4.8}_{-4.6}$	r_*	144.7	$144.2^{+5.3}_{-5.3}$	f_{2000}^{143}	30.2	31^{+9}_{-9}
$A_{143 \times 217}^{\text{dustTT}}$	19.3	$18.3^{+8.3}_{-8.6}$	$100\theta_*$	1.04113	$1.0410^{+0.0016}_{-0.0017}$	$f_{2000}^{143 \times 217}$	33.1	34^{+6}_{-6}
A_{217}^{dustTT}	94.5	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.900	$13.85^{+0.49}_{-0.50}$	f_{2000}^{217}	107.6	$108.3^{+5.8}_{-5.6}$
c_{100}	0.99968	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	1059.59	$1059.7^{+2.2}_{-2.1}$	χ_{lensing}^2	8.90	$9.42 (\nu: 0.3)$
c_{217}	0.99825	$0.9983^{+0.0015}_{-0.0015}$	r_{drag}	147.4	$146.9^{+5.5}_{-5.5}$	χ_{simall}^2	396.08	$397.1 (\nu: 1.7)$
H_0	67.59	$68.0^{+3.8}_{-3.5}$	k_D	0.14040	$0.1408^{+0.0041}_{-0.0039}$	χ_{lowl}^2	22.94	$23.0 (\nu: 0.7)$
Ω_Λ	0.6890	$0.690^{+0.021}_{-0.021}$	$100\theta_D$	0.16098	$0.1612^{+0.0015}_{-0.0014}$	χ_{plik}^2	759.7	$772.4 (\nu: 15.2)$
Ω_m	0.3110	$0.310^{+0.021}_{-0.021}$	z_{eq}	3378	3373^{+76}_{-79}	$\chi_{6\text{DF}}^2$	0.029	$0.060 (\nu: 0.0)$
$\Omega_m h^2$	0.1421	$0.143^{+0.010}_{-0.0088}$	k_{eq}	0.010313	$0.01034^{+0.00034}_{-0.00033}$	χ_{MGS}^2	1.22	$1.37 (\nu: 0.2)$
$\Omega_m h^3$	0.0960	$0.097^{+0.012}_{-0.011}$	$100\theta_{\text{eq}}$	0.8173	$0.818^{+0.015}_{-0.014}$	χ_{DR12BAO}^2	4.38	$4.8 (\nu: 1.3)$
σ_8	0.8086	$0.812^{+0.031}_{-0.030}$	$100\theta_{s,\text{eq}}$	0.4516	$0.4521^{+0.0077}_{-0.0071}$	χ_{prior}^2	1.5	$7.3 (\nu: 6.6)$
S_8	0.8233	$0.825^{+0.033}_{-0.032}$	$H(0.15)$	72.87	$73.2^{+3.8}_{-3.6}$	χ_{CMB}^2	1187.6	$1201.9 (\nu: 15.8)$
$\sigma_8 \Omega_m^{0.5}$	0.4509	$0.452^{+0.018}_{-0.018}$	$D_M(0.15)$	641.4	638^{+34}_{-33}	χ_{BAO}^2	5.63	$6.2 (\nu: 0.9)$
$\sigma_8 \Omega_m^{0.25}$	0.6038	$0.606^{+0.021}_{-0.021}$	$H(0.38)$	82.96	$83.4^{+3.9}_{-3.7}$			

Best-fit $\chi_{\text{eff}}^2 = 1194.71$; $\Delta\chi_{\text{eff}}^2 = 0.03$; $\bar{\chi}_{\text{eff}}^2 = 1215.41$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.68$; $R - 1 = 0.01056$

χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.38 (Δ 0.01) CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.90 (Δ 0.03) simall_100x143_offlike5_EE_Aplanck.L
396.08 (Δ -0.01) commander_dx12_v3.2_29: 22.94 (Δ -0.02) plik_rd12_HM_v22_TT: 759.72 (Δ -0.09)

7.12 base_nnu_plikHM_TT_lowl_lowE_BAO_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02227^{+0.00058}_{-0.00058}$	$\sigma_8/h^{0.5}$	$0.984^{+0.032}_{-0.029}$	$D_M(0.38)$	1517^{+76}_{-75}
$\Omega_c h^2$	$0.121^{+0.010}_{-0.0093}$	$r_{\text{drag}} h$	$99.99^{+2.8}_{-2.6}$	$H(0.51)$	$90.4^{+4.1}_{-3.8}$
$100\theta_{\text{MC}}$	$1.0408^{+0.0014}_{-0.0014}$	$\langle d^2 \rangle^{1/2}$	$2.428^{+0.072}_{-0.068}$	$D_M(0.51)$	1965^{+96}_{-95}
τ	$0.055^{+0.020}_{-0.014}$	z_{re}	< 9.65	$H(0.61)$	$96.0^{+4.2}_{-3.9}$
N_{eff}	$3.15^{+0.63}_{-0.56}$	$10^9 A_s$	$2.11^{+0.11}_{-0.087}$	$D_M(0.61)$	2287^{+110}_{-110}
$\ln(10^{10} A_s)$	$3.047^{+0.051}_{-0.042}$	$10^9 A_s e^{-2\tau}$	$1.885^{+0.055}_{-0.053}$	$H(2.33)$	$237.2^{+9.0}_{-8.2}$
n_s	$0.970^{+0.021}_{-0.021}$	D_{40}	1222^{+38}_{-38}	$D_M(2.33)$	5725^{+240}_{-240}
y_{cal}	$1.0006^{+0.0063}_{-0.0065}$	D_{220}	5719^{+100}_{-110}	$f\sigma_8(0.15)$	$0.456^{+0.022}_{-0.021}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2537^{+36}_{-37}	$\sigma_8(0.15)$	$0.752^{+0.033}_{-0.030}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	815^{+13}_{-14}	$f\sigma_8(0.38)$	$0.475^{+0.021}_{-0.020}$
A_{143}^{tSZ}	—	D_{2000}	$229.4^{+5.6}_{-5.7}$	$\sigma_8(0.38)$	$0.667^{+0.030}_{-0.027}$
A_{100}^{PS}	266^{+70}_{-70}	$n_{\text{s},0.002}$	$0.970^{+0.021}_{-0.021}$	$f\sigma_8(0.51)$	$0.474^{+0.020}_{-0.019}$
A_{143}^{PS}	50^{+20}_{-20}	Y_{P}	$0.2467^{+0.0080}_{-0.0077}$	$\sigma_8(0.51)$	$0.624^{+0.028}_{-0.026}$
$A_{143 \times 217}^{\text{PS}}$	44^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.2480^{+0.0081}_{-0.0078}$	$f\sigma_8(0.61)$	$0.470^{+0.020}_{-0.018}$
A_{217}^{PS}	115^{+30}_{-30}	$10^5 \text{D}/\text{H}$	$2.64^{+0.19}_{-0.16}$	$\sigma_8(0.61)$	$0.594^{+0.027}_{-0.025}$
A^{kSZ}	—	Age/Gyr	$13.71^{+0.57}_{-0.56}$	$f\sigma_8(2.33)$	$0.300^{+0.014}_{-0.013}$
A_{100}^{dustTT}	$9.0^{+4.7}_{-4.7}$	z_*	$1090.2^{+1.3}_{-1.2}$	$\sigma_8(2.33)$	$0.309^{+0.015}_{-0.014}$
A_{143}^{dustTT}	$10.8^{+4.7}_{-4.7}$	r_*	$143.9^{+5.5}_{-5.6}$	f_{2000}^{143}	32^{+9}_{-9}
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.5}_{-8.7}$	$100\theta_*$	$1.0410^{+0.0017}_{-0.0017}$	$f_{2000}^{143 \times 217}$	34^{+6}_{-6}
A_{217}^{dustTT}	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	$13.82^{+0.51}_{-0.52}$	f_{2000}^{217}	$108.4^{+5.9}_{-5.7}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	$1059.8^{+2.2}_{-2.2}$	χ_{simall}^2	$397.0 (\nu: 1.9)$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	$146.6^{+5.7}_{-5.8}$	χ_{lowl}^2	$22.8 (\nu: 0.7)$
H_0	$68.2^{+3.8}_{-3.5}$	k_{D}	$0.1410^{+0.0044}_{-0.0041}$	χ_{plik}^2	$773.0 (\nu: 16.0)$
Ω_{Λ}	$0.692^{+0.021}_{-0.022}$	$100\theta_{\text{D}}$	$0.1613^{+0.0016}_{-0.0014}$	$\chi_{6\text{DF}}^2$	$0.056 (\nu: 0.0)$
Ω_{m}	$0.308^{+0.022}_{-0.021}$	z_{eq}	3368^{+81}_{-82}	χ_{MGS}^2	$1.48 (\nu: 0.2)$
$\Omega_{\text{m}} h^2$	$0.144^{+0.011}_{-0.0096}$	k_{eq}	$0.01035^{+0.00039}_{-0.00036}$	χ_{DR12BAO}^2	$4.6 (\nu: 1.2)$
$\Omega_{\text{m}} h^3$	$0.098^{+0.013}_{-0.011}$	$100\theta_{\text{eq}}$	$0.819^{+0.016}_{-0.015}$	χ_{prior}^2	$7.3 (\nu: 6.8)$
σ_8	$0.813^{+0.035}_{-0.032}$	$100\theta_{\text{s,eq}}$	$0.4526^{+0.0081}_{-0.0077}$	χ_{BAO}^2	$6.2 (\nu: 0.8)$
S_8	$0.824^{+0.042}_{-0.040}$	$H(0.15)$	$73.5^{+3.9}_{-3.6}$	χ_{CMB}^2	$1192.8 (\nu: 15.3)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.451^{+0.023}_{-0.022}$	$D_M(0.15)$	636^{+33}_{-33}		
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.606^{+0.027}_{-0.025}$	$H(0.38)$	$83.6^{+4.0}_{-3.7}$		

$$\bar{\chi}_{\text{eff}}^2 = 1206.29; \Delta \bar{\chi}_{\text{eff}}^2 = 0.53; R - 1 = 0.01028$$

7.13 base_nnu_plikHM_TT_lowl_lowE_BAO_post_lensing_Pantheon18_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02228^{+0.00057}_{-0.00057}$	$\sigma_8/h^{0.5}$	$0.985^{+0.023}_{-0.023}$	$D_M(0.38)$	1519^{+74}_{-72}
$\Omega_c h^2$	$0.1203^{+0.0096}_{-0.0088}$	$r_{\text{drag}} h$	$99.98^{+2.5}_{-2.4}$	$H(0.51)$	$90.3^{+3.9}_{-3.7}$
$100\theta_{\text{MC}}$	$1.0409^{+0.0013}_{-0.0014}$	$\langle d^2 \rangle^{1/2}$	$2.431^{+0.057}_{-0.056}$	$D_M(0.51)$	1968^{+94}_{-91}
τ	$0.056^{+0.019}_{-0.014}$	z_{re}	< 9.62	$H(0.61)$	$95.9^{+4.0}_{-3.8}$
N_{eff}	$3.13^{+0.59}_{-0.54}$	$10^9 A_s$	$2.108^{+0.097}_{-0.079}$	$D_M(0.61)$	2290^{+110}_{-100}
$\ln(10^{10} A_s)$	$3.048^{+0.045}_{-0.038}$	$10^9 A_s e^{-2\tau}$	$1.885^{+0.049}_{-0.049}$	$H(2.33)$	$236.9^{+8.3}_{-7.7}$
n_s	$0.969^{+0.021}_{-0.020}$	D_{40}	1224^{+36}_{-36}	$D_M(2.33)$	5732^{+230}_{-230}
y_{cal}	$1.0007^{+0.0063}_{-0.0063}$	D_{220}	5725^{+100}_{-100}	$f\sigma_8(0.15)$	$0.456^{+0.017}_{-0.017}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2538^{+35}_{-35}	$\sigma_8(0.15)$	$0.751^{+0.029}_{-0.028}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	815^{+13}_{-13}	$f\sigma_8(0.38)$	$0.475^{+0.017}_{-0.016}$
A_{143}^{tSZ}	—	D_{2000}	$229.6^{+5.6}_{-5.5}$	$\sigma_8(0.38)$	$0.666^{+0.027}_{-0.025}$
A_{100}^{PS}	265^{+70}_{-70}	$n_{s,0.002}$	$0.969^{+0.021}_{-0.020}$	$f\sigma_8(0.51)$	$0.474^{+0.016}_{-0.016}$
A_{143}^{PS}	49^{+20}_{-20}	Y_{P}	$0.2465^{+0.0076}_{-0.0074}$	$\sigma_8(0.51)$	$0.624^{+0.025}_{-0.024}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.2478^{+0.0077}_{-0.0074}$	$f\sigma_8(0.61)$	$0.470^{+0.016}_{-0.016}$
A_{217}^{PS}	115^{+30}_{-30}	10^5D/H	$2.63^{+0.17}_{-0.16}$	$\sigma_8(0.61)$	$0.594^{+0.024}_{-0.023}$
A^{kSZ}	—	Age/Gyr	$13.72^{+0.55}_{-0.54}$	$f\sigma_8(2.33)$	$0.299^{+0.012}_{-0.012}$
A_{100}^{dustTT}	$9.0^{+4.7}_{-4.7}$	z_*	$1090.1^{+1.2}_{-1.1}$	$\sigma_8(2.33)$	$0.309^{+0.013}_{-0.013}$
A_{143}^{dustTT}	$10.7^{+4.8}_{-4.6}$	r_*	$144.0^{+5.2}_{-5.3}$	f_{2000}^{143}	31^{+9}_{-9}
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.4}_{-8.6}$	$100\theta_*$	$1.0410^{+0.0016}_{-0.0017}$	$f_{2000}^{143 \times 217}$	34^{+6}_{-6}
A_{217}^{dustTT}	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	$13.84^{+0.48}_{-0.49}$	f_{2000}^{217}	$108.3^{+5.8}_{-5.6}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	$1059.8^{+2.1}_{-2.1}$	χ_{lensing}^2	$9.42 (\nu: 0.3)$
c_{217}	$0.9983^{+0.0015}_{-0.0015}$	r_{drag}	$146.7^{+5.4}_{-5.4}$	χ_{simall}^2	$397.1 (\nu: 1.9)$
H_0	$68.2^{+3.6}_{-3.4}$	k_{D}	$0.1409^{+0.0040}_{-0.0039}$	χ_{lowl}^2	$22.9 (\nu: 0.6)$
Ω_{Λ}	$0.692^{+0.019}_{-0.020}$	$100\theta_{\text{D}}$	$0.1612^{+0.0015}_{-0.0014}$	χ_{plik}^2	$772.5 (\nu: 15.1)$
Ω_{m}	$0.308^{+0.020}_{-0.019}$	z_{eq}	3368^{+71}_{-74}	χ_{JLA}^2	$1035.03 (\nu: 0.1)$
$\Omega_{\text{m}} h^2$	$0.1432^{+0.0099}_{-0.0090}$	k_{eq}	$0.01034^{+0.00034}_{-0.00033}$	$\chi_{6\text{DF}}^2$	$0.047 (\nu: 0.0)$
$\Omega_{\text{m}} h^3$	$0.098^{+0.012}_{-0.010}$	$100\theta_{\text{eq}}$	$0.819^{+0.014}_{-0.013}$	χ_{MGS}^2	$1.47 (\nu: 0.1)$
σ_8	$0.813^{+0.030}_{-0.029}$	$100\theta_{\text{s,eq}}$	$0.4525^{+0.0073}_{-0.0068}$	χ_{DR12BAO}^2	$4.5 (\nu: 0.9)$
S_8	$0.824^{+0.033}_{-0.031}$	$H(0.15)$	$73.4^{+3.7}_{-3.5}$	χ_{prior}^2	$7.3 (\nu: 6.6)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.451^{+0.018}_{-0.017}$	$D_M(0.15)$	636^{+33}_{-31}	χ_{CMB}^2	$1202.0 (\nu: 15.6)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.606^{+0.021}_{-0.021}$	$H(0.38)$	$83.5^{+3.8}_{-3.6}$	χ_{BAO}^2	$6.0 (\nu: 0.6)$

$$\bar{\chi}_{\text{eff}}^2 = 2250.26; \Delta \bar{\chi}_{\text{eff}}^2 = 0.63; R - 1 = 0.01176$$

7.14 base_nnu_plikHM_TT_lowl_lowE_BAO_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02226^{+0.00059}_{-0.00056}$	$\sigma_8/h^{0.5}$	$0.985^{+0.023}_{-0.023}$	$D_{\mathrm{M}}(0.38)$	1522^{+76}_{-74}
$\Omega_{\mathrm{c}}h^2$	$0.1201^{+0.0097}_{-0.0087}$	$r_{\mathrm{drag}}h$	$99.8^{+2.7}_{-2.4}$	$H(0.51)$	$90.1^{+4.0}_{-3.8}$
$100\theta_{\mathrm{MC}}$	$1.0409^{+0.0013}_{-0.0014}$	$\langle d^2 \rangle^{1/2}$	$2.433^{+0.058}_{-0.058}$	$D_{\mathrm{M}}(0.51)$	1972^{+95}_{-94}
τ	$0.056^{+0.019}_{-0.014}$	z_{re}	< 9.60	$H(0.61)$	$95.7^{+4.1}_{-3.9}$
N_{eff}	$3.11^{+0.59}_{-0.54}$	$10^9 A_{\mathrm{s}}$	$2.106^{+0.098}_{-0.079}$	$D_{\mathrm{M}}(0.61)$	2295^{+110}_{-110}
$\ln(10^{10} A_{\mathrm{s}})$	$3.047^{+0.046}_{-0.038}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.884^{+0.050}_{-0.049}$	$H(2.33)$	$236.8^{+8.4}_{-7.7}$
n_{s}	$0.968^{+0.021}_{-0.021}$	D_{40}	1225^{+37}_{-37}	$D_{\mathrm{M}}(2.33)$	5741^{+240}_{-230}
y_{cal}	$1.0007^{+0.0063}_{-0.0063}$	D_{220}	5724^{+100}_{-100}	$f\sigma_8(0.15)$	$0.457^{+0.017}_{-0.017}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2538^{+35}_{-35}	$\sigma_8(0.15)$	$0.751^{+0.029}_{-0.028}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	815^{+13}_{-13}	$f\sigma_8(0.38)$	$0.475^{+0.017}_{-0.016}$
A_{143}^{tSZ}	—	D_{2000}	$229.7^{+5.5}_{-5.5}$	$\sigma_8(0.38)$	$0.666^{+0.027}_{-0.025}$
A_{100}^{PS}	265^{+70}_{-70}	$n_{\mathrm{s},0.002}$	$0.968^{+0.021}_{-0.021}$	$f\sigma_8(0.51)$	$0.474^{+0.016}_{-0.016}$
A_{143}^{PS}	49^{+20}_{-20}	Y_{P}	$0.2462^{+0.0077}_{-0.0076}$	$\sigma_8(0.51)$	$0.623^{+0.026}_{-0.024}$
$A_{143 \times 217}^{\mathrm{PS}}$	43^{+20}_{-20}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2475^{+0.0077}_{-0.0076}$	$f\sigma_8(0.61)$	$0.469^{+0.016}_{-0.016}$
A_{217}^{PS}	115^{+30}_{-30}	$10^5 \mathrm{D}/\mathrm{H}$	$2.63^{+0.17}_{-0.16}$	$\sigma_8(0.61)$	$0.593^{+0.025}_{-0.023}$
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.74^{+0.56}_{-0.55}$	$f\sigma_8(2.33)$	$0.299^{+0.013}_{-0.012}$
$A_{100}^{\mathrm{dustTT}}$	$9.0^{+4.7}_{-4.7}$	z_*	$1090.1^{+1.2}_{-1.1}$	$\sigma_8(2.33)$	$0.308^{+0.014}_{-0.013}$
$A_{143}^{\mathrm{dustTT}}$	$10.7^{+4.8}_{-4.6}$	r_*	$144.2^{+5.3}_{-5.3}$	f_{2000}^{143}	31^{+9}_{-9}
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3^{+8.3}_{-8.6}$	$100\theta_*$	$1.0410^{+0.0016}_{-0.0017}$	$f_{2000}^{143 \times 217}$	34^{+6}_{-6}
$A_{217}^{\mathrm{dustTT}}$	93^{+20}_{-20}	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.85^{+0.49}_{-0.50}$	f_{2000}^{217}	$108.2^{+5.8}_{-5.6}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	$1059.7^{+2.1}_{-2.1}$	$\chi_{\mathrm{lensing}}^2$	$9.39 (\nu: 0.3)$
c_{217}	$0.9983^{+0.0015}_{-0.0015}$	r_{drag}	$146.9^{+5.5}_{-5.5}$	χ_{simall}^2	$397.1 (\nu: 1.8)$
H_0	$68.0^{+3.8}_{-3.5}$	k_{D}	$0.1408^{+0.0041}_{-0.0039}$	χ_{lowl}^2	$23.0 (\nu: 0.7)$
Ω_{Λ}	$0.690^{+0.020}_{-0.020}$	$100\theta_{\mathrm{D}}$	$0.1612^{+0.0015}_{-0.0014}$	χ_{plik}^2	$772.3 (\nu: 15.1)$
Ω_{m}	$0.310^{+0.020}_{-0.020}$	z_{eq}	3372^{+75}_{-78}	$\chi_{6\mathrm{DF}}^2$	$0.058 (\nu: 0.0)$
$\Omega_{\mathrm{m}}h^2$	$0.143^{+0.010}_{-0.0088}$	k_{eq}	$0.01034^{+0.00034}_{-0.00033}$	χ_{MGS}^2	$1.39 (\nu: 0.2)$
$\Omega_{\mathrm{m}}h^3$	$0.097^{+0.012}_{-0.011}$	$100\theta_{\mathrm{eq}}$	$0.818^{+0.015}_{-0.014}$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 (\nu: 1.2)$
σ_8	$0.812^{+0.030}_{-0.029}$	$100\theta_{\mathrm{s,eq}}$	$0.4521^{+0.0077}_{-0.0071}$	χ_{prior}^2	$7.2 (\nu: 6.6)$
S_8	$0.825^{+0.033}_{-0.032}$	$H(0.15)$	$73.3^{+3.8}_{-3.5}$	χ_{CMB}^2	$1201.8 (\nu: 15.6)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.452^{+0.018}_{-0.017}$	$D_{\mathrm{M}}(0.15)$	638^{+34}_{-33}	χ_{BAO}^2	$6.2 (\nu: 0.8)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.606^{+0.021}_{-0.021}$	$H(0.38)$	$83.4^{+3.9}_{-3.7}$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1215.24$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.67$; $R - 1 = 0.01151$

7.15 base_nnu_plikHM_TTTEEE_lowl_lowE_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022382	$0.02239^{+0.00047}_{-0.00046}$	σ_8	0.8060	$0.808^{+0.031}_{-0.029}$	$D_M(0.15)$	645.7	643^{+28}_{-27}
$\Omega_c h^2$	0.1179	$0.1186^{+0.0080}_{-0.0077}$	S_8	0.8229	$0.823^{+0.037}_{-0.035}$	$H(0.38)$	82.48	$82.8^{+3.2}_{-3.0}$
$100\theta_{MC}$	1.04119	$1.0411^{+0.0012}_{-0.0011}$	$\sigma_8 \Omega_m^{0.5}$	0.4507	$0.451^{+0.020}_{-0.019}$	$D_M(0.38)$	1540	1534^{+63}_{-62}
τ	0.0551	$0.056^{+0.023}_{-0.021}$	$\sigma_8 \Omega_m^{0.25}$	0.6027	$0.603^{+0.024}_{-0.022}$	$H(0.51)$	89.17	$89.5^{+3.3}_{-3.1}$
N_{eff}	2.956	$3.01^{+0.47}_{-0.46}$	$\sigma_8/h^{0.5}$	0.9837	$0.984^{+0.030}_{-0.028}$	$D_M(0.51)$	1994	1987^{+79}_{-78}
$\ln(10^{10} A_s)$	3.0415	$3.043^{+0.051}_{-0.047}$	$r_{\text{drag}} h$	99.43	$99.6^{+2.3}_{-2.1}$	$H(0.61)$	94.77	$95.1^{+3.4}_{-3.2}$
n_s	0.9652	$0.966^{+0.018}_{-0.018}$	$\langle d^2 \rangle^{1/2}$	2.436	$2.436^{+0.068}_{-0.066}$	$D_M(0.61)$	2320	2312^{+91}_{-89}
y_{cal}	1.0006	$1.0007^{+0.0064}_{-0.0065}$	z_{re}	7.72	$7.8^{+2.2}_{-2.2}$	$H(2.33)$	234.9	$235.5^{+6.9}_{-6.9}$
A_{217}^{CIB}	44.0	46^{+20}_{-20}	$10^9 A_s$	2.094	$2.10^{+0.11}_{-0.097}$	$D_M(2.33)$	5795	5777^{+200}_{-190}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.89	—	$10^9 A_s e^{-2\tau}$	1.8751	$1.877^{+0.045}_{-0.049}$	$f\sigma_8(0.15)$	0.4552	$0.455^{+0.020}_{-0.019}$
A_{143}^{tSZ}	7.01	> 0.976	D_{40}	1228.4	1229^{+35}_{-36}	$\sigma_8(0.15)$	0.7447	$0.746^{+0.029}_{-0.027}$
A_{100}^{PS}	244	257^{+70}_{-70}	D_{220}	5736	5737^{+100}_{-100}	$f\sigma_8(0.38)$	0.4732	$0.474^{+0.019}_{-0.018}$
A_{143}^{PS}	52.0	45^{+20}_{-20}	D_{810}	2541.0	2539^{+35}_{-37}	$\sigma_8(0.38)$	0.6600	$0.662^{+0.026}_{-0.025}$
$A_{143 \times 217}^{\text{PS}}$	57.7	42^{+20}_{-20}	D_{1420}	820.1	818^{+12}_{-13}	$f\sigma_8(0.51)$	0.4716	$0.472^{+0.018}_{-0.017}$
A_{217}^{PS}	124.0	115^{+30}_{-30}	D_{2000}	232.28	$231.4^{+4.8}_{-4.9}$	$\sigma_8(0.51)$	0.6176	$0.619^{+0.025}_{-0.023}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9652	$0.966^{+0.018}_{-0.018}$	$f\sigma_8(0.61)$	0.4666	$0.467^{+0.018}_{-0.017}$
A_{100}^{dustTT}	8.76	$8.9^{+4.7}_{-4.7}$	Y_P	0.2442	$0.2448^{+0.0063}_{-0.0065}$	$\sigma_8(0.61)$	0.5876	$0.589^{+0.024}_{-0.022}$
A_{143}^{dustTT}	11.02	$10.9^{+4.6}_{-4.7}$	Y_P^{BBN}	0.2455	$0.2461^{+0.0063}_{-0.0065}$	$f\sigma_8(2.33)$	0.2962	$0.297^{+0.012}_{-0.011}$
$A_{143 \times 217}^{\text{dustTT}}$	20.5	$18.6^{+8.4}_{-8.5}$	$10^5 D/H$	2.552	$2.57^{+0.12}_{-0.12}$	$\sigma_8(2.33)$	0.3053	$0.306^{+0.013}_{-0.012}$
A_{217}^{dustTT}	96.2	94^{+20}_{-20}	Age/Gyr	13.874	$13.83^{+0.47}_{-0.46}$	f_{2000}^{143}	27.5	29^{+8}_{-8}
A_{100}^{dustTE}	0.114	$0.114^{+0.099}_{-0.094}$	z_*	1089.63	$1089.74^{+0.94}_{-0.92}$	$f_{2000}^{143 \times 217}$	31.2	32^{+6}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.135^{+0.077}_{-0.076}$	r_*	145.42	$145.0^{+4.7}_{-4.4}$	f_{2000}^{217}	105.7	$106.7^{+5.1}_{-5.0}$
$A_{100 \times 217}^{\text{dustTE}}$	0.479	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	1.04144	$1.0413^{+0.0014}_{-0.0014}$	χ_{small}^2	396.2	$397.3 (\nu: 2.3)$
A_{143}^{dustTE}	0.225	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.964	$13.93^{+0.43}_{-0.41}$	χ_{lowl}^2	23.21	$23.3 (\nu: 0.6)$
$A_{143 \times 217}^{\text{dustTE}}$	0.666	$0.66^{+0.20}_{-0.21}$	z_{drag}	1059.74	$1059.8^{+1.8}_{-1.7}$	χ_{plik}^2	2344.8	$2360.4 (\nu: 19.2)$
A_{217}^{dustTE}	2.07	$2.08^{+0.70}_{-0.71}$	r_{drag}	148.10	$147.7^{+4.9}_{-4.6}$	$\chi_{6\text{DF}}^2$	0.047	$0.066 (\nu: 0.0)$
c_{100}	0.99975	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14017	$0.1404^{+0.0035}_{-0.0034}$	χ_{MGS}^2	1.10	$1.23 (\nu: 0.1)$
c_{217}	0.99816	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	0.16051	$0.1606^{+0.0010}_{-0.0011}$	χ_{DR12BAO}^2	4.79	$5.0 (\nu: 1.3)$
H_0	67.14	$67.4^{+3.1}_{-2.9}$	z_{eq}	3394	3389^{+64}_{-64}	χ_{prior}^2	1.5	$11.6 (\nu: 10.4)$
Ω_Λ	0.6873	$0.688^{+0.018}_{-0.018}$	k_{eq}	0.010295	$0.01031^{+0.00031}_{-0.00030}$	χ_{BAO}^2	5.93	$6.3 (\nu: 0.9)$
Ω_m	0.3127	$0.312^{+0.018}_{-0.018}$	$100\theta_{\text{eq}}$	0.8150	$0.816^{+0.012}_{-0.012}$	χ_{CMB}^2	2764.2	$2781.0 (\nu: 18.3)$
$\Omega_m h^2$	0.1409	$0.1417^{+0.0082}_{-0.0080}$	$100\theta_{s,\text{eq}}$	0.4503	$0.4507^{+0.0063}_{-0.0061}$			
$\Omega_m h^3$	0.0946	$0.0956^{+0.0096}_{-0.0088}$	$H(0.15)$	72.40	$72.7^{+3.1}_{-2.9}$			

Best-fit $\chi_{\text{eff}}^2 = 2771.61$; $\Delta\chi_{\text{eff}}^2 = -0.30$; $\bar{\chi}_{\text{eff}}^2 = 2798.95$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.05$; $R - 1 = 0.01038$

χ_{eff}^2 : BAO - 6DF: 0.05 (Δ 0.02) MGS: 1.10 (Δ -0.12) DR12BAO: 4.79 (Δ 0.38) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.16 (Δ -0.04) commander_dx12_v3_2_29: 23.21 (Δ 0.34) plik_rd12_HM_v22b_TTTEEE: 2344.84 (Δ -0.67)

7.16 base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022397	$0.02239^{+0.00047}_{-0.00044}$	σ_8	0.8068	$0.808^{+0.027}_{-0.026}$	$D_M(0.15)$	644.4	643^{+26}_{-26}
$\Omega_c h^2$	0.1180	$0.1185^{+0.0076}_{-0.0072}$	S_8	0.8225	$0.823^{+0.028}_{-0.028}$	$H(0.38)$	82.60	$82.8^{+3.1}_{-2.8}$
$100\theta_{MC}$	1.04115	$1.0411^{+0.0012}_{-0.0011}$	$\sigma_8 \Omega_m^{0.5}$	0.4505	$0.451^{+0.015}_{-0.016}$	$D_M(0.38)$	1537	1534^{+58}_{-59}
τ	0.0559	$0.057^{+0.020}_{-0.019}$	$\sigma_8 \Omega_m^{0.25}$	0.6029	$0.603^{+0.019}_{-0.019}$	$H(0.51)$	89.30	$89.5^{+3.2}_{-2.9}$
N_{eff}	2.971	$3.00^{+0.45}_{-0.43}$	$\sigma_8/h^{0.5}$	0.9837	$0.984^{+0.022}_{-0.022}$	$D_M(0.51)$	1991	1987^{+73}_{-75}
$\ln(10^{10} A_s)$	3.0437	$3.045^{+0.045}_{-0.041}$	$r_{\text{drag}} h$	99.53	$99.6^{+2.1}_{-2.0}$	$H(0.61)$	94.89	$95.1^{+3.3}_{-3.0}$
n_s	0.9653	$0.966^{+0.018}_{-0.017}$	$\langle d^2 \rangle^{1/2}$	2.437	$2.438^{+0.054}_{-0.054}$	$D_M(0.61)$	2317	2312^{+84}_{-86}
y_{cal}	1.0009	$1.0008^{+0.0064}_{-0.0064}$	z_{re}	7.80	$7.9^{+2.0}_{-2.0}$	$H(2.33)$	235.1	$235.4^{+6.6}_{-6.4}$
A_{217}^{CIB}	46.4	46^{+20}_{-20}	$10^9 A_s$	2.098	$2.102^{+0.096}_{-0.085}$	$D_M(2.33)$	5788	5778^{+190}_{-190}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.50	—	$10^9 A_s e^{-2\tau}$	1.8762	$1.877^{+0.042}_{-0.044}$	$f\sigma_8(0.15)$	0.4550	$0.455^{+0.015}_{-0.015}$
A_{143}^{tSZ}	7.18	$5.6^{+4.4}_{-4.6}$	D_{40}	1229.6	1230^{+34}_{-33}	$\sigma_8(0.15)$	0.7455	$0.747^{+0.026}_{-0.024}$
A_{100}^{PS}	249	257^{+70}_{-70}	D_{220}	5741	5740^{+97}_{-97}	$f\sigma_8(0.38)$	0.4732	$0.474^{+0.015}_{-0.015}$
A_{143}^{PS}	46.9	45^{+20}_{-20}	D_{810}	2541.0	2539^{+34}_{-36}	$\sigma_8(0.38)$	0.6608	$0.662^{+0.024}_{-0.022}$
$A_{143 \times 217}^{\text{PS}}$	48.3	42^{+20}_{-20}	D_{1420}	819.7	818^{+13}_{-13}	$f\sigma_8(0.51)$	0.4718	$0.472^{+0.015}_{-0.014}$
A_{217}^{PS}	120.1	115^{+30}_{-30}	D_{2000}	232.05	$231.5^{+4.8}_{-4.7}$	$\sigma_8(0.51)$	0.6184	$0.620^{+0.022}_{-0.021}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9653	$0.966^{+0.018}_{-0.017}$	$f\sigma_8(0.61)$	0.4668	$0.467^{+0.014}_{-0.014}$
A_{100}^{dustTT}	8.79	$8.9^{+4.6}_{-4.6}$	Y_{P}	0.2444	$0.2448^{+0.0061}_{-0.0061}$	$\sigma_8(0.61)$	0.5884	$0.590^{+0.021}_{-0.020}$
A_{143}^{dustTT}	11.00	$10.9^{+4.6}_{-4.6}$	$Y_{\text{P}}^{\text{BBN}}$	0.2457	$0.2461^{+0.0061}_{-0.0061}$	$f\sigma_8(2.33)$	0.2967	$0.297^{+0.011}_{-0.010}$
$A_{143 \times 217}^{\text{dustTT}}$	19.7	$18.6^{+8.4}_{-8.5}$	$10^5 D/H$	2.555	$2.57^{+0.11}_{-0.11}$	$\sigma_8(2.33)$	0.3058	$0.306^{+0.012}_{-0.011}$
A_{217}^{dustTT}	95.1	94^{+20}_{-20}	Age/Gyr	13.858	$13.83^{+0.44}_{-0.45}$	f_{2000}^{143}	28.0	29^{+8}_{-8}
A_{100}^{dustTE}	0.114	$0.114^{+0.097}_{-0.093}$	z_*	1089.64	$1089.71^{+0.85}_{-0.86}$	$f_{2000}^{143 \times 217}$	31.4	32^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.135^{+0.079}_{-0.076}$	r_*	145.29	$145.1^{+4.4}_{-4.3}$	f_{2000}^{217}	106.1	$106.6^{+5.0}_{-5.0}$
$A_{100 \times 217}^{\text{dustTE}}$	0.481	$0.48^{+0.21}_{-0.23}$	$100\theta_*$	1.04138	$1.0413^{+0.0014}_{-0.0013}$	χ_{lensing}^2	8.62	9.06 (ν : 0.2)
A_{143}^{dustTE}	0.225	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.952	$13.93^{+0.40}_{-0.40}$	χ_{small}^2	396	230 (ν : 17298.3)
$A_{143 \times 217}^{\text{dustTE}}$	0.666	$0.66^{+0.21}_{-0.21}$	z_{drag}	1059.78	$1059.8^{+1.7}_{-1.7}$	χ_{lowl}^2	23	191 (ν : 17305.2)
A_{217}^{dustTE}	2.08	$2.07^{+0.70}_{-0.72}$	r_{drag}	147.96	$147.7^{+4.5}_{-4.5}$	χ_{plik}^2	2344.6	2359.9 (ν : 18.0)
c_{100}	0.99973	$0.9997^{+0.0016}_{-0.0016}$	k_{D}	0.14026	$0.1404^{+0.0033}_{-0.0032}$	χ_{JLA}^2	1035.07	1035.12 (ν : 0.1)
c_{217}	0.99815	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_{\text{D}}$	0.16054	$0.1606^{+0.0010}_{-0.0010}$	$\chi_{6\text{DF}}^2$	0.04	0.59 (ν : 0.2)
H_0	67.27	$67.4^{+3.0}_{-2.7}$	z_{eq}	3390	3387^{+59}_{-59}	χ_{MGS}^2	1.16	0.72 (ν : 0.2)
Ω_{Λ}	0.6882	$0.689^{+0.016}_{-0.017}$	k_{eq}	0.010295	$0.01030^{+0.00029}_{-0.00027}$	χ_{DR12BAO}^2	4.60	4.9 (ν : 1.0)
Ω_{m}	0.3118	$0.311^{+0.017}_{-0.016}$	$100\theta_{\text{eq}}$	0.8157	$0.816^{+0.011}_{-0.011}$	χ_{prior}^2	1.7	11.6 (ν : 10.2)
$\Omega_{\text{m}} h^2$	0.1411	$0.1415^{+0.0078}_{-0.0074}$	$100\theta_{\text{s,eq}}$	0.4506	$0.4509^{+0.0057}_{-0.0057}$	χ_{CMB}^2	2772.8	2789.7 (ν : 18.3)
$\Omega_{\text{m}} h^3$	0.0949	$0.0955^{+0.0092}_{-0.0084}$	$H(0.15)$	72.53	$72.7^{+2.9}_{-2.7}$	χ_{BAO}^2	5.79	6.2 (ν : 0.6)

Best-fit $\chi_{\text{eff}}^2 = 3815.38$; $\Delta\chi_{\text{eff}}^2 = -0.29$; $\bar{\chi}_{\text{eff}}^2 = 3842.56$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.70$; $R - 1 = 0.01451$
 χ_{eff}^2 : BAO - 6DF: 0.04 (Δ 0.02) MGS: 1.16 (Δ -0.12) DR12BAO: 4.60 (Δ 0.35) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.62 (Δ -0.10) small_100x143_offlike5_EE_Aplanck
396.33 (Δ -0.19) commander_dx12_v3.2_29: 23.25 (Δ 0.37) plik_rd12_HM_v22b.TTTEEE: 2344.60 (Δ -0.67) SN - JLA Pantheon18: 1035.07 (Δ 0.10)

7.17 base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022341	$0.02237^{+0.00047}_{-0.00044}$	σ_8	0.8047	$0.808^{+0.027}_{-0.025}$	$D_M(0.15)$	648.2	644^{+27}_{-27}
$\Omega_c h^2$	0.1173	$0.1183^{+0.0076}_{-0.0072}$	S_8	0.8229	$0.824^{+0.028}_{-0.029}$	$H(0.38)$	82.19	$82.7^{+3.1}_{-2.9}$
$100\theta_{MC}$	1.04126	$1.0411^{+0.0012}_{-0.0011}$	$\sigma_8 \Omega_m^{0.5}$	0.4507	$0.451^{+0.016}_{-0.016}$	$D_M(0.38)$	1545	1537^{+60}_{-61}
τ	0.0558	$0.056^{+0.020}_{-0.019}$	$\sigma_8 \Omega_m^{0.25}$	0.6022	$0.604^{+0.019}_{-0.019}$	$H(0.51)$	88.88	$89.4^{+3.2}_{-3.0}$
N_{eff}	2.914	$2.99^{+0.46}_{-0.43}$	$\sigma_8/h^{0.5}$	0.9841	$0.984^{+0.022}_{-0.022}$	$D_M(0.51)$	2002	1990^{+77}_{-78}
$\ln(10^{10} A_s)$	3.0412	$3.044^{+0.045}_{-0.041}$	$r_{\text{drag}} h$	99.31	$99.5^{+2.2}_{-2.0}$	$H(0.61)$	94.46	$95.0^{+3.3}_{-3.1}$
n_s	0.9635	$0.965^{+0.018}_{-0.017}$	$\langle d^2 \rangle^{1/2}$	2.440	$2.440^{+0.054}_{-0.054}$	$D_M(0.61)$	2329	2316^{+88}_{-89}
y_{cal}	1.0006	$1.0008^{+0.0063}_{-0.0065}$	z_{re}	7.78	$7.8^{+1.9}_{-2.0}$	$H(2.33)$	234.3	$235.3^{+6.6}_{-6.4}$
A_{217}^{CIB}	44.0	46^{+20}_{-20}	$10^9 A_s$	2.093	$2.100^{+0.096}_{-0.085}$	$D_M(2.33)$	5814	5785^{+190}_{-190}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.92	—	$10^9 A_s e^{-2\tau}$	1.8719	$1.876^{+0.043}_{-0.044}$	$f\sigma_8(0.15)$	0.4551	$0.456^{+0.015}_{-0.015}$
A_{143}^{tSZ}	6.98	$5.6^{+4.4}_{-4.6}$	D_{40}	1230.9	1231^{+34}_{-34}	$\sigma_8(0.15)$	0.7434	$0.746^{+0.026}_{-0.024}$
A_{100}^{PS}	243	256^{+70}_{-70}	D_{220}	5736	5739^{+98}_{-98}	$f\sigma_8(0.38)$	0.4728	$0.474^{+0.015}_{-0.015}$
A_{143}^{PS}	51.9	45^{+20}_{-20}	D_{810}	2540.1	2539^{+34}_{-36}	$\sigma_8(0.38)$	0.6587	$0.661^{+0.023}_{-0.022}$
$A_{143 \times 217}^{\text{PS}}$	58.2	42^{+20}_{-20}	D_{1420}	820.1	818^{+13}_{-13}	$f\sigma_8(0.51)$	0.4712	$0.472^{+0.015}_{-0.014}$
A_{217}^{PS}	123.9	115^{+30}_{-30}	D_{2000}	232.41	$231.5^{+4.8}_{-4.7}$	$\sigma_8(0.51)$	0.6163	$0.619^{+0.022}_{-0.021}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9635	$0.965^{+0.018}_{-0.017}$	$f\sigma_8(0.61)$	0.4660	$0.467^{+0.014}_{-0.014}$
A_{100}^{dustTT}	8.73	$8.9^{+4.7}_{-4.6}$	Y_{P}	0.2436	$0.2445^{+0.0062}_{-0.0061}$	$\sigma_8(0.61)$	0.5864	$0.589^{+0.022}_{-0.020}$
A_{143}^{dustTT}	10.94	$10.9^{+4.6}_{-4.6}$	$Y_{\text{P}}^{\text{BBN}}$	0.2449	$0.2459^{+0.0062}_{-0.0061}$	$f\sigma_8(2.33)$	0.2956	$0.297^{+0.011}_{-0.010}$
$A_{143 \times 217}^{\text{dustTT}}$	20.3	$18.6^{+8.4}_{-8.5}$	$10^5 D/H$	2.545	$2.56^{+0.11}_{-0.11}$	$\sigma_8(2.33)$	0.3046	$0.306^{+0.012}_{-0.011}$
A_{217}^{dustTT}	95.8	94^{+20}_{-20}	Age/Gyr	13.918	$13.85^{+0.45}_{-0.45}$	f_{2000}^{143}	27.3	29^{+8}_{-8}
A_{100}^{dustTE}	0.114	$0.114^{+0.097}_{-0.093}$	z_*	1089.59	$1089.71^{+0.85}_{-0.86}$	$f_{2000}^{143 \times 217}$	31.0	32^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.135^{+0.079}_{-0.077}$	r_*	145.84	$145.2^{+4.4}_{-4.4}$	f_{2000}^{217}	105.6	$106.6^{+5.0}_{-4.9}$
$A_{100 \times 217}^{\text{dustTE}}$	0.482	$0.48^{+0.21}_{-0.23}$	$100\theta_*$	1.04153	$1.0413^{+0.0014}_{-0.0013}$	χ_{lensing}^2	8.54	$9.05 (\nu: 0.2)$
A_{143}^{dustTE}	0.225	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	14.002	$13.94^{+0.41}_{-0.40}$	χ_{small}^2	396	$229 (\nu: 17290.5)$
$A_{143 \times 217}^{\text{dustTE}}$	0.666	$0.66^{+0.20}_{-0.21}$	z_{drag}	1059.55	$1059.8^{+1.8}_{-1.7}$	χ_{lowl}^2	23	$192 (\nu: 17299.5)$
A_{217}^{dustTE}	2.08	$2.07^{+0.70}_{-0.72}$	r_{drag}	148.53	$147.9^{+4.6}_{-4.5}$	χ_{plik}^2	2344.3	$2359.7 (\nu: 18.0)$
c_{100}	0.99977	$0.9997^{+0.0016}_{-0.0016}$	k_{D}	0.13985	$0.1403^{+0.0034}_{-0.0033}$	$\chi_{6\text{DF}}^2$	0.06	$0.57 (\nu: 0.2)$
c_{217}	0.99816	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_{\text{D}}$	0.16043	$0.1606^{+0.0010}_{-0.0010}$	χ_{MGS}^2	1.04	$0.69 (\nu: 0.2)$
H_0	66.86	$67.3^{+3.0}_{-2.8}$	z_{eq}	3396	3391^{+61}_{-61}	χ_{DR12BAO}^2	5.00	$5.1 (\nu: 1.3)$
Ω_{Λ}	0.6863	$0.688^{+0.017}_{-0.017}$	k_{eq}	0.010274	$0.01031^{+0.00028}_{-0.00027}$	χ_{prior}^2	1.4	$11.6 (\nu: 10.1)$
Ω_{m}	0.3137	$0.312^{+0.017}_{-0.017}$	$100\theta_{\text{eq}}$	0.8144	$0.816^{+0.012}_{-0.011}$	χ_{CMB}^2	2772.7	$2789.5 (\nu: 18.3)$
$\Omega_{\text{m}} h^2$	0.1403	$0.1414^{+0.0079}_{-0.0074}$	$100\theta_{\text{s,eq}}$	0.4500	$0.4505^{+0.0060}_{-0.0058}$	χ_{BAO}^2	6.09	$6.4 (\nu: 0.9)$
$\Omega_{\text{m}} h^3$	0.0938	$0.0952^{+0.0093}_{-0.0083}$	$H(0.15)$	72.12	$72.6^{+3.0}_{-2.8}$			

Best-fit $\chi_{\text{eff}}^2 = 2780.19$; $\Delta\chi_{\text{eff}}^2 = -0.51$; $\bar{\chi}_{\text{eff}}^2 = 2807.45$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.60$; $R - 1 = 0.01513$

χ_{eff}^2 : BAO - 6DF: 0.06 (Δ 0.03) MGS: 1.04 (Δ -0.18) DR12BAO: 5.00 (Δ 0.58) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.54 (Δ -0.19) small_100x143_offlike5_EE_Aplanck 396.33 (Δ -0.19) commander_dx12_v3.2_29: 23.47 (Δ 0.57) plik_rd12_HM_v22b.TTTEEE: 2344.34 (Δ -0.98)

7.18 base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02239^{+0.00047}_{-0.00046}$	σ_8	$0.809^{+0.030}_{-0.028}$	$D_M(0.15)$	643^{+28}_{-27}
$\Omega_c h^2$	$0.1186^{+0.0080}_{-0.0077}$	S_8	$0.824^{+0.037}_{-0.035}$	$H(0.38)$	$82.8^{+3.2}_{-3.0}$
$100\theta_{MC}$	$1.0411^{+0.0012}_{-0.0011}$	$\sigma_8 \Omega_m^{0.5}$	$0.451^{+0.020}_{-0.019}$	$D_M(0.38)$	1533^{+63}_{-62}
τ	$0.057^{+0.020}_{-0.014}$	$\sigma_8 \Omega_m^{0.25}$	$0.604^{+0.024}_{-0.022}$	$H(0.51)$	$89.5^{+3.3}_{-3.1}$
N_{eff}	$3.01^{+0.47}_{-0.46}$	$\sigma_8/h^{0.5}$	$0.984^{+0.029}_{-0.026}$	$D_M(0.51)$	1986^{+80}_{-78}
$\ln(10^{10} A_s)$	$3.045^{+0.050}_{-0.039}$	$r_{\text{drag}} h$	$99.6^{+2.3}_{-2.1}$	$H(0.61)$	$95.1^{+3.4}_{-3.2}$
n_s	$0.966^{+0.018}_{-0.018}$	$\langle d^2 \rangle^{1/2}$	$2.438^{+0.067}_{-0.060}$	$D_M(0.61)$	2311^{+91}_{-90}
y_{cal}	$1.0007^{+0.0064}_{-0.0065}$	z_{re}	< 9.71	$H(2.33)$	$235.6^{+6.9}_{-6.9}$
A_{217}^{CIB}	46^{+20}_{-20}	$10^9 A_s$	$2.10^{+0.11}_{-0.080}$	$D_M(2.33)$	5776^{+200}_{-190}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.877^{+0.045}_{-0.049}$	$f\sigma_8(0.15)$	$0.456^{+0.019}_{-0.018}$
A_{143}^{tSZ}	> 0.969	D_{40}	1229^{+35}_{-35}	$\sigma_8(0.15)$	$0.747^{+0.028}_{-0.026}$
A_{100}^{PS}	257^{+70}_{-70}	D_{220}	5737^{+100}_{-100}	$f\sigma_8(0.38)$	$0.474^{+0.019}_{-0.017}$
A_{143}^{PS}	45^{+20}_{-20}	D_{810}	2539^{+36}_{-37}	$\sigma_8(0.38)$	$0.662^{+0.026}_{-0.024}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	818^{+13}_{-13}	$f\sigma_8(0.51)$	$0.473^{+0.018}_{-0.017}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$231.4^{+4.8}_{-4.8}$	$\sigma_8(0.51)$	$0.620^{+0.025}_{-0.022}$
A^{kSZ}	—	$n_{s,0.002}$	$0.966^{+0.018}_{-0.018}$	$f\sigma_8(0.61)$	$0.468^{+0.017}_{-0.016}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.7}$	Y_P	$0.2449^{+0.0063}_{-0.0064}$	$\sigma_8(0.61)$	$0.590^{+0.024}_{-0.021}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.7}$	Y_P^{BBN}	$0.2462^{+0.0063}_{-0.0065}$	$f\sigma_8(2.33)$	$0.297^{+0.012}_{-0.011}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.5}_{-8.5}$	10^5D/H	$2.57^{+0.12}_{-0.12}$	$\sigma_8(2.33)$	$0.307^{+0.013}_{-0.012}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.83^{+0.47}_{-0.46}$	f_{2000}^{143}	29^{+8}_{-8}
A_{100}^{dustTE}	$0.114^{+0.099}_{-0.094}$	z_*	$1089.74^{+0.94}_{-0.92}$	$f_{2000}^{143 \times 217}$	32^{+6}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.076}_{-0.076}$	r_*	$145.0^{+4.7}_{-4.4}$	f_{2000}^{217}	$106.6^{+5.0}_{-5.0}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.23}$	$100\theta_*$	$1.0413^{+0.0014}_{-0.0014}$	χ_{simall}^2	$397.3 (\nu: 2.4)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.92^{+0.43}_{-0.41}$	χ_{lowl}^2	$23.3 (\nu: 0.6)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.20}_{-0.21}$	z_{drag}	$1059.8^{+1.8}_{-1.7}$	χ_{plik}^2	$2360.2 (\nu: 19.1)$
A_{217}^{dustTE}	$2.08^{+0.70}_{-0.70}$	r_{drag}	$147.7^{+4.9}_{-4.6}$	$\chi_{6\text{DF}}^2$	$0.065 (\nu: 0.0)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_D	$0.1405^{+0.0035}_{-0.0034}$	χ_{MGS}^2	$1.24 (\nu: 0.1)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.1607^{+0.0010}_{-0.0011}$	χ_{DR12BAO}^2	$5.0 (\nu: 1.3)$
H_0	$67.4^{+3.1}_{-2.9}$	z_{eq}	3388^{+63}_{-64}	χ_{prior}^2	$11.6 (\nu: 10.3)$
Ω_Λ	$0.688^{+0.018}_{-0.018}$	k_{eq}	$0.01031^{+0.00031}_{-0.00030}$	χ_{BAO}^2	$6.3 (\nu: 0.8)$
Ω_m	$0.312^{+0.018}_{-0.018}$	$100\theta_{\text{eq}}$	$0.816^{+0.012}_{-0.012}$	χ_{CMB}^2	$2780.8 (\nu: 18.1)$
$\Omega_m h^2$	$0.1417^{+0.0083}_{-0.0080}$	$100\theta_{s,\text{eq}}$	$0.4508^{+0.0063}_{-0.0061}$		
$\Omega_m h^3$	$0.0956^{+0.0095}_{-0.0088}$	$H(0.15)$	$72.7^{+3.1}_{-2.9}$		

$$\bar{\chi}_{\text{eff}}^2 = 2798.76; \Delta\bar{\chi}_{\text{eff}}^2 = 1.04; R - 1 = 0.01049$$

7.19 base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_Pantheon18_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02240^{+0.00047}_{-0.00045}$	σ_8	$0.808^{+0.027}_{-0.025}$	$D_M(0.15)$	643^{+26}_{-26}
$\Omega_c h^2$	$0.1184^{+0.0076}_{-0.0071}$	S_8	$0.823^{+0.028}_{-0.028}$	$H(0.38)$	$82.8^{+3.1}_{-2.8}$
$100\theta_{MC}$	$1.0411^{+0.0012}_{-0.0011}$	$\sigma_8 \Omega_m^{0.5}$	$0.451^{+0.015}_{-0.016}$	$D_M(0.38)$	1533^{+58}_{-59}
τ	$0.057^{+0.019}_{-0.015}$	$\sigma_8 \Omega_m^{0.25}$	$0.604^{+0.018}_{-0.019}$	$H(0.51)$	$89.5^{+3.2}_{-2.9}$
N_{eff}	$3.00^{+0.45}_{-0.43}$	$\sigma_8/h^{0.5}$	$0.984^{+0.022}_{-0.021}$	$D_M(0.51)$	1986^{+73}_{-75}
$\ln(10^{10} A_s)$	$3.046^{+0.044}_{-0.036}$	$r_{\text{drag}} h$	$99.6^{+2.0}_{-2.0}$	$H(0.61)$	$95.1^{+3.3}_{-3.0}$
n_s	$0.966^{+0.017}_{-0.017}$	$\langle d^2 \rangle^{1/2}$	$2.439^{+0.053}_{-0.052}$	$D_M(0.61)$	2311^{+84}_{-86}
y_{cal}	$1.0008^{+0.0062}_{-0.0064}$	z_{re}	< 9.63	$H(2.33)$	$235.4^{+6.6}_{-6.4}$
A_{217}^{CIB}	46^{+20}_{-20}	$10^9 A_s$	$2.104^{+0.094}_{-0.074}$	$D_M(2.33)$	5778^{+190}_{-190}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.877^{+0.043}_{-0.044}$	$f\sigma_8(0.15)$	$0.455^{+0.015}_{-0.015}$
A_{143}^{tSZ}	$5.6^{+4.4}_{-4.6}$	D_{40}	1230^{+33}_{-33}	$\sigma_8(0.15)$	$0.747^{+0.025}_{-0.024}$
A_{100}^{PS}	257^{+70}_{-70}	D_{220}	5740^{+98}_{-97}	$f\sigma_8(0.38)$	$0.474^{+0.014}_{-0.014}$
A_{143}^{PS}	45^{+20}_{-20}	D_{810}	2539^{+33}_{-36}	$\sigma_8(0.38)$	$0.662^{+0.024}_{-0.021}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	818^{+13}_{-13}	$f\sigma_8(0.51)$	$0.472^{+0.015}_{-0.014}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$231.5^{+4.9}_{-4.7}$	$\sigma_8(0.51)$	$0.620^{+0.022}_{-0.020}$
A^{kSZ}	—	$n_{s,0.002}$	$0.966^{+0.017}_{-0.017}$	$f\sigma_8(0.61)$	$0.468^{+0.014}_{-0.014}$
A_{100}^{dustTT}	$8.9^{+4.6}_{-4.6}$	Y_P	$0.2448^{+0.0061}_{-0.0061}$	$\sigma_8(0.61)$	$0.590^{+0.021}_{-0.019}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.6}$	Y_P^{BBN}	$0.2461^{+0.0061}_{-0.0061}$	$f\sigma_8(2.33)$	$0.297^{+0.011}_{-0.010}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.4}_{-8.5}$	$10^5 D/H$	$2.57^{+0.11}_{-0.11}$	$\sigma_8(2.33)$	$0.307^{+0.012}_{-0.011}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.83^{+0.44}_{-0.45}$	f_{2000}^{143}	29^{+8}_{-8}
A_{100}^{dustTE}	$0.114^{+0.096}_{-0.093}$	z_*	$1089.70^{+0.85}_{-0.86}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.078}_{-0.077}$	r_*	$145.1^{+4.3}_{-4.3}$	f_{2000}^{217}	$106.6^{+5.0}_{-4.9}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.21}_{-0.23}$	$100\theta_*$	$1.0413^{+0.0014}_{-0.0013}$	χ_{lensing}^2	$9.03 (\nu: 0.2)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.93^{+0.40}_{-0.40}$	χ_{simall}^2	$230 (\nu: 17285.0)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	z_{drag}	$1059.8^{+1.7}_{-1.7}$	χ_{lowl}^2	$190 (\nu: 17292.0)$
A_{217}^{dustTE}	$2.07^{+0.70}_{-0.71}$	r_{drag}	$147.7^{+4.5}_{-4.5}$	χ_{plik}^2	$2359.8 (\nu: 17.9)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_D	$0.1404^{+0.0033}_{-0.0033}$	χ_{JLA}^2	$1035.11 (\nu: 0.1)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.1606^{+0.0010}_{-0.0010}$	$\chi_{6\text{DF}}^2$	$0.59 (\nu: 0.2)$
H_0	$67.5^{+3.0}_{-2.7}$	z_{eq}	3386^{+59}_{-59}	χ_{MGS}^2	$0.73 (\nu: 0.2)$
Ω_Λ	$0.689^{+0.016}_{-0.016}$	k_{eq}	$0.01030^{+0.00029}_{-0.00027}$	χ_{DR12BAO}^2	$4.8 (\nu: 1.0)$
Ω_m	$0.311^{+0.016}_{-0.016}$	$100\theta_{\text{eq}}$	$0.816^{+0.011}_{-0.011}$	χ_{prior}^2	$11.6 (\nu: 10.1)$
$\Omega_m h^2$	$0.1415^{+0.0078}_{-0.0074}$	$100\theta_{s,\text{eq}}$	$0.4510^{+0.0057}_{-0.0057}$	χ_{CMB}^2	$2789.6 (\nu: 18.0)$
$\Omega_m h^3$	$0.0955^{+0.0092}_{-0.0084}$	$H(0.15)$	$72.7^{+3.0}_{-2.7}$	χ_{BAO}^2	$6.1 (\nu: 0.6)$

$$\bar{\chi}_{\text{eff}}^2 = 3842.41; \Delta \bar{\chi}_{\text{eff}}^2 = 0.67; R - 1 = 0.01464$$

7.20 base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02238^{+0.00047}_{-0.00044}$	σ_8	$0.808^{+0.027}_{-0.025}$	$D_M(0.15)$	644^{+27}_{-27}
$\Omega_c h^2$	$0.1183^{+0.0076}_{-0.0072}$	S_8	$0.824^{+0.028}_{-0.028}$	$H(0.38)$	$82.7^{+3.1}_{-2.9}$
$100\theta_{MC}$	$1.0411^{+0.0012}_{-0.0011}$	$\sigma_8 \Omega_m^{0.5}$	$0.451^{+0.016}_{-0.016}$	$D_M(0.38)$	1536^{+61}_{-61}
τ	$0.057^{+0.019}_{-0.014}$	$\sigma_8 \Omega_m^{0.25}$	$0.604^{+0.018}_{-0.018}$	$H(0.51)$	$89.4^{+3.2}_{-3.0}$
N_{eff}	$2.99^{+0.46}_{-0.43}$	$\sigma_8/h^{0.5}$	$0.985^{+0.022}_{-0.022}$	$D_M(0.51)$	1990^{+77}_{-78}
$\ln(10^{10} A_s)$	$3.045^{+0.044}_{-0.035}$	$r_{\text{drag}} h$	$99.5^{+2.1}_{-2.0}$	$H(0.61)$	$95.0^{+3.3}_{-3.1}$
n_s	$0.965^{+0.018}_{-0.018}$	$\langle d^2 \rangle^{1/2}$	$2.441^{+0.053}_{-0.052}$	$D_M(0.61)$	2315^{+89}_{-89}
y_{cal}	$1.0008^{+0.0062}_{-0.0065}$	z_{re}	< 9.60	$H(2.33)$	$235.3^{+6.6}_{-6.4}$
A_{217}^{CIB}	46^{+20}_{-20}	$10^9 A_s$	$2.102^{+0.094}_{-0.073}$	$D_M(2.33)$	5785^{+190}_{-190}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.876^{+0.043}_{-0.044}$	$f\sigma_8(0.15)$	$0.456^{+0.015}_{-0.015}$
A_{143}^{tSZ}	$5.6^{+4.4}_{-4.6}$	D_{40}	1231^{+34}_{-34}	$\sigma_8(0.15)$	$0.747^{+0.025}_{-0.023}$
A_{100}^{PS}	256^{+70}_{-70}	D_{220}	5739^{+98}_{-97}	$f\sigma_8(0.38)$	$0.474^{+0.014}_{-0.014}$
A_{143}^{PS}	45^{+20}_{-20}	D_{810}	2539^{+34}_{-36}	$\sigma_8(0.38)$	$0.662^{+0.023}_{-0.021}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	818^{+13}_{-13}	$f\sigma_8(0.51)$	$0.473^{+0.014}_{-0.014}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$231.5^{+4.8}_{-4.7}$	$\sigma_8(0.51)$	$0.619^{+0.022}_{-0.020}$
A^{kSZ}	—	$n_{s,0.002}$	$0.965^{+0.018}_{-0.018}$	$f\sigma_8(0.61)$	$0.468^{+0.014}_{-0.014}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.6}$	Y_{P}	$0.2446^{+0.0062}_{-0.0061}$	$\sigma_8(0.61)$	$0.589^{+0.021}_{-0.020}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.6}$	$Y_{\text{P}}^{\text{BBN}}$	$0.2459^{+0.0062}_{-0.0061}$	$f\sigma_8(2.33)$	$0.297^{+0.011}_{-0.010}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.4}_{-8.5}$	$10^5 \text{D}/\text{H}$	$2.56^{+0.11}_{-0.11}$	$\sigma_8(2.33)$	$0.306^{+0.012}_{-0.011}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.85^{+0.45}_{-0.45}$	f_{2000}^{143}	29^{+8}_{-8}
A_{100}^{dustTE}	$0.114^{+0.097}_{-0.093}$	z_*	$1089.71^{+0.85}_{-0.87}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.078}_{-0.077}$	r_*	$145.2^{+4.4}_{-4.3}$	f_{2000}^{217}	$106.5^{+5.0}_{-4.9}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.21}_{-0.23}$	$100\theta_*$	$1.0413^{+0.0014}_{-0.0013}$	χ_{lensing}^2	$9.02 (\nu: 0.2)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.94^{+0.41}_{-0.40}$	χ_{simall}^2	$230 (\nu: 17276.4)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	z_{drag}	$1059.8^{+1.8}_{-1.7}$	χ_{lowl}^2	$191 (\nu: 17285.7)$
A_{217}^{dustTE}	$2.07^{+0.70}_{-0.71}$	r_{drag}	$147.9^{+4.6}_{-4.5}$	χ_{plik}^2	$2359.6 (\nu: 17.9)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_{D}	$0.1403^{+0.0034}_{-0.0033}$	$\chi_{6\text{DF}}^2$	$0.57 (\nu: 0.2)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_{\text{D}}$	$0.1606^{+0.0010}_{-0.0010}$	χ_{MGS}^2	$0.69 (\nu: 0.2)$
H_0	$67.3^{+3.0}_{-2.8}$	z_{eq}	3390^{+61}_{-61}	χ_{DR12BAO}^2	$5.1 (\nu: 1.2)$
Ω_{Λ}	$0.688^{+0.017}_{-0.017}$	k_{eq}	$0.01030^{+0.00029}_{-0.00027}$	χ_{prior}^2	$11.6 (\nu: 10.1)$
Ω_{m}	$0.312^{+0.017}_{-0.017}$	$100\theta_{\text{eq}}$	$0.816^{+0.012}_{-0.011}$	χ_{CMB}^2	$2789.4 (\nu: 18.0)$
$\Omega_{\text{m}} h^2$	$0.1414^{+0.0079}_{-0.0073}$	$100\theta_{\text{s,eq}}$	$0.4506^{+0.0060}_{-0.0057}$	χ_{BAO}^2	$6.3 (\nu: 0.8)$
$\Omega_{\text{m}} h^3$	$0.0952^{+0.0093}_{-0.0083}$	$H(0.15)$	$72.6^{+3.0}_{-2.8}$		

$$\bar{\chi}_{\text{eff}}^2 = 2807.29; \Delta \bar{\chi}_{\text{eff}}^2 = 0.57; R - 1 = 0.01488$$

8 nnu+meffsterile

8.1 base_nnu_meffsterile_plikHM_TT_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02216	$0.02223^{+0.00065}_{-0.00058}$	S_8	0.837	$0.816^{+0.069}_{-0.082}$	$100\theta_{s,eq}$	0.4490	$0.455^{+0.033}_{-0.014}$
$\Omega_c h^2$	0.1203	$0.1215^{+0.0093}_{-0.014}$	$\sigma_8 \Omega_m^{0.5}$	0.4587	$0.447^{+0.038}_{-0.045}$	$H(0.15)$	72.33	$72.5^{+4.5}_{-2.6}$
$100\theta_{MC}$	1.04072	$1.0405^{+0.0013}_{-0.0014}$	$\sigma_8 \Omega_m^{0.25}$	0.610	$0.591^{+0.042}_{-0.062}$	$D_M(0.15)$	646.8	646^{+28}_{-41}
τ	0.0529	$0.053^{+0.022}_{-0.021}$	$\sigma_8/h^{0.5}$	0.992	$0.953^{+0.064}_{-0.10}$	$H(0.38)$	82.57	$83.0^{+4.2}_{-1.9}$
$m_{\nu, sterile}^{eff} [eV]$	0.01	< 1.26	$r_{drag} h$	98.6	$97.5^{+5.6}_{-5.9}$	$D_M(0.38)$	1541	1537^{+54}_{-88}
N_{eff}	3.046	< 3.67	$\langle d^2 \rangle^{1/2}$	2.451	$2.45^{+0.11}_{-0.11}$	$H(0.51)$	89.36	$90.0^{+4.0}_{-1.6}$
$\ln(10^{10} A_s)$	3.0415	$3.047^{+0.049}_{-0.046}$	z_{re}	7.59	$7.6^{+2.2}_{-2.4}$	$D_M(0.51)$	1995	1988^{+63}_{-110}
n_s	0.9637	$0.966^{+0.027}_{-0.020}$	$10^9 A_s$	2.094	$2.11^{+0.11}_{-0.094}$	$H(0.61)$	95.04	$95.8^{+3.5}_{-1.6}$
y_{cal}	1.0003	$1.0005^{+0.0067}_{-0.0063}$	$10^9 A_s e^{-2\tau}$	1.8833	$1.895^{+0.044}_{-0.040}$	$D_M(0.61)$	2320	2311^{+68}_{-120}
A_{217}^{CIB}	48.9	49^{+20}_{-20}	D_{40}	1231.0	1228^{+47}_{-50}	$H(2.33)$	236.6	$239.8^{+7.9}_{-5.1}$
$\xi^{tSZ \times CIB}$	0.30	—	D_{220}	5712	5712^{+110}_{-100}	$D_M(2.33)$	5776	5729^{+87}_{-190}
A_{143}^{tSZ}	7.0	—	D_{810}	2537.4	2539^{+37}_{-36}	$f\sigma_8(0.15)$	0.4626	$0.451^{+0.036}_{-0.045}$
A_{100}^{PS}	254	269^{+70}_{-70}	D_{1420}	815.1	813^{+14}_{-13}	$\sigma_8(0.15)$	0.749	$0.719^{+0.053}_{-0.090}$
A_{143}^{PS}	49.4	52^{+20}_{-20}	D_{2000}	230.0	$228.2^{+5.1}_{-5.2}$	$f\sigma_8(0.38)$	0.4792	$0.465^{+0.033}_{-0.048}$
$A_{143 \times 217}^{PS}$	46.5	45^{+20}_{-20}	$n_{s,0.002}$	0.9637	$0.966^{+0.027}_{-0.020}$	$\sigma_8(0.38)$	0.663	$0.636^{+0.048}_{-0.082}$
A_{217}^{PS}	119.0	116^{+30}_{-30}	Y_P	0.24531	$0.2477^{+0.0059}_{-0.0026}$	$f\sigma_8(0.51)$	0.4769	$0.461^{+0.032}_{-0.049}$
A^{kSZ}	0.0	—	Y_P^{BBN}	0.24664	$0.2490^{+0.0059}_{-0.0026}$	$\sigma_8(0.51)$	0.620	$0.595^{+0.046}_{-0.078}$
A_{100}^{dustTT}	8.78	$9.0^{+4.7}_{-4.8}$	$10^5 D/H$	2.625	$2.67^{+0.15}_{-0.12}$	$f\sigma_8(0.61)$	0.4712	$0.455^{+0.031}_{-0.050}$
A_{143}^{dustTT}	10.77	$10.8^{+4.6}_{-4.7}$	Age/Gyr	13.826	$13.71^{+0.20}_{-0.45}$	$\sigma_8(0.61)$	0.590	$0.565^{+0.045}_{-0.074}$
$A_{143 \times 217}^{dustTT}$	19.3	$18.4^{+8.5}_{-8.4}$	z_*	1090.22	$1090.6^{+1.3}_{-1.1}$	$f\sigma_8(2.33)$	0.2972	$0.285^{+0.023}_{-0.038}$
A_{217}^{dustTT}	94.4	93^{+20}_{-20}	r_*	144.48	$142.8^{+2.4}_{-4.3}$	$\sigma_8(2.33)$	0.3060	$0.293^{+0.026}_{-0.040}$
c_{100}	0.99962	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	1.04093	$1.0406^{+0.0013}_{-0.0015}$	f_{2000}^{143}	30.4	33^{+8}_{-8}
c_{217}	0.99823	$0.9983^{+0.0016}_{-0.0016}$	$D_M(z_*)/Gpc$	13.880	$13.72^{+0.24}_{-0.37}$	$f_{2000}^{143 \times 217}$	33.2	35^{+6}_{-6}
H_0	66.97	$67.0^{+4.8}_{-3.2}$	z_{drag}	1059.47	$1060.0^{+2.0}_{-1.5}$	f_{2000}^{217}	107.6	$109.5^{+5.7}_{-5.2}$
Ω_Λ	0.6806	$0.671^{+0.044}_{-0.053}$	r_{drag}	147.21	$145.5^{+2.6}_{-4.2}$	χ_{small}^2	395.94	$397.0 (\nu: 1.6)$
Ω_m	0.3194	$0.329^{+0.053}_{-0.044}$	k_D	0.14058	$0.1419^{+0.0034}_{-0.0022}$	χ_{lowl}^2	23.58	$23.5 (\nu: 1.2)$
$\Omega_m h^2$	0.1432	$0.147^{+0.011}_{-0.0074}$	$100\theta_D$	0.16101	$0.1614^{+0.0013}_{-0.00084}$	χ_{plik}^2	758.8	$774.5 (\nu: 17.4)$
$\Omega_\nu h^2$	0.0008	$0.0037^{+0.010}_{-0.0032}$	z_{eq}	3405	3355^{+140}_{-280}	χ_{prior}^2	1.4	$7.4 (\nu: 6.9)$
$\Omega_m h^3$	0.0959	$0.0988^{+0.0095}_{-0.0039}$	k_{eq}	0.01039	$0.01039^{+0.00046}_{-0.00075}$	χ_{CMB}^2	1178.3	$1195.0 (\nu: 17.6)$
σ_8	0.812	$0.780^{+0.056}_{-0.094}$	$100\theta_{eq}$	0.8122	$0.823^{+0.063}_{-0.028}$			

Best-fit $\chi_{eff}^2 = 1179.66$; $\Delta\chi_{eff}^2 = 0.08$; $\bar{\chi}_{eff}^2 = 1202.36$; $\Delta\bar{\chi}_{eff}^2 = 2.79$; $R - 1 = 0.01778$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.94 (Δ 0.06) commander_dx12_v3.2.29: 23.58 (Δ -0.02) plik_rd12_HM_v22_TT: 758.77 (Δ 0.03)

8.2 base_nnu_meffsterile_plikHM_TT_lowl_lowE_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02221	$0.02221^{+0.00058}_{-0.00056}$	S_8	0.831	$0.819^{+0.049}_{-0.066}$	$100\theta_{s,eq}$	0.4600	$0.454^{+0.031}_{-0.011}$
$\Omega_c h^2$	0.1160	$0.1216^{+0.0090}_{-0.013}$	$\sigma_8 \Omega_m^{0.5}$	0.4552	$0.448^{+0.027}_{-0.036}$	$H(0.15)$	72.55	$72.4^{+4.1}_{-2.2}$
$100\theta_{MC}$	1.04082	$1.0405^{+0.0013}_{-0.0013}$	$\sigma_8 \Omega_m^{0.25}$	0.6073	$0.592^{+0.032}_{-0.051}$	$D_M(0.15)$	644.5	647^{+23}_{-37}
τ	0.0541	$0.053^{+0.022}_{-0.020}$	$\sigma_8/h^{0.5}$	0.988	$0.955^{+0.054}_{-0.080}$	$H(0.38)$	82.74	$82.9^{+3.8}_{-1.6}$
$m_{\nu, sterile}^{eff} [eV]$	0.36	< 1.16	$r_{drag} h$	99.0	$97.3^{+4.7}_{-5.3}$	$D_M(0.38)$	1536	1539^{+45}_{-81}
N_{eff}	3.047	< 3.62	$\langle d^2 \rangle^{1/2}$	2.444	$2.453^{+0.074}_{-0.075}$	$H(0.51)$	89.49	$89.8^{+3.2}_{-1.5}$
$\ln(10^{10} A_s)$	3.0425	$3.048^{+0.046}_{-0.041}$	z_{re}	7.70	$7.6^{+2.1}_{-2.2}$	$D_M(0.51)$	1989	1991^{+52}_{-100}
n_s	0.9653	$0.965^{+0.023}_{-0.017}$	$10^9 A_s$	2.096	$2.107^{+0.098}_{-0.086}$	$H(0.61)$	95.14	$95.7^{+3.1}_{-1.4}$
y_{cal}	1.0002	$1.0005^{+0.0066}_{-0.0064}$	$10^9 A_s e^{-2\tau}$	1.8808	$1.895^{+0.041}_{-0.034}$	$D_M(0.61)$	2314	2315^{+55}_{-110}
A_{217}^{CIB}	48.4	49^{+20}_{-20}	D_{40}	1227.7	1230^{+40}_{-41}	$H(2.33)$	236.3	$239.7^{+7.1}_{-4.9}$
$\xi^{tSZ \times CIB}$	0.34	—	D_{220}	5713	5714^{+110}_{-100}	$D_M(2.33)$	5771	5735^{+76}_{-170}
A_{143}^{tSZ}	7.0	—	D_{810}	2536.9	2539^{+35}_{-36}	$f\sigma_8(0.15)$	0.4595	$0.452^{+0.026}_{-0.037}$
A_{100}^{PS}	253	269^{+70}_{-70}	D_{1420}	815.6	813^{+14}_{-13}	$\sigma_8(0.15)$	0.748	$0.720^{+0.048}_{-0.074}$
A_{143}^{PS}	49.0	52^{+20}_{-20}	D_{2000}	230.2	$228.3^{+5.1}_{-5.2}$	$f\sigma_8(0.38)$	0.4768	$0.465^{+0.025}_{-0.040}$
$A_{143 \times 217}^{PS}$	47.0	45^{+20}_{-20}	$n_{s,0.002}$	0.9653	$0.965^{+0.023}_{-0.017}$	$\sigma_8(0.38)$	0.663	$0.636^{+0.046}_{-0.068}$
A_{217}^{PS}	119.3	116^{+30}_{-30}	Y_P	0.24535	$0.2475^{+0.0054}_{-0.0024}$	$f\sigma_8(0.51)$	0.4749	$0.462^{+0.026}_{-0.041}$
A^{kSZ}	0.0	—	Y_P^{BBN}	0.24667	$0.2488^{+0.0054}_{-0.0024}$	$\sigma_8(0.51)$	0.620	$0.595^{+0.044}_{-0.064}$
A_{100}^{dustTT}	8.90	$9.0^{+4.7}_{-4.9}$	$10^5 D/H$	2.616	$2.67^{+0.15}_{-0.12}$	$f\sigma_8(0.61)$	0.4696	$0.456^{+0.026}_{-0.042}$
A_{143}^{dustTT}	10.87	$10.8^{+4.5}_{-4.8}$	Age/Gyr	13.816	$13.73^{+0.18}_{-0.40}$	$\sigma_8(0.61)$	0.590	$0.565^{+0.042}_{-0.062}$
$A_{143 \times 217}^{dustTT}$	19.4	$18.4^{+8.4}_{-8.3}$	z_*	1090.11	$1090.6^{+1.3}_{-1.1}$	$f\sigma_8(2.33)$	0.2972	$0.285^{+0.022}_{-0.032}$
A_{217}^{dustTT}	94.5	93^{+20}_{-20}	r_*	144.58	$142.9^{+2.3}_{-3.8}$	$\sigma_8(2.33)$	0.3062	$0.293^{+0.024}_{-0.034}$
c_{100}	0.99964	$0.9996^{+0.0016}_{-0.0015}$	$100\theta_*$	1.04102	$1.0406^{+0.0013}_{-0.0014}$	f_{2000}^{143}	30.0	33^{+8}_{-8}
c_{217}	0.99824	$0.9983^{+0.0016}_{-0.0016}$	$D_M(z_*)/Gpc$	13.888	$13.73^{+0.22}_{-0.35}$	$f_{2000}^{143 \times 217}$	32.9	35^{+6}_{-6}
H_0	67.23	$66.8^{+4.4}_{-2.6}$	z_{drag}	1059.55	$1060.0^{+1.9}_{-1.4}$	f_{2000}^{217}	107.4	$109.5^{+5.6}_{-5.1}$
Ω_Λ	0.6842	$0.670^{+0.037}_{-0.048}$	r_{drag}	147.30	$145.5^{+2.4}_{-3.9}$	$\chi^2_{lensing}$	8.88	$9.27 (\nu: 0.4)$
Ω_m	0.3158	$0.330^{+0.048}_{-0.037}$	k_D	0.14052	$0.1419^{+0.0033}_{-0.0020}$	χ^2_{small}	396	$502 (\nu: 14302.6)$
$\Omega_m h^2$	0.1427	$0.147^{+0.011}_{-0.0065}$	$100\theta_D$	0.16097	$0.1613^{+0.0012}_{-0.00082}$	χ^2_{lowl}	23.29	$23.6 (\nu: 0.9)$
$\Omega_\nu h^2$	0.0045	$0.0037^{+0.0097}_{-0.0032}$	z_{eq}	3303	3362^{+110}_{-260}	χ^2_{plik}	759	$668 (\nu: 14315.7)$
$\Omega_m h^3$	0.0960	$0.0985^{+0.0081}_{-0.0036}$	k_{eq}	0.01015	$0.01041^{+0.00041}_{-0.00070}$	χ^2_{prior}	1.3	$7.3 (\nu: 6.8)$
σ_8	0.810	$0.781^{+0.050}_{-0.079}$	$100\theta_{eq}$	0.8333	$0.822^{+0.059}_{-0.022}$	χ^2_{CMB}	1187.2	$1203.6 (\nu: 17.4)$

Best-fit $\chi^2_{eff} = 1188.51$; $\Delta\chi^2_{eff} = -0.06$; $\bar{\chi}^2_{eff} = 1210.94$; $\Delta\bar{\chi}^2_{eff} = 2.53$; $R - 1 = 0.01963$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.88 (Δ -0.02) small_100x143_offlike5_EE_Aplanck_B: 396.04 (Δ 0.18) commander_dx12_v3_2_29: 23.29 (Δ 0.06) plik_rd12_HM_v22.TT: 758.94 (Δ -0.38)

8.3 base_nnu_meffsterile_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02223^{+0.00065}_{-0.00057}$	S_8	$0.817^{+0.069}_{-0.081}$	$100\theta_{s,eq}$	$0.455^{+0.034}_{-0.014}$
$\Omega_c h^2$	$0.1215^{+0.0093}_{-0.014}$	$\sigma_8 \Omega_m^{0.5}$	$0.447^{+0.038}_{-0.044}$	$H(0.15)$	$72.6^{+4.5}_{-2.7}$
$100\theta_{MC}$	$1.0405^{+0.0013}_{-0.0014}$	$\sigma_8 \Omega_m^{0.25}$	$0.591^{+0.042}_{-0.062}$	$D_M(0.15)$	646^{+28}_{-41}
τ	$0.054^{+0.020}_{-0.013}$	$\sigma_8/h^{0.5}$	$0.954^{+0.064}_{-0.10}$	$H(0.38)$	$83.1^{+4.2}_{-1.9}$
$m_{\nu, sterile}^{eff} [eV]$	< 1.26	$r_{drag} h$	$97.5^{+5.6}_{-5.9}$	$D_M(0.38)$	1536^{+55}_{-88}
N_{eff}	< 3.68	$\langle d^2 \rangle^{1/2}$	$2.45^{+0.11}_{-0.11}$	$H(0.51)$	$90.0^{+4.1}_{-1.6}$
$\ln(10^{10} A_s)$	$3.049^{+0.047}_{-0.033}$	z_{re}	< 9.61	$D_M(0.51)$	1987^{+64}_{-110}
n_s	$0.966^{+0.027}_{-0.020}$	$10^9 A_s$	$2.11^{+0.10}_{-0.069}$	$H(0.61)$	$95.8^{+3.5}_{-1.6}$
y_{cal}	$1.0005^{+0.0067}_{-0.0063}$	$10^9 A_s e^{-2\tau}$	$1.895^{+0.044}_{-0.040}$	$D_M(0.61)$	2310^{+69}_{-120}
A_{217}^{CIB}	49^{+20}_{-20}	D_{40}	1227^{+47}_{-50}	$H(2.33)$	$239.8^{+7.9}_{-5.1}$
$\xi^{tSZ \times CIB}$	—	D_{220}	5712^{+110}_{-100}	$D_M(2.33)$	5728^{+88}_{-190}
A_{143}^{tSZ}	—	D_{810}	2539^{+37}_{-36}	$f\sigma_8(0.15)$	$0.451^{+0.036}_{-0.045}$
A_{100}^{PS}	268^{+70}_{-70}	D_{1420}	813^{+14}_{-13}	$\sigma_8(0.15)$	$0.721^{+0.052}_{-0.090}$
A_{143}^{PS}	52^{+20}_{-20}	D_{2000}	$228.2^{+5.1}_{-5.2}$	$f\sigma_8(0.38)$	$0.465^{+0.033}_{-0.048}$
$A_{143 \times 217}^{PS}$	45^{+20}_{-20}	$n_{s,0.002}$	$0.966^{+0.027}_{-0.020}$	$\sigma_8(0.38)$	$0.637^{+0.048}_{-0.082}$
A_{217}^{PS}	116^{+30}_{-30}	Y_P	$0.2477^{+0.0060}_{-0.0027}$	$f\sigma_8(0.51)$	$0.462^{+0.032}_{-0.050}$
A^{kSZ}	—	Y_P^{BBN}	$0.2490^{+0.0060}_{-0.0027}$	$\sigma_8(0.51)$	$0.596^{+0.046}_{-0.078}$
A_{100}^{dustTT}	$9.0^{+4.7}_{-4.8}$	$10^5 D/H$	$2.67^{+0.15}_{-0.12}$	$f\sigma_8(0.61)$	$0.456^{+0.031}_{-0.050}$
A_{143}^{dustTT}	$10.8^{+4.6}_{-4.7}$	Age/Gyr	$13.71^{+0.21}_{-0.46}$	$\sigma_8(0.61)$	$0.566^{+0.044}_{-0.075}$
$A_{143 \times 217}^{dustTT}$	$18.3^{+8.6}_{-8.4}$	z_*	$1090.6^{+1.3}_{-1.1}$	$f\sigma_8(2.33)$	$0.286^{+0.023}_{-0.038}$
A_{217}^{dustTT}	93^{+20}_{-20}	r_*	$142.8^{+2.6}_{-4.0}$	$\sigma_8(2.33)$	$0.293^{+0.025}_{-0.041}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	$1.0406^{+0.0013}_{-0.0015}$	f_{2000}^{143}	33^{+8}_{-8}
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	$D_M(z_*)/Gpc$	$13.72^{+0.24}_{-0.38}$	$f_{2000}^{143 \times 217}$	35^{+6}_{-6}
H_0	$67.1^{+4.8}_{-3.2}$	z_{drag}	$1060.0^{+2.0}_{-1.5}$	f_{2000}^{217}	$109.5^{+5.7}_{-5.2}$
Ω_Λ	$0.672^{+0.044}_{-0.053}$	r_{drag}	$145.5^{+2.6}_{-4.2}$	χ_{small}^2	$396.9 (\nu: 1.6)$
Ω_m	$0.328^{+0.053}_{-0.044}$	k_D	$0.1419^{+0.0035}_{-0.0022}$	χ_{lowl}^2	$23.4 (\nu: 1.2)$
$\Omega_m h^2$	$0.147^{+0.011}_{-0.0074}$	$100\theta_D$	$0.1614^{+0.0013}_{-0.00085}$	χ_{plik}^2	$774.4 (\nu: 17.4)$
$\Omega_\nu h^2$	$0.0037^{+0.013}_{-0.0032}$	z_{eq}	3354^{+140}_{-290}	χ_{prior}^2	$7.4 (\nu: 6.9)$
$\Omega_m h^3$	$0.0988^{+0.0094}_{-0.0039}$	k_{eq}	$0.01039^{+0.00046}_{-0.00076}$	χ_{CMB}^2	$1194.8 (\nu: 17.3)$
σ_8	$0.781^{+0.055}_{-0.094}$	$100\theta_{eq}$	$0.823^{+0.065}_{-0.028}$		

$$\bar{\chi}_{eff}^2 = 1202.13; \Delta\bar{\chi}_{eff}^2 = 2.81; R - 1 = 0.02055$$

8.4 base_nnu_meffsterile_plikHM_TT_lowl_lowE_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02222^{+0.00058}_{-0.00054}$	S_8	$0.819^{+0.049}_{-0.067}$	$100\theta_{s,eq}$	$0.454^{+0.031}_{-0.011}$
$\Omega_c h^2$	$0.1215^{+0.0089}_{-0.013}$	$\sigma_8 \Omega_m^{0.5}$	$0.448^{+0.027}_{-0.037}$	$H(0.15)$	$72.4^{+4.1}_{-2.2}$
$100\theta_{MC}$	$1.0405^{+0.0013}_{-0.0013}$	$\sigma_8 \Omega_m^{0.25}$	$0.592^{+0.032}_{-0.051}$	$D_M(0.15)$	647^{+23}_{-37}
τ	$0.054^{+0.019}_{-0.014}$	$\sigma_8/h^{0.5}$	$0.955^{+0.054}_{-0.080}$	$H(0.38)$	$82.9^{+3.8}_{-1.5}$
$m_{\nu, sterile}^{eff} [eV]$	< 1.16	$r_{drag} h$	$97.4^{+4.7}_{-5.3}$	$D_M(0.38)$	1538^{+45}_{-81}
N_{eff}	< 3.62	$\langle d^2 \rangle^{1/2}$	$2.454^{+0.074}_{-0.075}$	$H(0.51)$	$89.9^{+3.2}_{-1.5}$
$\ln(10^{10} A_s)$	$3.050^{+0.044}_{-0.031}$	z_{re}	< 9.56	$D_M(0.51)$	1990^{+51}_{-100}
n_s	$0.965^{+0.023}_{-0.017}$	$10^9 A_s$	$2.111^{+0.094}_{-0.064}$	$H(0.61)$	$95.7^{+3.1}_{-1.4}$
y_{cal}	$1.0005^{+0.0066}_{-0.0063}$	$10^9 A_s e^{-2\tau}$	$1.895^{+0.040}_{-0.034}$	$D_M(0.61)$	2313^{+54}_{-110}
A_{217}^{CIB}	49^{+20}_{-20}	D_{40}	1229^{+38}_{-41}	$H(2.33)$	$239.7^{+7.1}_{-4.9}$
$\xi^{tSZ \times CIB}$	—	D_{220}	5714^{+110}_{-100}	$D_M(2.33)$	5734^{+76}_{-170}
A_{143}^{tSZ}	—	D_{810}	2539^{+35}_{-35}	$f\sigma_8(0.15)$	$0.452^{+0.026}_{-0.037}$
A_{100}^{PS}	268^{+70}_{-70}	D_{1420}	813^{+14}_{-13}	$\sigma_8(0.15)$	$0.720^{+0.048}_{-0.075}$
A_{143}^{PS}	52^{+20}_{-20}	D_{2000}	$228.3^{+5.2}_{-5.1}$	$f\sigma_8(0.38)$	$0.466^{+0.025}_{-0.040}$
$A_{143 \times 217}^{PS}$	45^{+20}_{-20}	$n_{s,0.002}$	$0.965^{+0.023}_{-0.017}$	$\sigma_8(0.38)$	$0.637^{+0.045}_{-0.069}$
A_{217}^{PS}	116^{+30}_{-30}	Y_P	$0.2475^{+0.0054}_{-0.0025}$	$f\sigma_8(0.51)$	$0.462^{+0.026}_{-0.041}$
A^{kSZ}	—	Y_P^{BBN}	$0.2488^{+0.0055}_{-0.0025}$	$\sigma_8(0.51)$	$0.595^{+0.043}_{-0.065}$
A_{100}^{dustTT}	$9.0^{+4.7}_{-4.9}$	$10^5 D/H$	$2.67^{+0.15}_{-0.12}$	$f\sigma_8(0.61)$	$0.456^{+0.026}_{-0.042}$
A_{143}^{dustTT}	$10.8^{+4.6}_{-4.8}$	Age/Gyr	$13.72^{+0.18}_{-0.40}$	$\sigma_8(0.61)$	$0.566^{+0.042}_{-0.062}$
$A_{143 \times 217}^{dustTT}$	$18.4^{+8.4}_{-8.3}$	z_*	$1090.6^{+1.3}_{-1.1}$	$f\sigma_8(2.33)$	$0.285^{+0.022}_{-0.032}$
A_{217}^{dustTT}	93^{+20}_{-20}	r_*	$142.9^{+2.4}_{-3.8}$	$\sigma_8(2.33)$	$0.293^{+0.024}_{-0.034}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	$1.0407^{+0.0013}_{-0.0014}$	f_{2000}^{143}	33^{+8}_{-8}
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	$D_M(z_*)/Gpc$	$13.73^{+0.22}_{-0.36}$	$f_{2000}^{143 \times 217}$	35^{+6}_{-6}
H_0	$66.9^{+4.4}_{-2.6}$	z_{drag}	$1060.0^{+1.9}_{-1.4}$	f_{2000}^{217}	$109.4^{+5.6}_{-5.1}$
Ω_Λ	$0.670^{+0.037}_{-0.048}$	r_{drag}	$145.5^{+2.4}_{-3.9}$	$\chi_{lensing}^2$	$9.25 (\nu: 0.4)$
Ω_m	$0.330^{+0.048}_{-0.037}$	k_D	$0.1419^{+0.0033}_{-0.0020}$	χ_{small}^2	$501 (\nu: 14225.2)$
$\Omega_m h^2$	$0.147^{+0.011}_{-0.0065}$	$100\theta_D$	$0.1613^{+0.0012}_{-0.00082}$	χ_{lowl}^2	$23.5 (\nu: 0.8)$
$\Omega_\nu h^2$	$0.0036^{+0.0097}_{-0.0032}$	z_{eq}	3360^{+110}_{-260}	χ_{plik}^2	$669 (\nu: 14236.6)$
$\Omega_m h^3$	$0.0986^{+0.0081}_{-0.0037}$	k_{eq}	$0.01040^{+0.00040}_{-0.00070}$	χ_{prior}^2	$7.3 (\nu: 6.8)$
σ_8	$0.781^{+0.049}_{-0.080}$	$100\theta_{eq}$	$0.822^{+0.059}_{-0.021}$	χ_{CMB}^2	$1203.4 (\nu: 17.1)$

$$\bar{\chi}_{eff}^2 = 1210.72; \Delta \bar{\chi}_{eff}^2 = 2.56; R - 1 = 0.02178$$

8.5 base_nnu_meffsterile_plikHM_TTTEE_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022445	$0.02243^{+0.00047}_{-0.00039}$	$\Omega_m h^2$	0.1434	$0.1459^{+0.0085}_{-0.0050}$	k_{eq}	0.010384	$0.01035^{+0.00033}_{-0.00065}$
$\Omega_c h^2$	0.1203	$0.1199^{+0.0066}_{-0.012}$	$\Omega_\nu h^2$	0.0006	$0.0035^{+0.0091}_{-0.0031}$	$100\theta_{\text{eq}}$	0.8150	$0.824^{+0.050}_{-0.024}$
$100\theta_{\text{MC}}$	1.04088	$1.04074^{+0.00080}_{-0.00088}$	$\Omega_m h^3$	0.09713	$0.0979^{+0.0050}_{-0.0023}$	$100\theta_{\text{s,eq}}$	0.4502	$0.455^{+0.026}_{-0.012}$
τ	0.0602	$0.055^{+0.022}_{-0.021}$	σ_8	0.817	$0.783^{+0.047}_{-0.088}$	$H(0.15)$	73.05	$72.6^{+2.5}_{-1.6}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	0.00	< 1.12	S_8	0.834	$0.813^{+0.052}_{-0.077}$	$D_{\text{M}}(0.15)$	639.9	645^{+17}_{-23}
N_{eff}	3.084	< 3.41	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4569	$0.445^{+0.029}_{-0.042}$	$H(0.38)$	83.21	$83.0^{+2.2}_{-1.1}$
$\ln(10^{10} A_{\text{s}})$	3.0581	$3.049^{+0.045}_{-0.043}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6111	$0.590^{+0.035}_{-0.061}$	$D_{\text{M}}(0.38)$	1525.9	1535^{+33}_{-49}
n_{s}	0.9687	$0.966^{+0.016}_{-0.013}$	$\sigma_8/h^{0.5}$	0.993	$0.955^{+0.054}_{-0.10}$	$H(0.51)$	89.97	$89.9^{+2.2}_{-0.92}$
y_{cal}	1.0010	$1.0008^{+0.0065}_{-0.0064}$	$r_{\text{drag}} h$	99.40	$98.0^{+3.4}_{-4.2}$	$D_{\text{M}}(0.51)$	1976.5	1987^{+38}_{-59}
A_{217}^{CIB}	45.5	47^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.451	$2.448^{+0.074}_{-0.075}$	$H(0.61)$	95.61	$95.6^{+1.9}_{-0.93}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.74	—	z_{re}	8.27	$7.7^{+2.1}_{-2.3}$	$D_{\text{M}}(0.61)$	2300	2310^{+40}_{-67}
A_{143}^{tSZ}	7.03	$5.3^{+4.4}_{-4.8}$	$10^9 A_{\text{s}}$	2.129	$2.110^{+0.096}_{-0.090}$	$H(2.33)$	236.96	$238.7^{+5.9}_{-3.4}$
A_{100}^{PS}	247	261^{+70}_{-70}	$10^9 A_{\text{s}} e^{-2\tau}$	1.8872	$1.891^{+0.032}_{-0.032}$	$D_{\text{M}}(2.33)$	5745	5740^{+50}_{-100}
A_{143}^{PS}	51.8	48^{+20}_{-20}	D_{40}	1227.2	1230^{+35}_{-36}	$f\sigma_8(0.15)$	0.4615	$0.449^{+0.028}_{-0.043}$
$A_{143 \times 217}^{\text{PS}}$	55.4	43^{+20}_{-20}	D_{220}	5735	5733^{+100}_{-100}	$\sigma_8(0.15)$	0.755	$0.722^{+0.044}_{-0.083}$
A_{217}^{PS}	122.9	116^{+30}_{-30}	D_{810}	2544.6	2542^{+35}_{-35}	$f\sigma_8(0.38)$	0.4797	$0.464^{+0.027}_{-0.047}$
A^{kSZ}	0.0	—	D_{1420}	819.3	817^{+12}_{-12}	$\sigma_8(0.38)$	0.669	$0.639^{+0.041}_{-0.076}$
A_{100}^{dustTT}	8.81	$9.0^{+4.7}_{-4.6}$	D_{2000}	231.71	$230.0^{+4.2}_{-4.3}$	$f\sigma_8(0.51)$	0.4782	$0.461^{+0.026}_{-0.048}$
A_{143}^{dustTT}	11.02	$11.0^{+4.5}_{-4.6}$	$n_{\text{s}, 0.002}$	0.9687	$0.966^{+0.016}_{-0.013}$	$\sigma_8(0.51)$	0.626	$0.598^{+0.039}_{-0.071}$
$A_{143 \times 217}^{\text{dustTT}}$	20.3	$18.8^{+8.3}_{-8.4}$	Y_{P}	0.24593	$0.2468^{+0.0035}_{-0.0016}$	$f\sigma_8(0.61)$	0.4731	$0.456^{+0.026}_{-0.048}$
A_{217}^{dustTT}	95.7	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.24726	$0.2481^{+0.0035}_{-0.0016}$	$\sigma_8(0.61)$	0.596	$0.568^{+0.038}_{-0.068}$
A_{100}^{dustTE}	0.114	$0.114^{+0.10}_{-0.094}$	10^5D/H	2.585	$2.612^{+0.093}_{-0.077}$	$f\sigma_8(2.33)$	0.3004	$0.286^{+0.019}_{-0.035}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.134^{+0.074}_{-0.078}$	Age/Gyr	13.753	$13.74^{+0.12}_{-0.25}$	$\sigma_8(2.33)$	0.3097	$0.295^{+0.021}_{-0.036}$
$A_{100 \times 217}^{\text{dustTE}}$	0.480	$0.48^{+0.22}_{-0.21}$	z_*	1089.89	$1090.16^{+0.90}_{-0.76}$	f_{2000}^{143}	28.5	31^{+7}_{-7}
A_{143}^{dustTE}	0.225	$0.22^{+0.14}_{-0.14}$	r_*	144.11	$143.3^{+1.6}_{-2.6}$	$f_{2000}^{143 \times 217}$	31.9	33^{+5}_{-5}
$A_{143 \times 217}^{\text{dustTE}}$	0.665	$0.67^{+0.21}_{-0.21}$	$100\theta_*$	1.04103	$1.04087^{+0.00083}_{-0.00095}$	f_{2000}^{217}	106.43	$108.0^{+4.9}_{-4.8}$
A_{217}^{dustTE}	2.08	$2.09^{+0.70}_{-0.69}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.843	$13.77^{+0.15}_{-0.24}$	χ_{simall}^2	397.59	$397.2 (\nu: 2.0)$
c_{100}	0.99974	$0.9997^{+0.0016}_{-0.0016}$	z_{drag}	1060.16	$1060.3^{+1.4}_{-0.97}$	χ_{lowl}^2	23.02	$23.4 (\nu: 0.6)$
c_{217}	0.99817	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	146.74	$146.0^{+1.7}_{-2.7}$	χ_{plik}^2	2344.4	$2362.4 (\nu: 19.5)$
H_0	67.74	$67.1^{+2.6}_{-2.0}$	k_{D}	0.14115	$0.1418^{+0.0025}_{-0.0014}$	χ_{prior}^2	1.6	$11.7 (\nu: 11.0)$
Ω_{Λ}	0.6875	$0.676^{+0.026}_{-0.037}$	$100\theta_{\text{D}}$	0.16078	$0.16090^{+0.00068}_{-0.00051}$	χ_{CMB}^2	2765.0	$2783.1 (\nu: 19.7)$
Ω_{m}	0.3125	$0.324^{+0.037}_{-0.026}$	z_{eq}	3394	3355^{+110}_{-260}			

Best-fit $\chi_{\text{eff}}^2 = 2766.68$; $\Delta\chi_{\text{eff}}^2 = 0.91$; $\bar{\chi}_{\text{eff}}^2 = 2794.77$; $\Delta\bar{\chi}_{\text{eff}}^2 = 3.00$; $R - 1 = 0.01444$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 397.59 (Δ 1.54) commander_dx12_v3.2.29: 23.02 (Δ -0.24) plik_rd12_HM_v22b_TTTEE: 2344.43 (Δ -0.22)

8.6 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022389	$0.02242^{+0.00049}_{-0.00038}$	$\Omega_m h^2$	0.1429	$0.1459^{+0.0076}_{-0.0049}$	k_{eq}	0.009249	$0.01035^{+0.00030}_{-0.00056}$
$\Omega_c h^2$	0.0995	$0.1200^{+0.0062}_{-0.010}$	$\Omega_\nu h^2$	0.0210	$0.0034^{+0.0076}_{-0.0031}$	$100\theta_{\text{eq}}$	0.9283	$0.823^{+0.051}_{-0.019}$
$100\theta_{\text{MC}}$	1.04094	$1.04074^{+0.00080}_{-0.00093}$	$\Omega_m h^3$	0.09635	$0.0979^{+0.0047}_{-0.0022}$	$100\theta_{\text{s,eq}}$	0.5095	$0.454^{+0.027}_{-0.0097}$
τ	0.0543	$0.055^{+0.022}_{-0.019}$	σ_8	0.806	$0.784^{+0.042}_{-0.068}$	$H(0.15)$	72.74	$72.6^{+2.4}_{-1.6}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	1.915	< 0.936	S_8	0.8256	$0.815^{+0.043}_{-0.056}$	$D_{\text{M}}(0.15)$	642.8	645^{+16}_{-23}
N_{eff}	3.054	< 3.39	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4522	$0.446^{+0.023}_{-0.031}$	$H(0.38)$	82.91	$82.9^{+2.2}_{-1.0}$
$\ln(10^{10} A_{\text{s}})$	3.0438	$3.050^{+0.044}_{-0.037}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6039	$0.591^{+0.029}_{-0.043}$	$D_{\text{M}}(0.38)$	1532.4	1536^{+32}_{-49}
n_{s}	0.9660	$0.965^{+0.016}_{-0.012}$	$\sigma_8/h^{0.5}$	0.982	$0.957^{+0.045}_{-0.074}$	$H(0.51)$	89.66	$89.8^{+1.8}_{-0.94}$
y_{cal}	1.0005	$1.0009^{+0.0064}_{-0.0066}$	$r_{\text{drag}} h$	99.18	$98.0^{+3.5}_{-3.9}$	$D_{\text{M}}(0.51)$	1984.6	1987^{+36}_{-59}
A_{217}^{CIB}	47.7	47^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.444	$2.451^{+0.058}_{-0.058}$	$H(0.61)$	95.30	$95.6^{+1.8}_{-0.85}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.33	—	z_{re}	7.68	$7.8^{+2.1}_{-2.0}$	$D_{\text{M}}(0.61)$	2309	2311^{+38}_{-66}
A_{143}^{tSZ}	7.30	$5.3^{+4.5}_{-4.8}$	$10^9 A_{\text{s}}$	2.098	$2.112^{+0.094}_{-0.077}$	$H(2.33)$	236.50	$238.6^{+5.4}_{-3.3}$
A_{100}^{PS}	251	262^{+70}_{-70}	$10^9 A_{\text{s}} e^{-2\tau}$	1.8823	$1.891^{+0.031}_{-0.030}$	$D_{\text{M}}(2.33)$	5762	5742^{+46}_{-100}
A_{143}^{PS}	45.9	48^{+20}_{-20}	D_{40}	1228.4	1231^{+33}_{-32}	$f\sigma_8(0.15)$	0.4565	$0.450^{+0.023}_{-0.031}$
$A_{143 \times 217}^{\text{PS}}$	44.8	43^{+20}_{-20}	D_{220}	5730	5734^{+99}_{-100}	$\sigma_8(0.15)$	0.745	$0.723^{+0.040}_{-0.064}$
A_{217}^{PS}	118.6	116^{+30}_{-30}	D_{810}	2539.8	2542^{+35}_{-35}	$f\sigma_8(0.38)$	0.4741	$0.465^{+0.023}_{-0.034}$
A^{kSZ}	0.0	—	D_{1420}	817.6	817^{+12}_{-12}	$\sigma_8(0.38)$	0.6600	$0.640^{+0.037}_{-0.060}$
A_{100}^{dustTT}	8.90	$9.0^{+4.6}_{-4.7}$	D_{2000}	231.22	$230.1^{+4.2}_{-4.3}$	$f\sigma_8(0.51)$	0.4724	$0.462^{+0.023}_{-0.034}$
A_{143}^{dustTT}	11.04	$11.0^{+4.4}_{-4.5}$	$n_{\text{s}, 0.002}$	0.9660	$0.965^{+0.016}_{-0.012}$	$\sigma_8(0.51)$	0.6175	$0.598^{+0.035}_{-0.057}$
$A_{143 \times 217}^{\text{dustTT}}$	19.7	$18.8^{+8.0}_{-8.2}$	Y_{P}	0.24551	$0.2468^{+0.0036}_{-0.0015}$	$f\sigma_8(0.61)$	0.4672	$0.456^{+0.022}_{-0.035}$
A_{217}^{dustTT}	95.0	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.24683	$0.2481^{+0.0036}_{-0.0016}$	$\sigma_8(0.61)$	0.5875	$0.569^{+0.034}_{-0.054}$
A_{100}^{dustTE}	0.114	$0.115^{+0.095}_{-0.094}$	10^5D/H	2.585	$2.611^{+0.091}_{-0.080}$	$f\sigma_8(2.33)$	0.2961	$0.287^{+0.018}_{-0.028}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.134^{+0.074}_{-0.079}$	Age/Gyr	13.794	$13.74^{+0.11}_{-0.24}$	$\sigma_8(2.33)$	0.3052	$0.295^{+0.019}_{-0.030}$
$A_{100 \times 217}^{\text{dustTE}}$	0.482	$0.48^{+0.22}_{-0.22}$	z_*	1089.89	$1090.16^{+0.87}_{-0.78}$	f_{2000}^{143}	28.9	31^{+7}_{-7}
A_{143}^{dustTE}	0.225	$0.22^{+0.14}_{-0.14}$	r_*	144.45	$143.4^{+1.6}_{-2.4}$	$f_{2000}^{143 \times 217}$	32.0	33^{+5}_{-5}
$A_{143 \times 217}^{\text{dustTE}}$	0.664	$0.66^{+0.21}_{-0.20}$	$100\theta_*$	1.04111	$1.04087^{+0.00083}_{-0.00098}$	f_{2000}^{217}	106.62	$108.0^{+4.9}_{-4.6}$
A_{217}^{dustTE}	2.08	$2.08^{+0.71}_{-0.71}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.874	$13.78^{+0.15}_{-0.23}$	χ_{lensing}^2	8.96	$9.03 (\nu: 0.2)$
c_{100}	0.99972	$0.9997^{+0.0015}_{-0.0016}$	z_{drag}	1059.97	$1060.3^{+1.4}_{-0.95}$	χ_{small}^2	396	$1646 (\nu: 447059.2)$
c_{217}	0.99819	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	147.10	$146.0^{+1.6}_{-2.5}$	χ_{lowl}^2	23.22	$23.5 (\nu: 0.5)$
H_0	67.42	$67.1^{+2.6}_{-1.9}$	k_{D}	0.14087	$0.1418^{+0.0023}_{-0.0014}$	χ_{plik}^2	2344	$1113 (\nu: 446893.7)$
Ω_{Λ}	0.6856	$0.676^{+0.028}_{-0.033}$	$100\theta_{\text{D}}$	0.16074	$0.16089^{+0.00070}_{-0.00054}$	χ_{prior}^2	1.8	$11.6 (\nu: 10.9)$
Ω_{m}	0.3144	$0.324^{+0.033}_{-0.028}$	z_{eq}	2910	3359^{+95}_{-230}	χ_{CMB}^2	2772.3	$2791.6 (\nu: 19.6)$

Best-fit $\chi_{\text{eff}}^2 = 2774.15$; $\Delta\chi_{\text{eff}}^2 = -0.49$; $\bar{\chi}_{\text{eff}}^2 = 2803.21$; $\Delta\bar{\chi}_{\text{eff}}^2 = 2.51$; $R - 1 = 0.04894$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.96 (Δ 0.09) small_100x143_offlike5_EE_Aplanck.B: 396.02 (Δ -0.03) commander_dx12.v3.2.29: 23.22 (Δ -0.03) plik_rd12_HM_v22b_TTTEEE: 2344.13 (Δ -0.80)

8.7 base_nnu_meffsterile_plikHM_TTTEE_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\text{b}}h^2$	$0.02243^{+0.00048}_{-0.00038}$	$\Omega_{\text{m}}h^2$	$0.1459^{+0.0086}_{-0.0049}$	k_{eq}	$0.01035^{+0.00033}_{-0.00067}$
$\Omega_{\text{c}}h^2$	$0.1200^{+0.0066}_{-0.012}$	$\Omega_{\nu}h^2$	$0.0035^{+0.0091}_{-0.0030}$	$100\theta_{\text{eq}}$	$0.824^{+0.050}_{-0.024}$
$100\theta_{\text{MC}}$	$1.04074^{+0.00081}_{-0.00088}$	$\Omega_{\text{m}}h^3$	$0.0980^{+0.0050}_{-0.0023}$	$100\theta_{\text{s,eq}}$	$0.455^{+0.026}_{-0.012}$
τ	$0.056^{+0.019}_{-0.014}$	σ_8	$0.784^{+0.046}_{-0.090}$	$H(0.15)$	$72.6^{+2.5}_{-1.6}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 1.12	S_8	$0.814^{+0.052}_{-0.078}$	$D_{\text{M}}(0.15)$	645^{+17}_{-23}
N_{eff}	< 3.41	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.446^{+0.028}_{-0.043}$	$H(0.38)$	$83.0^{+2.3}_{-1.1}$
$\ln(10^{10}A_{\text{s}})$	$3.051^{+0.043}_{-0.032}$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.591^{+0.034}_{-0.061}$	$D_{\text{M}}(0.38)$	1535^{+33}_{-49}
n_{s}	$0.966^{+0.016}_{-0.013}$	$\sigma_8/h^{0.5}$	$0.956^{+0.054}_{-0.10}$	$H(0.51)$	$89.9^{+2.2}_{-0.93}$
y_{cal}	$1.0008^{+0.0065}_{-0.0064}$	$r_{\text{drag}}h$	$98.0^{+3.3}_{-4.2}$	$D_{\text{M}}(0.51)$	1986^{+37}_{-60}
A_{217}^{CIB}	47^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	$2.450^{+0.072}_{-0.069}$	$H(0.61)$	$95.6^{+1.9}_{-0.93}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	< 9.64	$D_{\text{M}}(0.61)$	2310^{+40}_{-67}
A_{143}^{tSZ}	$5.3^{+4.4}_{-4.8}$	$10^9 A_{\text{s}}$	$2.113^{+0.093}_{-0.066}$	$H(2.33)$	$238.7^{+6.0}_{-3.4}$
A_{100}^{PS}	261^{+70}_{-70}	$10^9 A_{\text{s}} e^{-2\tau}$	$1.891^{+0.033}_{-0.032}$	$D_{\text{M}}(2.33)$	5740^{+50}_{-110}
A_{143}^{PS}	48^{+20}_{-20}	D_{40}	1230^{+35}_{-36}	$f\sigma_8(0.15)$	$0.449^{+0.028}_{-0.044}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	D_{220}	5732^{+100}_{-100}	$\sigma_8(0.15)$	$0.723^{+0.044}_{-0.084}$
A_{217}^{PS}	116^{+30}_{-30}	D_{810}	2542^{+35}_{-35}	$f\sigma_8(0.38)$	$0.464^{+0.027}_{-0.048}$
A^{kSZ}	—	D_{1420}	817^{+12}_{-12}	$\sigma_8(0.38)$	$0.640^{+0.040}_{-0.076}$
A_{100}^{dustTT}	$9.0^{+4.7}_{-4.6}$	D_{2000}	$230.0^{+4.2}_{-4.3}$	$f\sigma_8(0.51)$	$0.462^{+0.026}_{-0.048}$
A_{143}^{dustTT}	$11.0^{+4.6}_{-4.6}$	$n_{\text{s}, 0.002}$	$0.966^{+0.016}_{-0.013}$	$\sigma_8(0.51)$	$0.598^{+0.038}_{-0.072}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.7^{+8.4}_{-8.4}$	Y_{P}	$0.2468^{+0.0035}_{-0.0016}$	$f\sigma_8(0.61)$	$0.456^{+0.026}_{-0.049}$
A_{217}^{dustTT}	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.2482^{+0.0035}_{-0.0016}$	$\sigma_8(0.61)$	$0.569^{+0.037}_{-0.069}$
A_{100}^{dustTE}	$0.114^{+0.10}_{-0.094}$	$10^5 \text{D}/\text{H}$	$2.611^{+0.093}_{-0.077}$	$f\sigma_8(2.33)$	$0.287^{+0.019}_{-0.035}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134^{+0.074}_{-0.078}$	Age/Gyr	$13.74^{+0.12}_{-0.25}$	$\sigma_8(2.33)$	$0.295^{+0.020}_{-0.037}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.21}$	z_*	$1090.16^{+0.90}_{-0.76}$	f_{2000}^{143}	31^{+7}_{-7}
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	r_*	$143.3^{+1.6}_{-2.6}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
$A_{143 \times 217}^{\text{dustTE}}$	$0.67^{+0.20}_{-0.21}$	$100\theta_*$	$1.04087^{+0.00083}_{-0.00095}$	f_{2000}^{217}	$107.9^{+4.9}_{-4.8}$
A_{217}^{dustTE}	$2.09^{+0.70}_{-0.69}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.77^{+0.15}_{-0.25}$	χ_{small}^2	$397.2 (\nu: 2.0)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	z_{drag}	$1060.3^{+1.4}_{-0.94}$	χ_{lowl}^2	$23.4 (\nu: 0.6)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	$146.0^{+1.7}_{-2.7}$	χ_{plik}^2	$2362.2 (\nu: 19.3)$
H_0	$67.2^{+2.6}_{-2.0}$	k_{D}	$0.1418^{+0.0025}_{-0.0014}$	χ_{prior}^2	$11.7 (\nu: 11.0)$
Ω_{Λ}	$0.676^{+0.026}_{-0.037}$	$100\theta_{\text{D}}$	$0.16089^{+0.00068}_{-0.00051}$	χ_{CMB}^2	$2782.9 (\nu: 19.3)$
Ω_{m}	$0.324^{+0.037}_{-0.026}$	z_{eq}	3355^{+110}_{-270}		

$$\bar{\chi}_{\text{eff}}^2 = 2794.57; \Delta\bar{\chi}_{\text{eff}}^2 = 3.04; R - 1 = 0.01250$$

8.8 base_nnu_meffsterile_plikHM_TTTEE_lowl_lowE_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\text{b}}h^2$	$0.02243^{+0.00050}_{-0.00038}$	$\Omega_{\text{m}}h^2$	$0.1458^{+0.0076}_{-0.0049}$	k_{eq}	$0.01035^{+0.00030}_{-0.00057}$
$\Omega_{\text{c}}h^2$	$0.1200^{+0.0062}_{-0.010}$	$\Omega_{\nu}h^2$	$0.0034^{+0.0076}_{-0.0031}$	$100\theta_{\text{eq}}$	$0.823^{+0.051}_{-0.019}$
$100\theta_{\text{MC}}$	$1.04075^{+0.00080}_{-0.00092}$	$\Omega_{\text{m}}h^3$	$0.0979^{+0.0047}_{-0.0022}$	$100\theta_{\text{s,eq}}$	$0.455^{+0.027}_{-0.0096}$
τ	$0.056^{+0.020}_{-0.015}$	σ_8	$0.784^{+0.042}_{-0.068}$	$H(0.15)$	$72.6^{+2.5}_{-1.6}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.948	S_8	$0.815^{+0.043}_{-0.056}$	$D_{\text{M}}(0.15)$	645^{+16}_{-23}
N_{eff}	< 3.40	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.446^{+0.023}_{-0.031}$	$H(0.38)$	$83.0^{+2.2}_{-1.0}$
$\ln(10^{10}A_{\text{s}})$	$3.051^{+0.043}_{-0.030}$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.592^{+0.029}_{-0.043}$	$D_{\text{M}}(0.38)$	1535^{+32}_{-50}
n_{s}	$0.965^{+0.016}_{-0.013}$	$\sigma_8/h^{0.5}$	$0.957^{+0.045}_{-0.075}$	$H(0.51)$	$89.8^{+1.8}_{-0.94}$
y_{cal}	$1.0009^{+0.0065}_{-0.0066}$	$r_{\text{drag}}h$	$98.0^{+3.5}_{-3.9}$	$D_{\text{M}}(0.51)$	1987^{+37}_{-61}
A_{217}^{CIB}	47^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	$2.451^{+0.057}_{-0.056}$	$H(0.61)$	$95.6^{+2.3}_{-0.77}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	< 9.68	$D_{\text{M}}(0.61)$	2311^{+38}_{-67}
A_{143}^{tSZ}	$5.3^{+4.4}_{-4.8}$	$10^9 A_{\text{s}}$	$2.115^{+0.092}_{-0.062}$	$H(2.33)$	$238.6^{+5.4}_{-3.3}$
A_{100}^{PS}	262^{+70}_{-70}	$10^9 A_{\text{s}} e^{-2\tau}$	$1.891^{+0.031}_{-0.030}$	$D_{\text{M}}(2.33)$	5741^{+47}_{-100}
A_{143}^{PS}	48^{+20}_{-20}	D_{40}	1231^{+33}_{-31}	$f\sigma_8(0.15)$	$0.450^{+0.023}_{-0.031}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	D_{220}	5734^{+100}_{-100}	$\sigma_8(0.15)$	$0.724^{+0.040}_{-0.065}$
A_{217}^{PS}	116^{+30}_{-30}	D_{810}	2542^{+35}_{-35}	$f\sigma_8(0.38)$	$0.465^{+0.023}_{-0.034}$
A^{kSZ}	—	D_{1420}	817^{+12}_{-13}	$\sigma_8(0.38)$	$0.640^{+0.037}_{-0.060}$
A_{100}^{dustTT}	$9.0^{+4.6}_{-4.8}$	D_{2000}	$230.1^{+4.2}_{-4.3}$	$f\sigma_8(0.51)$	$0.462^{+0.023}_{-0.034}$
A_{143}^{dustTT}	$11.0^{+4.5}_{-4.5}$	$n_{\text{s},0.002}$	$0.965^{+0.016}_{-0.013}$	$\sigma_8(0.51)$	$0.599^{+0.036}_{-0.057}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.8^{+8.1}_{-8.2}$	Y_{P}	$0.2468^{+0.0036}_{-0.0016}$	$f\sigma_8(0.61)$	$0.457^{+0.023}_{-0.035}$
A_{217}^{dustTT}	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.2481^{+0.0036}_{-0.0016}$	$\sigma_8(0.61)$	$0.569^{+0.034}_{-0.055}$
A_{100}^{dustTE}	$0.115^{+0.093}_{-0.093}$	$10^5 \text{D}/\text{H}$	$2.611^{+0.091}_{-0.081}$	$f\sigma_8(2.33)$	$0.287^{+0.018}_{-0.028}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134^{+0.075}_{-0.079}$	Age/Gyr	$13.74^{+0.11}_{-0.24}$	$\sigma_8(2.33)$	$0.295^{+0.019}_{-0.030}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	z_*	$1090.16^{+0.87}_{-0.79}$	f_{2000}^{143}	31^{+7}_{-7}
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	r_*	$143.4^{+1.6}_{-2.5}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.20}$	$100\theta_*$	$1.04088^{+0.00083}_{-0.00098}$	f_{2000}^{217}	$108.0^{+4.9}_{-4.6}$
A_{217}^{dustTE}	$2.08^{+0.71}_{-0.71}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.77^{+0.15}_{-0.23}$	χ_{lensing}^2	$9.01 (\nu: 0.2)$
c_{100}	$0.9997^{+0.0015}_{-0.0016}$	z_{drag}	$1060.3^{+1.4}_{-0.96}$	χ_{small}^2	$1645 (\nu: 447270.5)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	$146.0^{+1.6}_{-2.5}$	χ_{lowl}^2	$23.5 (\nu: 0.5)$
H_0	$67.1^{+2.7}_{-1.9}$	k_{D}	$0.1418^{+0.0023}_{-0.0014}$	χ_{plik}^2	$1114 (\nu: 447092.4)$
Ω_{Λ}	$0.676^{+0.028}_{-0.034}$	$100\theta_{\text{D}}$	$0.16089^{+0.00070}_{-0.00054}$	χ_{prior}^2	$11.6 (\nu: 11.0)$
Ω_{m}	$0.324^{+0.034}_{-0.028}$	z_{eq}	3358^{+94}_{-230}	χ_{CMB}^2	$2791.5 (\nu: 19.4)$

$$\bar{\chi}_{\text{eff}}^2 = 2803.10; \Delta\bar{\chi}_{\text{eff}}^2 = 2.59; R - 1 = 0.04623$$

8.9 base_nnu_meffsterile_plikHM_TT_lowl_lowE_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02231	$0.02235^{+0.00058}_{-0.00053}$	$\sigma_8 \Omega_m^{0.5}$	0.4502	$0.441^{+0.028}_{-0.040}$	$D_M(0.15)$	636.1	633^{+18}_{-30}
$\Omega_c h^2$	0.1199	$0.120^{+0.010}_{-0.013}$	$\sigma_8 \Omega_m^{0.25}$	0.6047	$0.591^{+0.035}_{-0.054}$	$H(0.38)$	83.52	$84.0^{+3.4}_{-1.8}$
$100\theta_{MC}$	1.04093	$1.0407^{+0.0012}_{-0.0014}$	$\sigma_8/h^{0.5}$	0.984	$0.957^{+0.048}_{-0.086}$	$D_M(0.38)$	1518	1511^{+38}_{-68}
τ	0.0557	$0.055^{+0.022}_{-0.022}$	$r_{\text{drag}} h$	100.10	$99.8^{+2.6}_{-2.5}$	$H(0.51)$	90.23	$90.7^{+3.5}_{-1.7}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	0.00	< 1.07	$\langle d^2 \rangle^{1/2}$	2.428	$2.412^{+0.075}_{-0.083}$	$D_M(0.51)$	1967	1958^{+46}_{-87}
N_{eff}	3.118	< 3.75	z_{re}	7.85	$7.8^{+2.1}_{-2.4}$	$H(0.61)$	95.84	$96.4^{+3.5}_{-1.7}$
$\ln(10^{10} A_s)$	3.0484	$3.048^{+0.050}_{-0.048}$	$10^9 A_s$	2.108	$2.11^{+0.11}_{-0.098}$	$D_M(0.61)$	2290	2279^{+51}_{-99}
n_s	0.9701	$0.973^{+0.023}_{-0.016}$	$10^9 A_s e^{-2\tau}$	1.8858	$1.888^{+0.050}_{-0.036}$	$H(2.33)$	236.7	$238.5^{+7.5}_{-4.4}$
y_{cal}	1.0013	$1.0006^{+0.0062}_{-0.0064}$	D_{40}	1223.1	1215^{+38}_{-42}	$D_M(2.33)$	5734	5699^{+95}_{-200}
A_{217}^{CIB}	49.8	49^{+20}_{-20}	D_{220}	5731	5720^{+100}_{-100}	$f\sigma_8(0.15)$	0.4552	$0.446^{+0.028}_{-0.040}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.20	—	D_{810}	2543.0	2538^{+35}_{-35}	$\sigma_8(0.15)$	0.751	$0.732^{+0.044}_{-0.070}$
A_{143}^{tSZ}	7.1	—	D_{1420}	817.5	814^{+13}_{-13}	$f\sigma_8(0.38)$	0.4745	$0.464^{+0.027}_{-0.042}$
A_{100}^{PS}	256	267^{+70}_{-70}	D_{2000}	230.5	$228.7^{+4.8}_{-5.3}$	$\sigma_8(0.38)$	0.666	$0.649^{+0.040}_{-0.063}$
A_{143}^{PS}	48.0	51^{+20}_{-20}	$n_{s,0.002}$	0.9701	$0.973^{+0.023}_{-0.016}$	$f\sigma_8(0.51)$	0.4736	$0.463^{+0.027}_{-0.043}$
$A_{143 \times 217}^{\text{PS}}$	43.9	44^{+20}_{-20}	Y_P	0.24634	$0.2480^{+0.0066}_{-0.0028}$	$\sigma_8(0.51)$	0.6235	$0.607^{+0.038}_{-0.059}$
A_{217}^{PS}	118.0	115^{+30}_{-30}	Y_P^{BBN}	0.24767	$0.2493^{+0.0066}_{-0.0028}$	$f\sigma_8(0.61)$	0.4689	$0.458^{+0.027}_{-0.043}$
A^{kSZ}	0.0	—	$10^5 \text{D}/\text{H}$	2.621	$2.66^{+0.16}_{-0.12}$	$\sigma_8(0.61)$	0.5934	$0.578^{+0.036}_{-0.056}$
A_{100}^{dustTT}	8.89	$9.1^{+4.8}_{-4.8}$	Age/Gyr	13.728	$13.64^{+0.22}_{-0.47}$	$f\sigma_8(2.33)$	0.2993	$0.292^{+0.019}_{-0.029}$
A_{143}^{dustTT}	10.79	$10.8^{+4.6}_{-4.7}$	z_*	1090.05	$1090.3^{+1.2}_{-0.90}$	$\sigma_8(2.33)$	0.3088	$0.301^{+0.020}_{-0.030}$
$A_{143 \times 217}^{\text{dustTT}}$	19.2	$18.4^{+8.5}_{-8.5}$	r_*	144.14	$143.1^{+2.4}_{-4.6}$	f_{2000}^{143}	30.6	33^{+8}_{-8}
A_{217}^{dustTT}	94.2	93^{+20}_{-20}	$100\theta_*$	1.04108	$1.0408^{+0.0013}_{-0.0016}$	$f_{2000}^{143 \times 217}$	33.3	35^{+6}_{-6}
c_{100}	0.99967	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.845	$13.75^{+0.23}_{-0.43}$	f_{2000}^{217}	107.9	$109.1^{+5.5}_{-5.4}$
c_{217}	0.99826	$0.9983^{+0.0016}_{-0.0016}$	z_{drag}	1059.86	$1060.2^{+2.0}_{-1.5}$	χ_{small}^2	396.28	$397.2 (\nu: 2.0)$
H_0	68.18	$68.5^{+3.5}_{-2.0}$	r_{drag}	146.82	$145.8^{+2.5}_{-4.8}$	χ_{lowl}^2	22.61	$22.3 (\nu: 0.6)$
Ω_Λ	0.6927	$0.690^{+0.020}_{-0.021}$	k_D	0.14084	$0.1416^{+0.0039}_{-0.0020}$	χ_{plik}^2	760.1	$775.2 (\nu: 17.7)$
Ω_m	0.3073	$0.310^{+0.021}_{-0.020}$	$100\theta_D$	0.16112	$0.1614^{+0.0014}_{-0.00096}$	$\chi_{6\text{DF}}^2$	0.006	$0.063 (\nu: 0.0)$
$\Omega_m h^2$	0.1429	$0.1451^{+0.0099}_{-0.0054}$	z_{eq}	3366	3321^{+98}_{-250}	χ_{MGS}^2	1.47	$1.36 (\nu: 0.2)$
$\Omega_\nu h^2$	0.0007	$0.0025^{+0.0098}_{-0.0023}$	k_{eq}	0.01032	$0.01029^{+0.00042}_{-0.00067}$	χ_{DR12BAO}^2	3.79	$4.9 (\nu: 1.5)$
$\Omega_m h^3$	0.0974	$0.0994^{+0.010}_{-0.0045}$	$100\theta_{\text{eq}}$	0.8197	$0.829^{+0.056}_{-0.019}$	χ_{prior}^2	1.7	$7.4 (\nu: 6.9)$
σ_8	0.812	$0.792^{+0.047}_{-0.075}$	$100\theta_{s,\text{eq}}$	0.4528	$0.458^{+0.029}_{-0.010}$	χ_{BAO}^2	5.27	$6.3 (\nu: 1.1)$
S_8	0.822	$0.804^{+0.052}_{-0.073}$	$H(0.15)$	73.44	$73.8^{+3.5}_{-1.9}$	χ_{CMB}^2	1179.0	$1194.7 (\nu: 17.0)$

Best-fit $\chi_{\text{eff}}^2 = 1185.94$; $\Delta\chi_{\text{eff}}^2 = 0.20$; $\bar{\chi}_{\text{eff}}^2 = 1208.40$; $\Delta\bar{\chi}_{\text{eff}}^2 = 2.37$; $R - 1 = 0.03028$

χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.02) MGS: 1.47 (Δ 0.19) DR12BAO: 3.79 (Δ -0.40) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.28 (Δ 0.39) commander_dx12_v3_2_29: 22.61 (Δ -0.22) plik_rd12_HM_v22_TT: 760.13 (Δ 0.03)

8.10 base_nnu_meffsterile_plikHM_TT_lowl_lowE_BAO_post_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02225	$0.02236^{+0.00057}_{-0.00053}$	$\sigma_8 \Omega_m^{0.5}$	0.4472	$0.440^{+0.027}_{-0.039}$	$D_M(0.15)$	639.5	632^{+17}_{-30}
$\Omega_c h^2$	0.1189	$0.120^{+0.010}_{-0.013}$	$\sigma_8 \Omega_m^{0.25}$	0.6002	$0.591^{+0.034}_{-0.052}$	$H(0.38)$	83.12	$84.1^{+3.4}_{-1.8}$
$100\theta_{MC}$	1.04093	$1.0407^{+0.0012}_{-0.0013}$	$\sigma_8/h^{0.5}$	0.978	$0.957^{+0.047}_{-0.083}$	$D_M(0.38)$	1526	1509^{+37}_{-68}
τ	0.0525	$0.055^{+0.022}_{-0.023}$	$r_{drag}h$	99.98	$99.9^{+2.5}_{-2.4}$	$H(0.51)$	89.81	$90.8^{+3.5}_{-1.8}$
$m_{\nu, sterile}^{eff} [eV]$	0.00	< 1.03	$\langle d^2 \rangle^{1/2}$	2.418	$2.409^{+0.075}_{-0.082}$	$D_M(0.51)$	1977	1955^{+46}_{-85}
N_{eff}	3.062	< 3.77	z_{re}	7.51	$7.8^{+2.1}_{-2.5}$	$H(0.61)$	95.40	$96.5^{+3.5}_{-1.7}$
$\ln(10^{10} A_s)$	3.0364	$3.048^{+0.050}_{-0.048}$	$10^9 A_s$	2.083	$2.11^{+0.11}_{-0.098}$	$D_M(0.61)$	2301	2275^{+55}_{-93}
n_s	0.9679	$0.974^{+0.022}_{-0.016}$	$10^9 A_s e^{-2\tau}$	1.8754	$1.888^{+0.050}_{-0.037}$	$H(2.33)$	235.8	$238.5^{+7.6}_{-4.4}$
y_{cal}	1.0001	$1.0006^{+0.0063}_{-0.0064}$	D_{40}	1220.8	1214^{+37}_{-41}	$D_M(2.33)$	5759	5694^{+98}_{-200}
A_{217}^{CIB}	50.4	49^{+20}_{-20}	D_{220}	5713	5721^{+100}_{-100}	$f\sigma_8(0.15)$	0.4521	$0.445^{+0.027}_{-0.039}$
$\xi^{tSZ \times CIB}$	0.12	—	D_{810}	2534.2	2538^{+36}_{-35}	$\sigma_8(0.15)$	0.744	$0.733^{+0.043}_{-0.068}$
A_{143}^{tSZ}	7.1	—	D_{1420}	815.0	814^{+13}_{-13}	$f\sigma_8(0.38)$	0.4710	$0.464^{+0.027}_{-0.041}$
A_{100}^{PS}	256	267^{+70}_{-70}	D_{2000}	229.8	$228.7^{+4.8}_{-5.4}$	$\sigma_8(0.38)$	0.660	$0.650^{+0.039}_{-0.061}$
A_{143}^{PS}	46.1	51^{+20}_{-20}	$n_{s,0.002}$	0.9679	$0.974^{+0.022}_{-0.016}$	$f\sigma_8(0.51)$	0.4699	$0.463^{+0.027}_{-0.041}$
$A_{143 \times 217}^{PS}$	41.3	44^{+20}_{-20}	Y_P	0.24556	$0.2481^{+0.0066}_{-0.0030}$	$\sigma_8(0.51)$	0.6180	$0.609^{+0.037}_{-0.057}$
A_{217}^{PS}	116.1	115^{+30}_{-30}	Y_P^{BBN}	0.24689	$0.2494^{+0.0067}_{-0.0030}$	$f\sigma_8(0.61)$	0.4652	$0.459^{+0.026}_{-0.041}$
A^{kSZ}	0.1	—	$10^5 D/H$	2.615	$2.66^{+0.17}_{-0.12}$	$\sigma_8(0.61)$	0.5882	$0.579^{+0.035}_{-0.055}$
A_{100}^{dustTT}	8.88	$9.1^{+4.9}_{-4.8}$	Age/Gyr	13.788	$13.63^{+0.23}_{-0.47}$	$f\sigma_8(2.33)$	0.2967	$0.293^{+0.018}_{-0.028}$
A_{143}^{dustTT}	10.81	$10.8^{+4.7}_{-4.7}$	z_*	1090.00	$1090.3^{+1.2}_{-0.90}$	$\sigma_8(2.33)$	0.3060	$0.302^{+0.019}_{-0.029}$
$A_{143 \times 217}^{dustTT}$	19.1	$18.4^{+8.5}_{-8.5}$	r_*	144.72	$143.1^{+2.4}_{-4.7}$	χ_{small}^2	396	$312 (\nu: 12353.2)$
A_{217}^{dustTT}	93.9	93^{+20}_{-20}	$100\theta_*$	1.04112	$1.0408^{+0.0013}_{-0.0016}$	χ_{lowl}^2	23	$107 (\nu: 12350.7)$
c_{100}	0.99966	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/Gpc$	13.900	$13.74^{+0.23}_{-0.43}$	χ_{plik}^2	760.5	$775.3 (\nu: 17.6)$
c_{217}	0.99829	$0.9983^{+0.0016}_{-0.0016}$	z_{drag}	1059.59	$1060.2^{+2.0}_{-1.5}$	χ_{JLA}^2	1034.92	$1035.04 (\nu: 0.1)$
H_0	67.81	$68.6^{+3.5}_{-2.0}$	r_{drag}	147.43	$145.7^{+2.6}_{-4.8}$	χ_{6DF}^2	0.01	$0.36 (\nu: 0.2)$
Ω_Λ	0.6916	$0.691^{+0.019}_{-0.019}$	k_D	0.14035	$0.1416^{+0.0039}_{-0.0021}$	χ_{MGS}^2	1.41	$1.13 (\nu: 0.3)$
Ω_m	0.3084	$0.309^{+0.019}_{-0.019}$	$100\theta_D$	0.16103	$0.1614^{+0.0015}_{-0.00097}$	$\chi_{DR12BAO}^2$	3.91	$4.6 (\nu: 1.1)$
$\Omega_m h^2$	0.1418	$0.1451^{+0.0099}_{-0.0055}$	z_{eq}	3367	3320^{+95}_{-240}	χ_{prior}^2	1.5	$7.4 (\nu: 6.9)$
$\Omega_\nu h^2$	0.0006	$0.0024^{+0.0093}_{-0.0021}$	k_{eq}	0.01029	$0.01029^{+0.00041}_{-0.00066}$	χ_{BAO}^2	5.33	$6.1 (\nu: 0.7)$
$\Omega_m h^3$	0.0962	$0.0996^{+0.010}_{-0.0047}$	$100\theta_{eq}$	0.8194	$0.829^{+0.054}_{-0.019}$	χ_{CMB}^2	1179.0	$1194.7 (\nu: 16.8)$
σ_8	0.805	$0.793^{+0.046}_{-0.072}$	$100\theta_{s,eq}$	0.4527	$0.458^{+0.029}_{-0.0096}$			
S_8	0.817	$0.804^{+0.050}_{-0.071}$	$H(0.15)$	73.06	$73.9^{+3.5}_{-1.9}$			

Best-fit $\chi_{eff}^2 = 2220.73$; $\bar{\chi}_{eff}^2 = 2243.31$; $R - 1 = 0.02477$

χ_{eff}^2 : BAO - 6DF: 0.01 MGS: 1.41 DR12BAO: 3.91 CMB - small_100x143.offlike5_EE_Aplanck_B: 395.81 commander_dx12_v3.2.29: 22.70 plik_rd12_HM_v22.TT: 760.48
SN - JLA Pantheon18: 1034.92

8.11 base_nnu_meffsterile_plikHM_TT_lowl_lowE_BAO_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\text{b}}h^2$	$0.02235^{+0.00058}_{-0.00053}$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.441^{+0.028}_{-0.040}$	$D_{\text{M}}(0.15)$	633^{+18}_{-30}
$\Omega_{\text{c}}h^2$	$0.120^{+0.010}_{-0.013}$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.591^{+0.034}_{-0.054}$	$H(0.38)$	$84.0^{+3.4}_{-1.8}$
$100\theta_{\text{MC}}$	$1.0407^{+0.0012}_{-0.0013}$	$\sigma_8/h^{0.5}$	$0.958^{+0.048}_{-0.087}$	$D_{\text{M}}(0.38)$	1511^{+38}_{-69}
τ	$0.056^{+0.020}_{-0.015}$	$r_{\text{drag}}h$	$99.8^{+2.6}_{-2.5}$	$H(0.51)$	$90.8^{+3.5}_{-1.7}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 1.08	$\langle d^2 \rangle^{1/2}$	$2.414^{+0.075}_{-0.079}$	$D_{\text{M}}(0.51)$	1957^{+46}_{-87}
N_{eff}	< 3.76	z_{re}	< 9.72	$H(0.61)$	$96.4^{+3.5}_{-1.7}$
$\ln(10^{10}A_{\text{s}})$	$3.050^{+0.048}_{-0.035}$	10^9A_{s}	$2.11^{+0.10}_{-0.073}$	$D_{\text{M}}(0.61)$	2278^{+51}_{-99}
n_{s}	$0.973^{+0.022}_{-0.016}$	$10^9A_{\text{s}}e^{-2\tau}$	$1.888^{+0.050}_{-0.037}$	$H(2.33)$	$238.5^{+7.6}_{-4.4}$
y_{cal}	$1.0006^{+0.0063}_{-0.0064}$	D_{40}	1215^{+38}_{-43}	$D_{\text{M}}(2.33)$	5698^{+95}_{-200}
A_{217}^{CIB}	49^{+20}_{-20}	D_{220}	5720^{+100}_{-100}	$f\sigma_8(0.15)$	$0.446^{+0.028}_{-0.041}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{810}	2538^{+35}_{-35}	$\sigma_8(0.15)$	$0.733^{+0.044}_{-0.070}$
A_{143}^{tSZ}	—	D_{1420}	814^{+13}_{-13}	$f\sigma_8(0.38)$	$0.464^{+0.027}_{-0.043}$
A_{100}^{PS}	267^{+70}_{-70}	D_{2000}	$228.7^{+4.7}_{-5.3}$	$\sigma_8(0.38)$	$0.650^{+0.040}_{-0.063}$
A_{143}^{PS}	51^{+20}_{-20}	$n_{\text{s}, 0.002}$	$0.973^{+0.022}_{-0.016}$	$f\sigma_8(0.51)$	$0.463^{+0.027}_{-0.043}$
$A_{143 \times 217}^{\text{PS}}$	44^{+20}_{-20}	Y_{P}	$0.2480^{+0.0066}_{-0.0029}$	$\sigma_8(0.51)$	$0.608^{+0.038}_{-0.059}$
A_{217}^{PS}	115^{+30}_{-30}	$Y_{\text{P}}^{\text{BBN}}$	$0.2493^{+0.0067}_{-0.0029}$	$f\sigma_8(0.61)$	$0.459^{+0.026}_{-0.043}$
A^{kSZ}	—	$10^5\text{D}/\text{H}$	$2.66^{+0.16}_{-0.12}$	$\sigma_8(0.61)$	$0.579^{+0.036}_{-0.057}$
A_{100}^{dustTT}	$9.1^{+4.8}_{-4.7}$	Age/Gyr	$13.64^{+0.22}_{-0.47}$	$f\sigma_8(2.33)$	$0.292^{+0.018}_{-0.029}$
A_{143}^{dustTT}	$10.8^{+4.7}_{-4.7}$	z_*	$1090.3^{+1.2}_{-0.90}$	$\sigma_8(2.33)$	$0.301^{+0.020}_{-0.030}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.4^{+8.5}_{-8.5}$	r_*	$143.1^{+2.4}_{-4.6}$	f_{2000}^{143}	33^{+8}_{-8}
A_{217}^{dustTT}	93^{+20}_{-20}	$100\theta_*$	$1.0408^{+0.0013}_{-0.0016}$	$f_{2000}^{143 \times 217}$	35^{+6}_{-6}
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.75^{+0.23}_{-0.43}$	f_{2000}^{217}	$109.1^{+5.5}_{-5.4}$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	z_{drag}	$1060.2^{+2.0}_{-1.5}$	χ_{small}^2	$397.2 (\nu: 2.0)$
H_0	$68.5^{+3.5}_{-2.0}$	r_{drag}	$145.7^{+2.5}_{-4.8}$	χ_{lowl}^2	$22.3 (\nu: 0.6)$
Ω_{Λ}	$0.690^{+0.020}_{-0.021}$	k_{D}	$0.1416^{+0.0039}_{-0.0021}$	χ_{plik}^2	$775.0 (\nu: 17.6)$
Ω_{m}	$0.310^{+0.021}_{-0.020}$	$100\theta_{\text{D}}$	$0.1614^{+0.0014}_{-0.00097}$	$\chi_{6\text{DF}}^2$	$0.062 (\nu: 0.0)$
$\Omega_{\text{m}}h^2$	$0.1452^{+0.0099}_{-0.0054}$	z_{eq}	3320^{+99}_{-250}	χ_{MGS}^2	$1.37 (\nu: 0.2)$
$\Omega_{\nu}h^2$	$0.0025^{+0.0099}_{-0.0023}$	k_{eq}	$0.01029^{+0.00042}_{-0.00067}$	χ_{DR12BAO}^2	$4.9 (\nu: 1.5)$
$\Omega_{\text{m}}h^3$	$0.0994^{+0.010}_{-0.0046}$	$100\theta_{\text{eq}}$	$0.829^{+0.056}_{-0.019}$	χ_{prior}^2	$7.4 (\nu: 6.9)$
σ_8	$0.793^{+0.047}_{-0.075}$	$100\theta_{\text{s,eq}}$	$0.458^{+0.030}_{-0.010}$	χ_{BAO}^2	$6.3 (\nu: 1.0)$
S_8	$0.805^{+0.052}_{-0.074}$	$H(0.15)$	$73.8^{+3.6}_{-1.9}$	χ_{CMB}^2	$1194.5 (\nu: 16.6)$

$$\bar{\chi}_{\text{eff}}^2 = 1208.20; \Delta\bar{\chi}_{\text{eff}}^2 = 2.44; R - 1 = 0.02851$$

8.12 base_nnu_meffsterile_plikHM_TT_lowl_lowE_BAO_post_Pantheon18_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\text{b}}h^2$	$0.02237^{+0.00057}_{-0.00053}$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.591^{+0.034}_{-0.053}$	$D_{\text{M}}(0.38)$	1509^{+37}_{-67}
$\Omega_{\text{c}}h^2$	$0.120^{+0.010}_{-0.013}$	$\sigma_8/h^{0.5}$	$0.958^{+0.047}_{-0.084}$	$H(0.51)$	$90.9^{+3.5}_{-1.8}$
$100\theta_{\text{MC}}$	$1.0407^{+0.0012}_{-0.0013}$	$r_{\text{drag}}h$	$99.9^{+2.5}_{-2.4}$	$D_{\text{M}}(0.51)$	1955^{+46}_{-85}
τ	$0.056^{+0.020}_{-0.015}$	$\langle d^2 \rangle^{1/2}$	$2.411^{+0.074}_{-0.078}$	$H(0.61)$	$96.5^{+3.5}_{-1.7}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 1.04	z_{re}	< 9.74	$D_{\text{M}}(0.61)$	2275^{+55}_{-93}
N_{eff}	< 3.77	$10^9 A_{\text{s}}$	$2.11^{+0.10}_{-0.074}$	$H(2.33)$	$238.5^{+7.6}_{-4.5}$
$\ln(10^{10} A_{\text{s}})$	$3.050^{+0.049}_{-0.035}$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.888^{+0.051}_{-0.037}$	$D_{\text{M}}(2.33)$	5693^{+98}_{-200}
n_{s}	$0.974^{+0.022}_{-0.016}$	D_{40}	1214^{+37}_{-42}	$f\sigma_8(0.15)$	$0.446^{+0.027}_{-0.040}$
y_{cal}	$1.0006^{+0.0063}_{-0.0064}$	D_{220}	5721^{+100}_{-100}	$\sigma_8(0.15)$	$0.734^{+0.043}_{-0.068}$
A_{217}^{CIB}	49^{+20}_{-20}	D_{810}	2538^{+36}_{-35}	$f\sigma_8(0.38)$	$0.465^{+0.027}_{-0.041}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	814^{+13}_{-13}	$\sigma_8(0.38)$	$0.651^{+0.039}_{-0.061}$
A_{143}^{tSZ}	—	D_{2000}	$228.7^{+4.7}_{-5.4}$	$f\sigma_8(0.51)$	$0.464^{+0.026}_{-0.042}$
A_{100}^{PS}	267^{+70}_{-70}	$n_{\text{s}, 0.002}$	$0.974^{+0.022}_{-0.016}$	$\sigma_8(0.51)$	$0.609^{+0.037}_{-0.058}$
A_{143}^{PS}	51^{+20}_{-20}	Y_{P}	$0.2481^{+0.0067}_{-0.0030}$	$f\sigma_8(0.61)$	$0.459^{+0.026}_{-0.042}$
$A_{143 \times 217}^{\text{PS}}$	44^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.2494^{+0.0067}_{-0.0030}$	$\sigma_8(0.61)$	$0.580^{+0.035}_{-0.055}$
A_{217}^{PS}	115^{+30}_{-30}	$10^5 \text{D}/\text{H}$	$2.66^{+0.17}_{-0.12}$	$f\sigma_8(2.33)$	$0.293^{+0.018}_{-0.028}$
A^{kSZ}	—	Age/Gyr	$13.63^{+0.23}_{-0.47}$	$\sigma_8(2.33)$	$0.302^{+0.019}_{-0.029}$
A_{100}^{dustTT}	$9.1^{+4.9}_{-4.7}$	z_*	$1090.3^{+1.2}_{-0.91}$	f_{2000}^{143}	33^{+9}_{-8}
A_{143}^{dustTT}	$10.8^{+4.7}_{-4.7}$	r_*	$143.0^{+2.5}_{-4.7}$	$f_{2000}^{143 \times 217}$	35^{+6}_{-6}
$A_{143 \times 217}^{\text{dustTT}}$	$18.5^{+8.5}_{-8.5}$	$100\theta_*$	$1.0408^{+0.0013}_{-0.0016}$	f_{2000}^{217}	$109.1^{+5.6}_{-5.4}$
A_{217}^{dustTT}	93^{+20}_{-20}	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.74^{+0.23}_{-0.43}$	χ_{small}^2	$312 (\nu: 12352.2)$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	$1060.2^{+2.0}_{-1.5}$	χ_{lowl}^2	$107 (\nu: 12349.9)$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	$145.7^{+2.6}_{-4.8}$	χ_{plik}^2	$775.2 (\nu: 17.4)$
H_0	$68.6^{+3.5}_{-2.0}$	k_{D}	$0.1416^{+0.0039}_{-0.0021}$	χ_{JLA}^2	$1035.03 (\nu: 0.1)$
Ω_{Λ}	$0.692^{+0.019}_{-0.019}$	$100\theta_{\text{D}}$	$0.1614^{+0.0015}_{-0.00098}$	χ_{6DF}^2	$0.36 (\nu: 0.2)$
Ω_{m}	$0.308^{+0.019}_{-0.019}$	z_{eq}	3320^{+95}_{-240}	χ_{MGS}^2	$1.13 (\nu: 0.3)$
$\Omega_{\text{m}}h^2$	$0.1452^{+0.0093}_{-0.0059}$	k_{eq}	$0.01029^{+0.00041}_{-0.00067}$	χ_{DR12BAO}^2	$4.6 (\nu: 1.1)$
$\Omega_{\nu}h^2$	$0.0024^{+0.0094}_{-0.0021}$	$100\theta_{\text{eq}}$	$0.829^{+0.055}_{-0.019}$	χ_{prior}^2	$7.4 (\nu: 6.9)$
$\Omega_{\text{m}}h^3$	$0.0996^{+0.010}_{-0.0048}$	$100\theta_{\text{s,eq}}$	$0.458^{+0.029}_{-0.0096}$	χ_{BAO}^2	$6.1 (\nu: 0.7)$
σ_8	$0.794^{+0.046}_{-0.073}$	$H(0.15)$	$73.9^{+3.5}_{-1.8}$	χ_{CMB}^2	$1194.6 (\nu: 16.4)$
S_8	$0.805^{+0.050}_{-0.071}$	$D_{\text{M}}(0.15)$	632^{+17}_{-30}		
$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.441^{+0.027}_{-0.039}$	$H(0.38)$	$84.1^{+3.4}_{-1.8}$		

$$\bar{\chi}_{\text{eff}}^2 = 2243.12; R - 1 = 0.02260$$

8.13 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022412	$0.02250^{+0.00041}_{-0.00038}$	$\Omega_\nu h^2$	0.0039	$0.0027^{+0.0083}_{-0.0026}$	$100\theta_{s,eq}$	0.4595	$0.456^{+0.025}_{-0.0095}$
$\Omega_c h^2$	0.1161	$0.1187^{+0.0075}_{-0.0097}$	$\Omega_m h^3$	0.09632	$0.0977^{+0.0060}_{-0.0021}$	$H(0.15)$	72.95	$73.2^{+2.3}_{-1.2}$
$100\theta_{MC}$	1.04101	$1.04091^{+0.00079}_{-0.00086}$	σ_8	0.809	$0.792^{+0.039}_{-0.061}$	$D_M(0.15)$	640.7	639^{+12}_{-20}
τ	0.0546	$0.056^{+0.022}_{-0.020}$	S_8	0.823	$0.808^{+0.044}_{-0.062}$	$H(0.38)$	83.06	$83.4^{+2.3}_{-0.99}$
$m_{\nu, sterile}^{eff} [eV]$	0.302	< 0.947	$\sigma_8 \Omega_m^{0.5}$	0.4507	$0.443^{+0.024}_{-0.034}$	$D_M(0.38)$	1528.1	1523^{+25}_{-45}
N_{eff}	3.047	< 3.42	$\sigma_8 \Omega_m^{0.25}$	0.6037	$0.592^{+0.029}_{-0.045}$	$H(0.51)$	89.77	$90.2^{+2.4}_{-0.89}$
$\ln(10^{10} A_s)$	3.0434	$3.049^{+0.047}_{-0.042}$	$\sigma_8/h^{0.5}$	0.983	$0.961^{+0.043}_{-0.072}$	$D_M(0.51)$	1979.7	1972^{+29}_{-57}
n_s	0.9678	$0.969^{+0.016}_{-0.012}$	$r_{drag} h$	99.64	$99.4^{+2.2}_{-2.1}$	$H(0.61)$	95.39	$95.8^{+2.5}_{-0.82}$
y_{cal}	1.0007	$1.0008^{+0.0064}_{-0.0065}$	$\langle d^2 \rangle^{1/2}$	2.432	$2.430^{+0.066}_{-0.062}$	$D_M(0.61)$	2303.7	2295^{+32}_{-65}
A_{217}^{CIB}	47.9	47^{+20}_{-20}	z_{re}	7.69	$7.9^{+2.1}_{-2.2}$	$H(2.33)$	236.13	$237.4^{+5.1}_{-2.4}$
$\xi^{tSZ \times CIB}$	0.33	—	$10^9 A_s$	2.098	$2.11^{+0.10}_{-0.088}$	$D_M(2.33)$	5759	5733^{+50}_{-120}
A_{143}^{tSZ}	7.17	$5.4^{+4.5}_{-4.6}$	$10^9 A_s e^{-2\tau}$	1.8806	$1.885^{+0.034}_{-0.031}$	$f\sigma_8(0.15)$	0.4554	$0.447^{+0.024}_{-0.034}$
A_{100}^{PS}	251	260^{+70}_{-70}	D_{40}	1225.0	1225^{+33}_{-33}	$\sigma_8(0.15)$	0.7472	$0.732^{+0.036}_{-0.057}$
A_{143}^{PS}	45.9	47^{+20}_{-20}	D_{220}	5732	5738^{+100}_{-98}	$f\sigma_8(0.38)$	0.4738	$0.465^{+0.023}_{-0.035}$
$A_{143 \times 217}^{PS}$	44.5	43^{+20}_{-20}	D_{810}	2541.0	2541^{+34}_{-36}	$\sigma_8(0.38)$	0.6624	$0.648^{+0.032}_{-0.050}$
A_{217}^{PS}	118.3	115^{+30}_{-30}	D_{1420}	818.6	817^{+13}_{-12}	$f\sigma_8(0.51)$	0.4725	$0.463^{+0.022}_{-0.035}$
A^{kSZ}	0.0	—	D_{2000}	231.47	$230.6^{+4.3}_{-4.2}$	$\sigma_8(0.51)$	0.6199	$0.607^{+0.031}_{-0.047}$
A_{100}^{dustTT}	8.91	$9.0^{+4.7}_{-4.6}$	$n_{s,0.002}$	0.9678	$0.969^{+0.016}_{-0.012}$	$f\sigma_8(0.61)$	0.4676	$0.459^{+0.022}_{-0.035}$
A_{143}^{dustTT}	10.97	$11.0^{+4.6}_{-4.6}$	Y_P	0.24543	$0.2466^{+0.0039}_{-0.0013}$	$\sigma_8(0.61)$	0.5899	$0.577^{+0.029}_{-0.045}$
$A_{143 \times 217}^{dustTT}$	19.5	$18.7^{+8.1}_{-8.5}$	Y_P^{BBN}	0.24675	$0.2479^{+0.0039}_{-0.0013}$	$f\sigma_8(2.33)$	0.2974	$0.291^{+0.015}_{-0.023}$
A_{217}^{dustTT}	94.6	94^{+20}_{-20}	$10^5 D/H$	2.578	$2.591^{+0.089}_{-0.069}$	$\sigma_8(2.33)$	0.3067	$0.300^{+0.016}_{-0.024}$
A_{100}^{dustTE}	0.112	$0.114^{+0.099}_{-0.095}$	Age/Gyr	13.787	$13.73^{+0.12}_{-0.29}$	f_{2000}^{143}	28.8	30^{+7}_{-7}
$A_{100 \times 143}^{dustTE}$	0.134	$0.135^{+0.077}_{-0.076}$	z_*	1089.80	$1089.89^{+0.67}_{-0.60}$	$f_{2000}^{143 \times 217}$	31.88	33^{+5}_{-5}
$A_{100 \times 217}^{dustTE}$	0.482	$0.48^{+0.22}_{-0.22}$	r_*	144.59	$143.8^{+1.3}_{-2.8}$	f_{2000}^{217}	106.57	$107.4^{+4.7}_{-4.7}$
A_{143}^{dustTE}	0.223	$0.22^{+0.14}_{-0.14}$	$100\theta_*$	1.04119	$1.04104^{+0.00081}_{-0.00099}$	χ_{small}^2	396.1	$397.4 (\nu: 2.5)$
$A_{143 \times 217}^{dustTE}$	0.663	$0.66^{+0.21}_{-0.21}$	$D_M(z_*)/Gpc$	13.887	$13.82^{+0.12}_{-0.26}$	χ_{lowl}^2	22.87	$22.90 (\nu: 0.4)$
A_{217}^{dustTE}	2.08	$2.08^{+0.69}_{-0.68}$	z_{drag}	1059.97	$1060.3^{+1.4}_{-0.94}$	χ_{plik}^2	2345.2	$2362.0 (\nu: 19.2)$
c_{100}	0.99971	$0.9997^{+0.0015}_{-0.0016}$	r_{drag}	147.24	$146.4^{+1.2}_{-3.4}$	χ_{6DF}^2	0.030	$0.077 (\nu: 0.0)$
c_{217}	0.99820	$0.9982^{+0.0016}_{-0.0016}$	k_D	0.14074	$0.1414^{+0.0025}_{-0.0012}$	χ_{MGS}^2	1.22	$1.15 (\nu: 0.1)$
H_0	67.67	$67.9^{+2.3}_{-1.4}$	$100\theta_D$	0.16074	$0.16084^{+0.00081}_{-0.00051}$	$\chi_{DR12BAO}^2$	4.44	$5.4 (\nu: 1.6)$
Ω_Λ	0.6892	$0.688^{+0.017}_{-0.017}$	z_{eq}	3309	3337^{+92}_{-220}	χ_{prior}^2	1.8	$11.7 (\nu: 10.5)$
Ω_m	0.3108	$0.312^{+0.017}_{-0.017}$	k_{eq}	0.010157	$0.01027^{+0.00033}_{-0.00054}$	χ_{BAO}^2	5.68	$6.6 (\nu: 1.1)$
$\Omega_m h^2$	0.14233	$0.1440^{+0.0061}_{-0.0034}$	$100\theta_{eq}$	0.8326	$0.827^{+0.048}_{-0.018}$	χ_{CMB}^2	2764.1	$2782.3 (\nu: 18.5)$

Best-fit $\chi_{eff}^2 = 2771.63$; $\Delta\chi_{eff}^2 = -0.28$; $\bar{\chi}_{eff}^2 = 2800.57$; $\Delta\bar{\chi}_{eff}^2 = 2.66$; $R - 1 = 0.01553$

χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.44 (Δ 0.02) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.05 (Δ -0.15) commander_dx12_v3_2_29: 22.87 (Δ 0.00) plik_rd12_HM_v22b_TTTEEE: 2345.20 (Δ -0.30)

8.14 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022440	$0.02251^{+0.00041}_{-0.00037}$	$\Omega_m h^3$	0.09635	$0.0978^{+0.0074}_{-0.0022}$	$D_M(0.15)$	640.0	638^{+12}_{-20}
$\Omega_c h^2$	0.1189	$0.1187^{+0.0079}_{-0.0098}$	σ_8	0.811	$0.792^{+0.039}_{-0.061}$	$H(0.38)$	83.11	$83.5^{+2.4}_{-0.99}$
$100\theta_{MC}$	1.04102	$1.04092^{+0.00081}_{-0.00086}$	S_8	0.824	$0.807^{+0.044}_{-0.061}$	$D_M(0.38)$	1526.8	1521^{+24}_{-47}
τ	0.0585	$0.057^{+0.022}_{-0.020}$	$\sigma_8 \Omega_m^{0.5}$	0.4515	$0.442^{+0.024}_{-0.033}$	$H(0.51)$	89.81	$90.2^{+2.2}_{-1.0}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	0.025	< 0.964	$\sigma_8 \Omega_m^{0.25}$	0.6051	$0.592^{+0.029}_{-0.044}$	$D_M(0.51)$	1978.0	1970^{+29}_{-59}
N_{eff}	3.046	< 3.44	$\sigma_8/h^{0.5}$	0.985	$0.961^{+0.042}_{-0.072}$	$H(0.61)$	95.42	$95.9^{+2.3}_{-0.93}$
$\ln(10^{10} A_s)$	3.0505	$3.049^{+0.046}_{-0.042}$	$r_{\text{drag}} h$	99.76	$99.6^{+2.1}_{-2.1}$	$D_M(0.61)$	2302	2293^{+32}_{-68}
n_s	0.9672	$0.969^{+0.016}_{-0.012}$	$\langle d^2 \rangle^{1/2}$	2.440	$2.428^{+0.065}_{-0.060}$	$H(2.33)$	236.07	$237.4^{+5.3}_{-2.4}$
y_{cal}	1.0005	$1.0007^{+0.0066}_{-0.0065}$	z_{re}	8.07	$7.9^{+2.1}_{-2.1}$	$D_M(2.33)$	5757	5730^{+50}_{-140}
A_{217}^{CIB}	48.2	47^{+20}_{-20}	$10^9 A_s$	2.113	$2.11^{+0.10}_{-0.088}$	$f\sigma_8(0.15)$	0.4562	$0.447^{+0.024}_{-0.034}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.34	—	$10^9 A_s e^{-2\tau}$	1.8796	$1.884^{+0.035}_{-0.031}$	$\sigma_8(0.15)$	0.7497	$0.732^{+0.036}_{-0.057}$
A_{143}^{tSZ}	7.23	$5.4^{+4.6}_{-4.6}$	D_{40}	1227.8	1224^{+33}_{-33}	$f\sigma_8(0.38)$	0.4749	$0.465^{+0.023}_{-0.035}$
A_{100}^{PS}	251	260^{+70}_{-70}	D_{220}	5738	5739^{+98}_{-100}	$\sigma_8(0.38)$	0.6647	$0.649^{+0.033}_{-0.051}$
A_{143}^{PS}	46.4	47^{+20}_{-20}	D_{810}	2539.4	2540^{+35}_{-36}	$f\sigma_8(0.51)$	0.4737	$0.463^{+0.023}_{-0.035}$
$A_{143 \times 217}^{\text{PS}}$	44.9	43^{+20}_{-20}	D_{1420}	817.8	817^{+12}_{-13}	$\sigma_8(0.51)$	0.6221	$0.607^{+0.031}_{-0.047}$
A_{217}^{PS}	118.0	115^{+30}_{-30}	D_{2000}	231.26	$230.6^{+4.2}_{-4.3}$	$f\sigma_8(0.61)$	0.4689	$0.458^{+0.022}_{-0.035}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9672	$0.969^{+0.016}_{-0.012}$	$\sigma_8(0.61)$	0.5920	$0.578^{+0.030}_{-0.045}$
A_{100}^{dustTT}	8.79	$9.0^{+4.7}_{-4.6}$	Y_P	0.24542	$0.2466^{+0.0042}_{-0.0013}$	$f\sigma_8(2.33)$	0.2986	$0.292^{+0.015}_{-0.023}$
A_{143}^{dustTT}	11.04	$11.0^{+4.6}_{-4.6}$	Y_P^{BBN}	0.24675	$0.2479^{+0.0042}_{-0.0013}$	$\sigma_8(2.33)$	0.3079	$0.301^{+0.016}_{-0.024}$
$A_{143 \times 217}^{\text{dustTT}}$	19.7	$18.6^{+8.2}_{-8.5}$	$10^5 D/H$	2.573	$2.590^{+0.092}_{-0.068}$	f_{2000}^{143}	29.0	30^{+7}_{-7}
A_{217}^{dustTT}	94.7	94^{+20}_{-20}	Age/Gyr	13.784	$13.72^{+0.12}_{-0.33}$	$f_{2000}^{143 \times 217}$	32.0	33^{+5}_{-5}
A_{100}^{dustTE}	0.114	$0.113^{+0.099}_{-0.094}$	z_*	1089.76	$1089.87^{+0.69}_{-0.58}$	f_{2000}^{217}	106.65	$107.4^{+4.8}_{-4.8}$
$A_{100 \times 143}^{\text{dustTE}}$	0.134	$0.135^{+0.079}_{-0.075}$	r_*	144.60	$143.8^{+1.2}_{-3.4}$	χ_{simall}^2	397	291 (ν : 14275.5)
$A_{100 \times 217}^{\text{dustTE}}$	0.479	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	1.04120	$1.04105^{+0.00084}_{-0.0010}$	χ_{lowl}^2	23	129 (ν : 14277.5)
A_{143}^{dustTE}	0.223	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.888	$13.82^{+0.11}_{-0.31}$	χ_{plik}^2	2344.6	2362.3 (ν : 19.5)
$A_{143 \times 217}^{\text{dustTE}}$	0.662	$0.66^{+0.21}_{-0.21}$	z_{drag}	1060.05	$1060.4^{+1.4}_{-0.93}$	χ_{JLA}^2	1034.98	1035.12 (ν : 0.1)
A_{217}^{dustTE}	2.07	$2.07^{+0.68}_{-0.67}$	r_{drag}	147.24	$146.4^{+1.3}_{-3.5}$	$\chi_{6\text{DF}}^2$	0.02	0.40 (ν : 0.2)
c_{100}	0.99970	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14076	$0.1414^{+0.0026}_{-0.0012}$	χ_{MGS}^2	1.28	0.89 (ν : 0.2)
c_{217}	0.99820	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	0.16071	$0.16084^{+0.00084}_{-0.00051}$	χ_{DR12BAO}^2	4.25	5.0 (ν : 1.2)
H_0	67.75	$68.0^{+2.3}_{-1.3}$	z_{eq}	3377	3335^{+88}_{-220}	χ_{prior}^2	1.8	11.7 (ν : 10.6)
Ω_Λ	0.6902	$0.689^{+0.017}_{-0.017}$	k_{eq}	0.010311	$0.01026^{+0.00034}_{-0.00055}$	χ_{BAO}^2	5.56	6.3 (ν : 0.8)
Ω_m	0.3098	$0.311^{+0.017}_{-0.017}$	$100\theta_{\text{eq}}$	0.8183	$0.827^{+0.049}_{-0.018}$	χ_{CMB}^2	2764.7	2782.5 (ν : 18.6)
$\Omega_m h^2$	0.14222	$0.1438^{+0.0065}_{-0.0034}$	$100\theta_{s,\text{eq}}$	0.4520	$0.457^{+0.026}_{-0.0092}$			
$\Omega_\nu h^2$	0.0009	$0.0027^{+0.0088}_{-0.0025}$	$H(0.15)$	73.02	$73.3^{+2.3}_{-1.2}$			

Best-fit $\chi_{\text{eff}}^2 = 3806.99$; $\bar{\chi}_{\text{eff}}^2 = 3835.68$; $R - 1 = 0.01641$
 χ_{eff}^2 : BAO - 6DF: 0.02 MGS: 1.28 DR12BAO: 4.25 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.96 commander_dx12_v3_2_29: 23.15 plik_rd12_HM_v22b_TTTEEE: 2344.56 SN - JLA Pantheon18: 1034.98

8.15 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_BAO_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02250^{+0.00041}_{-0.00038}$	$\Omega_{\nu}h^2$	$0.0027^{+0.0083}_{-0.0026}$	$100\theta_{\mathrm{s,eq}}$	$0.456^{+0.025}_{-0.0095}$
$\Omega_{\mathrm{c}}h^2$	$0.1187^{+0.0075}_{-0.0097}$	$\Omega_{\mathrm{m}}h^3$	$0.0977^{+0.0060}_{-0.0022}$	$H(0.15)$	$73.2^{+2.3}_{-1.2}$
$100\theta_{\mathrm{MC}}$	$1.04091^{+0.00079}_{-0.00086}$	σ_8	$0.792^{+0.038}_{-0.061}$	$D_{\mathrm{M}}(0.15)$	638^{+12}_{-20}
τ	$0.057^{+0.020}_{-0.015}$	S_8	$0.808^{+0.044}_{-0.062}$	$H(0.38)$	$83.4^{+2.3}_{-1.0}$
$m_{\nu,\mathrm{sterile}}^{\mathrm{eff}} [\mathrm{eV}]$	< 0.949	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.443^{+0.024}_{-0.034}$	$D_{\mathrm{M}}(0.38)$	1523^{+24}_{-45}
N_{eff}	< 3.42	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.592^{+0.029}_{-0.045}$	$H(0.51)$	$90.2^{+2.4}_{-0.90}$
$\ln(10^{10}A_{\mathrm{s}})$	$3.050^{+0.046}_{-0.034}$	$\sigma_8/h^{0.5}$	$0.961^{+0.043}_{-0.073}$	$D_{\mathrm{M}}(0.51)$	1972^{+29}_{-57}
n_{s}	$0.969^{+0.016}_{-0.012}$	$r_{\mathrm{drag}}h$	$99.4^{+2.2}_{-2.1}$	$H(0.61)$	$95.8^{+2.5}_{-0.82}$
y_{cal}	$1.0008^{+0.0064}_{-0.0065}$	$\langle d^2 \rangle^{1/2}$	$2.432^{+0.065}_{-0.060}$	$D_{\mathrm{M}}(0.61)$	2295^{+32}_{-65}
A_{217}^{CIB}	47^{+20}_{-20}	z_{re}	< 9.76	$H(2.33)$	$237.4^{+5.1}_{-2.4}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}$	$2.112^{+0.098}_{-0.070}$	$D_{\mathrm{M}}(2.33)$	5733^{+50}_{-120}
A_{143}^{tSZ}	$5.4^{+4.5}_{-4.6}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.885^{+0.033}_{-0.031}$	$f\sigma_8(0.15)$	$0.447^{+0.023}_{-0.034}$
A_{100}^{PS}	260^{+70}_{-70}	D_{40}	1225^{+33}_{-33}	$\sigma_8(0.15)$	$0.732^{+0.036}_{-0.057}$
A_{143}^{PS}	47^{+20}_{-20}	D_{220}	5738^{+100}_{-99}	$f\sigma_8(0.38)$	$0.465^{+0.023}_{-0.035}$
$A_{143 \times 217}^{\mathrm{PS}}$	43^{+20}_{-20}	D_{810}	2541^{+35}_{-36}	$\sigma_8(0.38)$	$0.649^{+0.032}_{-0.050}$
A_{217}^{PS}	115^{+30}_{-30}	D_{1420}	817^{+13}_{-12}	$f\sigma_8(0.51)$	$0.464^{+0.022}_{-0.035}$
A^{kSZ}	—	D_{2000}	$230.6^{+4.3}_{-4.2}$	$\sigma_8(0.51)$	$0.607^{+0.030}_{-0.047}$
$A_{100}^{\mathrm{dust}TT}$	$9.0^{+4.7}_{-4.6}$	$n_{\mathrm{s},0.002}$	$0.969^{+0.016}_{-0.012}$	$f\sigma_8(0.61)$	$0.459^{+0.022}_{-0.035}$
$A_{143}^{\mathrm{dust}TT}$	$10.9^{+4.6}_{-4.6}$	Y_{P}	$0.2466^{+0.0039}_{-0.0013}$	$\sigma_8(0.61)$	$0.578^{+0.029}_{-0.045}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.7^{+8.1}_{-8.5}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2479^{+0.0039}_{-0.0013}$	$f\sigma_8(2.33)$	$0.292^{+0.015}_{-0.023}$
$A_{217}^{\mathrm{dust}TT}$	94^{+20}_{-20}	$10^5 \mathrm{D}/\mathrm{H}$	$2.591^{+0.090}_{-0.069}$	$\sigma_8(2.33)$	$0.300^{+0.016}_{-0.024}$
$A_{100}^{\mathrm{dust}TE}$	$0.114^{+0.099}_{-0.095}$	$\mathrm{Age}/\mathrm{Gyr}$	$13.72^{+0.12}_{-0.29}$	f_{2000}^{143}	30^{+7}_{-7}
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.135^{+0.077}_{-0.076}$	z_*	$1089.89^{+0.67}_{-0.60}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.48^{+0.22}_{-0.22}$	r_*	$143.8^{+1.3}_{-2.9}$	f_{2000}^{217}	$107.4^{+4.7}_{-4.7}$
$A_{143}^{\mathrm{dust}TE}$	$0.22^{+0.14}_{-0.14}$	$100\theta_*$	$1.04104^{+0.00081}_{-0.0010}$	χ_{small}^2	$397.4 (\nu: 2.6)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.66^{+0.21}_{-0.21}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.82^{+0.12}_{-0.26}$	χ_{lowl}^2	$22.90 (\nu: 0.4)$
$A_{217}^{\mathrm{dust}TE}$	$2.08^{+0.69}_{-0.68}$	z_{drag}	$1060.3^{+1.4}_{-0.90}$	χ_{plik}^2	$2361.9 (\nu: 19.2)$
c_{100}	$0.9997^{+0.0015}_{-0.0016}$	r_{drag}	$146.4^{+1.4}_{-3.0}$	$\chi_{6\mathrm{DF}}^2$	$0.076 (\nu: 0.0)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	k_{D}	$0.1414^{+0.0025}_{-0.0012}$	χ_{MGS}^2	$1.15 (\nu: 0.1)$
H_0	$67.9^{+2.3}_{-1.4}$	$100\theta_{\mathrm{D}}$	$0.16084^{+0.00081}_{-0.00051}$	$\chi_{\mathrm{DR12BAO}}^2$	$5.3 (\nu: 1.6)$
Ω_{Λ}	$0.688^{+0.017}_{-0.017}$	z_{eq}	3337^{+92}_{-220}	χ_{prior}^2	$11.7 (\nu: 10.6)$
Ω_{m}	$0.312^{+0.017}_{-0.017}$	k_{eq}	$0.01027^{+0.00033}_{-0.00054}$	χ_{BAO}^2	$6.6 (\nu: 1.1)$
$\Omega_{\mathrm{m}}h^2$	$0.1440^{+0.0061}_{-0.0034}$	$100\theta_{\mathrm{eq}}$	$0.827^{+0.048}_{-0.018}$	χ_{CMB}^2	$2782.2 (\nu: 18.4)$

$\bar{\chi}_{\mathrm{eff}}^2 = 2800.45$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.74$; $R - 1 = 0.01583$

8.16 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02251^{+0.00041}_{-0.00037}$	$\Omega_m h^3$	$0.0978^{+0.0074}_{-0.0022}$	$D_M(0.15)$	638^{+12}_{-21}
$\Omega_c h^2$	$0.1187^{+0.0079}_{-0.0099}$	σ_8	$0.793^{+0.039}_{-0.061}$	$H(0.38)$	$83.5^{+2.5}_{-1.0}$
$100\theta_{MC}$	$1.04092^{+0.00081}_{-0.00087}$	S_8	$0.807^{+0.044}_{-0.061}$	$D_M(0.38)$	1521^{+24}_{-47}
τ	$0.057^{+0.020}_{-0.015}$	$\sigma_8 \Omega_m^{0.5}$	$0.442^{+0.024}_{-0.034}$	$H(0.51)$	$90.2^{+2.2}_{-1.0}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.973	$\sigma_8 \Omega_m^{0.25}$	$0.592^{+0.029}_{-0.045}$	$D_M(0.51)$	1970^{+29}_{-59}
N_{eff}	< 3.44	$\sigma_8/h^{0.5}$	$0.961^{+0.042}_{-0.072}$	$H(0.61)$	$95.9^{+2.3}_{-0.94}$
$\ln(10^{10} A_s)$	$3.050^{+0.046}_{-0.034}$	$r_{\text{drag}} h$	$99.6^{+2.1}_{-2.1}$	$D_M(0.61)$	2292^{+32}_{-68}
n_s	$0.969^{+0.016}_{-0.012}$	$\langle d^2 \rangle^{1/2}$	$2.429^{+0.064}_{-0.059}$	$H(2.33)$	$237.4^{+5.3}_{-2.4}$
y_{cal}	$1.0007^{+0.0066}_{-0.0065}$	z_{re}	< 9.78	$D_M(2.33)$	5730^{+50}_{-130}
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.112^{+0.098}_{-0.071}$	$f\sigma_8(0.15)$	$0.447^{+0.024}_{-0.034}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.884^{+0.035}_{-0.031}$	$\sigma_8(0.15)$	$0.732^{+0.036}_{-0.057}$
A_{143}^{tSZ}	$5.4^{+4.6}_{-4.6}$	D_{40}	1224^{+33}_{-33}	$f\sigma_8(0.38)$	$0.465^{+0.023}_{-0.035}$
A_{100}^{PS}	260^{+70}_{-70}	D_{220}	5739^{+98}_{-100}	$\sigma_8(0.38)$	$0.649^{+0.033}_{-0.051}$
A_{143}^{PS}	47^{+20}_{-20}	D_{810}	2540^{+35}_{-36}	$f\sigma_8(0.51)$	$0.464^{+0.022}_{-0.035}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	D_{1420}	817^{+12}_{-13}	$\sigma_8(0.51)$	$0.608^{+0.031}_{-0.048}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$230.6^{+4.2}_{-4.3}$	$f\sigma_8(0.61)$	$0.459^{+0.022}_{-0.035}$
A^{kSZ}	—	$n_{s,0.002}$	$0.969^{+0.016}_{-0.012}$	$\sigma_8(0.61)$	$0.578^{+0.030}_{-0.045}$
A_{100}^{dustTT}	$9.0^{+4.7}_{-4.6}$	Y_P	$0.2466^{+0.0042}_{-0.0013}$	$f\sigma_8(2.33)$	$0.292^{+0.015}_{-0.023}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.7}$	Y_P^{BBN}	$0.2479^{+0.0042}_{-0.0014}$	$\sigma_8(2.33)$	$0.301^{+0.016}_{-0.024}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.2}_{-8.5}$	$10^5 D/H$	$2.590^{+0.092}_{-0.069}$	f_{2000}^{143}	30^{+7}_{-7}
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.72^{+0.12}_{-0.31}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
A_{100}^{dustTE}	$0.113^{+0.099}_{-0.095}$	z_*	$1089.87^{+0.70}_{-0.58}$	f_{2000}^{217}	$107.4^{+4.8}_{-4.8}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.079}_{-0.075}$	r_*	$143.8^{+1.2}_{-3.4}$	χ_{small}^2	$291 (\nu: 14232.5)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.21}$	$100\theta_*$	$1.04104^{+0.00084}_{-0.0010}$	χ_{lowl}^2	$129 (\nu: 14235.3)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.82^{+0.13}_{-0.29}$	χ_{plik}^2	$2362.2 (\nu: 19.5)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	z_{drag}	$1060.4^{+1.4}_{-0.93}$	χ_{JLA}^2	$1035.12 (\nu: 0.1)$
A_{217}^{dustTE}	$2.07^{+0.68}_{-0.67}$	r_{drag}	$146.4^{+1.4}_{-3.2}$	$\chi_{6\text{DF}}^2$	$0.40 (\nu: 0.2)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_D	$0.1414^{+0.0026}_{-0.0012}$	χ_{MGS}^2	$0.89 (\nu: 0.2)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.16084^{+0.00085}_{-0.00051}$	χ_{DR12BAO}^2	$5.0 (\nu: 1.2)$
H_0	$68.0^{+2.4}_{-1.4}$	z_{eq}	3334^{+88}_{-220}	χ_{prior}^2	$11.7 (\nu: 10.6)$
Ω_Λ	$0.689^{+0.017}_{-0.017}$	k_{eq}	$0.01026^{+0.00034}_{-0.00055}$	χ_{BAO}^2	$6.3 (\nu: 0.8)$
Ω_m	$0.311^{+0.017}_{-0.017}$	$100\theta_{\text{eq}}$	$0.828^{+0.050}_{-0.018}$	χ_{CMB}^2	$2782.4 (\nu: 18.6)$
$\Omega_m h^2$	$0.1439^{+0.0066}_{-0.0034}$	$100\theta_{s,\text{eq}}$	$0.457^{+0.024}_{-0.010}$		
$\Omega_\nu h^2$	$0.0027^{+0.0089}_{-0.0026}$	$H(0.15)$	$73.3^{+2.3}_{-1.2}$		

$$\bar{\chi}_{\text{eff}}^2 = 3835.56; R - 1 = 0.01701$$

8.17 base_nnu_meffsterile_plikHM_TT_lowl_lowE_lensing_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02226	$0.02232^{+0.00055}_{-0.00051}$	$\sigma_8 \Omega_m^{0.25}$	0.6054	$0.596^{+0.027}_{-0.042}$	$D_M(0.38)$	1526.2	1516^{+36}_{-62}
$\Omega_c h^2$	0.1196	$0.1204^{+0.0096}_{-0.011}$	$\sigma_8/h^{0.5}$	0.985	$0.966^{+0.037}_{-0.065}$	$H(0.51)$	89.86	$90.5^{+3.1}_{-1.6}$
$100\theta_{MC}$	1.04091	$1.0408^{+0.0012}_{-0.0013}$	$r_{drag}h$	99.73	$99.5^{+2.4}_{-2.4}$	$D_M(0.51)$	1977	1964^{+43}_{-78}
τ	0.0558	$0.057^{+0.021}_{-0.020}$	$\langle d^2 \rangle^{1/2}$	2.434	$2.427^{+0.058}_{-0.059}$	$H(0.61)$	95.48	$96.2^{+3.2}_{-1.5}$
$m_{\nu, sterile}^{eff} [eV]$	0.000	< 0.801	z_{re}	7.85	$8.0^{+2.0}_{-2.1}$	$D_M(0.61)$	2301	2285^{+48}_{-90}
N_{eff}	3.077	< 3.68	$10^9 A_s$	2.105	$2.116^{+0.097}_{-0.086}$	$H(2.33)$	236.3	$238.3^{+7.6}_{-3.7}$
$\ln(10^{10} A_s)$	3.0467	$3.052^{+0.045}_{-0.041}$	$10^9 A_s e^{-2\tau}$	1.8825	$1.890^{+0.045}_{-0.034}$	$D_M(2.33)$	5754	5710^{+85}_{-180}
n_s	0.9679	$0.971^{+0.020}_{-0.015}$	D_{40}	1225.4	1221^{+35}_{-36}	$f\sigma_8(0.15)$	0.4565	$0.450^{+0.021}_{-0.032}$
y_{cal}	1.0010	$1.0008^{+0.0065}_{-0.0062}$	D_{220}	5725	5724^{+110}_{-100}	$\sigma_8(0.15)$	0.7496	$0.737^{+0.037}_{-0.052}$
A_{217}^{CIB}	48.8	49^{+20}_{-20}	D_{810}	2540.4	2540^{+37}_{-35}	$f\sigma_8(0.38)$	0.4751	$0.468^{+0.021}_{-0.033}$
$\xi^{tSZ \times CIB}$	0.30	—	D_{1420}	816.8	815^{+14}_{-13}	$\sigma_8(0.38)$	0.6646	$0.653^{+0.034}_{-0.047}$
A_{143}^{tSZ}	7.0	—	D_{2000}	230.4	$229.1^{+4.9}_{-5.0}$	$f\sigma_8(0.51)$	0.4739	$0.467^{+0.021}_{-0.033}$
A_{100}^{PS}	255	267^{+70}_{-70}	$n_{s,0.002}$	0.9679	$0.971^{+0.020}_{-0.015}$	$\sigma_8(0.51)$	0.6220	$0.612^{+0.032}_{-0.044}$
A_{143}^{PS}	49.2	51^{+20}_{-20}	Y_P	0.24576	$0.2476^{+0.0061}_{-0.0024}$	$f\sigma_8(0.61)$	0.4690	$0.462^{+0.021}_{-0.033}$
$A_{143 \times 217}^{PS}$	46.2	44^{+20}_{-20}	Y_P^{BBN}	0.24709	$0.2489^{+0.0061}_{-0.0024}$	$\sigma_8(0.61)$	0.5919	$0.582^{+0.031}_{-0.042}$
A_{217}^{PS}	119.1	115^{+30}_{-30}	$10^5 D/H$	2.616	$2.65^{+0.16}_{-0.11}$	$f\sigma_8(2.33)$	0.2985	$0.294^{+0.016}_{-0.022}$
A^{kSZ}	0.0	—	Age/Gyr	13.775	$13.67^{+0.20}_{-0.43}$	$\sigma_8(2.33)$	0.3078	$0.303^{+0.017}_{-0.022}$
A_{100}^{dustTT}	8.86	$9.0^{+4.7}_{-4.7}$	z_*	1090.05	$1090.3^{+1.1}_{-0.84}$	f_{2000}^{143}	30.4	32^{+8}_{-8}
A_{143}^{dustTT}	10.78	$10.7^{+4.7}_{-4.7}$	r_*	144.47	$143.3^{+2.0}_{-4.7}$	$f_{2000}^{143 \times 217}$	33.2	34^{+6}_{-6}
$A_{143 \times 217}^{dustTT}$	19.4	$18.3^{+8.6}_{-8.6}$	$100\theta_*$	1.04109	$1.0409^{+0.0013}_{-0.0015}$	f_{2000}^{217}	107.7	$108.9^{+5.4}_{-5.1}$
A_{217}^{dustTT}	94.7	93^{+20}_{-20}	$D_M(z_*)/Gpc$	13.877	$13.76^{+0.20}_{-0.40}$	$\chi_{lensing}^2$	8.84	9.5 ($\nu: 0.5$)
c_{100}	0.99965	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	1059.67	$1060.1^{+1.9}_{-1.4}$	χ_{small}^2	396.3	397.5 ($\nu: 2.4$)
c_{217}	0.99826	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	147.17	$145.9^{+2.2}_{-4.5}$	χ_{lowl}^2	22.91	22.6 ($\nu: 0.5$)
H_0	67.77	$68.2^{+3.2}_{-1.9}$	k_D	0.14059	$0.1415^{+0.0036}_{-0.0019}$	χ_{plik}^2	759.6	773.6 ($\nu: 15.5$)
Ω_Λ	0.6897	$0.688^{+0.019}_{-0.019}$	$100\theta_D$	0.16103	$0.1613^{+0.0014}_{-0.00089}$	χ_{6DF}^2	0.024	0.076 ($\nu: 0.0$)
Ω_m	0.3103	$0.312^{+0.019}_{-0.019}$	z_{eq}	3376	3337^{+85}_{-210}	χ_{MGS}^2	1.28	1.21 ($\nu: 0.1$)
$\Omega_m h^2$	0.1425	$0.1450^{+0.0093}_{-0.0049}$	k_{eq}	0.010324	$0.01032^{+0.00037}_{-0.00059}$	$\chi_{DR12BAO}^2$	4.25	5.3 ($\nu: 1.8$)
$\Omega_\nu h^2$	0.00065	$0.0022^{+0.0082}_{-0.0017}$	$100\theta_{eq}$	0.8178	$0.826^{+0.047}_{-0.017}$	χ_{prior}^2	1.5	7.3 ($\nu: 6.9$)
$\Omega_m h^3$	0.0966	$0.0989^{+0.0095}_{-0.0040}$	$100\theta_{s,eq}$	0.4518	$0.456^{+0.025}_{-0.0086}$	χ_{CMB}^2	1187.7	1203.3 ($\nu: 17.0$)
σ_8	0.8111	$0.798^{+0.039}_{-0.057}$	$H(0.15)$	73.04	$73.5^{+3.2}_{-1.8}$	χ_{BAO}^2	5.56	6.5 ($\nu: 1.3$)
S_8	0.8249	$0.813^{+0.040}_{-0.059}$	$D_M(0.15)$	639.8	636^{+17}_{-27}			
$\sigma_8 \Omega_m^{0.5}$	0.4518	$0.445^{+0.022}_{-0.033}$	$H(0.38)$	83.15	$83.7^{+3.3}_{-1.6}$			

Best-fit $\chi_{eff}^2 = 1194.69$; $\Delta\chi_{eff}^2 = 0.01$; $\bar{\chi}_{eff}^2 = 1217.17$; $\Delta\bar{\chi}_{eff}^2 = 2.44$; $R - 1 = 0.01959$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ -0.01) MGS: 1.28 (Δ 0.06) DR12BAO: 4.25 (Δ -0.12) CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.84 (Δ -0.04) small_100x143_offlike5_EE_Aplanc
396.34 (Δ 0.24) commander_dx12_v3_2.29: 22.91 (Δ -0.05) plik_rd12_HM_v22.TT: 759.57 (Δ -0.24)

8.18 base_nnu_meffsterile_plikHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02224	$0.02234^{+0.00055}_{-0.00052}$	$\sigma_8 \Omega_m^{0.25}$	0.6042	$0.596^{+0.027}_{-0.042}$	$D_M(0.38)$	1530.2	1514^{+35}_{-64}
$\Omega_c h^2$	0.1171	$0.1205^{+0.0096}_{-0.011}$	$\sigma_8/h^{0.5}$	0.984	$0.966^{+0.036}_{-0.065}$	$H(0.51)$	89.66	$90.6^{+3.2}_{-1.6}$
$100\theta_{MC}$	1.04102	$1.0408^{+0.0012}_{-0.0013}$	$r_{drag} h$	99.65	$99.7^{+2.3}_{-2.3}$	$D_M(0.51)$	1982	1961^{+46}_{-75}
τ	0.0567	$0.057^{+0.021}_{-0.019}$	$\langle d^2 \rangle^{1/2}$	2.438	$2.426^{+0.057}_{-0.057}$	$H(0.61)$	95.27	$96.3^{+3.2}_{-1.6}$
$m_{\nu, sterile}^{eff} [eV]$	0.193	< 0.821	z_{re}	7.94	$8.0^{+2.0}_{-2.0}$	$D_M(0.61)$	2307	2282^{+52}_{-85}
N_{eff}	3.047	< 3.69	$10^9 A_s$	2.102	$2.119^{+0.093}_{-0.087}$	$H(2.33)$	235.9	$238.3^{+7.6}_{-3.8}$
$\ln(10^{10} A_s)$	3.0456	$3.053^{+0.043}_{-0.042}$	$10^9 A_s e^{-2\tau}$	1.8768	$1.890^{+0.046}_{-0.034}$	$D_M(2.33)$	5766	5706^{+89}_{-180}
n_s	0.9661	$0.972^{+0.020}_{-0.015}$	D_{40}	1226.6	1220^{+36}_{-36}	$f\sigma_8(0.15)$	0.4558	$0.450^{+0.021}_{-0.032}$
y_{cal}	1.0001	$1.0008^{+0.0065}_{-0.0063}$	D_{220}	5717	5725^{+110}_{-100}	$\sigma_8(0.15)$	0.7477	$0.738^{+0.036}_{-0.052}$
A_{217}^{CIB}	50.1	49^{+20}_{-20}	D_{810}	2534.5	2540^{+38}_{-35}	$f\sigma_8(0.38)$	0.4742	$0.468^{+0.021}_{-0.033}$
$\xi^{tSZ \times CIB}$	0.18	—	D_{1420}	814.9	815^{+14}_{-13}	$\sigma_8(0.38)$	0.6628	$0.654^{+0.033}_{-0.047}$
A_{143}^{tSZ}	7.2	—	D_{2000}	230.0	$229.1^{+5.0}_{-5.1}$	$f\sigma_8(0.51)$	0.4729	$0.467^{+0.021}_{-0.033}$
A_{100}^{PS}	256	267^{+70}_{-70}	$n_{s,0.002}$	0.9661	$0.972^{+0.020}_{-0.015}$	$\sigma_8(0.51)$	0.6203	$0.613^{+0.031}_{-0.044}$
A_{143}^{PS}	47.4	51^{+20}_{-20}	Y_P	0.24536	$0.2477^{+0.0063}_{-0.0026}$	$f\sigma_8(0.61)$	0.4680	$0.462^{+0.021}_{-0.033}$
$A_{143 \times 217}^{PS}$	42.9	44^{+20}_{-20}	Y_P^{BBN}	0.24668	$0.2490^{+0.0064}_{-0.0026}$	$\sigma_8(0.61)$	0.5902	$0.583^{+0.030}_{-0.042}$
A_{217}^{PS}	116.7	115^{+30}_{-30}	$10^5 D/H$	2.611	$2.65^{+0.16}_{-0.11}$	$f\sigma_8(2.33)$	0.2976	$0.294^{+0.016}_{-0.022}$
A^{kSZ}	0.0	—	Age/Gyr	13.804	$13.66^{+0.21}_{-0.43}$	$\sigma_8(2.33)$	0.3068	$0.303^{+0.017}_{-0.022}$
A_{100}^{dustTT}	8.84	$9.0^{+4.5}_{-4.7}$	z_*	1090.01	$1090.3^{+1.1}_{-0.84}$	f_{2000}^{143}	30.6	32^{+8}_{-8}
A_{143}^{dustTT}	10.87	$10.7^{+4.7}_{-4.7}$	r_*	144.75	$143.2^{+2.2}_{-4.4}$	$f_{2000}^{143 \times 217}$	33.3	34^{+6}_{-6}
$A_{143 \times 217}^{dustTT}$	19.3	$18.3^{+8.5}_{-8.7}$	$100\theta_*$	1.04122	$1.0409^{+0.0013}_{-0.0015}$	f_{2000}^{217}	107.6	$108.9^{+5.4}_{-5.2}$
A_{217}^{dustTT}	94.2	93^{+20}_{-20}	$D_M(z_*)/Gpc$	13.902	$13.76^{+0.20}_{-0.41}$	$\chi_{lensing}^2$	8.78	$9.6 (\nu: 0.5)$
c_{100}	0.99963	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	1059.59	$1060.1^{+1.9}_{-1.4}$	χ_{simall}^2	397	$290 (\nu: 14417.7)$
c_{217}	0.99827	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	147.46	$145.9^{+2.3}_{-4.5}$	χ_{lowl}^2	23	$131 (\nu: 14415.5)$
H_0	67.58	$68.3^{+3.2}_{-1.9}$	k_D	0.14038	$0.1415^{+0.0034}_{-0.0021}$	χ_{plik}^2	759.1	$773.8 (\nu: 15.6)$
Ω_Λ	0.6890	$0.689^{+0.018}_{-0.018}$	$100\theta_D$	0.16098	$0.1614^{+0.0014}_{-0.00090}$	χ_{JLA}^2	1035.03	$1035.12 (\nu: 0.1)$
Ω_m	0.3110	$0.311^{+0.018}_{-0.018}$	z_{eq}	3329	3334^{+83}_{-210}	χ_{6DF}^2	0.03	$0.41 (\nu: 0.2)$
$\Omega_m h^2$	0.1420	$0.1450^{+0.0092}_{-0.0049}$	k_{eq}	0.010199	$0.01031^{+0.00038}_{-0.00060}$	χ_{MGS}^2	1.22	$0.93 (\nu: 0.2)$
$\Omega_\nu h^2$	0.00269	$0.0022^{+0.0082}_{-0.0016}$	$100\theta_{eq}$	0.8275	$0.827^{+0.048}_{-0.016}$	$\chi_{DR12BAO}^2$	4.37	$5.0 (\nu: 1.4)$
$\Omega_m h^3$	0.0960	$0.0991^{+0.0096}_{-0.0042}$	$100\theta_{s,eq}$	0.4570	$0.456^{+0.025}_{-0.0084}$	χ_{prior}^2	1.5	$7.3 (\nu: 7.0)$
σ_8	0.8091	$0.799^{+0.038}_{-0.057}$	$H(0.15)$	72.85	$73.6^{+3.3}_{-1.7}$	χ_{CMB}^2	1187.7	$1203.5 (\nu: 17.2)$
S_8	0.8238	$0.813^{+0.039}_{-0.060}$	$D_M(0.15)$	641.6	635^{+16}_{-28}	χ_{BAO}^2	5.62	$6.3 (\nu: 0.9)$
$\sigma_8 \Omega_m^{0.5}$	0.4512	$0.445^{+0.021}_{-0.033}$	$H(0.38)$	82.95	$83.8^{+3.1}_{-1.7}$			

Best-fit $\chi_{eff}^2 = 2229.80$; $\Delta\chi_{eff}^2 = 0.09$; $\bar{\chi}_{eff}^2 = 2252.23$; $\Delta\bar{\chi}_{eff}^2 = 2.45$; $R - 1 = 0.01841$
 χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.01) MGS: 1.22 (Δ -0.13) DR12BAO: 4.37 (Δ 0.34) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.78 (Δ -0.10) simall_100x143_offlike5_EE_Aplanck
396.58 (Δ 0.21) commander_dx12_v3_2.29: 23.22 (Δ 0.40) plik_rd12_HM_v22_TT: 759.08 (Δ -0.71) SN - JLA Pantheon18: 1035.03 (Δ 0.08)

8.19 base_nnu_meffsterile_plikHM_TT_lowl_lowE_lensing_BAO_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}} h^2$	$0.02232^{+0.00055}_{-0.00051}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.596^{+0.027}_{-0.042}$	$D_{\mathrm{M}}(0.38)$	1516^{+35}_{-62}
$\Omega_{\mathrm{c}} h^2$	$0.1204^{+0.0097}_{-0.011}$	$\sigma_8/h^{0.5}$	$0.966^{+0.037}_{-0.066}$	$H(0.51)$	$90.5^{+3.1}_{-1.6}$
$100\theta_{\mathrm{MC}}$	$1.0408^{+0.0012}_{-0.0013}$	$r_{\mathrm{drag}} h$	$99.5^{+2.4}_{-2.3}$	$D_{\mathrm{M}}(0.51)$	1964^{+42}_{-78}
τ	$0.057^{+0.020}_{-0.015}$	$\langle d^2 \rangle^{1/2}$	$2.428^{+0.057}_{-0.058}$	$H(0.61)$	$96.2^{+3.2}_{-1.5}$
$m_{\nu, \mathrm{sterile}}^{\mathrm{eff}} [\mathrm{eV}]$	< 0.805	z_{re}	< 9.82	$D_{\mathrm{M}}(0.61)$	2285^{+47}_{-90}
N_{eff}	< 3.68	$10^9 A_{\mathrm{s}}$	$2.118^{+0.096}_{-0.071}$	$H(2.33)$	$238.3^{+7.6}_{-3.7}$
$\ln(10^{10} A_{\mathrm{s}})$	$3.053^{+0.044}_{-0.034}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.890^{+0.045}_{-0.034}$	$D_{\mathrm{M}}(2.33)$	5710^{+85}_{-180}
n_{s}	$0.971^{+0.020}_{-0.014}$	D_{40}	1221^{+35}_{-36}	$f\sigma_8(0.15)$	$0.450^{+0.021}_{-0.032}$
y_{cal}	$1.0008^{+0.0065}_{-0.0062}$	D_{220}	5724^{+110}_{-100}	$\sigma_8(0.15)$	$0.737^{+0.037}_{-0.053}$
A_{217}^{CIB}	49^{+20}_{-20}	D_{810}	2540^{+37}_{-35}	$f\sigma_8(0.38)$	$0.468^{+0.021}_{-0.033}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	815^{+14}_{-13}	$\sigma_8(0.38)$	$0.654^{+0.034}_{-0.047}$
A_{143}^{tSZ}	—	D_{2000}	$229.1^{+5.0}_{-5.1}$	$f\sigma_8(0.51)$	$0.467^{+0.021}_{-0.033}$
A_{100}^{PS}	267^{+70}_{-70}	$n_{\mathrm{s}, 0.002}$	$0.971^{+0.020}_{-0.014}$	$\sigma_8(0.51)$	$0.612^{+0.032}_{-0.044}$
A_{143}^{PS}	51^{+20}_{-20}	Y_{P}	$0.2476^{+0.0061}_{-0.0024}$	$f\sigma_8(0.61)$	$0.462^{+0.021}_{-0.033}$
$A_{143 \times 217}^{\mathrm{PS}}$	44^{+20}_{-20}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2489^{+0.0061}_{-0.0025}$	$\sigma_8(0.61)$	$0.582^{+0.031}_{-0.042}$
A_{217}^{PS}	115^{+30}_{-30}	$10^5 \mathrm{D}/\mathrm{H}$	$2.65^{+0.16}_{-0.11}$	$f\sigma_8(2.33)$	$0.294^{+0.016}_{-0.022}$
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.67^{+0.20}_{-0.43}$	$\sigma_8(2.33)$	$0.303^{+0.017}_{-0.022}$
$A_{100}^{\mathrm{dustTT}}$	$9.0^{+4.7}_{-4.7}$	z_*	$1090.3^{+1.1}_{-0.84}$	f_{2000}^{143}	32^{+8}_{-8}
$A_{143}^{\mathrm{dustTT}}$	$10.7^{+4.7}_{-4.7}$	r_*	$143.3^{+2.1}_{-4.3}$	$f_{2000}^{143 \times 217}$	34^{+6}_{-6}
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3^{+8.6}_{-8.6}$	$100\theta_*$	$1.0409^{+0.0013}_{-0.0015}$	f_{2000}^{217}	$108.9^{+5.4}_{-5.1}$
$A_{217}^{\mathrm{dustTT}}$	93^{+20}_{-20}	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.76^{+0.20}_{-0.40}$	$\chi_{\mathrm{lensing}}^2$	$9.52 (\nu: 0.5)$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	$1060.1^{+1.9}_{-1.4}$	χ_{simall}^2	$397.5 (\nu: 2.4)$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	$145.9^{+2.2}_{-4.5}$	χ_{lowl}^2	$22.6 (\nu: 0.5)$
H_0	$68.2^{+3.2}_{-1.8}$	k_{D}	$0.1415^{+0.0036}_{-0.0019}$	χ_{plik}^2	$773.6 (\nu: 15.4)$
Ω_{Λ}	$0.688^{+0.019}_{-0.019}$	$100\theta_{\mathrm{D}}$	$0.1613^{+0.0014}_{-0.00089}$	$\chi_{6\mathrm{DF}}^2$	$0.074 (\nu: 0.0)$
Ω_{m}	$0.312^{+0.019}_{-0.019}$	z_{eq}	3336^{+84}_{-210}	χ_{MGS}^2	$1.22 (\nu: 0.1)$
$\Omega_{\mathrm{m}} h^2$	$0.1450^{+0.0093}_{-0.0049}$	k_{eq}	$0.01031^{+0.00037}_{-0.00059}$	$\chi_{\mathrm{DR12BAO}}^2$	$5.2 (\nu: 1.7)$
$\Omega_{\nu} h^2$	$0.0023^{+0.0082}_{-0.0017}$	$100\theta_{\mathrm{eq}}$	$0.826^{+0.047}_{-0.016}$	χ_{prior}^2	$7.3 (\nu: 6.9)$
$\Omega_{\mathrm{m}} h^3$	$0.0989^{+0.0095}_{-0.0040}$	$100\theta_{\mathrm{s,eq}}$	$0.456^{+0.025}_{-0.0085}$	χ_{CMB}^2	$1203.2 (\nu: 16.9)$
σ_8	$0.798^{+0.039}_{-0.057}$	$H(0.15)$	$73.5^{+3.2}_{-1.7}$	χ_{BAO}^2	$6.5 (\nu: 1.2)$
S_8	$0.813^{+0.040}_{-0.060}$	$D_{\mathrm{M}}(0.15)$	636^{+16}_{-27}		
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.445^{+0.022}_{-0.033}$	$H(0.38)$	$83.8^{+3.0}_{-1.6}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1217.05; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.48; R - 1 = 0.01947$$

8.20 base_nnu_meffsterile_plikHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}} h^2$	$0.02234^{+0.00055}_{-0.00052}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.596^{+0.027}_{-0.042}$	$D_{\mathrm{M}}(0.38)$	1514^{+35}_{-64}
$\Omega_{\mathrm{c}} h^2$	$0.1205^{+0.0096}_{-0.011}$	$\sigma_8/h^{0.5}$	$0.966^{+0.036}_{-0.065}$	$H(0.51)$	$90.6^{+3.2}_{-1.6}$
$100\theta_{\mathrm{MC}}$	$1.0408^{+0.0012}_{-0.0013}$	$r_{\mathrm{drag}} h$	$99.7^{+2.3}_{-2.2}$	$D_{\mathrm{M}}(0.51)$	1961^{+46}_{-75}
τ	$0.058^{+0.019}_{-0.016}$	$\langle d^2 \rangle^{1/2}$	$2.427^{+0.057}_{-0.057}$	$H(0.61)$	$96.3^{+3.2}_{-1.6}$
$m_{\nu, \mathrm{sterile}}^{\mathrm{eff}} [\mathrm{eV}]$	< 0.831	z_{re}	< 9.83	$D_{\mathrm{M}}(0.61)$	2282^{+51}_{-85}
N_{eff}	< 3.69	$10^9 A_{\mathrm{s}}$	$2.121^{+0.092}_{-0.073}$	$H(2.33)$	$238.3^{+7.5}_{-3.8}$
$\ln(10^{10} A_{\mathrm{s}})$	$3.054^{+0.042}_{-0.035}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.890^{+0.046}_{-0.034}$	$D_{\mathrm{M}}(2.33)$	5705^{+89}_{-180}
n_{s}	$0.972^{+0.020}_{-0.015}$	D_{40}	1220^{+36}_{-36}	$f\sigma_8(0.15)$	$0.450^{+0.021}_{-0.032}$
y_{cal}	$1.0008^{+0.0065}_{-0.0063}$	D_{220}	5725^{+110}_{-100}	$\sigma_8(0.15)$	$0.738^{+0.036}_{-0.053}$
A_{217}^{CIB}	49^{+20}_{-20}	D_{810}	2540^{+38}_{-35}	$f\sigma_8(0.38)$	$0.468^{+0.021}_{-0.033}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	815^{+14}_{-13}	$\sigma_8(0.38)$	$0.655^{+0.033}_{-0.047}$
A_{143}^{tSZ}	—	D_{2000}	$229.1^{+5.0}_{-5.1}$	$f\sigma_8(0.51)$	$0.467^{+0.021}_{-0.034}$
A_{100}^{PS}	267^{+70}_{-70}	$n_{\mathrm{s}, 0.002}$	$0.972^{+0.020}_{-0.015}$	$\sigma_8(0.51)$	$0.613^{+0.031}_{-0.045}$
A_{143}^{PS}	51^{+20}_{-20}	Y_{P}	$0.2477^{+0.0063}_{-0.0026}$	$f\sigma_8(0.61)$	$0.462^{+0.021}_{-0.033}$
$A_{143 \times 217}^{\mathrm{PS}}$	44^{+20}_{-20}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2490^{+0.0064}_{-0.0026}$	$\sigma_8(0.61)$	$0.583^{+0.030}_{-0.043}$
A_{217}^{PS}	115^{+30}_{-30}	$10^5 \mathrm{D}/\mathrm{H}$	$2.65^{+0.16}_{-0.11}$	$f\sigma_8(2.33)$	$0.294^{+0.015}_{-0.022}$
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.66^{+0.21}_{-0.43}$	$\sigma_8(2.33)$	$0.303^{+0.017}_{-0.023}$
$A_{100}^{\mathrm{dustTT}}$	$9.0^{+4.5}_{-4.7}$	z_*	$1090.3^{+1.1}_{-0.83}$	f_{2000}^{143}	32^{+8}_{-8}
$A_{143}^{\mathrm{dustTT}}$	$10.7^{+4.7}_{-4.7}$	r_*	$143.2^{+2.2}_{-4.4}$	$f_{2000}^{143 \times 217}$	34^{+6}_{-6}
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3^{+8.5}_{-8.7}$	$100\theta_*$	$1.0409^{+0.0013}_{-0.0015}$	f_{2000}^{217}	$108.9^{+5.4}_{-5.2}$
$A_{217}^{\mathrm{dustTT}}$	93^{+20}_{-20}	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.76^{+0.20}_{-0.41}$	$\chi_{\mathrm{lensing}}^2$	$9.6 (\nu: 0.5)$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	$1060.1^{+1.9}_{-1.4}$	χ_{small}^2	$290 (\nu: 14384.6)$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	$145.9^{+2.3}_{-4.5}$	χ_{lowl}^2	$130 (\nu: 14382.1)$
H_0	$68.3^{+3.2}_{-1.8}$	k_{D}	$0.1415^{+0.0034}_{-0.0021}$	χ_{plik}^2	$773.7 (\nu: 15.5)$
Ω_{Λ}	$0.689^{+0.018}_{-0.018}$	$100\theta_{\mathrm{D}}$	$0.1614^{+0.0014}_{-0.00090}$	χ_{JLA}^2	$1035.11 (\nu: 0.1)$
Ω_{m}	$0.311^{+0.018}_{-0.018}$	z_{eq}	3333^{+82}_{-210}	$\chi_{6\mathrm{DF}}^2$	$0.41 (\nu: 0.2)$
$\Omega_{\mathrm{m}} h^2$	$0.1450^{+0.0093}_{-0.0049}$	k_{eq}	$0.01031^{+0.00037}_{-0.00060}$	χ_{MGS}^2	$0.94 (\nu: 0.2)$
$\Omega_{\nu} h^2$	$0.0022^{+0.0082}_{-0.0016}$	$100\theta_{\mathrm{eq}}$	$0.827^{+0.047}_{-0.016}$	$\chi_{\mathrm{DR12BAO}}^2$	$4.9 (\nu: 1.3)$
$\Omega_{\mathrm{m}} h^3$	$0.0991^{+0.0096}_{-0.0042}$	$100\theta_{\mathrm{s,eq}}$	$0.456^{+0.025}_{-0.0084}$	χ_{prior}^2	$7.3 (\nu: 7.0)$
σ_8	$0.799^{+0.038}_{-0.057}$	$H(0.15)$	$73.7^{+3.0}_{-1.8}$	χ_{CMB}^2	$1203.4 (\nu: 17.1)$
S_8	$0.813^{+0.039}_{-0.060}$	$D_{\mathrm{M}}(0.15)$	635^{+16}_{-28}	χ_{BAO}^2	$6.3 (\nu: 0.9)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.445^{+0.021}_{-0.033}$	$H(0.38)$	$83.9^{+3.1}_{-1.7}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2252.12; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.50; R - 1 = 0.01798$$

8.21 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_lensing_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022461	$0.02249^{+0.00043}_{-0.00037}$	$\Omega_m h^3$	0.09644	$0.0976^{+0.0063}_{-0.0021}$	$D_M(0.15)$	640.3	639^{+11}_{-23}
$\Omega_c h^2$	0.1134	$0.1187^{+0.0078}_{-0.010}$	σ_8	0.8100	$0.793^{+0.035}_{-0.062}$	$H(0.38)$	83.10	$83.3^{+2.6}_{-0.93}$
$100\theta_{MC}$	1.04106	$1.04091^{+0.00075}_{-0.00089}$	S_8	0.824	$0.810^{+0.038}_{-0.063}$	$D_M(0.38)$	1527.3	1524^{+23}_{-51}
τ	0.0564	$0.058^{+0.021}_{-0.018}$	$\sigma_8 \Omega_m^{0.5}$	0.4514	$0.444^{+0.021}_{-0.035}$	$H(0.51)$	89.81	$90.1^{+2.2}_{-0.97}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	0.555	< 0.956	$\sigma_8 \Omega_m^{0.25}$	0.6047	$0.593^{+0.025}_{-0.046}$	$D_M(0.51)$	1978.6	1974^{+28}_{-64}
N_{eff}	3.048	< 3.44	$\sigma_8/h^{0.5}$	0.984	$0.963^{+0.041}_{-0.066}$	$H(0.61)$	95.43	$95.8^{+2.2}_{-0.88}$
$\ln(10^{10} A_s)$	3.0481	$3.052^{+0.044}_{-0.037}$	$r_{\text{drag}} h$	99.65	$99.3^{+2.1}_{-2.2}$	$D_M(0.61)$	2302	2297^{+30}_{-74}
n_s	0.9674	$0.968^{+0.017}_{-0.012}$	$\langle d^2 \rangle^{1/2}$	2.439	$2.437^{+0.056}_{-0.055}$	$H(2.33)$	236.22	$237.4^{+5.6}_{-2.3}$
y_{cal}	1.0011	$1.0009^{+0.0063}_{-0.0063}$	z_{re}	7.86	$8.0^{+2.0}_{-1.9}$	$D_M(2.33)$	5756	5735^{+47}_{-130}
A_{217}^{CIB}	47.2	47^{+20}_{-20}	$10^9 A_s$	2.107	$2.116^{+0.095}_{-0.078}$	$f\sigma_8(0.15)$	0.4561	$0.448^{+0.020}_{-0.035}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.46	—	$10^9 A_s e^{-2\tau}$	1.8828	$1.886^{+0.035}_{-0.028}$	$\sigma_8(0.15)$	0.7485	$0.733^{+0.034}_{-0.058}$
A_{143}^{tSZ}	7.20	$5.4^{+4.3}_{-4.8}$	D_{40}	1228.2	1227^{+31}_{-32}	$f\sigma_8(0.38)$	0.4746	$0.466^{+0.020}_{-0.036}$
A_{100}^{PS}	250	260^{+70}_{-70}	D_{220}	5743	5741^{+98}_{-94}	$\sigma_8(0.38)$	0.6636	$0.650^{+0.031}_{-0.052}$
A_{143}^{PS}	47.6	47^{+20}_{-20}	D_{810}	2543.4	2542^{+34}_{-33}	$f\sigma_8(0.51)$	0.4733	$0.465^{+0.020}_{-0.036}$
$A_{143 \times 217}^{\text{PS}}$	48.0	43^{+20}_{-20}	D_{1420}	819.4	818^{+12}_{-12}	$\sigma_8(0.51)$	0.6211	$0.608^{+0.029}_{-0.049}$
A_{217}^{PS}	119.4	115^{+30}_{-30}	D_{2000}	231.83	$230.7^{+4.0}_{-4.0}$	$f\sigma_8(0.61)$	0.4684	$0.460^{+0.020}_{-0.036}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9674	$0.968^{+0.017}_{-0.012}$	$\sigma_8(0.61)$	0.5910	$0.578^{+0.028}_{-0.046}$
A_{100}^{dustTT}	8.81	$8.9^{+4.7}_{-4.6}$	Y_P	0.24546	$0.2465^{+0.0044}_{-0.0012}$	$f\sigma_8(2.33)$	0.2980	$0.292^{+0.015}_{-0.023}$
A_{143}^{dustTT}	11.04	$10.9^{+4.6}_{-4.6}$	Y_P^{BBN}	0.24678	$0.2478^{+0.0044}_{-0.0012}$	$\sigma_8(2.33)$	0.3073	$0.301^{+0.016}_{-0.024}$
$A_{143 \times 217}^{\text{dustTT}}$	19.8	$18.7^{+8.4}_{-8.4}$	$10^5 D/H$	2.569	$2.591^{+0.096}_{-0.068}$	f_{2000}^{143}	28.6	30^{+7}_{-7}
A_{217}^{dustTT}	95.1	94^{+20}_{-20}	Age/Gyr	13.781	$13.73^{+0.11}_{-0.30}$	$f_{2000}^{143 \times 217}$	31.82	33^{+5}_{-5}
A_{100}^{dustTE}	0.114	$0.114^{+0.098}_{-0.095}$	z_*	1089.75	$1089.90^{+0.71}_{-0.58}$	f_{2000}^{217}	106.47	$107.4^{+4.7}_{-4.8}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.135^{+0.076}_{-0.076}$	r_*	144.54	$143.8^{+1.3}_{-3.5}$	χ_{lensing}^2	8.75	$9.14 (\nu: 0.3)$
$A_{100 \times 217}^{\text{dustTE}}$	0.483	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	1.04123	$1.04104^{+0.00078}_{-0.0011}$	χ_{simall}^2	396.4	$397.6 (\nu: 2.7)$
A_{143}^{dustTE}	0.224	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.881	$13.82^{+0.12}_{-0.32}$	χ_{lowl}^2	23.05	$23.03 (\nu: 0.4)$
$A_{143 \times 217}^{\text{dustTE}}$	0.665	$0.66^{+0.21}_{-0.21}$	z_{drag}	1060.09	$1060.3^{+1.5}_{-0.92}$	χ_{plik}^2	2344.6	$2361.3 (\nu: 18.3)$
A_{217}^{dustTE}	2.07	$2.08^{+0.70}_{-0.68}$	r_{drag}	147.17	$146.5^{+1.3}_{-3.6}$	$\chi_{6\text{DF}}^2$	0.029	$0.084 (\nu: 0.0)$
c_{100}	0.99971	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14085	$0.1414^{+0.0028}_{-0.0011}$	χ_{MGS}^2	1.22	$1.10 (\nu: 0.1)$
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	0.16068	$0.16083^{+0.00086}_{-0.00051}$	χ_{DR12BAO}^2	4.42	$5.5 (\nu: 1.7)$
H_0	67.71	$67.8^{+2.6}_{-1.3}$	z_{eq}	3246	3339^{+87}_{-230}	χ_{prior}^2	1.9	$11.6 (\nu: 10.4)$
Ω_Λ	0.6894	$0.687^{+0.016}_{-0.018}$	k_{eq}	0.010016	$0.01027^{+0.00032}_{-0.00057}$	χ_{CMB}^2	2772.9	$2791.1 (\nu: 19.5)$
Ω_m	0.3106	$0.313^{+0.018}_{-0.016}$	$100\theta_{\text{eq}}$	0.8464	$0.827^{+0.049}_{-0.020}$	χ_{BAO}^2	5.67	$6.7 (\nu: 1.3)$
$\Omega_m h^2$	0.1424	$0.1440^{+0.0067}_{-0.0033}$	$100\theta_{s,\text{eq}}$	0.4667	$0.456^{+0.026}_{-0.010}$			
$\Omega_\nu h^2$	0.0065	$0.0028^{+0.0090}_{-0.0022}$	$H(0.15)$	72.99	$73.1^{+2.5}_{-1.1}$			

Best-fit $\chi_{\text{eff}}^2 = 2780.39$; $\Delta\chi_{\text{eff}}^2 = -0.30$; $\bar{\chi}_{\text{eff}}^2 = 2809.48$; $\Delta\bar{\chi}_{\text{eff}}^2 = 2.64$; $R - 1 = 0.02379$
 χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.42 (Δ 0.00) CMB - smicadx12_Dec5_ft1_mv2_ndclpp_p.teb_consext8: 8.75 (Δ 0.02) simall_100x143_offlike5_EE_Aplanck.L
396.43 (Δ -0.10) commander_dx12_v3.2.29: 23.05 (Δ 0.16) plik_rd12_HM_v22b.TTTEEE: 2344.63 (Δ -0.69)

8.22 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02250^{+0.00041}_{-0.00038}$	$\Omega_m h^3$	$0.0977^{+0.0073}_{-0.0022}$	$D_M(0.15)$	638^{+11}_{-22}
$\Omega_c h^2$	$0.1188^{+0.0079}_{-0.0099}$	σ_8	$0.795^{+0.036}_{-0.060}$	$H(0.38)$	$83.4^{+2.6}_{-0.92}$
$100\theta_{MC}$	$1.04091^{+0.00075}_{-0.00091}$	S_8	$0.811^{+0.037}_{-0.061}$	$D_M(0.38)$	1522^{+22}_{-49}
τ	$0.058^{+0.021}_{-0.019}$	$\sigma_8 \Omega_m^{0.5}$	$0.444^{+0.020}_{-0.033}$	$H(0.51)$	$90.2^{+2.6}_{-0.84}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.884	$\sigma_8 \Omega_m^{0.25}$	$0.594^{+0.026}_{-0.045}$	$D_M(0.51)$	1972^{+27}_{-62}
N_{eff}	< 3.46	$\sigma_8/h^{0.5}$	$0.964^{+0.037}_{-0.072}$	$H(0.61)$	$95.8^{+2.7}_{-0.79}$
$\ln(10^{10} A_s)$	$3.052^{+0.043}_{-0.039}$	$r_{\text{drag}} h$	$99.5^{+2.0}_{-2.0}$	$D_M(0.61)$	2295^{+30}_{-72}
n_s	$0.969^{+0.017}_{-0.011}$	$\langle d^2 \rangle^{1/2}$	$2.434^{+0.054}_{-0.055}$	$H(2.33)$	$237.4^{+5.8}_{-2.3}$
y_{cal}	$1.0009^{+0.0064}_{-0.0061}$	z_{re}	$8.0^{+2.0}_{-2.0}$	$D_M(2.33)$	5733^{+48}_{-130}
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.116^{+0.092}_{-0.081}$	$f\sigma_8(0.15)$	$0.449^{+0.020}_{-0.034}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.886^{+0.034}_{-0.028}$	$\sigma_8(0.15)$	$0.734^{+0.033}_{-0.056}$
A_{143}^{tSZ}	—	D_{40}	1226^{+32}_{-32}	$f\sigma_8(0.38)$	$0.466^{+0.020}_{-0.035}$
A_{100}^{PS}	260^{+70}_{-70}	D_{220}	5741^{+98}_{-93}	$\sigma_8(0.38)$	$0.651^{+0.030}_{-0.050}$
A_{143}^{PS}	47^{+20}_{-20}	D_{810}	2542^{+36}_{-32}	$f\sigma_8(0.51)$	$0.465^{+0.020}_{-0.035}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	D_{1420}	818^{+12}_{-12}	$\sigma_8(0.51)$	$0.609^{+0.029}_{-0.047}$
A_{217}^{PS}	115^{+20}_{-30}	D_{2000}	$230.7^{+3.9}_{-4.1}$	$f\sigma_8(0.61)$	$0.460^{+0.020}_{-0.035}$
A^{kSZ}	—	$n_{s,0.002}$	$0.969^{+0.017}_{-0.011}$	$\sigma_8(0.61)$	$0.580^{+0.027}_{-0.045}$
A_{100}^{dustTT}	$9.0^{+5.0}_{-4.7}$	Y_{P}	$0.2465^{+0.0052}_{-0.0013}$	$f\sigma_8(2.33)$	$0.292^{+0.014}_{-0.023}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.6}$	$Y_{\text{P}}^{\text{BBN}}$	$0.2479^{+0.0052}_{-0.0013}$	$\sigma_8(2.33)$	$0.301^{+0.015}_{-0.023}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.7^{+8.2}_{-8.6}$	10^5D/H	$2.59^{+0.10}_{-0.069}$	f_{2000}^{143}	30^{+7}_{-7}
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.72^{+0.11}_{-0.30}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
A_{100}^{dustTE}	$0.114^{+0.10}_{-0.095}$	z_*	$1089.89^{+0.73}_{-0.59}$	f_{2000}^{217}	$107.4^{+4.8}_{-4.7}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.076}_{-0.076}$	r_*	$143.8^{+1.1}_{-3.6}$	χ_{lensing}^2	$9.18 (\nu: 0.3)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	$1.04104^{+0.00078}_{-0.0011}$	χ_{small}^2	$262 (\nu: 16193.5)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.13}$	$D_M(z_*)/\text{Gpc}$	$13.82^{+0.11}_{-0.34}$	χ_{lowl}^2	$158 (\nu: 16184.7)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.22}$	z_{drag}	$1060.3^{+1.5}_{-0.91}$	χ_{plik}^2	$2361.5 (\nu: 18.3)$
A_{217}^{dustTE}	$2.08^{+0.68}_{-0.69}$	r_{drag}	$146.4^{+1.2}_{-3.8}$	χ_{JLA}^2	$1035.16 (\nu: 0.1)$
c_{100}	$0.9997^{+0.0016}_{-0.0015}$	k_{D}	$0.1414^{+0.0028}_{-0.0011}$	$\chi_{6\text{DF}}^2$	$0.47 (\nu: 0.2)$
c_{217}	$0.9982^{+0.0015}_{-0.0016}$	$100\theta_{\text{D}}$	$0.16083^{+0.00089}_{-0.00052}$	χ_{MGS}^2	$0.76 (\nu: 0.2)$
H_0	$67.9^{+2.5}_{-1.2}$	z_{eq}	3340^{+92}_{-200}	χ_{DR12BAO}^2	$5.2 (\nu: 1.3)$
Ω_{Λ}	$0.688^{+0.016}_{-0.016}$	k_{eq}	$0.01028^{+0.00032}_{-0.00055}$	χ_{prior}^2	$11.7 (\nu: 10.3)$
Ω_m	$0.312^{+0.016}_{-0.016}$	$100\theta_{\text{eq}}$	$0.826^{+0.044}_{-0.019}$	χ_{CMB}^2	$2791.2 (\nu: 19.0)$
$\Omega_m h^2$	$0.1439^{+0.0070}_{-0.0032}$	$100\theta_{s,\text{eq}}$	$0.456^{+0.023}_{-0.0097}$	χ_{BAO}^2	$6.5 (\nu: 0.9)$
$\Omega_{\nu} h^2$	$0.0026^{+0.0091}_{-0.0021}$	$H(0.15)$	$73.2^{+2.5}_{-1.1}$		

$$\bar{\chi}_{\text{eff}}^2 = 3844.44; \Delta \bar{\chi}_{\text{eff}}^2 = 2.59; R - 1 = 0.02316$$

8.23 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02249^{+0.00043}_{-0.00038}$	$\Omega_m h^3$	$0.0977^{+0.0064}_{-0.0021}$	$D_M(0.15)$	639^{+11}_{-22}
$\Omega_c h^2$	$0.1187^{+0.0079}_{-0.010}$	σ_8	$0.794^{+0.035}_{-0.061}$	$H(0.38)$	$83.3^{+2.6}_{-0.92}$
$100\theta_{MC}$	$1.04091^{+0.00075}_{-0.00089}$	S_8	$0.811^{+0.038}_{-0.062}$	$D_M(0.38)$	1524^{+23}_{-51}
τ	$0.058^{+0.020}_{-0.015}$	$\sigma_8 \Omega_m^{0.5}$	$0.444^{+0.021}_{-0.034}$	$H(0.51)$	$90.1^{+2.2}_{-0.96}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.948	$\sigma_8 \Omega_m^{0.25}$	$0.594^{+0.025}_{-0.045}$	$D_M(0.51)$	1974^{+27}_{-65}
N_{eff}	< 3.44	$\sigma_8/h^{0.5}$	$0.964^{+0.040}_{-0.066}$	$H(0.61)$	$95.8^{+2.2}_{-0.88}$
$\ln(10^{10} A_s)$	$3.053^{+0.043}_{-0.032}$	$r_{\text{drag}} h$	$99.3^{+2.1}_{-2.1}$	$D_M(0.61)$	2297^{+30}_{-74}
n_s	$0.968^{+0.017}_{-0.012}$	$\langle d^2 \rangle^{1/2}$	$2.437^{+0.056}_{-0.053}$	$H(2.33)$	$237.4^{+5.6}_{-2.3}$
y_{cal}	$1.0009^{+0.0063}_{-0.0062}$	z_{re}	< 9.83	$D_M(2.33)$	5735^{+47}_{-130}
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.118^{+0.093}_{-0.067}$	$f\sigma_8(0.15)$	$0.449^{+0.020}_{-0.034}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.886^{+0.035}_{-0.028}$	$\sigma_8(0.15)$	$0.733^{+0.033}_{-0.057}$
A_{143}^{tSZ}	$5.4^{+4.3}_{-4.8}$	D_{40}	1226^{+31}_{-32}	$f\sigma_8(0.38)$	$0.466^{+0.020}_{-0.035}$
A_{100}^{PS}	260^{+70}_{-70}	D_{220}	5740^{+97}_{-94}	$\sigma_8(0.38)$	$0.650^{+0.031}_{-0.051}$
A_{143}^{PS}	47^{+20}_{-20}	D_{810}	2542^{+34}_{-33}	$f\sigma_8(0.51)$	$0.465^{+0.020}_{-0.035}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	D_{1420}	818^{+12}_{-12}	$\sigma_8(0.51)$	$0.608^{+0.029}_{-0.048}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$230.7^{+4.0}_{-4.1}$	$f\sigma_8(0.61)$	$0.460^{+0.020}_{-0.035}$
A^{kSZ}	—	$n_{s,0.002}$	$0.968^{+0.017}_{-0.012}$	$\sigma_8(0.61)$	$0.579^{+0.028}_{-0.045}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.6}$	Y_P	$0.2465^{+0.0043}_{-0.0012}$	$f\sigma_8(2.33)$	$0.292^{+0.015}_{-0.023}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.6}$	Y_P^{BBN}	$0.2478^{+0.0044}_{-0.0012}$	$\sigma_8(2.33)$	$0.301^{+0.015}_{-0.024}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.3}_{-8.4}$	$10^5 D/H$	$2.591^{+0.097}_{-0.068}$	f_{2000}^{143}	30^{+7}_{-7}
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.73^{+0.11}_{-0.30}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
A_{100}^{dustTE}	$0.114^{+0.098}_{-0.095}$	z_*	$1089.90^{+0.71}_{-0.58}$	f_{2000}^{217}	$107.4^{+4.7}_{-4.8}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.076}_{-0.076}$	r_*	$143.8^{+1.3}_{-3.5}$	χ_{lensing}^2	$9.12 (\nu: 0.3)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	$1.04104^{+0.00078}_{-0.0011}$	χ_{small}^2	$397.6 (\nu: 2.7)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.82^{+0.12}_{-0.32}$	χ_{lowl}^2	$23.03 (\nu: 0.4)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	z_{drag}	$1060.3^{+1.5}_{-0.92}$	χ_{plik}^2	$2361.3 (\nu: 18.3)$
A_{217}^{dustTE}	$2.08^{+0.69}_{-0.68}$	r_{drag}	$146.5^{+1.3}_{-3.6}$	$\chi_{6\text{DF}}^2$	$0.084 (\nu: 0.0)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_D	$0.1414^{+0.0028}_{-0.0011}$	χ_{MGS}^2	$1.10 (\nu: 0.1)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.16083^{+0.00086}_{-0.00051}$	χ_{DR12BAO}^2	$5.5 (\nu: 1.7)$
H_0	$67.8^{+2.6}_{-1.3}$	z_{eq}	3339^{+87}_{-230}	χ_{prior}^2	$11.6 (\nu: 10.4)$
Ω_Λ	$0.687^{+0.016}_{-0.017}$	k_{eq}	$0.01027^{+0.00032}_{-0.00057}$	χ_{CMB}^2	$2791.1 (\nu: 19.4)$
Ω_m	$0.313^{+0.017}_{-0.016}$	$100\theta_{\text{eq}}$	$0.827^{+0.051}_{-0.017}$	χ_{BAO}^2	$6.7 (\nu: 1.3)$
$\Omega_m h^2$	$0.1440^{+0.0067}_{-0.0033}$	$100\theta_{s,\text{eq}}$	$0.456^{+0.027}_{-0.0090}$		
$\Omega_\nu h^2$	$0.0028^{+0.0089}_{-0.0022}$	$H(0.15)$	$73.1^{+2.6}_{-1.1}$		

$$\bar{\chi}_{\text{eff}}^2 = 2809.40; \Delta\bar{\chi}_{\text{eff}}^2 = 2.68; R - 1 = 0.02345$$

8.24 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02250^{+0.00041}_{-0.00038}$	$\Omega_m h^3$	$0.0978^{+0.0074}_{-0.0022}$	$D_M(0.15)$	638^{+11}_{-22}
$\Omega_c h^2$	$0.1188^{+0.0079}_{-0.0099}$	σ_8	$0.795^{+0.035}_{-0.060}$	$H(0.38)$	$83.4^{+2.6}_{-0.92}$
$100\theta_{MC}$	$1.04091^{+0.00075}_{-0.00091}$	S_8	$0.811^{+0.037}_{-0.061}$	$D_M(0.38)$	1522^{+22}_{-49}
τ	$0.058^{+0.020}_{-0.015}$	$\sigma_8 \Omega_m^{0.5}$	$0.444^{+0.020}_{-0.033}$	$H(0.51)$	$90.2^{+2.2}_{-0.95}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.884	$\sigma_8 \Omega_m^{0.25}$	$0.594^{+0.026}_{-0.045}$	$D_M(0.51)$	1972^{+27}_{-63}
N_{eff}	< 3.46	$\sigma_8/h^{0.5}$	$0.965^{+0.037}_{-0.071}$	$H(0.61)$	$95.8^{+2.2}_{-0.89}$
$\ln(10^{10} A_s)$	$3.053^{+0.042}_{-0.032}$	$r_{\text{drag}} h$	$99.5^{+2.0}_{-1.9}$	$D_M(0.61)$	2294^{+30}_{-72}
n_s	$0.969^{+0.017}_{-0.011}$	$\langle d^2 \rangle^{1/2}$	$2.435^{+0.054}_{-0.052}$	$H(2.33)$	$237.4^{+5.8}_{-2.4}$
y_{cal}	$1.0009^{+0.0064}_{-0.0060}$	z_{re}	< 9.82	$D_M(2.33)$	5732^{+48}_{-130}
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.117^{+0.091}_{-0.068}$	$f\sigma_8(0.15)$	$0.449^{+0.020}_{-0.034}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.886^{+0.034}_{-0.028}$	$\sigma_8(0.15)$	$0.735^{+0.033}_{-0.056}$
A_{143}^{tSZ}	—	D_{40}	1226^{+32}_{-32}	$f\sigma_8(0.38)$	$0.467^{+0.020}_{-0.035}$
A_{100}^{PS}	259^{+70}_{-70}	D_{220}	5741^{+98}_{-92}	$\sigma_8(0.38)$	$0.651^{+0.030}_{-0.050}$
A_{143}^{PS}	47^{+20}_{-20}	D_{810}	2542^{+35}_{-32}	$f\sigma_8(0.51)$	$0.465^{+0.020}_{-0.035}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	D_{1420}	818^{+12}_{-12}	$\sigma_8(0.51)$	$0.609^{+0.029}_{-0.047}$
A_{217}^{PS}	115^{+20}_{-30}	D_{2000}	$230.7^{+3.9}_{-4.1}$	$f\sigma_8(0.61)$	$0.460^{+0.020}_{-0.035}$
A^{kSZ}	—	$n_{s,0.002}$	$0.969^{+0.017}_{-0.011}$	$\sigma_8(0.61)$	$0.580^{+0.027}_{-0.044}$
A_{100}^{dustTT}	$9.0^{+5.0}_{-4.7}$	Y_P	$0.2465^{+0.0052}_{-0.0013}$	$f\sigma_8(2.33)$	$0.293^{+0.014}_{-0.023}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.6}$	Y_P^{BBN}	$0.2479^{+0.0052}_{-0.0013}$	$\sigma_8(2.33)$	$0.301^{+0.015}_{-0.023}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.7^{+8.2}_{-8.6}$	$10^5 D/H$	$2.59^{+0.10}_{-0.069}$	f_{2000}^{143}	30^{+7}_{-7}
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.72^{+0.11}_{-0.31}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
A_{100}^{dustTE}	$0.114^{+0.10}_{-0.095}$	z_*	$1089.89^{+0.74}_{-0.59}$	f_{2000}^{217}	$107.4^{+4.8}_{-4.7}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.076}_{-0.076}$	r_*	$143.8^{+1.1}_{-3.6}$	χ_{lensing}^2	$9.16 (\nu: 0.3)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	$1.04104^{+0.00078}_{-0.0011}$	χ_{small}^2	$262 (\nu: 16204.5)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.13}$	$D_M(z_*)/\text{Gpc}$	$13.82^{+0.11}_{-0.34}$	χ_{lowl}^2	$158 (\nu: 16195.0)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.22}$	z_{drag}	$1060.3^{+1.5}_{-0.91}$	χ_{plik}^2	$2361.4 (\nu: 18.3)$
A_{217}^{dustTE}	$2.08^{+0.68}_{-0.68}$	r_{drag}	$146.4^{+1.2}_{-3.8}$	χ_{JLA}^2	$1035.16 (\nu: 0.1)$
c_{100}	$0.9997^{+0.0016}_{-0.0015}$	k_D	$0.1414^{+0.0029}_{-0.0011}$	$\chi_{6\text{DF}}^2$	$0.47 (\nu: 0.2)$
c_{217}	$0.9982^{+0.0015}_{-0.0016}$	$100\theta_D$	$0.16083^{+0.00089}_{-0.00052}$	χ_{MGS}^2	$0.76 (\nu: 0.2)$
H_0	$67.9^{+2.4}_{-1.2}$	z_{eq}	3340^{+92}_{-200}	χ_{DR12BAO}^2	$5.2 (\nu: 1.3)$
Ω_Λ	$0.688^{+0.016}_{-0.016}$	k_{eq}	$0.01028^{+0.00032}_{-0.00055}$	χ_{prior}^2	$11.7 (\nu: 10.3)$
Ω_m	$0.312^{+0.016}_{-0.016}$	$100\theta_{\text{eq}}$	$0.826^{+0.044}_{-0.019}$	χ_{CMB}^2	$2791.1 (\nu: 18.9)$
$\Omega_m h^2$	$0.1439^{+0.0070}_{-0.0032}$	$100\theta_{s,\text{eq}}$	$0.456^{+0.023}_{-0.0097}$	χ_{BAO}^2	$6.4 (\nu: 0.9)$
$\Omega_\nu h^2$	$0.0026^{+0.0091}_{-0.0021}$	$H(0.15)$	$73.2^{+2.5}_{-1.1}$		

$$\bar{\chi}_{\text{eff}}^2 = 3844.37; \Delta \bar{\chi}_{\text{eff}}^2 = 2.63; R - 1 = 0.02468$$

9 nnu+mnu

9.1 base_nnu_mnu_plikHM_TT_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02201	$0.02193^{+0.00090}_{-0.0010}$	S_8	0.846	$0.836^{+0.068}_{-0.069}$	$100\theta_{s,eq}$	0.4461	$0.446^{+0.018}_{-0.017}$
$\Omega_c h^2$	0.1184	$0.120^{+0.011}_{-0.010}$	$\sigma_8 \Omega_m^{0.5}$	0.4633	$0.458^{+0.037}_{-0.038}$	$H(0.15)$	71.5	$70.1^{+7.5}_{-10}$
$100\theta_{MC}$	1.04105	$1.0408^{+0.0016}_{-0.0015}$	$\sigma_8 \Omega_m^{0.25}$	0.616	$0.597^{+0.044}_{-0.083}$	$D_M(0.15)$	655	672^{+100}_{-70}
τ	0.0504	$0.051^{+0.024}_{-0.023}$	$\sigma_8/h^{0.5}$	1.006	$0.969^{+0.066}_{-0.15}$	$H(0.38)$	81.6	$80.7^{+6.9}_{-8.4}$
Σm_ν [eV]	0.00	< 1.09	$r_{drag} h$	98.5	$95.5^{+8.4}_{-15}$	$D_M(0.38)$	1559	1592^{+300}_{-200}
N_{eff}	2.87	$2.93^{+0.78}_{-0.75}$	$\langle d^2 \rangle^{1/2}$	2.471	$2.46^{+0.13}_{-0.12}$	$H(0.51)$	88.4	$87.7^{+6.6}_{-7.6}$
$\ln(10^{10} A_s)$	3.031	$3.035^{+0.058}_{-0.057}$	z_{re}	7.30	$7.4^{+2.3}_{-2.6}$	$D_M(0.51)$	2018	2056^{+300}_{-200}
n_s	0.9573	$0.956^{+0.036}_{-0.041}$	$10^9 A_s$	2.071	$2.08^{+0.12}_{-0.12}$	$H(0.61)$	94.0	$93.5^{+6.5}_{-7.1}$
y_{cal}	1.0001	$1.0005^{+0.0065}_{-0.0065}$	$10^9 A_s e^{-2\tau}$	1.873	$1.878^{+0.057}_{-0.061}$	$D_M(0.61)$	2347	2388^{+300}_{-200}
A_{217}^{CIB}	46.7	48^{+20}_{-20}	D_{40}	1238	1240^{+62}_{-58}	$H(2.33)$	234.2	$236.5^{+9.8}_{-9.6}$
$\xi^{tSZ \times CIB}$	0.58	—	D_{220}	5704	5710^{+110}_{-110}	$D_M(2.33)$	5839	5869^{+450}_{-360}
A_{143}^{tSZ}	6.9	—	D_{810}	2534.3	2536^{+37}_{-36}	$f\sigma_8(0.15)$	0.4663	$0.460^{+0.034}_{-0.039}$
A_{100}^{PS}	249	263^{+70}_{-70}	D_{1420}	816.0	815^{+13}_{-13}	$\sigma_8(0.15)$	0.755	$0.716^{+0.067}_{-0.17}$
A_{143}^{PS}	50.6	49^{+20}_{-20}	D_{2000}	230.9	$229.6^{+6.1}_{-6.0}$	$f\sigma_8(0.38)$	0.4825	$0.470^{+0.032}_{-0.063}$
$A_{143 \times 217}^{PS}$	51.9	44^{+20}_{-20}	$n_{s,0.002}$	0.9573	$0.956^{+0.036}_{-0.041}$	$\sigma_8(0.38)$	0.668	$0.632^{+0.070}_{-0.15}$
A_{217}^{PS}	121.0	115^{+30}_{-30}	Y_P	0.2429	$0.244^{+0.010}_{-0.011}$	$f\sigma_8(0.51)$	0.480	$0.465^{+0.032}_{-0.074}$
A^{kSZ}	0.0	—	Y_P^{BBN}	0.2442	$0.245^{+0.010}_{-0.011}$	$\sigma_8(0.51)$	0.624	$0.590^{+0.061}_{-0.15}$
A_{100}^{dustTT}	8.76	$8.9^{+4.7}_{-4.7}$	$10^5 D/H$	2.594	$2.63^{+0.19}_{-0.18}$	$f\sigma_8(0.61)$	0.474	$0.458^{+0.033}_{-0.081}$
A_{143}^{dustTT}	10.72	$10.7^{+4.6}_{-4.6}$	Age/Gyr	13.98	$14.0^{+1.1}_{-0.85}$	$\sigma_8(0.61)$	0.594	$0.561^{+0.059}_{-0.15}$
$A_{143 \times 217}^{dustTT}$	19.6	$18.3^{+8.4}_{-8.5}$	z_*	1090.06	$1090.4^{+1.6}_{-1.4}$	$f\sigma_8(2.33)$	0.298	$0.283^{+0.030}_{-0.072}$
A_{217}^{dustTT}	95.0	93^{+20}_{-20}	r_*	146.0	$145.4^{+7.0}_{-6.5}$	$\sigma_8(2.33)$	0.307	$0.290^{+0.034}_{-0.080}$
c_{100}	0.99963	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	1.04134	$1.0411^{+0.0020}_{-0.0018}$	f_{2000}^{143}	28.9	31^{+9}_{-9}
c_{217}	0.99824	$0.9982^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	14.02	$13.96^{+0.65}_{-0.61}$	$f_{2000}^{143 \times 217}$	32.2	34^{+7}_{-7}
H_0	66.2	64^{+8}_{-10}	z_{drag}	1058.83	$1058.8^{+3.0}_{-3.2}$	f_{2000}^{217}	106.5	$108.2^{+6.3}_{-6.2}$
Ω_Λ	0.679	$0.650^{+0.071}_{-0.18}$	r_{drag}	148.8	$148.2^{+7.4}_{-6.8}$	χ_{simall}^2	395.70	$396.9 (\nu: 1.5)$
Ω_m	0.321	$0.350^{+0.18}_{-0.071}$	k_D	0.1395	$0.1399^{+0.0050}_{-0.0050}$	χ_{lowl}^2	24.6	$24.9 (\nu: 3.3)$
$\Omega_m h^2$	0.1404	$0.144^{+0.013}_{-0.011}$	$100\theta_D$	0.16067	$0.1609^{+0.0018}_{-0.0017}$	χ_{plik}^2	757.2	$772.7 (\nu: 18.4)$
$\Omega_\nu h^2$	0.0000	< 0.0105	z_{eq}	3435	3442^{+190}_{-180}	χ_{prior}^2	1.3	$7.3 (\nu: 6.6)$
$\Omega_m h^3$	0.0929	$0.093^{+0.016}_{-0.016}$	k_{eq}	0.010361	$0.01042^{+0.00045}_{-0.00042}$	χ_{CMB}^2	1177.4	$1194.5 (\nu: 18.4)$
σ_8	0.818	$0.778^{+0.069}_{-0.17}$	$100\theta_{eq}$	0.8064	$0.805^{+0.035}_{-0.034}$			

Best-fit $\chi_{eff}^2 = 1178.71$; $\Delta\chi_{eff}^2 = -0.87$; $\bar{\chi}_{eff}^2 = 1201.83$; $\Delta\bar{\chi}_{eff}^2 = 2.25$; $R - 1 = 0.00661$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.70 (Δ -0.18) commander_dx12_v3_2_29: 24.55 (Δ 0.95) plik_rd12_HM_v22_TT: 757.19 (Δ -1.56)

9.2 base_nnu_mnu_plikHM_TT_lowl_lowE_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02208	$0.02190^{+0.00087}_{-0.00095}$	S_8	0.8336	$0.839^{+0.045}_{-0.044}$	$100\theta_{s,eq}$	0.4479	$0.445^{+0.015}_{-0.016}$
$\Omega_c h^2$	0.1171	$0.119^{+0.011}_{-0.0097}$	$\sigma_8 \Omega_m^{0.5}$	0.4566	$0.460^{+0.024}_{-0.024}$	$H(0.15)$	71.7	$69.8^{+6.8}_{-8.5}$
$100\theta_{MC}$	1.04119	$1.0408^{+0.0016}_{-0.0015}$	$\sigma_8 \Omega_m^{0.25}$	0.6093	$0.599^{+0.029}_{-0.047}$	$D_M(0.15)$	652	674^{+100}_{-70}
τ	0.0507	$0.051^{+0.023}_{-0.022}$	$\sigma_8/h^{0.5}$	0.998	$0.973^{+0.043}_{-0.084}$	$H(0.38)$	81.7	$80.4^{+6.3}_{-7.2}$
Σm_ν [eV]	0.001	< 0.775	$r_{drag} h$	99.2	$95.5^{+7.6}_{-12}$	$D_M(0.38)$	1554	1597^{+200}_{-100}
N_{eff}	2.85	$2.88^{+0.74}_{-0.69}$	$\langle d^2 \rangle^{1/2}$	2.456	$2.47^{+0.11}_{-0.088}$	$H(0.51)$	88.4	$87.4^{+6.1}_{-6.6}$
$\ln(10^{10} A_s)$	3.028	$3.034^{+0.057}_{-0.056}$	z_{re}	7.29	$7.4^{+2.3}_{-2.4}$	$D_M(0.51)$	2013	2062^{+300}_{-200}
n_s	0.9580	$0.954^{+0.034}_{-0.037}$	$10^9 A_s$	2.066	$2.08^{+0.12}_{-0.11}$	$H(0.61)$	94.0	$93.2^{+6.0}_{-6.3}$
y_{cal}	1.0001	$1.0005^{+0.0065}_{-0.0064}$	$10^9 A_s e^{-2\tau}$	1.866	$1.875^{+0.056}_{-0.059}$	$D_M(0.61)$	2342	2395^{+300}_{-200}
A_{217}^{CIB}	47.1	47^{+20}_{-20}	D_{40}	1236	1245^{+54}_{-52}	$H(2.33)$	233.4	$235.8^{+9.9}_{-9.3}$
$\xi^{tSZ \times CIB}$	0.47	—	D_{220}	5713	5711^{+110}_{-110}	$D_M(2.33)$	5842	5887^{+400}_{-340}
A_{143}^{tSZ}	7.0	—	D_{810}	2532.6	2536^{+37}_{-36}	$f\sigma_8(0.15)$	0.4601	$0.462^{+0.021}_{-0.021}$
A_{100}^{PS}	250	261^{+70}_{-70}	D_{1420}	816.3	815^{+14}_{-13}	$\sigma_8(0.15)$	0.751	$0.718^{+0.060}_{-0.11}$
A_{143}^{PS}	48.0	48^{+20}_{-20}	D_{2000}	231.2	$230.0^{+6.0}_{-5.9}$	$f\sigma_8(0.38)$	0.4775	$0.472^{+0.021}_{-0.034}$
$A_{143 \times 217}^{PS}$	48.4	44^{+20}_{-20}	$n_{s,0.002}$	0.9580	$0.954^{+0.034}_{-0.037}$	$\sigma_8(0.38)$	0.665	$0.633^{+0.058}_{-0.11}$
A_{217}^{PS}	119.5	115^{+30}_{-30}	Y_P	0.2426	$0.243^{+0.010}_{-0.010}$	$f\sigma_8(0.51)$	0.4755	$0.467^{+0.023}_{-0.043}$
A^{kSZ}	0.0	—	Y_P^{BBN}	0.2439	$0.244^{+0.010}_{-0.010}$	$\sigma_8(0.51)$	0.622	$0.592^{+0.056}_{-0.10}$
A_{100}^{dustTT}	8.86	$8.9^{+4.7}_{-4.7}$	$10^5 D/H$	2.571	$2.62^{+0.19}_{-0.18}$	$f\sigma_8(0.61)$	0.4702	$0.460^{+0.025}_{-0.049}$
A_{143}^{dustTT}	10.81	$10.7^{+4.7}_{-4.7}$	Age/Gyr	13.99	$14.09^{+0.95}_{-0.80}$	$\sigma_8(0.61)$	0.592	$0.562^{+0.055}_{-0.10}$
$A_{143 \times 217}^{dustTT}$	19.5	$18.2^{+8.4}_{-8.5}$	z_*	1089.83	$1090.3^{+1.5}_{-1.3}$	$f\sigma_8(2.33)$	0.2973	$0.284^{+0.027}_{-0.050}$
A_{217}^{dustTT}	95.0	93^{+20}_{-20}	r_*	146.4	$145.8^{+6.6}_{-6.5}$	$\sigma_8(2.33)$	0.3068	$0.291^{+0.031}_{-0.057}$
c_{100}	0.99964	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	1.04150	$1.0412^{+0.0019}_{-0.0018}$	f_{2000}^{143}	28.6	31^{+9}_{-9}
c_{217}	0.99824	$0.9982^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	14.06	$14.01^{+0.61}_{-0.60}$	$f_{2000}^{143 \times 217}$	31.9	33^{+7}_{-7}
H_0	66.4	64^{+7}_{-9}	z_{drag}	1058.90	$1058.7^{+2.9}_{-3.0}$	f_{2000}^{217}	106.4	$107.8^{+6.3}_{-6.3}$
Ω_Λ	0.685	$0.651^{+0.064}_{-0.14}$	r_{drag}	149.2	$148.7^{+7.0}_{-6.7}$	$\chi^2_{lensing}$	8.74	$9.2 (\nu: 0.6)$
Ω_m	0.315	$0.349^{+0.14}_{-0.064}$	k_D	0.13919	$0.1395^{+0.0049}_{-0.0047}$	χ^2_{small}	395.68	$396.9 (\nu: 1.4)$
$\Omega_m h^2$	0.1392	$0.143^{+0.013}_{-0.011}$	$100\theta_D$	0.16054	$0.1608^{+0.0017}_{-0.0017}$	χ^2_{lowl}	24.3	$25.3 (\nu: 3.0)$
$\Omega_\nu h^2$	0.00001	< 0.00752	z_{eq}	3416	3450^{+190}_{-160}	χ^2_{plik}	757.7	$771.6 (\nu: 15.5)$
$\Omega_m h^3$	0.0925	$0.092^{+0.015}_{-0.014}$	k_{eq}	0.010286	$0.01041^{+0.00045}_{-0.00038}$	χ^2_{prior}	1.4	$7.3 (\nu: 6.6)$
σ_8	0.813	$0.780^{+0.060}_{-0.11}$	$100\theta_{eq}$	0.8101	$0.804^{+0.031}_{-0.033}$	χ^2_{CMB}	1186.4	$1203.1 (\nu: 17.3)$

Best-fit $\chi^2_{eff} = 1187.75$; $\Delta\chi^2_{eff} = -0.82$; $\bar{\chi}^2_{eff} = 1210.35$; $\Delta\bar{\chi}^2_{eff} = 1.93$; $R - 1 = 0.00978$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.74 (Δ -0.16) small_100x143_offlike5_EE_Aplanck_B: 395.68 (Δ -0.18) commander_dx12_v3_2_29: 24.31 (Δ 1.07) plik_rd12_HM_v22_TT: 757.67 (Δ -1.65)

9.3 base_nnu_mnu_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_{\text{b}}h^2$	0.02224	$0.02222^{+0.00057}_{-0.00059}$	$\Omega_{\text{m}}h^2$	0.1394	$0.1416^{+0.0092}_{-0.0079}$	k_{eq}	0.010299	$0.01035^{+0.00033}_{-0.00030}$
$\Omega_{\text{c}}h^2$	0.1171	$0.1183^{+0.0082}_{-0.0074}$	$\Omega_{\nu}h^2$	0.00000	< 0.00482	$100\theta_{\text{eq}}$	0.8100	$0.809^{+0.018}_{-0.017}$
$100\theta_{\text{MC}}$	1.04128	$1.0411^{+0.0011}_{-0.0011}$	$\Omega_{\text{m}}h^3$	0.0928	$0.0934^{+0.011}_{-0.0096}$	$100\theta_{\text{s,eq}}$	0.4477	$0.4475^{+0.0092}_{-0.0088}$
τ	0.0540	$0.054^{+0.022}_{-0.020}$	σ_8	0.817	$0.799^{+0.043}_{-0.10}$	$H(0.15)$	71.87	$71.3^{+4.2}_{-5.3}$
$\Sigma m_{\nu} [\text{eV}]$	0.000	< 0.479	S_8	0.8355	$0.832^{+0.043}_{-0.047}$	$D_{\text{M}}(0.15)$	650.5	657^{+58}_{-39}
N_{eff}	2.852	$2.91^{+0.51}_{-0.47}$	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4576	$0.456^{+0.023}_{-0.026}$	$H(0.38)$	81.91	$81.6^{+4.1}_{-4.6}$
$\ln(10^{10}A_{\text{s}})$	3.0369	$3.038^{+0.049}_{-0.047}$	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6113	$0.603^{+0.028}_{-0.052}$	$D_{\text{M}}(0.38)$	1551	1562^{+120}_{-86}
n_{s}	0.9593	$0.959^{+0.022}_{-0.022}$	$\sigma_8/h^{0.5}$	1.001	$0.983^{+0.041}_{-0.090}$	$H(0.51)$	88.57	$88.4^{+4.1}_{-4.3}$
y_{cal}	1.0006	$1.0006^{+0.0065}_{-0.0064}$	$r_{\text{drag}}h$	99.3	$97.9^{+4.2}_{-7.4}$	$D_{\text{M}}(0.51)$	2009	2022^{+150}_{-110}
A_{217}^{CIB}	43.8	46^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.463	$2.454^{+0.079}_{-0.079}$	$H(0.61)$	94.15	$94.1^{+4.1}_{-4.1}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.88	—	z_{re}	7.60	$7.6^{+2.1}_{-2.2}$	$D_{\text{M}}(0.61)$	2337	2351^{+160}_{-120}
A_{143}^{tSZ}	6.91	> 0.982	$10^9 A_{\text{s}}$	2.084	$2.09^{+0.10}_{-0.096}$	$H(2.33)$	233.6	$235.0^{+7.3}_{-6.7}$
A_{100}^{PS}	244	256^{+70}_{-70}	$10^9 A_{\text{s}}e^{-2\tau}$	1.8708	$1.874^{+0.045}_{-0.047}$	$D_{\text{M}}(2.33)$	5833	5835^{+250}_{-230}
A_{143}^{PS}	50.8	45^{+20}_{-20}	D_{40}	1238.0	1239^{+41}_{-40}	$f\sigma_8(0.15)$	0.4613	$0.459^{+0.022}_{-0.026}$
$A_{143 \times 217}^{\text{PS}}$	56.5	42^{+20}_{-20}	D_{220}	5733	5732^{+100}_{-98}	$\sigma_8(0.15)$	0.754	$0.737^{+0.041}_{-0.097}$
A_{217}^{PS}	123.6	115^{+30}_{-30}	D_{810}	2539.2	2538^{+36}_{-36}	$f\sigma_8(0.38)$	0.4790	$0.474^{+0.021}_{-0.036}$
A^{kSZ}	0.0	—	D_{1420}	819.6	818^{+13}_{-13}	$\sigma_8(0.38)$	0.668	$0.652^{+0.038}_{-0.091}$
A_{100}^{dustTT}	8.70	$8.9^{+4.7}_{-4.8}$	D_{2000}	232.57	$231.5^{+4.8}_{-4.9}$	$f\sigma_8(0.51)$	0.4772	$0.472^{+0.021}_{-0.041}$
A_{143}^{dustTT}	10.91	$10.8^{+4.6}_{-4.6}$	$n_{\text{s},0.002}$	0.9593	$0.959^{+0.022}_{-0.022}$	$\sigma_8(0.51)$	0.625	$0.609^{+0.036}_{-0.087}$
$A_{143 \times 217}^{\text{dustTT}}$	20.1	$18.5^{+8.4}_{-8.5}$	Y_{P}	0.2427	$0.2434^{+0.0070}_{-0.0068}$	$f\sigma_8(0.61)$	0.4719	$0.466^{+0.021}_{-0.044}$
A_{217}^{dustTT}	95.9	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.2440	$0.2447^{+0.0071}_{-0.0068}$	$\sigma_8(0.61)$	0.595	$0.580^{+0.035}_{-0.084}$
A_{100}^{dustTE}	0.113	$0.115^{+0.098}_{-0.095}$	10^5D/H	2.542	$2.56^{+0.12}_{-0.11}$	$f\sigma_8(2.33)$	0.2987	$0.292^{+0.017}_{-0.040}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.135^{+0.075}_{-0.076}$	Age/Gyr	13.96	$13.97^{+0.59}_{-0.55}$	$\sigma_8(2.33)$	0.3083	$0.300^{+0.019}_{-0.045}$
$A_{100 \times 217}^{\text{dustTE}}$	0.482	$0.48^{+0.22}_{-0.22}$	z_*	1089.63	$1089.82^{+0.97}_{-0.90}$	f_{2000}^{143}	27.0	29^{+8}_{-8}
A_{143}^{dustTE}	0.226	$0.22^{+0.14}_{-0.14}$	r_*	146.28	$145.7^{+4.7}_{-4.8}$	$f_{2000}^{143 \times 217}$	30.7	32^{+6}_{-5}
$A_{143 \times 217}^{\text{dustTE}}$	0.665	$0.67^{+0.21}_{-0.21}$	$100\theta_*$	1.04157	$1.0414^{+0.0014}_{-0.0014}$	f_{2000}^{217}	105.4	$106.5^{+5.2}_{-5.0}$
A_{217}^{dustTE}	2.07	$2.09^{+0.69}_{-0.69}$	$D_{\text{M}}(z_*)/\text{Gpc}$	14.044	$13.99^{+0.44}_{-0.45}$	χ_{simall}^2	396.02	$397.1 (\nu: 1.7)$
c_{100}	0.99975	$0.9997^{+0.0016}_{-0.0016}$	z_{drag}	1059.28	$1059.4^{+2.0}_{-2.1}$	χ_{lowl}^2	24.29	$24.4 (\nu: 1.1)$
c_{217}	0.99817	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	149.01	$148.4^{+4.9}_{-5.0}$	χ_{plik}^2	2342.0	$2360.0 (\nu: 20.3)$
H_0	66.6	$66.0^{+4.3}_{-5.9}$	k_{D}	0.13952	$0.1399^{+0.0037}_{-0.0035}$	χ_{prior}^2	1.4	$11.6 (\nu: 10.0)$
Ω_{Λ}	0.686	$0.674^{+0.034}_{-0.070}$	$100\theta_{\text{D}}$	0.16033	$0.1605^{+0.0011}_{-0.0010}$	χ_{CMB}^2	2762.3	$2781.4 (\nu: 20.2)$
Ω_{m}	0.314	$0.326^{+0.070}_{-0.034}$	z_{eq}	3419	3423^{+94}_{-95}			

Best-fit $\chi_{\text{eff}}^2 = 2763.73$; $\Delta\chi_{\text{eff}}^2 = -2.04$; $\bar{\chi}_{\text{eff}}^2 = 2792.98$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.21$; $R - 1 = 0.00589$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.02 (Δ -0.03) commander_dx12.v3.2.29: 24.29 (Δ 1.03) plik_rd12_HM.v22b_TTTEEE: 2341.98 (Δ -2.66)

9.4 base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_{\text{b}}h^2$	0.02224	$0.02221^{+0.00056}_{-0.00058}$	$\Omega_{\text{m}}h^2$	0.1386	$0.1411^{+0.0091}_{-0.0077}$	k_{eq}	0.010263	$0.01033^{+0.00030}_{-0.00028}$
$\Omega_{\text{c}}h^2$	0.1163	$0.1179^{+0.0079}_{-0.0072}$	$\Omega_{\nu}h^2$	0.00000	< 0.00400	$100\theta_{\text{eq}}$	0.8107	$0.809^{+0.017}_{-0.017}$
$100\theta_{\text{MC}}$	1.04134	$1.0412^{+0.0011}_{-0.0011}$	$\Omega_{\text{m}}h^3$	0.0922	$0.0930^{+0.010}_{-0.0095}$	$100\theta_{\text{s,eq}}$	0.4481	$0.4474^{+0.0086}_{-0.0087}$
τ	0.0528	$0.054^{+0.021}_{-0.020}$	σ_8	0.813	$0.798^{+0.037}_{-0.068}$	$H(0.15)$	71.76	$71.2^{+4.1}_{-4.6}$
$\Sigma m_{\nu} [\text{eV}]$	0.000	< 0.393	S_8	0.8303	$0.831^{+0.033}_{-0.033}$	$D_{\text{M}}(0.15)$	651.4	658^{+49}_{-38}
N_{eff}	2.820	$2.88^{+0.50}_{-0.47}$	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4548	$0.455^{+0.018}_{-0.018}$	$H(0.38)$	81.76	$81.5^{+4.0}_{-4.2}$
$\ln(10^{10}A_{\text{s}})$	3.0318	$3.037^{+0.045}_{-0.045}$	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6080	$0.603^{+0.022}_{-0.031}$	$D_{\text{M}}(0.38)$	1553	1565^{+100}_{-84}
n_{s}	0.9587	$0.958^{+0.022}_{-0.022}$	$\sigma_8/h^{0.5}$	0.9965	$0.983^{+0.031}_{-0.054}$	$H(0.51)$	88.40	$88.3^{+3.9}_{-4.0}$
y_{cal}	1.0004	$1.0006^{+0.0067}_{-0.0063}$	$r_{\text{drag}}h$	99.4	$97.9^{+4.0}_{-6.3}$	$D_{\text{M}}(0.51)$	2012	2025^{+130}_{-100}
A_{217}^{CIB}	43.8	46^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.456	$2.454^{+0.062}_{-0.062}$	$H(0.61)$	93.95	$93.9^{+3.9}_{-3.9}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.92	—	z_{re}	7.46	$7.6^{+2.0}_{-2.1}$	$D_{\text{M}}(0.61)$	2341	2354^{+140}_{-120}
A_{143}^{tSZ}	7.00	> 0.998	$10^9 A_{\text{s}}$	2.073	$2.084^{+0.096}_{-0.091}$	$H(2.33)$	232.9	$234.6^{+7.2}_{-6.5}$
A_{100}^{PS}	243	255^{+70}_{-70}	$10^9 A_{\text{s}} e^{-2\tau}$	1.8658	$1.872^{+0.044}_{-0.045}$	$D_{\text{M}}(2.33)$	5846	5845^{+240}_{-230}
A_{143}^{PS}	51.1	45^{+20}_{-20}	D_{40}	1237.0	1240^{+40}_{-38}	$f\sigma_8(0.15)$	0.4585	$0.459^{+0.017}_{-0.017}$
$A_{143 \times 217}^{\text{PS}}$	57.4	42^{+20}_{-20}	D_{220}	5731	5734^{+100}_{-98}	$\sigma_8(0.15)$	0.751	$0.736^{+0.036}_{-0.066}$
A_{217}^{PS}	123.5	115^{+30}_{-30}	D_{810}	2537.0	2538^{+37}_{-35}	$f\sigma_8(0.38)$	0.4763	$0.474^{+0.016}_{-0.021}$
A^{kSZ}	0.0	—	D_{1420}	819.4	818^{+13}_{-12}	$\sigma_8(0.38)$	0.6652	$0.651^{+0.035}_{-0.063}$
A_{100}^{dustTT}	8.72	$8.8^{+4.8}_{-4.8}$	D_{2000}	232.61	$231.6^{+4.7}_{-4.7}$	$f\sigma_8(0.51)$	0.4747	$0.471^{+0.016}_{-0.025}$
A_{143}^{dustTT}	10.93	$10.8^{+4.6}_{-4.6}$	$n_{\text{s},0.002}$	0.9587	$0.958^{+0.022}_{-0.022}$	$\sigma_8(0.51)$	0.6223	$0.609^{+0.033}_{-0.060}$
$A_{143 \times 217}^{\text{dustTT}}$	20.2	$18.5^{+8.3}_{-8.5}$	Y_{P}	0.2423	$0.2431^{+0.0069}_{-0.0069}$	$f\sigma_8(0.61)$	0.4695	$0.465^{+0.017}_{-0.028}$
A_{217}^{dustTT}	95.8	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.2436	$0.2444^{+0.0069}_{-0.0069}$	$\sigma_8(0.61)$	0.5920	$0.579^{+0.032}_{-0.059}$
A_{100}^{dustTE}	0.114	$0.115^{+0.10}_{-0.094}$	$10^5 \text{D}/\text{H}$	2.532	$2.56^{+0.12}_{-0.11}$	$f\sigma_8(2.33)$	0.2975	$0.292^{+0.016}_{-0.028}$
$A_{100 \times 143}^{\text{dustTE}}$	0.134	$0.135^{+0.074}_{-0.075}$	Age/Gyr	13.99	$13.99^{+0.56}_{-0.53}$	$\sigma_8(2.33)$	0.3071	$0.300^{+0.018}_{-0.032}$
$A_{100 \times 217}^{\text{dustTE}}$	0.482	$0.48^{+0.21}_{-0.22}$	z_*	1089.54	$1089.77^{+0.95}_{-0.85}$	f_{2000}^{143}	26.9	29^{+8}_{-8}
A_{143}^{dustTE}	0.226	$0.23^{+0.14}_{-0.14}$	r_*	146.67	$146.0^{+4.7}_{-4.7}$	$f_{2000}^{143 \times 217}$	30.7	31^{+6}_{-5}
$A_{143 \times 217}^{\text{dustTE}}$	0.665	$0.67^{+0.21}_{-0.20}$	$100\theta_*$	1.04166	$1.0415^{+0.0014}_{-0.0014}$	f_{2000}^{217}	105.2	$106.4^{+5.2}_{-5.0}$
A_{217}^{dustTE}	2.07	$2.09^{+0.69}_{-0.70}$	$D_{\text{M}}(z_*)/\text{Gpc}$	14.080	$14.02^{+0.44}_{-0.43}$	χ_{lensing}^2	8.66	$9.09 (\nu: 0.3)$
c_{100}	0.99975	$0.9997^{+0.0016}_{-0.0016}$	z_{drag}	1059.17	$1059.3^{+2.0}_{-2.1}$	χ_{simall}^2	395.84	$397.0 (\nu: 1.5)$
c_{217}	0.99816	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	149.40	$148.7^{+4.9}_{-4.8}$	χ_{lowl}^2	24.25	$24.5 (\nu: 1.1)$
H_0	66.54	$65.9^{+4.2}_{-5.0}$	k_{D}	0.13923	$0.1397^{+0.0036}_{-0.0034}$	χ_{plik}^2	2342.4	$2359.4 (\nu: 18.1)$
Ω_{Λ}	0.6870	$0.674^{+0.032}_{-0.058}$	$100\theta_{\text{D}}$	0.16026	$0.1605^{+0.0011}_{-0.0010}$	χ_{prior}^2	1.4	$11.5 (\nu: 9.8)$
Ω_{m}	0.3130	$0.326^{+0.058}_{-0.032}$	z_{eq}	3415	3423^{+92}_{-88}	χ_{CMB}^2	2771.2	$2790.0 (\nu: 19.4)$

Best-fit $\chi_{\text{eff}}^2 = 2772.59$; $\Delta\chi_{\text{eff}}^2 = -2.04$; $\bar{\chi}_{\text{eff}}^2 = 2801.54$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.85$; $R - 1 = 0.00830$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.66 (Δ -0.21) simall.100x143_offlike5_EE_Aplanck_B: 395.84 (Δ -0.21) commander_dx12_v3.2.29: 24.25 (Δ 1.00) plik_rd12_HM_v22b_TTTEEE: 2342.41 (Δ -2.52)

9.5 base_nnu_mnu_plikHM_TT_lowl_lowE_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02218	$0.02226^{+0.00061}_{-0.00062}$	$\sigma_8 \Omega_m^{0.5}$	0.4562	$0.451^{+0.025}_{-0.028}$	$D_M(0.15)$	639.9	636^{+35}_{-33}
$\Omega_c h^2$	0.1194	$0.120^{+0.010}_{-0.010}$	$\sigma_8 \Omega_m^{0.25}$	0.6122	$0.605^{+0.030}_{-0.037}$	$H(0.38)$	83.07	$83.6^{+4.0}_{-3.9}$
$100\theta_{MC}$	1.04094	$1.0408^{+0.0015}_{-0.0014}$	$\sigma_8/h^{0.5}$	0.9980	$0.983^{+0.040}_{-0.058}$	$D_M(0.38)$	1527	1519^{+79}_{-75}
τ	0.0529	$0.054^{+0.023}_{-0.021}$	$r_{drag} h$	99.99	$99.96^{+2.8}_{-2.7}$	$H(0.51)$	89.75	$90.3^{+4.1}_{-4.1}$
Σm_ν [eV]	0.001	< 0.242	$\langle d^2 \rangle^{1/2}$	2.446	$2.425^{+0.081}_{-0.090}$	$D_M(0.51)$	1978	1968^{+100}_{-95}
N_{eff}	3.03	$3.14^{+0.62}_{-0.60}$	z_{re}	7.56	$7.6^{+2.2}_{-2.3}$	$H(0.61)$	95.34	$95.9^{+4.2}_{-4.2}$
$\ln(10^{10} A_s)$	3.040	$3.043^{+0.055}_{-0.053}$	$10^9 A_s$	2.090	$2.10^{+0.12}_{-0.11}$	$D_M(0.61)$	2303	2290^{+120}_{-110}
n_s	0.9653	$0.969^{+0.023}_{-0.023}$	$10^9 A_s e^{-2\tau}$	1.880	$1.884^{+0.054}_{-0.057}$	$H(2.33)$	235.6	$237.0^{+8.9}_{-8.9}$
y_{cal}	1.0005	$1.0006^{+0.0064}_{-0.0063}$	D_{40}	1227.9	1223^{+40}_{-41}	$D_M(2.33)$	5763	5730^{+250}_{-230}
A_{217}^{CIB}	49.2	48^{+20}_{-20}	D_{220}	5716	5719^{+100}_{-100}	$f\sigma_8(0.15)$	0.4603	$0.456^{+0.024}_{-0.026}$
$\xi^{tSZ \times CIB}$	0.19	—	D_{810}	2536.7	2537^{+37}_{-36}	$\sigma_8(0.15)$	0.7594	$0.750^{+0.038}_{-0.048}$
A_{143}^{tSZ}	7.2	—	D_{1420}	815.7	815^{+13}_{-13}	$f\sigma_8(0.38)$	0.4795	$0.475^{+0.023}_{-0.027}$
A_{100}^{PS}	254	265^{+70}_{-70}	D_{2000}	230.2	$229.4^{+5.7}_{-5.7}$	$\sigma_8(0.38)$	0.6733	$0.665^{+0.034}_{-0.043}$
A_{143}^{PS}	46.9	50^{+20}_{-20}	$n_{s,0.002}$	0.9653	$0.969^{+0.023}_{-0.023}$	$f\sigma_8(0.51)$	0.4783	$0.474^{+0.023}_{-0.027}$
$A_{143 \times 217}^{PS}$	43.2	44^{+20}_{-20}	Y_P	0.2452	$0.2465^{+0.0080}_{-0.0084}$	$\sigma_8(0.51)$	0.6301	$0.623^{+0.033}_{-0.040}$
A_{217}^{PS}	118.1	115^{+30}_{-30}	Y_P^{BBN}	0.2465	$0.2479^{+0.0081}_{-0.0085}$	$f\sigma_8(0.61)$	0.4735	$0.469^{+0.022}_{-0.027}$
A^{kSZ}	0.0	—	$10^5 D/H$	2.618	$2.64^{+0.18}_{-0.17}$	$\sigma_8(0.61)$	0.5996	$0.593^{+0.031}_{-0.038}$
A_{100}^{dustTT}	8.92	$9.0^{+4.7}_{-4.6}$	Age/Gyr	13.80	$13.72^{+0.60}_{-0.56}$	$f\sigma_8(2.33)$	0.3015	$0.299^{+0.015}_{-0.018}$
A_{143}^{dustTT}	10.74	$10.8^{+4.6}_{-4.6}$	z_*	1090.09	$1090.2^{+1.3}_{-1.3}$	$\sigma_8(2.33)$	0.3114	$0.308^{+0.017}_{-0.020}$
$A_{143 \times 217}^{dustTT}$	19.2	$18.3^{+8.4}_{-8.5}$	r_*	144.8	$144.0^{+6.0}_{-5.5}$	f_{2000}^{143}	30.2	32^{+9}_{-9}
A_{217}^{dustTT}	94.4	93^{+20}_{-20}	$100\theta_*$	1.04113	$1.0410^{+0.0018}_{-0.0017}$	$f_{2000}^{143 \times 217}$	33.0	34^{+6}_{-6}
c_{100}	0.99964	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.91	$13.83^{+0.56}_{-0.52}$	f_{2000}^{217}	107.6	$108.4^{+5.8}_{-5.9}$
c_{217}	0.99824	$0.9983^{+0.0016}_{-0.0016}$	z_{drag}	1059.44	$1059.8^{+2.3}_{-2.3}$	χ_{small}^2	395.86	$397.1 (\nu: 1.7)$
H_0	67.78	$68.2^{+3.9}_{-3.7}$	r_{drag}	147.5	$146.7^{+6.2}_{-5.7}$	χ_{lowl}^2	23.31	$22.8 (\nu: 0.8)$
Ω_Λ	0.6917	$0.691^{+0.021}_{-0.022}$	k_D	0.14030	$0.1409^{+0.0043}_{-0.0044}$	χ_{plik}^2	758.4	$773.3 (\nu: 17.5)$
Ω_m	0.3083	$0.309^{+0.022}_{-0.021}$	$100\theta_D$	0.16100	$0.1612^{+0.0015}_{-0.0015}$	χ_{6DF}^2	0.010	$0.057 (\nu: 0.0)$
$\Omega_m h^2$	0.1416	$0.143^{+0.011}_{-0.010}$	z_{eq}	3389	3368^{+84}_{-94}	χ_{MGS}^2	1.41	$1.47 (\nu: 0.2)$
$\Omega_\nu h^2$	0.00002	< 0.00260	k_{eq}	0.010336	$0.01034^{+0.00039}_{-0.00039}$	$\chi_{DR12BAO}^2$	3.91	$4.6 (\nu: 1.3)$
$\Omega_m h^3$	0.0960	$0.098^{+0.012}_{-0.011}$	$100\theta_{eq}$	0.8150	$0.819^{+0.018}_{-0.015}$	χ_{prior}^2	1.5	$7.4 (\nu: 6.8)$
σ_8	0.8216	$0.812^{+0.041}_{-0.052}$	$100\theta_{s,eq}$	0.4504	$0.4525^{+0.0093}_{-0.0079}$	χ_{BAO}^2	5.32	$6.2 (\nu: 0.9)$
S_8	0.8329	$0.823^{+0.046}_{-0.051}$	$H(0.15)$	73.02	$73.4^{+3.9}_{-3.7}$	χ_{CMB}^2	1177.6	$1193.2 (\nu: 16.7)$

Best-fit $\chi_{eff}^2 = 1184.40$; $\Delta\chi_{eff}^2 = -1.35$; $\bar{\chi}_{eff}^2 = 1206.70$; $\Delta\bar{\chi}_{eff}^2 = 0.68$; $R - 1 = 0.00673$

χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.01) MGS: 1.41 (Δ 0.13) DR12BAO: 3.91 (Δ -0.28) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.87 (Δ -0.02) commander_dx12_v3_2_29: 23.31 (Δ 0.49) plik_rd12_HM_v22_TT: 758.38 (Δ -1.72)

9.6 base_nnu_mnu_plikHM_TT_lowl_lowE_BAO_post_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02221	$0.02227^{+0.00060}_{-0.00061}$	$\sigma_8 \Omega_m^{0.25}$	0.6119	$0.605^{+0.030}_{-0.036}$	$D_M(0.38)$	1524	1516^{+76}_{-73}
$\Omega_c h^2$	0.1195	$0.121^{+0.010}_{-0.0099}$	$\sigma_8/h^{0.5}$	0.9973	$0.983^{+0.039}_{-0.056}$	$H(0.51)$	89.87	$90.4^{+4.0}_{-4.0}$
$100\theta_{MC}$	1.04097	$1.0408^{+0.0015}_{-0.0014}$	$r_{drag}h$	100.11	$100.1^{+2.6}_{-2.5}$	$D_M(0.51)$	1975	1964^{+98}_{-92}
τ	0.0530	$0.054^{+0.023}_{-0.022}$	$\langle d^2 \rangle^{1/2}$	2.444	$2.423^{+0.080}_{-0.089}$	$H(0.61)$	95.46	$96.0^{+4.1}_{-4.1}$
Σm_ν [eV]	0.002	< 0.237	z_{re}	7.57	$7.7^{+2.2}_{-2.4}$	$D_M(0.61)$	2299	2286^{+110}_{-110}
N_{eff}	3.05	$3.15^{+0.61}_{-0.61}$	$10^9 A_s$	2.091	$2.10^{+0.12}_{-0.11}$	$H(2.33)$	235.8	$237.2^{+8.9}_{-8.9}$
$\ln(10^{10} A_s)$	3.040	$3.044^{+0.055}_{-0.053}$	$10^9 A_s e^{-2\tau}$	1.881	$1.885^{+0.054}_{-0.056}$	$D_M(2.33)$	5756	5724^{+250}_{-230}
n_s	0.9661	$0.970^{+0.022}_{-0.022}$	D_{40}	1226.8	1222^{+40}_{-40}	$f\sigma_8(0.15)$	0.4598	$0.455^{+0.024}_{-0.026}$
y_{cal}	1.0004	$1.0006^{+0.0063}_{-0.0062}$	D_{220}	5717	5719^{+100}_{-100}	$\sigma_8(0.15)$	0.7597	$0.751^{+0.038}_{-0.047}$
A_{217}^{CIB}	48.8	48^{+20}_{-20}	D_{810}	2537.1	2537^{+36}_{-36}	$f\sigma_8(0.38)$	0.4792	$0.475^{+0.023}_{-0.026}$
$\xi^{tSZ \times CIB}$	0.31	—	D_{1420}	815.8	815^{+13}_{-13}	$\sigma_8(0.38)$	0.6737	$0.666^{+0.034}_{-0.042}$
A_{143}^{tSZ}	7.0	—	D_{2000}	230.2	$229.3^{+5.7}_{-5.8}$	$f\sigma_8(0.51)$	0.4782	$0.474^{+0.022}_{-0.026}$
A_{100}^{PS}	254	265^{+70}_{-70}	$n_{s,0.002}$	0.9661	$0.970^{+0.022}_{-0.022}$	$\sigma_8(0.51)$	0.6306	$0.624^{+0.032}_{-0.039}$
A_{143}^{PS}	49.0	50^{+20}_{-20}	Y_P	0.2453	$0.2467^{+0.0079}_{-0.0084}$	$f\sigma_8(0.61)$	0.4734	$0.469^{+0.022}_{-0.026}$
$A_{143 \times 217}^{PS}$	46.5	44^{+20}_{-20}	Y_P^{BBN}	0.2467	$0.2481^{+0.0079}_{-0.0084}$	$\sigma_8(0.61)$	0.6000	$0.594^{+0.031}_{-0.037}$
A_{217}^{PS}	119.0	115^{+30}_{-30}	$10^5 D/H$	2.616	$2.64^{+0.18}_{-0.17}$	$f\sigma_8(2.33)$	0.3017	$0.300^{+0.015}_{-0.017}$
A^{kSZ}	0.0	—	Age/Gyr	13.78	$13.70^{+0.59}_{-0.55}$	$\sigma_8(2.33)$	0.3117	$0.309^{+0.016}_{-0.019}$
A_{100}^{dustTT}	8.87	$9.0^{+4.7}_{-4.7}$	z_*	1090.08	$1090.2^{+1.3}_{-1.3}$	f_{2000}^{143}	30.2	32^{+9}_{-9}
A_{143}^{dustTT}	10.81	$10.8^{+4.5}_{-4.7}$	r_*	144.7	$143.9^{+6.0}_{-5.5}$	$f_{2000}^{143 \times 217}$	33.1	34^{+6}_{-6}
$A_{143 \times 217}^{dustTT}$	19.3	$18.3^{+8.3}_{-8.4}$	$100\theta_*$	1.04113	$1.0410^{+0.0019}_{-0.0017}$	f_{2000}^{217}	107.6	$108.5^{+5.8}_{-5.9}$
A_{217}^{dustTT}	94.4	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.90	$13.82^{+0.55}_{-0.51}$	χ_{small}^2	395.88	$397.1 (\nu: 1.7)$
c_{100}	0.99963	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	1059.51	$1059.8^{+2.2}_{-2.2}$	χ_{lowl}^2	23.21	$22.7 (\nu: 0.7)$
c_{217}	0.99826	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	147.4	$146.6^{+6.2}_{-5.7}$	χ_{plik}^2	758.6	$773.4 (\nu: 17.4)$
H_0	67.91	$68.3^{+3.7}_{-3.5}$	k_D	0.14041	$0.1410^{+0.0043}_{-0.0043}$	χ_{JLA}^2	1034.88	$1035.01 (\nu: 0.1)$
Ω_Λ	0.6927	$0.692^{+0.020}_{-0.020}$	$100\theta_D$	0.16101	$0.1613^{+0.0015}_{-0.0015}$	χ_{6DF}^2	0.006	$0.047 (\nu: 0.0)$
Ω_m	0.3073	$0.308^{+0.020}_{-0.020}$	z_{eq}	3387	3365^{+80}_{-91}	χ_{MGS}^2	1.47	$1.55 (\nu: 0.2)$
$\Omega_m h^2$	0.1417	$0.143^{+0.011}_{-0.010}$	k_{eq}	0.010336	$0.01034^{+0.00039}_{-0.00039}$	$\chi_{DR12BAO}^2$	3.78	$4.4 (\nu: 0.9)$
$\Omega_\nu h^2$	0.00002	< 0.00253	$100\theta_{eq}$	0.8156	$0.820^{+0.018}_{-0.015}$	χ_{prior}^2	1.4	$7.3 (\nu: 6.7)$
$\Omega_m h^3$	0.0963	$0.098^{+0.012}_{-0.012}$	$100\theta_{s,eq}$	0.4507	$0.4529^{+0.0089}_{-0.0076}$	χ_{BAO}^2	5.26	$6.0 (\nu: 0.6)$
σ_8	0.8219	$0.812^{+0.040}_{-0.050}$	$H(0.15)$	73.15	$73.6^{+3.8}_{-3.6}$	χ_{CMB}^2	1177.7	$1193.2 (\nu: 16.6)$
S_8	0.8318	$0.822^{+0.045}_{-0.050}$	$D_M(0.15)$	638.7	635^{+33}_{-32}			
$\sigma_8 \Omega_m^{0.5}$	0.4556	$0.450^{+0.025}_{-0.027}$	$H(0.38)$	83.19	$83.7^{+3.9}_{-3.8}$			

Best-fit $\chi_{eff}^2 = 2219.27$; $\bar{\chi}_{eff}^2 = 2241.49$; $R - 1 = 0.00842$
 χ_{eff}^2 : BAO - 6DF: 0.01 MGS: 1.47 DR12BAO: 3.78 CMB - small_100x143.offlike5_EE_Aplanck_B: 395.88 commander_dx12_v3.2.29: 23.21 plik_rd12_HM_v22.TT: 758.62
 SN - JLA Pantheon18: 1034.88

9.7 base_nnu_mnu_plikHM_TT_lowl_lowE_BAO_post_Pantheon18_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02228^{+0.00061}_{-0.00061}$	$\sigma_8 \Omega_m^{0.25}$	$0.606^{+0.029}_{-0.036}$	$D_M(0.38)$	1515^{+76}_{-73}
$\Omega_c h^2$	$0.121^{+0.010}_{-0.0098}$	$\sigma_8/h^{0.5}$	$0.984^{+0.038}_{-0.057}$	$H(0.51)$	$90.4^{+4.0}_{-3.9}$
$100\theta_{MC}$	$1.0408^{+0.0015}_{-0.0014}$	$r_{\text{drag}} h$	$100.1^{+2.6}_{-2.5}$	$D_M(0.51)$	1963^{+97}_{-92}
τ	$0.055^{+0.020}_{-0.014}$	$\langle d^2 \rangle^{1/2}$	$2.426^{+0.079}_{-0.088}$	$H(0.61)$	$96.1^{+4.1}_{-4.1}$
Σm_ν [eV]	< 0.240	z_{re}	< 9.66	$D_M(0.61)$	2285^{+110}_{-100}
N_{eff}	$3.16^{+0.61}_{-0.60}$	$10^9 A_s$	$2.11^{+0.11}_{-0.087}$	$H(2.33)$	$237.2^{+8.9}_{-8.9}$
$\ln(10^{10} A_s)$	$3.047^{+0.052}_{-0.042}$	$10^9 A_s e^{-2\tau}$	$1.885^{+0.053}_{-0.056}$	$D_M(2.33)$	5721^{+250}_{-230}
n_s	$0.970^{+0.022}_{-0.022}$	D_{40}	1222^{+40}_{-40}	$f\sigma_8(0.15)$	$0.456^{+0.024}_{-0.026}$
y_{cal}	$1.0006^{+0.0064}_{-0.0062}$	D_{220}	5719^{+100}_{-100}	$\sigma_8(0.15)$	$0.752^{+0.037}_{-0.047}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2537^{+36}_{-36}	$f\sigma_8(0.38)$	$0.475^{+0.023}_{-0.027}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	815^{+13}_{-13}	$\sigma_8(0.38)$	$0.667^{+0.033}_{-0.043}$
A_{143}^{tSZ}	—	D_{2000}	$229.4^{+5.7}_{-5.8}$	$f\sigma_8(0.51)$	$0.474^{+0.022}_{-0.026}$
A_{100}^{PS}	265^{+70}_{-70}	$n_{s,0.002}$	$0.970^{+0.022}_{-0.022}$	$\sigma_8(0.51)$	$0.625^{+0.032}_{-0.040}$
A_{143}^{PS}	50^{+20}_{-20}	Y_P	$0.2468^{+0.0079}_{-0.0084}$	$f\sigma_8(0.61)$	$0.470^{+0.022}_{-0.026}$
$A_{143 \times 217}^{\text{PS}}$	44^{+20}_{-20}	Y_P^{BBN}	$0.2481^{+0.0079}_{-0.0084}$	$\sigma_8(0.61)$	$0.594^{+0.030}_{-0.038}$
A_{217}^{PS}	115^{+30}_{-30}	$10^5 D/H$	$2.64^{+0.18}_{-0.17}$	$f\sigma_8(2.33)$	$0.300^{+0.015}_{-0.017}$
A^{kSZ}	—	Age/Gyr	$13.70^{+0.59}_{-0.54}$	$\sigma_8(2.33)$	$0.309^{+0.016}_{-0.019}$
A_{100}^{dustTT}	$9.0^{+4.7}_{-4.7}$	z_*	$1090.2^{+1.3}_{-1.3}$	f_{2000}^{143}	32^{+9}_{-9}
A_{143}^{dustTT}	$10.8^{+4.6}_{-4.7}$	r_*	$143.8^{+5.9}_{-5.5}$	$f_{2000}^{143 \times 217}$	34^{+6}_{-6}
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.4}_{-8.4}$	$100\theta_*$	$1.0410^{+0.0019}_{-0.0017}$	f_{2000}^{217}	$108.5^{+5.8}_{-5.9}$
A_{217}^{dustTT}	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	$13.82^{+0.54}_{-0.51}$	χ_{simall}^2	$397.0 (\nu: 1.7)$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	$1059.9^{+2.2}_{-2.3}$	χ_{lowl}^2	$22.7 (\nu: 0.7)$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	$146.5^{+6.1}_{-5.6}$	χ_{plik}^2	$773.2 (\nu: 17.2)$
H_0	$68.4^{+3.7}_{-3.6}$	k_D	$0.1410^{+0.0042}_{-0.0043}$	χ_{JLA}^2	$1035.00 (\nu: 0.1)$
Ω_Λ	$0.693^{+0.020}_{-0.020}$	$100\theta_D$	$0.1613^{+0.0015}_{-0.0015}$	$\chi_{6\text{DF}}^2$	$0.046 (\nu: 0.0)$
Ω_m	$0.307^{+0.020}_{-0.020}$	z_{eq}	3364^{+80}_{-90}	χ_{MGS}^2	$1.56 (\nu: 0.2)$
$\Omega_m h^2$	$0.144^{+0.011}_{-0.010}$	k_{eq}	$0.01034^{+0.00039}_{-0.00038}$	χ_{DR12BAO}^2	$4.4 (\nu: 0.9)$
$\Omega_\nu h^2$	< 0.00257	$100\theta_{\text{eq}}$	$0.820^{+0.017}_{-0.015}$	χ_{prior}^2	$7.3 (\nu: 6.7)$
$\Omega_m h^3$	$0.098^{+0.012}_{-0.011}$	$100\theta_{s,\text{eq}}$	$0.4529^{+0.0089}_{-0.0076}$	χ_{BAO}^2	$6.0 (\nu: 0.6)$
σ_8	$0.814^{+0.040}_{-0.051}$	$H(0.15)$	$73.6^{+3.7}_{-3.6}$	χ_{CMB}^2	$1192.9 (\nu: 16.2)$
S_8	$0.823^{+0.045}_{-0.050}$	$D_M(0.15)$	635^{+33}_{-32}		
$\sigma_8 \Omega_m^{0.5}$	$0.451^{+0.025}_{-0.028}$	$H(0.38)$	$83.7^{+3.9}_{-3.8}$		

$$\bar{\chi}_{\text{eff}}^2 = 2241.24; R - 1 = 0.00999$$

9.8 base_nnu_mnu_plikHM_TTTEE_lowl_lowE_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022344	$0.02237^{+0.00049}_{-0.00046}$	$\Omega_\nu h^2$	0.00000	< 0.00185	$100\theta_{s,eq}$	0.4497	$0.4503^{+0.0064}_{-0.0064}$
$\Omega_c h^2$	0.1178	$0.1184^{+0.0079}_{-0.0077}$	$\Omega_m h^3$	0.0945	$0.0953^{+0.0096}_{-0.0088}$	$H(0.15)$	72.64	$72.7^{+3.2}_{-3.0}$
$100\theta_{MC}$	1.04122	$1.0411^{+0.0011}_{-0.0011}$	σ_8	0.8179	$0.811^{+0.033}_{-0.039}$	$D_M(0.15)$	643.2	643^{+28}_{-28}
τ	0.0545	$0.055^{+0.022}_{-0.020}$	S_8	0.8290	$0.826^{+0.036}_{-0.036}$	$H(0.38)$	82.64	$82.7^{+3.2}_{-3.1}$
Σm_ν [eV]	0.000	< 0.175	$\sigma_8 \Omega_m^{0.5}$	0.4541	$0.452^{+0.020}_{-0.020}$	$D_M(0.38)$	1535	1534^{+64}_{-64}
N_{eff}	2.935	$2.98^{+0.48}_{-0.45}$	$\sigma_8 \Omega_m^{0.25}$	0.6094	$0.606^{+0.023}_{-0.027}$	$H(0.51)$	89.28	$89.4^{+3.3}_{-3.2}$
$\ln(10^{10} A_s)$	3.0394	$3.042^{+0.049}_{-0.048}$	$\sigma_8/h^{0.5}$	0.9961	$0.988^{+0.031}_{-0.040}$	$D_M(0.51)$	1989	1988^{+81}_{-81}
n_s	0.9629	$0.964^{+0.019}_{-0.018}$	$r_{drag} h$	99.99	$99.7^{+2.4}_{-2.3}$	$H(0.61)$	94.84	$95.0^{+3.4}_{-3.2}$
y_{cal}	1.0006	$1.0006^{+0.0066}_{-0.0064}$	$\langle d^2 \rangle^{1/2}$	2.450	$2.441^{+0.067}_{-0.070}$	$D_M(0.61)$	2314	2313^{+93}_{-92}
A_{217}^{CIB}	46.9	46^{+20}_{-20}	z_{re}	7.65	$7.7^{+2.1}_{-2.1}$	$H(2.33)$	234.4	$235.2^{+7.1}_{-6.9}$
$\xi^{tSZ \times CIB}$	0.43	—	$10^9 A_s$	2.089	$2.09^{+0.10}_{-0.098}$	$D_M(2.33)$	5793	5782^{+200}_{-200}
A_{143}^{tSZ}	7.2	—	$10^9 A_s e^{-2\tau}$	1.8735	$1.876^{+0.045}_{-0.045}$	$f\sigma_8(0.15)$	0.4582	$0.457^{+0.019}_{-0.019}$
A_{100}^{PS}	248	257^{+70}_{-70}	D_{40}	1232.7	1231^{+34}_{-36}	$\sigma_8(0.15)$	0.7560	$0.750^{+0.031}_{-0.037}$
A_{143}^{PS}	45.5	45^{+20}_{-20}	D_{220}	5737	5736^{+99}_{-95}	$f\sigma_8(0.38)$	0.4773	$0.475^{+0.018}_{-0.019}$
$A_{143 \times 217}^{PS}$	46.0	42^{+20}_{-20}	D_{810}	2538.3	2538^{+36}_{-34}	$\sigma_8(0.38)$	0.6703	$0.665^{+0.028}_{-0.033}$
A_{217}^{PS}	118.9	115^{+30}_{-30}	D_{1420}	818.6	818^{+13}_{-12}	$f\sigma_8(0.51)$	0.4762	$0.474^{+0.018}_{-0.019}$
A^{kSZ}	0.0	—	D_{2000}	231.94	$231.4^{+4.8}_{-4.6}$	$\sigma_8(0.51)$	0.6273	$0.622^{+0.027}_{-0.031}$
A_{100}^{dustTT}	8.81	$8.9^{+4.7}_{-4.7}$	$n_{s,0.002}$	0.9629	$0.964^{+0.019}_{-0.018}$	$f\sigma_8(0.61)$	0.4714	$0.469^{+0.017}_{-0.019}$
A_{143}^{dustTT}	10.98	$10.8^{+4.6}_{-4.6}$	Y_P	0.2439	$0.2445^{+0.0064}_{-0.0064}$	$\sigma_8(0.61)$	0.5969	$0.592^{+0.026}_{-0.030}$
$A_{143 \times 217}^{dustTT}$	19.6	$18.6^{+8.5}_{-8.6}$	Y_P^{BBN}	0.2452	$0.2458^{+0.0064}_{-0.0065}$	$f\sigma_8(2.33)$	0.3001	$0.298^{+0.013}_{-0.014}$
A_{217}^{dustTT}	94.9	94^{+20}_{-20}	$10^5 D/H$	2.552	$2.56^{+0.11}_{-0.12}$	$\sigma_8(2.33)$	0.3100	$0.308^{+0.014}_{-0.016}$
A_{100}^{dustTE}	0.114	$0.114^{+0.099}_{-0.095}$	Age/Gyr	13.870	$13.84^{+0.47}_{-0.46}$	f_{2000}^{143}	28.0	29^{+8}_{-7}
$A_{100 \times 143}^{dustTE}$	0.134	$0.134^{+0.076}_{-0.075}$	z_*	1089.64	$1089.72^{+0.87}_{-0.89}$	$f_{2000}^{143 \times 217}$	31.3	32^{+5}_{-5}
$A_{100 \times 217}^{dustTE}$	0.481	$0.48^{+0.21}_{-0.21}$	r_*	145.60	$145.2^{+4.6}_{-4.5}$	f_{2000}^{217}	106.0	$106.5^{+5.1}_{-5.1}$
A_{143}^{dustTE}	0.224	$0.22^{+0.14}_{-0.14}$	$100\theta_*$	1.04145	$1.0413^{+0.0014}_{-0.0013}$	χ_{small}^2	396.06	$397.2 (\nu: 2.1)$
$A_{143 \times 217}^{dustTE}$	0.664	$0.66^{+0.21}_{-0.21}$	$D_M(z_*)/\text{Gpc}$	13.981	$13.94^{+0.43}_{-0.42}$	χ_{lowl}^2	23.72	$23.6 (\nu: 0.7)$
A_{217}^{dustTE}	2.09	$2.08^{+0.68}_{-0.68}$	z_{drag}	1059.63	$1059.8^{+1.8}_{-1.8}$	χ_{plik}^2	2342.8	$2359.7 (\nu: 19.6)$
c_{100}	0.99971	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	148.29	$147.9^{+4.8}_{-4.7}$	χ_{6DF}^2	0.010	$0.062 (\nu: 0.0)$
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0016}$	k_D	0.14001	$0.1403^{+0.0035}_{-0.0034}$	χ_{MGS}^2	1.41	$1.29 (\nu: 0.1)$
H_0	67.43	$67.4^{+3.2}_{-3.0}$	$100\theta_D$	0.16049	$0.1606^{+0.0010}_{-0.0011}$	$\chi_{DR12BAO}^2$	3.91	$4.9 (\nu: 1.3)$
Ω_Λ	0.6918	$0.689^{+0.018}_{-0.020}$	z_{eq}	3399	3393^{+69}_{-65}	χ_{prior}^2	1.8	$11.5 (\nu: 10.2)$
Ω_m	0.3082	$0.311^{+0.020}_{-0.018}$	k_{eq}	0.010296	$0.01031^{+0.00031}_{-0.00030}$	χ_{BAO}^2	5.33	$6.2 (\nu: 0.9)$
$\Omega_m h^2$	0.1401	$0.1413^{+0.0085}_{-0.0081}$	$100\theta_{eq}$	0.8139	$0.815^{+0.013}_{-0.013}$	χ_{CMB}^2	2762.6	$2780.5 (\nu: 18.6)$

Best-fit $\chi_{eff}^2 = 2769.67$; $\Delta\chi_{eff}^2 = -2.25$; $\bar{\chi}_{eff}^2 = 2798.17$; $\Delta\bar{\chi}_{eff}^2 = 0.26$; $R - 1 = 0.00732$
 χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.02) MGS: 1.41 (Δ 0.19) DR12BAO: 3.91 (Δ -0.50) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.06 (Δ -0.15) commander_dx12_v3_2_29: 23.72 (Δ 0.85) plik_rd12_HM_v22b_TTTEE: 2342.81 (Δ -2.69)

9.9 base_nnu_mnu_plikHM_TTTEE_lowl_lowE_BAO_post_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022340	$0.02239^{+0.00048}_{-0.00045}$	$\Omega_m h^3$	0.0945	$0.0955^{+0.0096}_{-0.0088}$	$D_M(0.15)$	643.0	642^{+28}_{-27}
$\Omega_c h^2$	0.1178	$0.1185^{+0.0080}_{-0.0077}$	σ_8	0.8170	$0.812^{+0.033}_{-0.038}$	$H(0.38)$	82.66	$82.9^{+3.1}_{-3.0}$
$100\theta_{MC}$	1.04120	$1.0411^{+0.0011}_{-0.0011}$	S_8	0.8281	$0.825^{+0.035}_{-0.036}$	$D_M(0.38)$	1534	1532^{+62}_{-61}
τ	0.0531	$0.055^{+0.022}_{-0.020}$	$\sigma_8 \Omega_m^{0.5}$	0.4536	$0.452^{+0.019}_{-0.020}$	$H(0.51)$	89.30	$89.5^{+3.3}_{-3.1}$
Σm_ν [eV]	0.001	< 0.165	$\sigma_8 \Omega_m^{0.25}$	0.6088	$0.606^{+0.023}_{-0.027}$	$D_M(0.51)$	1988	1984^{+79}_{-77}
N_{eff}	2.939	$3.00^{+0.48}_{-0.45}$	$\sigma_8/h^{0.5}$	0.9949	$0.988^{+0.031}_{-0.040}$	$H(0.61)$	94.87	$95.1^{+3.4}_{-3.2}$
$\ln(10^{10} A_s)$	3.0367	$3.042^{+0.049}_{-0.047}$	$r_{\text{drag}} h$	99.99	$99.8^{+2.2}_{-2.2}$	$D_M(0.61)$	2314	2309^{+90}_{-89}
n_s	0.9633	$0.965^{+0.019}_{-0.018}$	$\langle d^2 \rangle^{1/2}$	2.446	$2.439^{+0.066}_{-0.071}$	$H(2.33)$	234.4	$235.3^{+7.1}_{-6.9}$
y_{cal}	1.0004	$1.0006^{+0.0066}_{-0.0063}$	z_{re}	7.51	$7.7^{+2.1}_{-2.1}$	$D_M(2.33)$	5792	5776^{+200}_{-190}
A_{217}^{CIB}	46.0	46^{+20}_{-20}	$10^9 A_s$	2.084	$2.10^{+0.11}_{-0.096}$	$f\sigma_8(0.15)$	0.4577	$0.456^{+0.018}_{-0.019}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.55	—	$10^9 A_s e^{-2\tau}$	1.8736	$1.876^{+0.045}_{-0.045}$	$\sigma_8(0.15)$	0.7552	$0.750^{+0.031}_{-0.036}$
A_{143}^{tSZ}	7.2	—	D_{40}	1231.1	1230^{+34}_{-35}	$f\sigma_8(0.38)$	0.4767	$0.475^{+0.018}_{-0.019}$
A_{100}^{PS}	247	257^{+70}_{-70}	D_{220}	5734	5736^{+98}_{-95}	$\sigma_8(0.38)$	0.6695	$0.665^{+0.028}_{-0.032}$
A_{143}^{PS}	47.4	45^{+20}_{-20}	D_{810}	2538.1	2538^{+37}_{-35}	$f\sigma_8(0.51)$	0.4756	$0.474^{+0.018}_{-0.019}$
$A_{143 \times 217}^{\text{PS}}$	49.5	42^{+20}_{-20}	D_{1420}	818.6	818^{+13}_{-12}	$\sigma_8(0.51)$	0.6266	$0.623^{+0.027}_{-0.030}$
A_{217}^{PS}	120.5	115^{+30}_{-30}	D_{2000}	231.90	$231.4^{+4.9}_{-4.6}$	$f\sigma_8(0.61)$	0.4708	$0.469^{+0.017}_{-0.019}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9633	$0.965^{+0.019}_{-0.018}$	$\sigma_8(0.61)$	0.5963	$0.593^{+0.025}_{-0.029}$
A_{100}^{dustTT}	8.78	$8.9^{+4.7}_{-4.7}$	Y_P	0.2439	$0.2447^{+0.0064}_{-0.0064}$	$f\sigma_8(2.33)$	0.2998	$0.299^{+0.013}_{-0.013}$
A_{143}^{dustTT}	10.96	$10.8^{+4.5}_{-4.6}$	Y_P^{BBN}	0.2453	$0.2460^{+0.0064}_{-0.0064}$	$\sigma_8(2.33)$	0.3097	$0.308^{+0.014}_{-0.015}$
$A_{143 \times 217}^{\text{dustTT}}$	19.8	$18.6^{+8.4}_{-8.7}$	$10^5 D/H$	2.554	$2.56^{+0.12}_{-0.12}$	f_{2000}^{143}	27.9	29^{+8}_{-7}
A_{217}^{dustTT}	95.2	94^{+20}_{-20}	Age/Gyr	13.867	$13.83^{+0.47}_{-0.46}$	$f_{2000}^{143 \times 217}$	31.3	32^{+5}_{-5}
A_{100}^{dustTE}	0.115	$0.114^{+0.099}_{-0.094}$	z_*	1089.66	$1089.71^{+0.88}_{-0.88}$	f_{2000}^{217}	105.9	$106.5^{+5.1}_{-5.0}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.134^{+0.076}_{-0.075}$	r_*	145.57	$145.1^{+4.6}_{-4.5}$	χ_{small}^2	395.86	$397.2 (\nu: 2.1)$
$A_{100 \times 217}^{\text{dustTE}}$	0.480	$0.48^{+0.22}_{-0.21}$	$100\theta_*$	1.04142	$1.0413^{+0.0014}_{-0.0013}$	χ_{lowl}^2	23.60	$23.5 (\nu: 0.7)$
A_{143}^{dustTE}	0.226	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.978	$13.93^{+0.43}_{-0.42}$	χ_{plik}^2	2343.2	$2359.9 (\nu: 19.6)$
$A_{143 \times 217}^{\text{dustTE}}$	0.663	$0.66^{+0.21}_{-0.21}$	z_{drag}	1059.63	$1059.8^{+1.8}_{-1.8}$	χ_{JLA}^2	1034.91	$1035.07 (\nu: 0.1)$
A_{217}^{dustTE}	2.07	$2.07^{+0.68}_{-0.69}$	r_{drag}	148.25	$147.8^{+4.8}_{-4.6}$	$\chi_{6\text{DF}}^2$	0.010	$0.049 (\nu: 0.0)$
c_{100}	0.99973	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14003	$0.1404^{+0.0035}_{-0.0034}$	χ_{MGS}^2	1.41	$1.36 (\nu: 0.1)$
c_{217}	0.99815	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	0.16050	$0.1606^{+0.0010}_{-0.0011}$	χ_{DR12BAO}^2	3.92	$4.6 (\nu: 0.9)$
H_0	67.44	$67.6^{+3.1}_{-2.9}$	z_{eq}	3399	3390^{+66}_{-62}	χ_{prior}^2	1.6	$11.4 (\nu: 10.4)$
Ω_Λ	0.6918	$0.690^{+0.017}_{-0.019}$	k_{eq}	0.010298	$0.01031^{+0.00030}_{-0.00030}$	χ_{BAO}^2	5.34	$6.0 (\nu: 0.6)$
Ω_m	0.3082	$0.310^{+0.019}_{-0.017}$	$100\theta_{\text{eq}}$	0.8139	$0.816^{+0.012}_{-0.012}$	χ_{CMB}^2	2762.7	$2780.6 (\nu: 18.7)$
$\Omega_m h^2$	0.1402	$0.1413^{+0.0084}_{-0.0081}$	$100\theta_{s,\text{eq}}$	0.4497	$0.4506^{+0.0061}_{-0.0062}$			
$\Omega_\nu h^2$	0.00001	< 0.00175	$H(0.15)$	72.66	$72.8^{+3.0}_{-2.9}$			

Best-fit $\chi_{\text{eff}}^2 = 3804.54$; $\bar{\chi}_{\text{eff}}^2 = 3833.11$; $R - 1 = 0.00833$
 χ_{eff}^2 : BAO - 6DF: 0.01 MGS: 1.41 DR12BAO: 3.92 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.86 commander_dx12_v3_2_29: 23.60 plik_rd12_HM_v22b_TTTEE: 2343.21 SN - JLA Pantheon18: 1034.91

9.10 base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02239^{+0.00047}_{-0.00045}$	$\Omega_m h^3$	$0.0956^{+0.0096}_{-0.0088}$	$D_M(0.15)$	642^{+28}_{-27}
$\Omega_c h^2$	$0.1185^{+0.0079}_{-0.0078}$	σ_8	$0.813^{+0.032}_{-0.038}$	$H(0.38)$	$82.9^{+3.2}_{-3.0}$
$100\theta_{MC}$	$1.0411^{+0.0011}_{-0.0011}$	S_8	$0.826^{+0.035}_{-0.036}$	$D_M(0.38)$	1531^{+62}_{-61}
τ	$0.056^{+0.019}_{-0.014}$	$\sigma_8 \Omega_m^{0.5}$	$0.452^{+0.019}_{-0.020}$	$H(0.51)$	$89.6^{+3.3}_{-3.1}$
Σm_ν [eV]	< 0.167	$\sigma_8 \Omega_m^{0.25}$	$0.606^{+0.023}_{-0.026}$	$D_M(0.51)$	1984^{+78}_{-77}
N_{eff}	$3.00^{+0.48}_{-0.45}$	$\sigma_8/h^{0.5}$	$0.989^{+0.030}_{-0.039}$	$H(0.61)$	$95.2^{+3.4}_{-3.2}$
$\ln(10^{10} A_s)$	$3.044^{+0.047}_{-0.038}$	$r_{\text{drag}} h$	$99.8^{+2.2}_{-2.2}$	$D_M(0.61)$	2309^{+91}_{-88}
n_s	$0.965^{+0.019}_{-0.018}$	$\langle d^2 \rangle^{1/2}$	$2.441^{+0.065}_{-0.067}$	$H(2.33)$	$235.3^{+7.1}_{-6.9}$
y_{cal}	$1.0006^{+0.0067}_{-0.0063}$	z_{re}	< 9.62	$D_M(2.33)$	5775^{+200}_{-190}
A_{217}^{CIB}	46^{+20}_{-20}	$10^9 A_s$	$2.10^{+0.10}_{-0.079}$	$f\sigma_8(0.15)$	$0.457^{+0.018}_{-0.018}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.876^{+0.044}_{-0.046}$	$\sigma_8(0.15)$	$0.751^{+0.031}_{-0.036}$
A_{143}^{tSZ}	—	D_{40}	1230^{+34}_{-35}	$f\sigma_8(0.38)$	$0.476^{+0.017}_{-0.019}$
A_{100}^{PS}	257^{+70}_{-70}	D_{220}	5737^{+98}_{-95}	$\sigma_8(0.38)$	$0.666^{+0.028}_{-0.032}$
A_{143}^{PS}	45^{+20}_{-20}	D_{810}	2538^{+37}_{-35}	$f\sigma_8(0.51)$	$0.474^{+0.018}_{-0.019}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	818^{+13}_{-12}	$\sigma_8(0.51)$	$0.623^{+0.026}_{-0.030}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$231.4^{+4.9}_{-4.6}$	$f\sigma_8(0.61)$	$0.470^{+0.017}_{-0.019}$
A^{kSZ}	—	$n_{s,0.002}$	$0.965^{+0.019}_{-0.018}$	$\sigma_8(0.61)$	$0.593^{+0.025}_{-0.029}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.7}$	Y_{P}	$0.2447^{+0.0064}_{-0.0064}$	$f\sigma_8(2.33)$	$0.299^{+0.013}_{-0.014}$
A_{143}^{dustTT}	$10.8^{+4.5}_{-4.6}$	$Y_{\text{P}}^{\text{BBN}}$	$0.2460^{+0.0065}_{-0.0065}$	$\sigma_8(2.33)$	$0.308^{+0.014}_{-0.015}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.5^{+8.4}_{-8.7}$	10^5D/H	$2.57^{+0.12}_{-0.12}$	f_{2000}^{143}	29^{+8}_{-7}
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.83^{+0.47}_{-0.46}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
A_{100}^{dustTE}	$0.114^{+0.098}_{-0.093}$	z_*	$1089.71^{+0.88}_{-0.88}$	f_{2000}^{217}	$106.5^{+5.1}_{-5.1}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134^{+0.076}_{-0.075}$	r_*	$145.1^{+4.7}_{-4.5}$	χ_{simall}^2	$397.2 (\nu: 2.2)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	$1.0413^{+0.0014}_{-0.0013}$	χ_{lowl}^2	$23.5 (\nu: 0.6)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.93^{+0.43}_{-0.42}$	χ_{plik}^2	$2359.7 (\nu: 19.5)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	z_{drag}	$1059.8^{+1.8}_{-1.8}$	χ_{JLA}^2	$1035.06 (\nu: 0.1)$
A_{217}^{dustTE}	$2.07^{+0.69}_{-0.70}$	r_{drag}	$147.7^{+4.8}_{-4.6}$	$\chi_{6\text{DF}}^2$	$0.048 (\nu: 0.0)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_{D}	$0.1404^{+0.0034}_{-0.0034}$	χ_{MGS}^2	$1.37 (\nu: 0.1)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_{\text{D}}$	$0.1606^{+0.0010}_{-0.0010}$	χ_{DR12BAO}^2	$4.6 (\nu: 0.9)$
H_0	$67.6^{+3.1}_{-2.9}$	z_{eq}	3389^{+65}_{-62}	χ_{prior}^2	$11.4 (\nu: 10.4)$
Ω_Λ	$0.690^{+0.017}_{-0.019}$	k_{eq}	$0.01031^{+0.00030}_{-0.00030}$	χ_{BAO}^2	$6.0 (\nu: 0.6)$
Ω_m	$0.310^{+0.019}_{-0.017}$	$100\theta_{\text{eq}}$	$0.816^{+0.012}_{-0.012}$	χ_{CMB}^2	$2780.4 (\nu: 18.5)$
$\Omega_m h^2$	$0.1414^{+0.0084}_{-0.0080}$	$100\theta_{s,\text{eq}}$	$0.4507^{+0.0060}_{-0.0062}$		
$\Omega_\nu h^2$	< 0.00176	$H(0.15)$	$72.8^{+3.0}_{-2.9}$		

$$\bar{\chi}_{\text{eff}}^2 = 3832.93; R - 1 = 0.00910$$

9.11 base_nnu_mnu_plikHM_TT_lowl_lowE_lensing_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02218	$0.02223^{+0.00063}_{-0.00061}$	$\sigma_8 \Omega_m^{0.25}$	0.6092	$0.606^{+0.022}_{-0.024}$	$D_M(0.38)$	1531	1524^{+80}_{-75}
$\Omega_c h^2$	0.1183	$0.1199^{+0.0097}_{-0.0094}$	$\sigma_8/h^{0.5}$	0.9952	$0.986^{+0.027}_{-0.036}$	$H(0.51)$	89.45	$90.0^{+4.1}_{-4.0}$
$100\theta_{MC}$	1.04106	$1.0409^{+0.0015}_{-0.0014}$	$r_{drag}h$	100.10	$99.9^{+2.7}_{-2.7}$	$D_M(0.51)$	1985	1974^{+100}_{-95}
τ	0.0530	$0.054^{+0.021}_{-0.019}$	$\langle d^2 \rangle^{1/2}$	2.442	$2.433^{+0.062}_{-0.062}$	$H(0.61)$	95.01	$95.6^{+4.2}_{-4.1}$
Σm_ν [eV]	0.000	< 0.199	z_{re}	7.55	$7.7^{+2.0}_{-2.1}$	$D_M(0.61)$	2310	2298^{+120}_{-110}
N_{eff}	2.98	$3.09^{+0.61}_{-0.59}$	$10^9 A_s$	2.083	$2.10^{+0.10}_{-0.095}$	$H(2.33)$	234.7	$236.4^{+8.8}_{-8.6}$
$\ln(10^{10} A_s)$	3.0366	$3.044^{+0.049}_{-0.046}$	$10^9 A_s e^{-2\tau}$	1.874	$1.882^{+0.051}_{-0.054}$	$D_M(2.33)$	5783	5748^{+250}_{-240}
n_s	0.9646	$0.967^{+0.023}_{-0.023}$	D_{40}	1227.2	1226^{+38}_{-39}	$f\sigma_8(0.15)$	0.4578	$0.457^{+0.017}_{-0.018}$
y_{cal}	1.0003	$1.0006^{+0.0064}_{-0.0063}$	D_{220}	5715	5722^{+110}_{-100}	$\sigma_8(0.15)$	0.7563	$0.751^{+0.031}_{-0.035}$
A_{217}^{CIB}	47.4	48^{+20}_{-20}	D_{810}	2535.4	2537^{+37}_{-36}	$f\sigma_8(0.38)$	0.4771	$0.476^{+0.017}_{-0.018}$
$\xi^{tSZ \times CIB}$	0.46	—	D_{1420}	816.3	815^{+13}_{-13}	$\sigma_8(0.38)$	0.6706	$0.666^{+0.029}_{-0.032}$
A_{143}^{tSZ}	7.0	—	D_{2000}	230.7	$229.7^{+5.6}_{-5.7}$	$f\sigma_8(0.51)$	0.4761	$0.475^{+0.017}_{-0.018}$
A_{100}^{PS}	251	264^{+70}_{-70}	$n_{s,0.002}$	0.9646	$0.967^{+0.023}_{-0.023}$	$\sigma_8(0.51)$	0.6276	$0.624^{+0.027}_{-0.031}$
A_{143}^{PS}	49.7	49^{+20}_{-20}	Y_P	0.2444	$0.2459^{+0.0080}_{-0.0083}$	$f\sigma_8(0.61)$	0.4713	$0.470^{+0.016}_{-0.018}$
$A_{143 \times 217}^{PS}$	49.4	43^{+20}_{-20}	Y_P^{BBN}	0.2457	$0.2472^{+0.0081}_{-0.0083}$	$\sigma_8(0.61)$	0.5972	$0.593^{+0.026}_{-0.029}$
A_{217}^{PS}	120.2	115^{+30}_{-30}	$10^5 D/H$	2.597	$2.63^{+0.18}_{-0.17}$	$f\sigma_8(2.33)$	0.3003	$0.299^{+0.013}_{-0.014}$
A^{kSZ}	0.0	—	Age/Gyr	13.85	$13.76^{+0.60}_{-0.56}$	$\sigma_8(2.33)$	0.3102	$0.309^{+0.015}_{-0.016}$
A_{100}^{dustTT}	8.87	$8.9^{+4.7}_{-4.7}$	z_*	1089.93	$1090.1^{+1.2}_{-1.2}$	f_{2000}^{143}	29.4	31^{+9}_{-9}
A_{143}^{dustTT}	10.82	$10.7^{+4.7}_{-4.6}$	r_*	145.4	$144.4^{+5.8}_{-5.5}$	$f_{2000}^{143 \times 217}$	32.5	34^{+6}_{-6}
$A_{143 \times 217}^{dustTT}$	19.6	$18.3^{+8.4}_{-8.6}$	$100\theta_*$	1.04128	$1.0411^{+0.0018}_{-0.0017}$	f_{2000}^{217}	106.9	$108.2^{+5.9}_{-5.8}$
A_{217}^{dustTT}	95.1	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.96	$13.87^{+0.54}_{-0.51}$	$\chi_{lensing}^2$	8.81	$9.52 (\nu: 0.4)$
c_{100}	0.99965	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	1059.32	$1059.6^{+2.3}_{-2.3}$	χ_{small}^2	395.85	$397.1 (\nu: 1.6)$
c_{217}	0.99825	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	148.1	$147.1^{+6.1}_{-5.7}$	χ_{lowl}^2	23.32	$23.2 (\nu: 0.8)$
H_0	67.58	$67.9^{+3.8}_{-3.7}$	k_D	0.13991	$0.1406^{+0.0043}_{-0.0043}$	χ_{plik}^2	758.7	$772.4 (\nu: 15.5)$
Ω_Λ	0.6925	$0.691^{+0.021}_{-0.022}$	$100\theta_D$	0.16084	$0.1611^{+0.0015}_{-0.0015}$	χ_{6DF}^2	0.006	$0.060 (\nu: 0.0)$
Ω_m	0.3075	$0.309^{+0.022}_{-0.021}$	z_{eq}	3387	3375^{+81}_{-81}	χ_{MGS}^2	1.47	$1.42 (\nu: 0.2)$
$\Omega_m h^2$	0.1404	$0.143^{+0.011}_{-0.010}$	k_{eq}	0.010290	$0.01033^{+0.00035}_{-0.00035}$	$\chi_{DR12BAO}^2$	3.77	$4.7 (\nu: 1.4)$
$\Omega_\nu h^2$	0.00000	< 0.00213	$100\theta_{eq}$	0.8155	$0.818^{+0.016}_{-0.015}$	χ_{prior}^2	1.3	$7.3 (\nu: 6.6)$
$\Omega_m h^3$	0.0949	$0.097^{+0.012}_{-0.011}$	$100\theta_{s,eq}$	0.4507	$0.4519^{+0.0080}_{-0.0075}$	χ_{CMB}^2	1186.6	$1202.1 (\nu: 16.5)$
σ_8	0.8181	$0.813^{+0.033}_{-0.037}$	$H(0.15)$	72.80	$73.2^{+3.8}_{-3.7}$	χ_{BAO}^2	5.24	$6.2 (\nu: 1.0)$
S_8	0.8283	$0.825^{+0.033}_{-0.034}$	$D_M(0.15)$	641.7	639^{+35}_{-33}			
$\sigma_8 \Omega_m^{0.5}$	0.4537	$0.452^{+0.018}_{-0.019}$	$H(0.38)$	82.80	$83.3^{+3.9}_{-3.9}$			

Best-fit $\chi_{eff}^2 = 1193.21$; $\Delta\chi_{eff}^2 = -1.47$; $\bar{\chi}_{eff}^2 = 1215.63$; $\Delta\bar{\chi}_{eff}^2 = 0.90$; $R - 1 = 0.00858$

χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.02) MGS: 1.47 (Δ 0.26) DR12BAO: 3.77 (Δ -0.61) CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consect8: 8.81 (Δ -0.06) small_100x143_offlike5_EE_Aplanc 395.85 (Δ -0.24) commander_dx12_v3.2.29: 23.32 (Δ 0.37) plik_rd12_HM_v22.TT: 758.66 (Δ -1.14)

9.12 base_nnu_mnu_plikHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02223	$0.02225^{+0.00062}_{-0.00059}$	$\sigma_8 \Omega_m^{0.25}$	0.6090	$0.606^{+0.022}_{-0.024}$	$D_M(0.38)$	1528	1521^{+77}_{-72}
$\Omega_c h^2$	0.1185	$0.1200^{+0.0094}_{-0.0095}$	$\sigma_8/h^{0.5}$	0.9943	$0.986^{+0.027}_{-0.036}$	$H(0.51)$	89.63	$90.1^{+3.9}_{-3.9}$
$100\theta_{MC}$	1.04103	$1.0409^{+0.0015}_{-0.0014}$	$r_{drag}h$	100.22	$100.0^{+2.6}_{-2.5}$	$D_M(0.51)$	1980	1970^{+97}_{-91}
τ	0.0531	$0.055^{+0.021}_{-0.019}$	$\langle d^2 \rangle^{1/2}$	2.441	$2.431^{+0.061}_{-0.062}$	$H(0.61)$	95.19	$95.8^{+4.0}_{-4.0}$
Σm_ν [eV]	0.001	< 0.192	z_{re}	7.55	$7.7^{+2.0}_{-2.1}$	$D_M(0.61)$	2304	2293^{+110}_{-100}
N_{eff}	3.00	$3.11^{+0.60}_{-0.58}$	$10^9 A_s$	2.085	$2.10^{+0.10}_{-0.093}$	$H(2.33)$	235.0	$236.6^{+8.6}_{-8.6}$
$\ln(10^{10} A_s)$	3.0373	$3.045^{+0.048}_{-0.045}$	$10^9 A_s e^{-2\tau}$	1.875	$1.883^{+0.050}_{-0.053}$	$D_M(2.33)$	5773	5740^{+240}_{-230}
n_s	0.9649	$0.968^{+0.022}_{-0.022}$	D_{40}	1227.5	1225^{+38}_{-38}	$f\sigma_8(0.15)$	0.4574	$0.457^{+0.017}_{-0.018}$
y_{cal}	1.0003	$1.0006^{+0.0063}_{-0.0063}$	D_{220}	5720	5723^{+110}_{-100}	$\sigma_8(0.15)$	0.7567	$0.752^{+0.030}_{-0.035}$
A_{217}^{CIB}	49.4	48^{+20}_{-20}	D_{810}	2534.8	2537^{+37}_{-35}	$f\sigma_8(0.38)$	0.4769	$0.476^{+0.017}_{-0.018}$
$\xi^{tSZ \times CIB}$	0.22	—	D_{1420}	815.8	815^{+13}_{-13}	$\sigma_8(0.38)$	0.6711	$0.667^{+0.028}_{-0.031}$
A_{143}^{tSZ}	7.2	—	D_{2000}	230.5	$229.7^{+5.7}_{-5.7}$	$f\sigma_8(0.51)$	0.4760	$0.475^{+0.017}_{-0.018}$
A_{100}^{PS}	254	264^{+70}_{-70}	$n_{s,0.002}$	0.9649	$0.968^{+0.022}_{-0.022}$	$\sigma_8(0.51)$	0.6282	$0.625^{+0.027}_{-0.030}$
A_{143}^{PS}	46.4	49^{+20}_{-20}	Y_P	0.2447	$0.2461^{+0.0078}_{-0.0080}$	$f\sigma_8(0.61)$	0.4713	$0.470^{+0.016}_{-0.018}$
$A_{143 \times 217}^{PS}$	43.2	43^{+20}_{-20}	Y_P^{BBN}	0.2460	$0.2475^{+0.0079}_{-0.0081}$	$\sigma_8(0.61)$	0.5978	$0.594^{+0.026}_{-0.028}$
A_{217}^{PS}	117.1	115^{+30}_{-30}	$10^5 D/H$	2.597	$2.63^{+0.17}_{-0.17}$	$f\sigma_8(2.33)$	0.3006	$0.300^{+0.013}_{-0.014}$
A^{kSZ}	0.0	—	Age/Gyr	13.82	$13.74^{+0.58}_{-0.54}$	$\sigma_8(2.33)$	0.3106	$0.309^{+0.014}_{-0.015}$
A_{100}^{dustTT}	8.87	$8.9^{+4.7}_{-4.7}$	z_*	1089.92	$1090.1^{+1.2}_{-1.2}$	f_{2000}^{143}	29.8	31^{+9}_{-9}
A_{143}^{dustTT}	10.86	$10.7^{+4.7}_{-4.6}$	r_*	145.2	$144.3^{+5.8}_{-5.4}$	$f_{2000}^{143 \times 217}$	32.7	34^{+6}_{-6}
$A_{143 \times 217}^{dustTT}$	19.3	$18.3^{+8.5}_{-8.6}$	$100\theta_*$	1.04123	$1.0410^{+0.0018}_{-0.0017}$	f_{2000}^{217}	107.2	$108.2^{+6.0}_{-5.7}$
A_{217}^{dustTT}	94.4	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.94	$13.86^{+0.53}_{-0.50}$	$\chi_{lensing}^2$	8.80	$9.54 (\nu: 0.4)$
c_{100}	0.99961	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	1059.44	$1059.7^{+2.3}_{-2.2}$	χ_{small}^2	395.86	$397.1 (\nu: 1.6)$
c_{217}	0.99826	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	147.9	$147.0^{+6.0}_{-5.6}$	χ_{lowl}^2	23.32	$23.1 (\nu: 0.7)$
H_0	67.77	$68.1^{+3.6}_{-3.5}$	k_D	0.14010	$0.1407^{+0.0042}_{-0.0042}$	χ_{plik}^2	758.5	$772.5 (\nu: 15.4)$
Ω_Λ	0.6935	$0.692^{+0.020}_{-0.021}$	$100\theta_D$	0.16085	$0.1612^{+0.0015}_{-0.0015}$	χ_{JLA}^2	1034.85	$1035.03 (\nu: 0.1)$
Ω_m	0.3065	$0.308^{+0.021}_{-0.020}$	z_{eq}	3384	3371^{+75}_{-78}	χ_{6DF}^2	0.003	$0.048 (\nu: 0.0)$
$\Omega_m h^2$	0.1408	$0.143^{+0.010}_{-0.010}$	k_{eq}	0.010297	$0.01033^{+0.00035}_{-0.00035}$	χ_{MGS}^2	1.54	$1.51 (\nu: 0.2)$
$\Omega_\nu h^2$	0.00001	< 0.00206	$100\theta_{eq}$	0.8161	$0.819^{+0.015}_{-0.014}$	$\chi_{DR12BAO}^2$	3.67	$4.5 (\nu: 0.9)$
$\Omega_m h^3$	0.0954	$0.097^{+0.012}_{-0.011}$	$100\theta_{s,eq}$	0.4509	$0.4523^{+0.0076}_{-0.0071}$	χ_{prior}^2	1.6	$7.3 (\nu: 6.6)$
σ_8	0.8185	$0.814^{+0.032}_{-0.036}$	$H(0.15)$	72.98	$73.4^{+3.6}_{-3.6}$	χ_{CMB}^2	1186.5	$1202.2 (\nu: 16.4)$
S_8	0.8273	$0.825^{+0.033}_{-0.034}$	$D_M(0.15)$	640.1	637^{+34}_{-31}	χ_{BAO}^2	5.21	$6.0 (\nu: 0.6)$
$\sigma_8 \Omega_m^{0.5}$	0.4531	$0.452^{+0.018}_{-0.019}$	$H(0.38)$	82.98	$83.4^{+3.8}_{-3.7}$			

Best-fit $\chi_{eff}^2 = 2228.14$; $\Delta\chi_{eff}^2 = -1.57$; $\bar{\chi}_{eff}^2 = 2250.50$; $\Delta\bar{\chi}_{eff}^2 = 0.73$; $R - 1 = 0.00908$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.01) MGS: 1.54 (Δ 0.20) DR12BAO: 3.67 (Δ -0.37) CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.80 (Δ -0.08) small_100x143_offlike5_EE_Aplanc
395.86 (Δ -0.51) commander_dx12_v3.2_29: 23.32 (Δ 0.51) plik_rd12_HM_v22.TT: 758.53 (Δ -1.26) SN - JLA Pantheon18: 1034.85 (Δ -0.10)

9.13 base_nnu_mnu_plikHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\text{b}}h^2$	$0.02226^{+0.00062}_{-0.00059}$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.607^{+0.022}_{-0.024}$	$D_{\text{M}}(0.38)$	1520^{+76}_{-71}
$\Omega_{\text{c}}h^2$	$0.1200^{+0.0094}_{-0.0095}$	$\sigma_8/h^{0.5}$	$0.987^{+0.027}_{-0.036}$	$H(0.51)$	$90.2^{+3.9}_{-3.8}$
$100\theta_{\text{MC}}$	$1.0409^{+0.0015}_{-0.0014}$	$r_{\text{drag}}h$	$100.1^{+2.6}_{-2.5}$	$D_{\text{M}}(0.51)$	1970^{+96}_{-91}
τ	$0.056^{+0.019}_{-0.014}$	$\langle d^2 \rangle^{1/2}$	$2.432^{+0.060}_{-0.060}$	$H(0.61)$	$95.8^{+4.0}_{-4.0}$
$\Sigma m_{\nu} [\text{eV}]$	< 0.193	z_{re}	< 9.56	$D_{\text{M}}(0.61)$	2292^{+110}_{-100}
N_{eff}	$3.11^{+0.60}_{-0.57}$	$10^9 A_{\text{s}}$	$2.10^{+0.10}_{-0.080}$	$H(2.33)$	$236.6^{+8.6}_{-8.5}$
$\ln(10^{10} A_{\text{s}})$	$3.046^{+0.046}_{-0.039}$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.883^{+0.050}_{-0.053}$	$D_{\text{M}}(2.33)$	5739^{+240}_{-230}
n_{s}	$0.968^{+0.022}_{-0.022}$	D_{40}	1225^{+38}_{-38}	$f\sigma_8(0.15)$	$0.457^{+0.017}_{-0.017}$
y_{cal}	$1.0006^{+0.0064}_{-0.0063}$	D_{220}	5723^{+110}_{-100}	$\sigma_8(0.15)$	$0.753^{+0.030}_{-0.035}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2537^{+37}_{-35}	$f\sigma_8(0.38)$	$0.476^{+0.017}_{-0.018}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	815^{+14}_{-13}	$\sigma_8(0.38)$	$0.668^{+0.028}_{-0.031}$
A_{143}^{tSZ}	—	D_{2000}	$229.7^{+5.7}_{-5.7}$	$f\sigma_8(0.51)$	$0.475^{+0.016}_{-0.018}$
A_{100}^{PS}	264^{+70}_{-70}	$n_{\text{s},0.002}$	$0.968^{+0.022}_{-0.022}$	$\sigma_8(0.51)$	$0.625^{+0.026}_{-0.030}$
A_{143}^{PS}	49^{+20}_{-20}	Y_{P}	$0.2462^{+0.0078}_{-0.0080}$	$f\sigma_8(0.61)$	$0.470^{+0.016}_{-0.018}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.2475^{+0.0078}_{-0.0080}$	$\sigma_8(0.61)$	$0.595^{+0.025}_{-0.028}$
A_{217}^{PS}	115^{+30}_{-30}	$10^5 \text{D}/\text{H}$	$2.63^{+0.17}_{-0.17}$	$f\sigma_8(2.33)$	$0.300^{+0.013}_{-0.013}$
A^{kSZ}	—	Age/Gyr	$13.74^{+0.57}_{-0.54}$	$\sigma_8(2.33)$	$0.309^{+0.014}_{-0.015}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.7}$	z_*	$1090.1^{+1.2}_{-1.2}$	f_{2000}^{143}	31^{+9}_{-9}
A_{143}^{dustTT}	$10.7^{+4.7}_{-4.6}$	r_*	$144.3^{+5.7}_{-5.3}$	$f_{2000}^{143 \times 217}$	34^{+6}_{-6}
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.5}_{-8.6}$	$100\theta_*$	$1.0410^{+0.0018}_{-0.0017}$	f_{2000}^{217}	$108.2^{+6.0}_{-5.7}$
A_{217}^{dustTT}	93^{+20}_{-20}	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.86^{+0.53}_{-0.50}$	χ_{lensing}^2	$9.51 (\nu: 0.4)$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	$1059.7^{+2.2}_{-2.2}$	χ_{simall}^2	$397.1 (\nu: 1.7)$
c_{217}	$0.9983^{+0.0015}_{-0.0016}$	r_{drag}	$147.0^{+6.0}_{-5.6}$	χ_{lowl}^2	$23.0 (\nu: 0.7)$
H_0	$68.1^{+3.6}_{-3.5}$	k_{D}	$0.1407^{+0.0042}_{-0.0042}$	χ_{plik}^2	$772.4 (\nu: 15.3)$
Ω_{Λ}	$0.692^{+0.020}_{-0.020}$	$100\theta_{\text{D}}$	$0.1612^{+0.0015}_{-0.0015}$	χ_{JLA}^2	$1035.02 (\nu: 0.1)$
Ω_{m}	$0.308^{+0.020}_{-0.020}$	z_{eq}	3370^{+75}_{-77}	$\chi_{6\text{DF}}^2$	$0.046 (\nu: 0.0)$
$\Omega_{\text{m}}h^2$	$0.143^{+0.010}_{-0.010}$	k_{eq}	$0.01033^{+0.00034}_{-0.00035}$	χ_{MGS}^2	$1.52 (\nu: 0.2)$
$\Omega_{\nu}h^2$	< 0.00207	$100\theta_{\text{eq}}$	$0.819^{+0.015}_{-0.014}$	χ_{DR12BAO}^2	$4.4 (\nu: 0.9)$
$\Omega_{\text{m}}h^3$	$0.097^{+0.012}_{-0.011}$	$100\theta_{\text{s,eq}}$	$0.4524^{+0.0076}_{-0.0071}$	χ_{prior}^2	$7.3 (\nu: 6.6)$
σ_8	$0.814^{+0.032}_{-0.036}$	$H(0.15)$	$73.4^{+3.6}_{-3.6}$	χ_{CMB}^2	$1202.0 (\nu: 16.2)$
S_8	$0.825^{+0.033}_{-0.034}$	$D_{\text{M}}(0.15)$	637^{+33}_{-31}	χ_{BAO}^2	$6.0 (\nu: 0.6)$
$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.452^{+0.018}_{-0.019}$	$H(0.38)$	$83.5^{+3.8}_{-3.7}$		

$$\bar{\chi}_{\text{eff}}^2 = 2250.35; \Delta\bar{\chi}_{\text{eff}}^2 = 0.72; R - 1 = 0.00891$$

9.14 base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022329	$0.02236^{+0.00047}_{-0.00048}$	$\Omega_m h^3$	0.0936	$0.0948^{+0.0093}_{-0.0086}$	$D_M(0.15)$	645.3	644^{+28}_{-27}
$\Omega_c h^2$	0.1169	$0.1180^{+0.0077}_{-0.0072}$	σ_8	0.8158	$0.811^{+0.028}_{-0.031}$	$H(0.38)$	82.38	$82.6^{+3.1}_{-3.0}$
$100\theta_{MC}$	1.04128	$1.0412^{+0.0011}_{-0.0011}$	S_8	0.8271	$0.825^{+0.029}_{-0.029}$	$D_M(0.38)$	1540	1537^{+63}_{-61}
τ	0.0546	$0.055^{+0.021}_{-0.019}$	$\sigma_8 \Omega_m^{0.5}$	0.4530	$0.452^{+0.016}_{-0.016}$	$H(0.51)$	89.00	$89.3^{+3.2}_{-3.1}$
Σm_ν [eV]	0.000	< 0.158	$\sigma_8 \Omega_m^{0.25}$	0.6079	$0.605^{+0.019}_{-0.020}$	$D_M(0.51)$	1995	1991^{+79}_{-77}
N_{eff}	2.890	$2.96^{+0.47}_{-0.44}$	$\sigma_8/h^{0.5}$	0.9952	$0.988^{+0.025}_{-0.030}$	$H(0.61)$	94.55	$94.9^{+3.3}_{-3.2}$
$\ln(10^{10} A_s)$	3.0376	$3.041^{+0.045}_{-0.043}$	$r_{\text{drag}} h$	99.98	$99.7^{+2.2}_{-2.3}$	$D_M(0.61)$	2322	2317^{+91}_{-88}
n_s	0.9627	$0.964^{+0.018}_{-0.019}$	$\langle d^2 \rangle^{1/2}$	2.448	$2.442^{+0.055}_{-0.056}$	$H(2.33)$	233.7	$234.8^{+6.8}_{-6.6}$
y_{cal}	1.0006	$1.0006^{+0.0065}_{-0.0061}$	z_{re}	7.64	$7.7^{+2.0}_{-2.0}$	$D_M(2.33)$	5811	5791^{+190}_{-190}
A_{217}^{CIB}	43.5	46^{+20}_{-20}	$10^9 A_s$	2.086	$2.093^{+0.097}_{-0.087}$	$f\sigma_8(0.15)$	0.4571	$0.457^{+0.015}_{-0.015}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.98	—	$10^9 A_s e^{-2\tau}$	1.8698	$1.874^{+0.044}_{-0.044}$	$\sigma_8(0.15)$	0.7540	$0.749^{+0.027}_{-0.029}$
A_{143}^{tSZ}	7.02	> 0.999	D_{40}	1231.5	1232^{+35}_{-34}	$f\sigma_8(0.38)$	0.4761	$0.475^{+0.014}_{-0.015}$
A_{100}^{PS}	242	256^{+70}_{-70}	D_{220}	5734	5738^{+100}_{-96}	$\sigma_8(0.38)$	0.6685	$0.664^{+0.025}_{-0.027}$
A_{143}^{PS}	52.2	44^{+20}_{-20}	D_{810}	2538.6	2538^{+36}_{-34}	$f\sigma_8(0.51)$	0.4750	$0.474^{+0.014}_{-0.015}$
$A_{143 \times 217}^{\text{PS}}$	59.1	42^{+20}_{-20}	D_{1420}	819.8	818^{+13}_{-12}	$\sigma_8(0.51)$	0.6257	$0.622^{+0.023}_{-0.025}$
A_{217}^{PS}	124.3	115^{+30}_{-30}	D_{2000}	232.54	$231.6^{+4.7}_{-4.7}$	$f\sigma_8(0.61)$	0.4702	$0.469^{+0.014}_{-0.015}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9627	$0.964^{+0.018}_{-0.019}$	$\sigma_8(0.61)$	0.5954	$0.591^{+0.023}_{-0.024}$
A_{100}^{dustTT}	8.77	$8.9^{+4.8}_{-4.7}$	Y_P	0.2433	$0.2442^{+0.0063}_{-0.0063}$	$f\sigma_8(2.33)$	0.2993	$0.298^{+0.011}_{-0.012}$
A_{143}^{dustTT}	10.97	$10.8^{+4.6}_{-4.6}$	Y_P^{BBN}	0.2446	$0.2455^{+0.0063}_{-0.0063}$	$\sigma_8(2.33)$	0.3092	$0.307^{+0.012}_{-0.013}$
$A_{143 \times 217}^{\text{dustTT}}$	20.5	$18.5^{+8.4}_{-8.4}$	$10^5 D/H$	2.539	$2.56^{+0.12}_{-0.11}$	f_{2000}^{143}	27.1	29^{+8}_{-8}
A_{217}^{dustTT}	96.2	94^{+20}_{-20}	Age/Gyr	13.913	$13.87^{+0.46}_{-0.45}$	$f_{2000}^{143 \times 217}$	30.8	31^{+5}_{-5}
A_{100}^{dustTE}	0.114	$0.114^{+0.098}_{-0.095}$	z_*	1089.54	$1089.67^{+0.88}_{-0.84}$	f_{2000}^{217}	105.3	$106.4^{+5.2}_{-5.1}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.135^{+0.076}_{-0.075}$	r_*	146.06	$145.4^{+4.5}_{-4.4}$	χ_{lensing}^2	8.66	9.11 (ν : 0.2)
$A_{100 \times 217}^{\text{dustTE}}$	0.482	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	1.04154	$1.0414^{+0.0014}_{-0.0014}$	χ_{small}^2	396.05	397.1 (ν : 1.8)
A_{143}^{dustTE}	0.223	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	14.024	$13.97^{+0.42}_{-0.41}$	χ_{lowl}^2	23.64	23.7 (ν : 0.7)
$A_{143 \times 217}^{\text{dustTE}}$	0.665	$0.66^{+0.21}_{-0.21}$	z_{drag}	1059.47	$1059.7^{+1.8}_{-1.8}$	χ_{plik}^2	2343.0	2359.2 (ν : 17.5)
A_{217}^{dustTE}	2.07	$2.08^{+0.70}_{-0.69}$	r_{drag}	148.76	$148.1^{+4.7}_{-4.5}$	$\chi_{6\text{DF}}^2$	0.011	0.060 (ν : 0.0)
c_{100}	0.99975	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.13969	$0.1401^{+0.0034}_{-0.0034}$	χ_{MGS}^2	1.41	1.29 (ν : 0.1)
c_{217}	0.99814	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	0.16037	$0.1605^{+0.0011}_{-0.0010}$	χ_{DR12BAO}^2	3.91	4.9 (ν : 1.3)
H_0	67.21	$67.3^{+3.0}_{-2.9}$	z_{eq}	3399	3394^{+64}_{-61}	χ_{prior}^2	1.5	11.5 (ν : 10.2)
Ω_Λ	0.6917	$0.689^{+0.018}_{-0.019}$	k_{eq}	0.010266	$0.01030^{+0.00028}_{-0.00027}$	χ_{CMB}^2	2771.4	2789.1 (ν : 18.0)
Ω_m	0.3083	$0.311^{+0.019}_{-0.018}$	$100\theta_{\text{eq}}$	0.8138	$0.815^{+0.012}_{-0.012}$	χ_{BAO}^2	5.33	6.2 (ν : 0.9)
$\Omega_m h^2$	0.1393	$0.1408^{+0.0081}_{-0.0076}$	$100\theta_{s,\text{eq}}$	0.4497	$0.4502^{+0.0060}_{-0.0061}$			
$\Omega_\nu h^2$	0.00000	< 0.00167	$H(0.15)$	72.41	$72.6^{+3.0}_{-2.9}$			

Best-fit $\chi_{\text{eff}}^2 = 2778.17$; $\Delta\chi_{\text{eff}}^2 = -2.53$; $\bar{\chi}_{\text{eff}}^2 = 2806.81$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.03$; $R - 1 = 0.00810$
 χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.02) MGS: 1.41 (Δ 0.19) DR12BAO: 3.91 (Δ -0.51) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.66 (Δ -0.07) small_100x143_offlike5_EE_Aplanc
396.05 (Δ -0.47) commander_dx12_v3.2.29: 23.64 (Δ 0.74) plik_rd12_HM_v22b.TTTEEE: 2343.02 (Δ -2.29)

9.15 base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022338	$0.02238^{+0.00046}_{-0.00047}$	$\Omega_m h^3$	0.0936	$0.0951^{+0.0092}_{-0.0086}$	$D_M(0.15)$	644.6	643^{+27}_{-26}
$\Omega_c h^2$	0.1168	$0.1181^{+0.0078}_{-0.0072}$	σ_8	0.8146	$0.812^{+0.028}_{-0.030}$	$H(0.38)$	82.43	$82.7^{+3.0}_{-2.9}$
$100\theta_{MC}$	1.04130	$1.0412^{+0.0011}_{-0.0011}$	S_8	0.8245	$0.825^{+0.028}_{-0.029}$	$D_M(0.38)$	1538	1534^{+61}_{-59}
τ	0.0537	$0.055^{+0.021}_{-0.019}$	$\sigma_8 \Omega_m^{0.5}$	0.4516	$0.452^{+0.015}_{-0.016}$	$H(0.51)$	89.04	$89.4^{+3.2}_{-3.0}$
Σm_ν [eV]	0.001	< 0.153	$\sigma_8 \Omega_m^{0.25}$	0.6065	$0.605^{+0.019}_{-0.020}$	$D_M(0.51)$	1993	1987^{+77}_{-75}
N_{eff}	2.891	$2.97^{+0.46}_{-0.44}$	$\sigma_8/h^{0.5}$	0.9930	$0.988^{+0.024}_{-0.029}$	$H(0.61)$	94.58	$95.0^{+3.3}_{-3.1}$
$\ln(10^{10} A_s)$	3.0354	$3.042^{+0.045}_{-0.043}$	$r_{\text{drag}} h$	100.11	$99.8^{+2.1}_{-2.2}$	$D_M(0.61)$	2320	2313^{+88}_{-86}
n_s	0.9631	$0.964^{+0.018}_{-0.018}$	$\langle d^2 \rangle^{1/2}$	2.443	$2.441^{+0.055}_{-0.056}$	$H(2.33)$	233.6	$234.9^{+6.8}_{-6.5}$
y_{cal}	1.0005	$1.0006^{+0.0066}_{-0.0062}$	z_{re}	7.55	$7.7^{+2.0}_{-2.0}$	$D_M(2.33)$	5810	5785^{+190}_{-190}
A_{217}^{CIB}	43.5	46^{+20}_{-20}	$10^9 A_s$	2.081	$2.095^{+0.096}_{-0.088}$	$f\sigma_8(0.15)$	0.4558	$0.456^{+0.014}_{-0.015}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.95	—	$10^9 A_s e^{-2\tau}$	1.8692	$1.875^{+0.044}_{-0.045}$	$\sigma_8(0.15)$	0.7530	$0.750^{+0.026}_{-0.029}$
A_{143}^{tSZ}	6.93	> 0.992	D_{40}	1230.2	1231^{+35}_{-34}	$f\sigma_8(0.38)$	0.4749	$0.475^{+0.014}_{-0.015}$
A_{100}^{PS}	243	256^{+70}_{-70}	D_{220}	5734	5739^{+99}_{-95}	$\sigma_8(0.38)$	0.6677	$0.665^{+0.024}_{-0.026}$
A_{143}^{PS}	51.6	44^{+20}_{-20}	D_{810}	2538.6	2538^{+36}_{-34}	$f\sigma_8(0.51)$	0.4739	$0.474^{+0.014}_{-0.015}$
$A_{143 \times 217}^{\text{PS}}$	58.1	42^{+20}_{-20}	D_{1420}	819.9	818^{+13}_{-12}	$\sigma_8(0.51)$	0.6249	$0.622^{+0.023}_{-0.025}$
A_{217}^{PS}	124.1	115^{+30}_{-30}	D_{2000}	232.56	$231.6^{+4.7}_{-4.6}$	$f\sigma_8(0.61)$	0.4692	$0.469^{+0.015}_{-0.015}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9631	$0.964^{+0.018}_{-0.018}$	$\sigma_8(0.61)$	0.5947	$0.592^{+0.022}_{-0.024}$
A_{100}^{dustTT}	8.79	$8.9^{+4.7}_{-4.7}$	Y_{P}	0.2433	$0.2444^{+0.0062}_{-0.0063}$	$f\sigma_8(2.33)$	0.2990	$0.298^{+0.011}_{-0.011}$
A_{143}^{dustTT}	10.96	$10.8^{+4.6}_{-4.6}$	$Y_{\text{P}}^{\text{BBN}}$	0.2446	$0.2457^{+0.0062}_{-0.0063}$	$\sigma_8(2.33)$	0.3089	$0.308^{+0.012}_{-0.013}$
$A_{143 \times 217}^{\text{dustTT}}$	20.3	$18.5^{+8.3}_{-8.4}$	$10^5 D/H$	2.538	$2.56^{+0.12}_{-0.11}$	f_{2000}^{143}	26.9	29^{+8}_{-8}
A_{217}^{dustTT}	96.1	94^{+20}_{-20}	Age/Gyr	13.910	$13.85^{+0.46}_{-0.45}$	$f_{2000}^{143 \times 217}$	30.7	31^{+5}_{-5}
A_{100}^{dustTE}	0.114	$0.114^{+0.098}_{-0.095}$	z_*	1089.52	$1089.67^{+0.89}_{-0.84}$	f_{2000}^{217}	105.3	$106.4^{+5.2}_{-5.1}$
$A_{100 \times 143}^{\text{dustTE}}$	0.134	$0.135^{+0.075}_{-0.075}$	r_*	146.09	$145.3^{+4.5}_{-4.4}$	χ_{lensing}^2	8.61	9.12 (ν : 0.2)
$A_{100 \times 217}^{\text{dustTE}}$	0.481	$0.48^{+0.21}_{-0.22}$	$100\theta_*$	1.04156	$1.0414^{+0.0014}_{-0.0014}$	χ_{small}^2	395.92	397.2 (ν : 1.9)
A_{143}^{dustTE}	0.225	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	14.026	$13.96^{+0.42}_{-0.40}$	χ_{lowl}^2	23.52	23.6 (ν : 0.6)
$A_{143 \times 217}^{\text{dustTE}}$	0.664	$0.66^{+0.21}_{-0.20}$	z_{drag}	1059.51	$1059.7^{+1.7}_{-1.8}$	χ_{plik}^2	2343.5	2359.3 (ν : 17.7)
A_{217}^{dustTE}	2.07	$2.08^{+0.71}_{-0.69}$	r_{drag}	148.78	$148.0^{+4.7}_{-4.5}$	χ_{JLA}^2	1034.88	1035.07 (ν : 0.1)
c_{100}	0.99975	$0.9997^{+0.0016}_{-0.0016}$	k_{D}	0.13967	$0.1402^{+0.0034}_{-0.0034}$	$\chi_{6\text{DF}}^2$	0.006	0.048 (ν : 0.0)
c_{217}	0.99815	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_{\text{D}}$	0.16037	$0.1606^{+0.0011}_{-0.00099}$	χ_{MGS}^2	1.47	1.37 (ν : 0.1)
H_0	67.28	$67.4^{+2.9}_{-2.8}$	z_{eq}	3396	3391^{+61}_{-59}	χ_{DR12BAO}^2	3.77	4.6 (ν : 0.9)
Ω_Λ	0.6926	$0.690^{+0.017}_{-0.018}$	k_{eq}	0.010256	$0.01030^{+0.00029}_{-0.00027}$	χ_{prior}^2	1.4	11.5 (ν : 10.1)
Ω_m	0.3074	$0.310^{+0.018}_{-0.017}$	$100\theta_{\text{eq}}$	0.8145	$0.815^{+0.012}_{-0.012}$	χ_{CMB}^2	2771.6	2789.2 (ν : 18.1)
$\Omega_m h^2$	0.1392	$0.1409^{+0.0081}_{-0.0075}$	$100\theta_{s,\text{eq}}$	0.4500	$0.4505^{+0.0058}_{-0.0059}$	χ_{BAO}^2	5.25	6.0 (ν : 0.6)
$\Omega_\nu h^2$	0.00001	< 0.00162	$H(0.15)$	72.48	$72.7^{+2.9}_{-2.8}$			

Best-fit $\chi_{\text{eff}}^2 = 3813.11$; $\Delta\chi_{\text{eff}}^2 = -2.56$; $\bar{\chi}_{\text{eff}}^2 = 3841.73$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.12$; $R - 1 = 0.00935$
 χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.02) MGS: 1.47 (Δ 0.19) DR12BAO: 3.77 (Δ -0.47) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.61 (Δ -0.11) small_100x143_offlike5_EE_Aplanc
395.92 (Δ -0.60) commander_dx12_v3.2.29: 23.52 (Δ 0.64) plik_rd12_HM_v22b.TTTEEE: 2343.54 (Δ -1.73) SN - JLA Pantheon18: 1034.88 (Δ -0.09)

9.16 base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02238^{+0.00045}_{-0.00047}$	$\Omega_m h^3$	$0.0951^{+0.0093}_{-0.0086}$	$D_M(0.15)$	643^{+27}_{-26}
$\Omega_c h^2$	$0.1181^{+0.0078}_{-0.0071}$	σ_8	$0.812^{+0.027}_{-0.030}$	$H(0.38)$	$82.7^{+3.0}_{-2.9}$
$100\theta_{MC}$	$1.0412^{+0.0011}_{-0.0011}$	S_8	$0.825^{+0.028}_{-0.029}$	$D_M(0.38)$	1534^{+60}_{-59}
τ	$0.056^{+0.018}_{-0.014}$	$\sigma_8 \Omega_m^{0.5}$	$0.452^{+0.015}_{-0.016}$	$H(0.51)$	$89.4^{+3.2}_{-3.0}$
Σm_ν [eV]	< 0.154	$\sigma_8 \Omega_m^{0.25}$	$0.606^{+0.019}_{-0.020}$	$D_M(0.51)$	1987^{+76}_{-75}
N_{eff}	$2.97^{+0.46}_{-0.44}$	$\sigma_8/h^{0.5}$	$0.989^{+0.024}_{-0.029}$	$H(0.61)$	$95.0^{+3.3}_{-3.1}$
$\ln(10^{10} A_s)$	$3.043^{+0.044}_{-0.035}$	$r_{\text{drag}} h$	$99.8^{+2.1}_{-2.2}$	$D_M(0.61)$	2312^{+87}_{-86}
n_s	$0.964^{+0.018}_{-0.018}$	$\langle d^2 \rangle^{1/2}$	$2.442^{+0.054}_{-0.053}$	$H(2.33)$	$234.9^{+6.8}_{-6.5}$
y_{cal}	$1.0006^{+0.0066}_{-0.0061}$	z_{re}	< 9.50	$D_M(2.33)$	5784^{+190}_{-190}
A_{217}^{CIB}	46^{+20}_{-20}	$10^9 A_s$	$2.098^{+0.094}_{-0.072}$	$f\sigma_8(0.15)$	$0.456^{+0.014}_{-0.015}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.874^{+0.044}_{-0.044}$	$\sigma_8(0.15)$	$0.751^{+0.026}_{-0.028}$
A_{143}^{tSZ}	> 0.992	D_{40}	1231^{+35}_{-34}	$f\sigma_8(0.38)$	$0.475^{+0.014}_{-0.015}$
A_{100}^{PS}	256^{+70}_{-70}	D_{220}	5738^{+99}_{-95}	$\sigma_8(0.38)$	$0.665^{+0.024}_{-0.025}$
A_{143}^{PS}	44^{+20}_{-20}	D_{810}	2538^{+36}_{-34}	$f\sigma_8(0.51)$	$0.474^{+0.014}_{-0.014}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	818^{+13}_{-12}	$\sigma_8(0.51)$	$0.623^{+0.023}_{-0.024}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$231.6^{+4.7}_{-4.7}$	$f\sigma_8(0.61)$	$0.469^{+0.014}_{-0.014}$
A^{kSZ}	—	$n_{s,0.002}$	$0.964^{+0.018}_{-0.018}$	$\sigma_8(0.61)$	$0.593^{+0.022}_{-0.023}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.7}$	Y_P	$0.2444^{+0.0062}_{-0.0062}$	$f\sigma_8(2.33)$	$0.299^{+0.011}_{-0.011}$
A_{143}^{dustTT}	$10.8^{+4.6}_{-4.6}$	Y_{BBN}	$0.2457^{+0.0062}_{-0.0063}$	$\sigma_8(2.33)$	$0.308^{+0.012}_{-0.012}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.5^{+8.3}_{-8.4}$	$10^5 D/H$	$2.56^{+0.12}_{-0.11}$	f_{2000}^{143}	29^{+8}_{-8}
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.85^{+0.46}_{-0.45}$	$f_{2000}^{143 \times 217}$	31^{+5}_{-5}
A_{100}^{dustTE}	$0.114^{+0.098}_{-0.095}$	z_*	$1089.66^{+0.89}_{-0.83}$	f_{2000}^{217}	$106.4^{+5.2}_{-5.1}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.075}_{-0.075}$	r_*	$145.3^{+4.5}_{-4.4}$	χ_{lensing}^2	$9.10 (\nu: 0.2)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.21}_{-0.22}$	$100\theta_*$	$1.0414^{+0.0014}_{-0.0014}$	χ_{simall}^2	$397.2 (\nu: 1.9)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.96^{+0.42}_{-0.41}$	χ_{lowl}^2	$23.6 (\nu: 0.6)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.20}$	z_{drag}	$1059.8^{+1.7}_{-1.8}$	χ_{plik}^2	$2359.2 (\nu: 17.6)$
A_{217}^{dustTE}	$2.08^{+0.72}_{-0.69}$	r_{drag}	$148.0^{+4.7}_{-4.6}$	χ_{JLA}^2	$1035.06 (\nu: 0.1)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_D	$0.1402^{+0.0034}_{-0.0034}$	$\chi_{6\text{DF}}^2$	$0.047 (\nu: 0.0)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.1606^{+0.0011}_{-0.00099}$	χ_{MGS}^2	$1.38 (\nu: 0.1)$
H_0	$67.5^{+2.9}_{-2.8}$	z_{eq}	3390^{+60}_{-59}	χ_{DR12BAO}^2	$4.6 (\nu: 0.9)$
Ω_Λ	$0.690^{+0.017}_{-0.018}$	k_{eq}	$0.01029^{+0.00029}_{-0.00027}$	χ_{prior}^2	$11.5 (\nu: 10.0)$
Ω_m	$0.310^{+0.018}_{-0.017}$	$100\theta_{\text{eq}}$	$0.816^{+0.011}_{-0.012}$	χ_{CMB}^2	$2789.0 (\nu: 17.9)$
$\Omega_m h^2$	$0.1409^{+0.0081}_{-0.0075}$	$100\theta_{s,\text{eq}}$	$0.4506^{+0.0058}_{-0.0057}$	χ_{BAO}^2	$6.0 (\nu: 0.6)$
$\Omega_\nu h^2$	< 0.00164	$H(0.15)$	$72.7^{+2.9}_{-2.8}$		

$$\bar{\chi}_{\text{eff}}^2 = 3841.56; \Delta \bar{\chi}_{\text{eff}}^2 = -0.18; R - 1 = 0.01012$$

10 nnu+nrn

10.1 base_nnu_nrn_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02213	$0.02216^{+0.00057}_{-0.00060}$	$\Omega_m h^2$	0.1385	$0.1390^{+0.0089}_{-0.0085}$	$100\theta_{\text{eq}}$	0.8044	$0.805^{+0.019}_{-0.020}$
$\Omega_c h^2$	0.1157	$0.1162^{+0.0086}_{-0.0081}$	$\Omega_m h^3$	0.0899	$0.091^{+0.012}_{-0.010}$	$100\theta_{\text{s,eq}}$	0.4449	$0.4452^{+0.0098}_{-0.0099}$
$100\theta_{\text{MC}}$	1.04144	$1.0414^{+0.0013}_{-0.0012}$	σ_8	0.7989	$0.800^{+0.031}_{-0.029}$	$H(0.15)$	70.25	$70.5^{+4.2}_{-4.0}$
τ	0.0548	$0.055^{+0.021}_{-0.021}$	S_8	0.8365	$0.836^{+0.042}_{-0.040}$	$D_{\text{M}}(0.15)$	666.7	665^{+42}_{-40}
N_{eff}	2.71	$2.74^{+0.59}_{-0.53}$	$\sigma_8 \Omega_m^{0.5}$	0.4582	$0.458^{+0.023}_{-0.022}$	$H(0.38)$	80.43	$80.7^{+4.2}_{-3.9}$
$\ln(10^{10} A_s)$	3.0364	$3.037^{+0.049}_{-0.047}$	$\sigma_8 \Omega_m^{0.25}$	0.6050	$0.605^{+0.023}_{-0.022}$	$D_{\text{M}}(0.38)$	1586	1582^{+92}_{-89}
n_s	0.9500	$0.950^{+0.026}_{-0.028}$	$\sigma_8/h^{0.5}$	0.9917	$0.991^{+0.031}_{-0.029}$	$H(0.51)$	87.17	$87.4^{+4.3}_{-4.0}$
$dn_s/d \ln k$	-0.0105	$-0.012^{+0.020}_{-0.021}$	$r_{\text{drag}} h$	97.52	$97.6^{+3.4}_{-3.6}$	$D_{\text{M}}(0.51)$	2051	2046^{+110}_{-110}
y_{cal}	1.0005	$1.0005^{+0.0067}_{-0.0062}$	$\langle d^2 \rangle^{1/2}$	2.458	$2.455^{+0.078}_{-0.075}$	$H(0.61)$	92.79	$93.0^{+4.4}_{-4.0}$
A_{217}^{CIB}	46.8	47^{+20}_{-20}	z_{re}	7.68	$7.7^{+2.0}_{-2.2}$	$D_{\text{M}}(0.61)$	2385	2379^{+130}_{-130}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.49	—	$10^9 A_s$	2.083	$2.08^{+0.10}_{-0.097}$	$H(2.33)$	232.4	$232.9^{+7.8}_{-7.4}$
A_{143}^{tSZ}	7.1	—	$10^9 A_s e^{-2\tau}$	1.8666	$1.868^{+0.047}_{-0.048}$	$D_{\text{M}}(2.33)$	5912	5899^{+250}_{-260}
A_{100}^{PS}	250	261^{+70}_{-70}	D_{40}	1225.2	1223^{+48}_{-48}	$f\sigma_8(0.15)$	0.4613	$0.461^{+0.021}_{-0.020}$
A_{143}^{PS}	48.8	47^{+20}_{-20}	D_{220}	5729	5729^{+100}_{-100}	$\sigma_8(0.15)$	0.7366	$0.737^{+0.030}_{-0.027}$
$A_{143 \times 217}^{\text{PS}}$	49.0	42^{+20}_{-20}	D_{810}	2540.0	2539^{+36}_{-35}	$f\sigma_8(0.38)$	0.4755	$0.475^{+0.018}_{-0.017}$
A_{217}^{PS}	120.4	115^{+30}_{-30}	D_{1420}	817.6	816^{+13}_{-13}	$\sigma_8(0.38)$	0.6511	$0.652^{+0.028}_{-0.026}$
A^{kSZ}	0.0	—	D_{2000}	231.55	$230.8^{+4.8}_{-4.9}$	$f\sigma_8(0.51)$	0.4721	$0.472^{+0.017}_{-0.016}$
A_{100}^{dustTT}	8.71	$8.8^{+4.7}_{-4.7}$	$n_{\text{s},0.002}$	0.984	$0.988^{+0.055}_{-0.054}$	$\sigma_8(0.51)$	0.6086	$0.609^{+0.027}_{-0.025}$
A_{143}^{dustTT}	10.87	$10.8^{+4.7}_{-4.7}$	Y_{P}	0.2407	$0.2411^{+0.0081}_{-0.0079}$	$f\sigma_8(0.61)$	0.4659	$0.466^{+0.017}_{-0.016}$
$A_{143 \times 217}^{\text{dustTT}}$	19.8	$18.5^{+8.8}_{-8.5}$	$Y_{\text{P}}^{\text{BBN}}$	0.2420	$0.2424^{+0.0081}_{-0.0079}$	$\sigma_8(0.61)$	0.5787	$0.579^{+0.026}_{-0.024}$
A_{217}^{dustTT}	95.1	94^{+20}_{-20}	$10^5 D/H$	2.513	$2.52^{+0.14}_{-0.13}$	$f\sigma_8(2.33)$	0.2912	$0.291^{+0.014}_{-0.013}$
A_{100}^{dustTE}	0.115	$0.114^{+0.10}_{-0.094}$	Age/Gyr	14.15	$14.12^{+0.60}_{-0.61}$	$\sigma_8(2.33)$	0.2994	$0.300^{+0.015}_{-0.014}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.134^{+0.075}_{-0.077}$	z_*	1089.51	$1089.6^{+1.0}_{-0.93}$	f_{2000}^{143}	28.8	30^{+8}_{-8}
$A_{100 \times 217}^{\text{dustTE}}$	0.484	$0.48^{+0.22}_{-0.22}$	r_*	147.5	$147.2^{+5.5}_{-5.4}$	$f_{2000}^{143 \times 217}$	31.9	33^{+6}_{-6}
A_{143}^{dustTE}	0.224	$0.22^{+0.14}_{-0.14}$	$100\theta_*$	1.04186	$1.0418^{+0.0016}_{-0.0016}$	f_{2000}^{217}	106.5	$107.3^{+5.1}_{-5.1}$
$A_{143 \times 217}^{\text{dustTE}}$	0.665	$0.67^{+0.21}_{-0.20}$	$D_{\text{M}}(z_*)/\text{Gpc}$	14.15	$14.13^{+0.50}_{-0.50}$	χ_{small}^2	396.09	$397.1 (\nu: 1.5)$
A_{217}^{dustTE}	2.09	$2.08^{+0.69}_{-0.70}$	z_{drag}	1058.83	$1058.9^{+2.2}_{-2.2}$	χ_{lowl}^2	22.41	$22.5 (\nu: 1.1)$
c_{100}	0.99976	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	150.2	$150.0^{+5.7}_{-5.6}$	χ_{plik}^2	2343.2	$2360.1 (\nu: 18.4)$
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0016}$	k_{D}	0.13872	$0.1389^{+0.0041}_{-0.0039}$	χ_{prior}^2	1.5	$11.4 (\nu: 10.1)$
H_0	64.90	$65.1^{+4.3}_{-4.1}$	$100\theta_{\text{D}}$	0.16000	$0.1601^{+0.0013}_{-0.0013}$	χ_{CMB}^2	2761.7	$2779.7 (\nu: 18.5)$
Ω_{Λ}	0.6712	$0.672^{+0.028}_{-0.033}$	z_{eq}	3450	3448^{+110}_{-100}			
Ω_{m}	0.3288	$0.328^{+0.033}_{-0.028}$	k_{eq}	0.010290	$0.01031^{+0.00031}_{-0.00030}$			

Best-fit $\chi_{\text{eff}}^2 = 2763.19$; $\Delta\chi_{\text{eff}}^2 = -2.59$; $\bar{\chi}_{\text{eff}}^2 = 2791.11$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.66$; $R - 1 = 0.01356$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.09 (Δ 0.04) commander_dx12_v3.2.29: 22.41 (Δ -0.85) plik_rd12_HM_v22b_TTTEEE: 2343.18 (Δ -1.47)

10.2 base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022331	$0.02236^{+0.00047}_{-0.00046}$	$\Omega_m h^3$	0.0929	$0.0937^{+0.010}_{-0.0098}$	$H(0.15)$	71.85	$72.1^{+3.4}_{-3.2}$
$\Omega_c h^2$	0.1166	$0.1172^{+0.0084}_{-0.0087}$	σ_8	0.8022	$0.803^{+0.031}_{-0.027}$	$D_M(0.15)$	650.8	649^{+31}_{-31}
$100\theta_{MC}$	1.04131	$1.0413^{+0.0012}_{-0.0012}$	S_8	0.8217	$0.822^{+0.036}_{-0.032}$	$H(0.38)$	81.90	$82.1^{+3.5}_{-3.3}$
τ	0.0568	$0.057^{+0.020}_{-0.021}$	$\sigma_8 \Omega_m^{0.5}$	0.4500	$0.450^{+0.019}_{-0.018}$	$D_M(0.38)$	1551	1547^{+71}_{-70}
N_{eff}	2.87	$2.91^{+0.51}_{-0.51}$	$\sigma_8 \Omega_m^{0.25}$	0.6008	$0.601^{+0.023}_{-0.021}$	$H(0.51)$	88.58	$88.8^{+3.5}_{-3.5}$
$\ln(10^{10} A_s)$	3.0423	$3.043^{+0.046}_{-0.041}$	$\sigma_8/h^{0.5}$	0.9830	$0.982^{+0.028}_{-0.025}$	$D_M(0.51)$	2009	2003^{+89}_{-89}
n_s	0.9605	$0.960^{+0.021}_{-0.022}$	$r_{\text{drag}} h$	99.19	$99.3^{+2.0}_{-2.3}$	$H(0.61)$	94.16	$94.4^{+3.7}_{-3.6}$
$dn_s/d \ln k$	-0.0064	$-0.008^{+0.017}_{-0.019}$	$\langle d^2 \rangle^{1/2}$	2.433	$2.431^{+0.066}_{-0.063}$	$D_M(0.61)$	2337	2331^{+100}_{-100}
y_{cal}	1.0006	$1.0006^{+0.0066}_{-0.0061}$	z_{re}	7.86	$7.8^{+1.9}_{-2.2}$	$H(2.33)$	233.7	$234.3^{+7.2}_{-7.8}$
A_{217}^{CIB}	47.1	47^{+20}_{-20}	$10^9 A_s$	2.095	$2.098^{+0.099}_{-0.085}$	$D_M(2.33)$	5832	5817^{+220}_{-220}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.51	—	$10^9 A_s e^{-2\tau}$	1.8705	$1.873^{+0.046}_{-0.044}$	$f\sigma_8(0.15)$	0.4543	$0.454^{+0.019}_{-0.017}$
A_{143}^{tSZ}	7.11	$5.3^{+4.5}_{-4.6}$	D_{40}	1219.0	1217^{+47}_{-45}	$\sigma_8(0.15)$	0.7409	$0.742^{+0.030}_{-0.026}$
A_{100}^{PS}	249	262^{+80}_{-70}	D_{220}	5735	5738^{+95}_{-96}	$f\sigma_8(0.38)$	0.4718	$0.472^{+0.018}_{-0.016}$
A_{143}^{PS}	48.7	47^{+20}_{-20}	D_{810}	2540.2	2539^{+34}_{-34}	$\sigma_8(0.38)$	0.6564	$0.657^{+0.028}_{-0.023}$
$A_{143 \times 217}^{\text{PS}}$	49.4	42^{+20}_{-20}	D_{1420}	818.5	817^{+12}_{-13}	$f\sigma_8(0.51)$	0.4700	$0.470^{+0.018}_{-0.016}$
A_{217}^{PS}	120.0	115^{+20}_{-30}	D_{2000}	231.61	$230.8^{+4.5}_{-4.7}$	$\sigma_8(0.51)$	0.6142	$0.615^{+0.026}_{-0.022}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.981	$0.986^{+0.053}_{-0.051}$	$f\sigma_8(0.61)$	0.4648	$0.465^{+0.018}_{-0.015}$
A_{100}^{dustTT}	8.80	$8.8^{+4.6}_{-4.6}$	Y_P	0.2430	$0.2435^{+0.0070}_{-0.0074}$	$\sigma_8(0.61)$	0.5843	$0.585^{+0.025}_{-0.021}$
A_{143}^{dustTT}	10.95	$10.9^{+4.6}_{-4.7}$	Y_P^{BBN}	0.2443	$0.2448^{+0.0070}_{-0.0074}$	$f\sigma_8(2.33)$	0.2945	$0.295^{+0.013}_{-0.011}$
$A_{143 \times 217}^{\text{dustTT}}$	19.8	$18.5^{+7.7}_{-8.2}$	$10^5 D/H$	2.532	$2.54^{+0.13}_{-0.13}$	$\sigma_8(2.33)$	0.3035	$0.304^{+0.014}_{-0.012}$
A_{217}^{dustTT}	94.8	94^{+20}_{-20}	Age/Gyr	13.96	$13.93^{+0.53}_{-0.51}$	f_{2000}^{143}	28.7	30^{+8}_{-8}
A_{100}^{dustTE}	0.114	$0.115^{+0.10}_{-0.097}$	z_*	1089.50	$1089.5^{+1.0}_{-0.95}$	$f_{2000}^{143 \times 217}$	31.9	33^{+6}_{-6}
$A_{100 \times 143}^{\text{dustTE}}$	0.134	$0.134^{+0.077}_{-0.077}$	r_*	146.3	$145.9^{+5.4}_{-5.0}$	f_{2000}^{217}	106.5	$107.3^{+5.8}_{-5.3}$
$A_{100 \times 217}^{\text{dustTE}}$	0.479	$0.48^{+0.21}_{-0.23}$	$100\theta_*$	1.04162	$1.0415^{+0.0015}_{-0.0015}$	χ_{small}^2	396.4	$397.2 (\nu: 1.8)$
A_{143}^{dustTE}	0.224	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	14.041	$14.01^{+0.49}_{-0.46}$	χ_{lowl}^2	22.08	$22.2 (\nu: 1.1)$
$A_{143 \times 217}^{\text{dustTE}}$	0.664	$0.66^{+0.21}_{-0.20}$	z_{drag}	1059.47	$1059.6^{+2.0}_{-1.9}$	χ_{plik}^2	2344.7	$2361.1 (\nu: 19.5)$
A_{217}^{dustTE}	2.07	$2.06^{+0.66}_{-0.66}$	r_{drag}	149.0	$148.6^{+5.6}_{-5.2}$	$\chi_{6\text{DF}}^2$	0.070	$0.095 (\nu: 0.0)$
c_{100}	0.99975	$0.9997^{+0.0017}_{-0.0016}$	k_D	0.13957	$0.1399^{+0.0039}_{-0.0038}$	χ_{MGS}^2	0.98	$1.07 (\nu: 0.1)$
c_{217}	0.99820	$0.9982^{+0.0015}_{-0.0017}$	$100\theta_D$	0.16031	$0.1604^{+0.0012}_{-0.0012}$	χ_{DR12BAO}^2	5.26	$5.6 (\nu: 2.0)$
H_0	66.59	$66.8^{+3.4}_{-3.2}$	z_{eq}	3400	3399^{+69}_{-64}	χ_{prior}^2	1.6	$11.6 (\nu: 10.8)$
Ω_Λ	0.6852	$0.686^{+0.016}_{-0.019}$	k_{eq}	0.010255	$0.01028^{+0.00031}_{-0.00034}$	χ_{BAO}^2	6.31	$6.8 (\nu: 1.5)$
Ω_m	0.3148	$0.314^{+0.019}_{-0.016}$	$100\theta_{\text{eq}}$	0.8137	$0.814^{+0.012}_{-0.013}$	χ_{CMB}^2	2763.1	$2780.6 (\nu: 19.1)$
$\Omega_m h^2$	0.1396	$0.1402^{+0.0087}_{-0.0090}$	$100\theta_{s,\text{eq}}$	0.4496	$0.4497^{+0.0060}_{-0.0065}$			

Best-fit $\chi_{\text{eff}}^2 = 2770.98$; $\Delta\chi_{\text{eff}}^2 = -0.93$; $\bar{\chi}_{\text{eff}}^2 = 2798.94$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.03$; $R - 1 = 0.03824$

χ_{eff}^2 : BAO - 6DF: 0.07 (Δ 0.04) MGS: 0.98 (Δ -0.24) DR12BAO: 5.26 (Δ 0.85) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.37 (Δ 0.16) commander_dx12_v3_2_29: 22.08 (Δ -0.79) plik_rd12_HM_v22b_TTTEEE: 2344.66 (Δ -0.85)

10.3 base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02211	$0.02216^{+0.00055}_{-0.00057}$	$\Omega_m h^2$	0.1376	$0.1385^{+0.0090}_{-0.0082}$	$100\theta_{\text{eq}}$	0.8049	$0.806^{+0.018}_{-0.017}$
$\Omega_c h^2$	0.1149	$0.1157^{+0.0086}_{-0.0078}$	$\Omega_m h^3$	0.0891	$0.0903^{+0.011}_{-0.0098}$	$100\theta_{\text{s,eq}}$	0.4452	$0.4457^{+0.0090}_{-0.0088}$
$100\theta_{\text{MC}}$	1.04153	$1.0414^{+0.0012}_{-0.0013}$	σ_8	0.7952	$0.797^{+0.030}_{-0.028}$	$H(0.15)$	70.08	$70.5^{+4.2}_{-3.8}$
τ	0.0536	$0.054^{+0.020}_{-0.020}$	S_8	0.8317	$0.831^{+0.033}_{-0.032}$	$D_{\text{M}}(0.15)$	668.2	665^{+40}_{-39}
N_{eff}	2.67	$2.73^{+0.57}_{-0.52}$	$\sigma_8 \Omega_m^{0.5}$	0.4556	$0.455^{+0.018}_{-0.017}$	$H(0.38)$	80.22	$80.6^{+4.2}_{-3.8}$
$\ln(10^{10} A_s)$	3.0309	$3.034^{+0.046}_{-0.044}$	$\sigma_8 \Omega_m^{0.25}$	0.6019	$0.602^{+0.019}_{-0.019}$	$D_{\text{M}}(0.38)$	1590	1581^{+89}_{-88}
n_s	0.9494	$0.950^{+0.026}_{-0.026}$	$\sigma_8/h^{0.5}$	0.9881	$0.988^{+0.023}_{-0.022}$	$H(0.51)$	86.94	$87.4^{+4.2}_{-3.8}$
$dn_s/d \ln k$	-0.0098	$-0.011^{+0.020}_{-0.020}$	$r_{\text{drag}} h$	97.61	$97.8^{+3.1}_{-3.1}$	$D_{\text{M}}(0.51)$	2056	2046^{+110}_{-110}
y_{cal}	1.0003	$1.0004^{+0.0064}_{-0.0062}$	$\langle d^2 \rangle^{1/2}$	2.453	$2.450^{+0.062}_{-0.062}$	$H(0.61)$	92.54	$93.0^{+4.3}_{-3.9}$
A_{217}^{CIB}	45.6	47^{+20}_{-20}	z_{re}	7.53	$7.6^{+1.9}_{-2.1}$	$D_{\text{M}}(0.61)$	2391	2379^{+120}_{-130}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.68	—	$10^9 A_s$	2.072	$2.078^{+0.096}_{-0.091}$	$H(2.33)$	231.7	$232.5^{+7.8}_{-7.3}$
A_{143}^{tSZ}	7.0	—	$10^9 A_s e^{-2\tau}$	1.8611	$1.865^{+0.046}_{-0.047}$	$D_{\text{M}}(2.33)$	5928	5903^{+250}_{-250}
A_{100}^{PS}	247	261^{+70}_{-70}	D_{40}	1225.8	1223^{+46}_{-48}	$f\sigma_8(0.15)$	0.4587	$0.459^{+0.016}_{-0.016}$
A_{143}^{PS}	50.6	46^{+20}_{-20}	D_{220}	5727	5731^{+96}_{-100}	$\sigma_8(0.15)$	0.7332	$0.735^{+0.028}_{-0.026}$
$A_{143 \times 217}^{\text{PS}}$	53.1	42^{+20}_{-20}	D_{810}	2538.1	2537^{+36}_{-34}	$f\sigma_8(0.38)$	0.4730	$0.473^{+0.015}_{-0.015}$
A_{217}^{PS}	121.8	115^{+30}_{-30}	D_{1420}	817.9	816^{+13}_{-13}	$\sigma_8(0.38)$	0.6482	$0.650^{+0.027}_{-0.025}$
A^{kSZ}	0.0	—	D_{2000}	231.82	$230.9^{+4.6}_{-4.8}$	$f\sigma_8(0.51)$	0.4697	$0.470^{+0.015}_{-0.014}$
A_{100}^{dustTT}	8.72	$8.8^{+4.6}_{-4.5}$	$n_{\text{s},0.002}$	0.981	$0.986^{+0.054}_{-0.053}$	$\sigma_8(0.51)$	0.6059	$0.608^{+0.026}_{-0.024}$
A_{143}^{dustTT}	10.90	$10.8^{+4.5}_{-4.9}$	Y_{P}	0.2401	$0.2410^{+0.0080}_{-0.0077}$	$f\sigma_8(0.61)$	0.4636	$0.464^{+0.015}_{-0.014}$
$A_{143 \times 217}^{\text{dustTT}}$	20.0	$18.5^{+8.8}_{-8.1}$	$Y_{\text{P}}^{\text{BBN}}$	0.2415	$0.2423^{+0.0080}_{-0.0078}$	$\sigma_8(0.61)$	0.5761	$0.578^{+0.025}_{-0.023}$
A_{217}^{dustTT}	95.4	94^{+20}_{-20}	$10^5 \text{D}/\text{H}$	2.503	$2.51^{+0.14}_{-0.13}$	$f\sigma_8(2.33)$	0.2899	$0.291^{+0.013}_{-0.012}$
A_{100}^{dustTE}	0.113	$0.115^{+0.10}_{-0.094}$	Age/Gyr	14.19	$14.13^{+0.59}_{-0.59}$	$\sigma_8(2.33)$	0.2981	$0.299^{+0.014}_{-0.013}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.134^{+0.078}_{-0.079}$	z_*	1089.42	$1089.49^{+0.98}_{-0.91}$	f_{2000}^{143}	28.3	30^{+8}_{-8}
$A_{100 \times 217}^{\text{dustTE}}$	0.479	$0.48^{+0.21}_{-0.22}$	r_*	147.9	$147.4^{+5.4}_{-5.4}$	$f_{2000}^{143 \times 217}$	31.6	32^{+6}_{-6}
A_{143}^{dustTE}	0.226	$0.22^{+0.14}_{-0.14}$	$100\theta_*$	1.04198	$1.0419^{+0.0016}_{-0.0016}$	f_{2000}^{217}	106.1	$107.1^{+5.4}_{-5.2}$
$A_{143 \times 217}^{\text{dustTE}}$	0.664	$0.66^{+0.21}_{-0.20}$	$D_{\text{M}}(z_*)/\text{Gpc}$	14.197	$14.15^{+0.50}_{-0.50}$	χ_{lensing}^2	8.63	$9.17 (\nu: 0.3)$
A_{217}^{dustTE}	2.07	$2.07^{+0.71}_{-0.69}$	z_{drag}	1058.67	$1058.9^{+2.2}_{-2.1}$	χ_{small}^2	395.91	$396.8 (\nu: 1.1)$
c_{100}	0.99976	$0.9997^{+0.0015}_{-0.0016}$	r_{drag}	150.7	$150.2^{+5.6}_{-5.6}$	χ_{lowl}^2	22.56	$22.6 (\nu: 1.2)$
c_{217}	0.99817	$0.9982^{+0.0016}_{-0.0016}$	k_{D}	0.13837	$0.1388^{+0.0040}_{-0.0038}$	χ_{plik}^2	2343.4	$2359.8 (\nu: 17.4)$
H_0	64.76	$65.2^{+4.2}_{-3.9}$	$100\theta_{\text{D}}$	0.15992	$0.1600^{+0.0013}_{-0.0012}$	χ_{prior}^2	1.4	$11.4 (\nu: 10.1)$
Ω_{Λ}	0.6718	$0.673^{+0.026}_{-0.028}$	z_{eq}	3447	3441^{+94}_{-94}	χ_{CMB}^2	2770.6	$2788.4 (\nu: 18.5)$
Ω_{m}	0.3282	$0.327^{+0.028}_{-0.026}$	k_{eq}	0.010253	$0.01028^{+0.00029}_{-0.00029}$			

Best-fit $\chi_{\text{eff}}^2 = 2771.94$; $\Delta\chi_{\text{eff}}^2 = -2.70$; $\bar{\chi}_{\text{eff}}^2 = 2799.77$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.92$; $R - 1 = 0.01835$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.63 (Δ -0.24) small_100x143_offlike5_EE_Aplanck_B: 395.92 (Δ -0.13) commander_dx12_v3_2_29: 22.56 (Δ -0.70) plik_rd12_HM_v22b_TTTEEE: 2343.45 (Δ -1.48)

10.4 base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02235^{+0.00047}_{-0.00046}$	$\Omega_m h^3$	$0.0934^{+0.010}_{-0.0098}$	$H(0.15)$	$71.9^{+3.4}_{-3.2}$
$\Omega_c h^2$	$0.1169^{+0.0082}_{-0.0086}$	σ_8	$0.803^{+0.029}_{-0.026}$	$D_M(0.15)$	650^{+32}_{-31}
$100\theta_{MC}$	$1.0413^{+0.0013}_{-0.0012}$	S_8	$0.822^{+0.029}_{-0.028}$	$H(0.38)$	$82.0^{+3.4}_{-3.5}$
τ	$0.057^{+0.018}_{-0.019}$	$\sigma_8 \Omega_m^{0.5}$	$0.450^{+0.016}_{-0.015}$	$D_M(0.38)$	1550^{+71}_{-69}
N_{eff}	$2.89^{+0.52}_{-0.52}$	$\sigma_8 \Omega_m^{0.25}$	$0.601^{+0.019}_{-0.018}$	$H(0.51)$	$88.7^{+3.6}_{-3.5}$
$\ln(10^{10} A_s)$	$3.044^{+0.042}_{-0.040}$	$\sigma_8/h^{0.5}$	$0.983^{+0.022}_{-0.021}$	$D_M(0.51)$	2007^{+91}_{-86}
n_s	$0.959^{+0.021}_{-0.022}$	$r_{\text{drag}} h$	$99.2^{+2.1}_{-2.2}$	$H(0.61)$	$94.3^{+3.7}_{-3.7}$
$dn_s/d \ln k$	$-0.008^{+0.019}_{-0.019}$	$\langle d^2 \rangle^{1/2}$	$2.434^{+0.057}_{-0.054}$	$D_M(0.61)$	2335^{+110}_{-98}
y_{cal}	$1.0007^{+0.0067}_{-0.0061}$	z_{re}	$7.9^{+1.7}_{-2.0}$	$H(2.33)$	$234.0^{+7.4}_{-7.7}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.099^{+0.090}_{-0.083}$	$D_M(2.33)$	5826^{+230}_{-210}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.872^{+0.044}_{-0.043}$	$f\sigma_8(0.15)$	$0.455^{+0.015}_{-0.015}$
A_{143}^{tSZ}	$5.3^{+4.4}_{-4.6}$	D_{40}	1220^{+46}_{-47}	$\sigma_8(0.15)$	$0.741^{+0.027}_{-0.025}$
A_{100}^{PS}	261^{+70}_{-70}	D_{220}	5741^{+98}_{-95}	$f\sigma_8(0.38)$	$0.472^{+0.015}_{-0.014}$
A_{143}^{PS}	46^{+20}_{-20}	D_{810}	2540^{+34}_{-34}	$\sigma_8(0.38)$	$0.657^{+0.026}_{-0.023}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	817^{+12}_{-13}	$f\sigma_8(0.51)$	$0.470^{+0.015}_{-0.014}$
A_{217}^{PS}	115^{+20}_{-30}	D_{2000}	$231.0^{+4.3}_{-4.8}$	$\sigma_8(0.51)$	$0.615^{+0.024}_{-0.022}$
A^{kSZ}	—	$n_{s,0.002}$	$0.984^{+0.052}_{-0.053}$	$f\sigma_8(0.61)$	$0.465^{+0.015}_{-0.014}$
A_{100}^{dustTT}	$8.8^{+4.7}_{-4.7}$	Y_{P}	$0.2432^{+0.0070}_{-0.0074}$	$\sigma_8(0.61)$	$0.585^{+0.023}_{-0.021}$
A_{143}^{dustTT}	$10.9^{+4.5}_{-4.6}$	$Y_{\text{P}}^{\text{BBN}}$	$0.2445^{+0.0070}_{-0.0075}$	$f\sigma_8(2.33)$	$0.295^{+0.012}_{-0.011}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.5^{+7.6}_{-8.1}$	10^5D/H	$2.54^{+0.13}_{-0.13}$	$\sigma_8(2.33)$	$0.304^{+0.013}_{-0.012}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.95^{+0.54}_{-0.50}$	f_{2000}^{143}	30^{+8}_{-8}
A_{100}^{dustTE}	$0.115^{+0.10}_{-0.097}$	z_*	$1089.52^{+0.96}_{-0.97}$	$f_{2000}^{143 \times 217}$	32^{+6}_{-6}
$A_{100 \times 143}^{\text{dustTE}}$	$0.134^{+0.078}_{-0.077}$	r_*	$146.1^{+5.3}_{-4.9}$	f_{2000}^{217}	$107.2^{+5.6}_{-5.2}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.21}_{-0.23}$	$100\theta_*$	$1.0416^{+0.0015}_{-0.0015}$	χ_{lensing}^2	$9.09 (\nu: 0.2)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$14.03^{+0.49}_{-0.46}$	χ_{simall}^2	$397.2 (\nu: 1.6)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.20}$	z_{drag}	$1059.5^{+2.0}_{-1.9}$	χ_{lowl}^2	$22.4 (\nu: 1.2)$
A_{217}^{dustTE}	$2.06^{+0.67}_{-0.65}$	r_{drag}	$148.8^{+5.5}_{-5.1}$	χ_{plik}^2	$2360.6 (\nu: 18.6)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_{D}	$0.1397^{+0.0037}_{-0.0038}$	$\chi_{6\text{DF}}^2$	$0.099 (\nu: 0.0)$
c_{217}	$0.9982^{+0.0015}_{-0.0016}$	$100\theta_{\text{D}}$	$0.1603^{+0.0012}_{-0.0012}$	χ_{MGS}^2	$1.04 (\nu: 0.1)$
H_0	$66.7^{+3.4}_{-3.2}$	z_{eq}	3401^{+66}_{-62}	χ_{DR12BAO}^2	$5.7 (\nu: 1.9)$
Ω_{Λ}	$0.685^{+0.016}_{-0.019}$	k_{eq}	$0.01027^{+0.00029}_{-0.00033}$	χ_{prior}^2	$11.5 (\nu: 10.4)$
Ω_{m}	$0.315^{+0.019}_{-0.016}$	$100\theta_{\text{eq}}$	$0.814^{+0.012}_{-0.012}$	χ_{CMB}^2	$2789.2 (\nu: 19.4)$
$\Omega_{\text{m}} h^2$	$0.1399^{+0.0085}_{-0.0089}$	$100\theta_{\text{s,eq}}$	$0.4496^{+0.0058}_{-0.0062}$	χ_{BAO}^2	$6.8 (\nu: 1.4)$

$$\bar{\chi}_{\text{eff}}^2 = 2807.63; \Delta \bar{\chi}_{\text{eff}}^2 = 0.78; R - 1 = 0.03868$$

10.5 base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02216^{+0.00057}_{-0.00060}$	$\Omega_{\mathrm{m}}h^2$	$0.1390^{+0.0087}_{-0.0085}$	$100\theta_{\mathrm{eq}}$	$0.805^{+0.019}_{-0.020}$
$\Omega_{\mathrm{c}}h^2$	$0.1162^{+0.0084}_{-0.0081}$	$\Omega_{\mathrm{m}}h^3$	$0.091^{+0.012}_{-0.010}$	$100\theta_{\mathrm{s,eq}}$	$0.4452^{+0.0098}_{-0.010}$
$100\theta_{\mathrm{MC}}$	$1.0414^{+0.0013}_{-0.0012}$	σ_8	$0.800^{+0.031}_{-0.028}$	$H(0.15)$	$70.5^{+4.2}_{-4.0}$
τ	$0.056^{+0.019}_{-0.014}$	S_8	$0.837^{+0.042}_{-0.040}$	$D_{\mathrm{M}}(0.15)$	665^{+42}_{-39}
N_{eff}	$2.75^{+0.58}_{-0.53}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.458^{+0.023}_{-0.022}$	$H(0.38)$	$80.7^{+4.2}_{-3.9}$
$\ln(10^{10}A_{\mathrm{s}})$	$3.039^{+0.047}_{-0.037}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.606^{+0.022}_{-0.022}$	$D_{\mathrm{M}}(0.38)$	1581^{+92}_{-89}
n_{s}	$0.950^{+0.026}_{-0.028}$	$\sigma_8/h^{0.5}$	$0.992^{+0.030}_{-0.028}$	$H(0.51)$	$87.4^{+4.3}_{-4.0}$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	$-0.012^{+0.020}_{-0.020}$	$r_{\mathrm{drag}}h$	$97.6^{+3.5}_{-3.6}$	$D_{\mathrm{M}}(0.51)$	2045^{+110}_{-110}
y_{cal}	$1.0004^{+0.0066}_{-0.0062}$	$\langle d^2 \rangle^{1/2}$	$2.457^{+0.077}_{-0.074}$	$H(0.61)$	$93.1^{+4.3}_{-4.0}$
A_{217}^{CIB}	47^{+20}_{-20}	z_{re}	< 9.53	$D_{\mathrm{M}}(0.61)$	2378^{+130}_{-130}
$\xi^{\mathrm{tSZ}\times\mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}$	$2.09^{+0.10}_{-0.076}$	$H(2.33)$	$232.9^{+7.7}_{-7.5}$
A_{143}^{tSZ}	—	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.868^{+0.047}_{-0.049}$	$D_{\mathrm{M}}(2.33)$	5898^{+250}_{-250}
A_{100}^{PS}	261^{+70}_{-70}	D_{40}	1222^{+48}_{-48}	$f\sigma_8(0.15)$	$0.461^{+0.021}_{-0.020}$
A_{143}^{PS}	47^{+20}_{-20}	D_{220}	5729^{+100}_{-100}	$\sigma_8(0.15)$	$0.738^{+0.029}_{-0.027}$
$A_{143\times 217}^{\mathrm{PS}}$	42^{+20}_{-20}	D_{810}	2538^{+36}_{-35}	$f\sigma_8(0.38)$	$0.476^{+0.018}_{-0.017}$
A_{217}^{PS}	115^{+30}_{-30}	D_{1420}	816^{+12}_{-13}	$\sigma_8(0.38)$	$0.652^{+0.027}_{-0.024}$
A^{kSZ}	—	D_{2000}	$230.8^{+4.7}_{-4.8}$	$f\sigma_8(0.51)$	$0.473^{+0.017}_{-0.016}$
$A_{100}^{\mathrm{dust}TT}$	$8.8^{+4.7}_{-4.7}$	$n_{\mathrm{s},0.002}$	$0.989^{+0.054}_{-0.054}$	$\sigma_8(0.51)$	$0.610^{+0.026}_{-0.023}$
$A_{143}^{\mathrm{dust}TT}$	$10.8^{+4.7}_{-4.6}$	Y_{P}	$0.2412^{+0.0080}_{-0.0079}$	$f\sigma_8(0.61)$	$0.466^{+0.016}_{-0.015}$
$A_{143\times 217}^{\mathrm{dust}TT}$	$18.5^{+8.8}_{-8.5}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2425^{+0.0081}_{-0.0079}$	$\sigma_8(0.61)$	$0.580^{+0.025}_{-0.023}$
$A_{217}^{\mathrm{dust}TT}$	94^{+20}_{-20}	$10^5\mathrm{D}/\mathrm{H}$	$2.52^{+0.14}_{-0.13}$	$f\sigma_8(2.33)$	$0.292^{+0.013}_{-0.012}$
$A_{100}^{\mathrm{dust}TE}$	$0.114^{+0.10}_{-0.094}$	$\mathrm{Age}/\mathrm{Gyr}$	$14.12^{+0.60}_{-0.60}$	$\sigma_8(2.33)$	$0.300^{+0.015}_{-0.013}$
$A_{100\times 143}^{\mathrm{dust}TE}$	$0.134^{+0.076}_{-0.077}$	z_*	$1089.5^{+1.0}_{-0.93}$	f_{2000}^{143}	30^{+8}_{-8}
$A_{100\times 217}^{\mathrm{dust}TE}$	$0.48^{+0.22}_{-0.22}$	r_*	$147.2^{+5.5}_{-5.3}$	$f_{2000}^{143\times 217}$	33^{+6}_{-6}
$A_{143}^{\mathrm{dust}TE}$	$0.22^{+0.14}_{-0.14}$	$100\theta_*$	$1.0418^{+0.0016}_{-0.0015}$	f_{2000}^{217}	$107.3^{+5.1}_{-5.2}$
$A_{143\times 217}^{\mathrm{dust}TE}$	$0.67^{+0.21}_{-0.20}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.13^{+0.51}_{-0.50}$	χ_{simall}^2	$397.0\ (\nu: 1.6)$
$A_{217}^{\mathrm{dust}TE}$	$2.08^{+0.68}_{-0.70}$	z_{drag}	$1058.9^{+2.2}_{-2.2}$	χ_{lowl}^2	$22.5\ (\nu: 1.1)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	$149.9^{+5.7}_{-5.6}$	χ_{plik}^2	$2360.0\ (\nu: 18.3)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	k_{D}	$0.1390^{+0.0040}_{-0.0039}$	χ_{prior}^2	$11.4\ (\nu: 10.1)$
H_0	$65.1^{+4.3}_{-4.1}$	$100\theta_{\mathrm{D}}$	$0.1601^{+0.0014}_{-0.0013}$	χ_{CMB}^2	$2779.5\ (\nu: 18.1)$
Ω_{Λ}	$0.672^{+0.028}_{-0.033}$	z_{eq}	3447^{+110}_{-100}		
Ω_{m}	$0.328^{+0.033}_{-0.028}$	k_{eq}	$0.01030^{+0.00030}_{-0.00031}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2790.91; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.63; R - 1 = 0.01332$$

10.6 base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02236^{+0.00051}_{-0.00046}$	$\Omega_m h^3$	$0.0937^{+0.010}_{-0.0098}$	$H(0.15)$	$72.1^{+3.3}_{-3.2}$
$\Omega_c h^2$	$0.1172^{+0.0084}_{-0.0086}$	σ_8	$0.803^{+0.031}_{-0.027}$	$D_M(0.15)$	649^{+31}_{-30}
$100\theta_{MC}$	$1.0413^{+0.0012}_{-0.0012}$	S_8	$0.822^{+0.035}_{-0.033}$	$H(0.38)$	$82.1^{+3.4}_{-3.3}$
τ	$0.057^{+0.019}_{-0.015}$	$\sigma_8 \Omega_m^{0.5}$	$0.450^{+0.019}_{-0.018}$	$D_M(0.38)$	1547^{+71}_{-67}
N_{eff}	$2.91^{+0.50}_{-0.51}$	$\sigma_8 \Omega_m^{0.25}$	$0.602^{+0.023}_{-0.020}$	$H(0.51)$	$88.8^{+3.5}_{-3.5}$
$\ln(10^{10} A_s)$	$3.045^{+0.045}_{-0.038}$	$\sigma_8/h^{0.5}$	$0.983^{+0.027}_{-0.024}$	$D_M(0.51)$	2003^{+89}_{-84}
n_s	$0.960^{+0.022}_{-0.022}$	$r_{\text{drag}} h$	$99.3^{+2.1}_{-2.3}$	$H(0.61)$	$94.4^{+3.6}_{-3.6}$
$dn_s/d \ln k$	$-0.008^{+0.017}_{-0.019}$	$\langle d^2 \rangle^{1/2}$	$2.432^{+0.065}_{-0.056}$	$D_M(0.61)$	2331^{+100}_{-97}
y_{cal}	$1.0006^{+0.0066}_{-0.0061}$	z_{re}	< 9.58	$H(2.33)$	$234.2^{+7.1}_{-7.8}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.100^{+0.096}_{-0.078}$	$D_M(2.33)$	5818^{+220}_{-210}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.873^{+0.046}_{-0.044}$	$f\sigma_8(0.15)$	$0.455^{+0.019}_{-0.017}$
A_{143}^{tSZ}	$5.2^{+4.5}_{-4.6}$	D_{40}	1217^{+48}_{-45}	$\sigma_8(0.15)$	$0.742^{+0.030}_{-0.025}$
A_{100}^{PS}	262^{+80}_{-70}	D_{220}	5737^{+95}_{-96}	$f\sigma_8(0.38)$	$0.472^{+0.018}_{-0.016}$
A_{143}^{PS}	47^{+20}_{-20}	D_{810}	2539^{+34}_{-34}	$\sigma_8(0.38)$	$0.658^{+0.027}_{-0.023}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	817^{+11}_{-13}	$f\sigma_8(0.51)$	$0.471^{+0.018}_{-0.016}$
A_{217}^{PS}	115^{+20}_{-30}	D_{2000}	$230.8^{+4.1}_{-4.7}$	$\sigma_8(0.51)$	$0.615^{+0.026}_{-0.022}$
A^{kSZ}	—	$n_{s,0.002}$	$0.986^{+0.052}_{-0.052}$	$f\sigma_8(0.61)$	$0.465^{+0.017}_{-0.015}$
A_{100}^{dustTT}	$8.8^{+4.7}_{-4.5}$	Y_P	$0.2435^{+0.0068}_{-0.0074}$	$\sigma_8(0.61)$	$0.585^{+0.025}_{-0.021}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.7}$	Y_P^{BBN}	$0.2448^{+0.0068}_{-0.0074}$	$f\sigma_8(2.33)$	$0.295^{+0.013}_{-0.011}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+7.6}_{-8.1}$	$10^5 D/H$	$2.54^{+0.13}_{-0.13}$	$\sigma_8(2.33)$	$0.304^{+0.014}_{-0.012}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.93^{+0.53}_{-0.49}$	f_{2000}^{143}	30^{+8}_{-8}
A_{100}^{dustTE}	$0.115^{+0.10}_{-0.097}$	z_*	$1089.5^{+1.0}_{-0.95}$	$f_{2000}^{143 \times 217}$	33^{+6}_{-6}
$A_{100 \times 143}^{\text{dustTE}}$	$0.134^{+0.077}_{-0.077}$	r_*	$145.9^{+5.4}_{-4.9}$	f_{2000}^{217}	$107.3^{+5.5}_{-5.3}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.21}_{-0.23}$	$100\theta_*$	$1.0416^{+0.0015}_{-0.0014}$	χ_{simall}^2	$397.2 (\nu: 1.8)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$14.01^{+0.49}_{-0.45}$	χ_{lowl}^2	$22.2 (\nu: 1.1)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.20}$	z_{drag}	$1059.6^{+1.9}_{-1.9}$	χ_{plik}^2	$2361.0 (\nu: 19.2)$
A_{217}^{dustTE}	$2.06^{+0.66}_{-0.66}$	r_{drag}	$148.6^{+5.6}_{-5.1}$	$\chi_{6\text{DF}}^2$	$0.094 (\nu: 0.0)$
c_{100}	$0.9997^{+0.0017}_{-0.0016}$	k_D	$0.1398^{+0.0038}_{-0.0038}$	χ_{MGS}^2	$1.08 (\nu: 0.1)$
c_{217}	$0.9982^{+0.0015}_{-0.0017}$	$100\theta_D$	$0.1604^{+0.0012}_{-0.0012}$	χ_{DR12BAO}^2	$5.6 (\nu: 1.9)$
H_0	$66.8^{+3.4}_{-3.2}$	z_{eq}	3399^{+69}_{-64}	χ_{prior}^2	$11.6 (\nu: 10.8)$
Ω_Λ	$0.686^{+0.017}_{-0.019}$	k_{eq}	$0.01028^{+0.00030}_{-0.00034}$	χ_{BAO}^2	$6.8 (\nu: 1.4)$
Ω_m	$0.314^{+0.019}_{-0.017}$	$100\theta_{\text{eq}}$	$0.814^{+0.012}_{-0.013}$	χ_{CMB}^2	$2780.4 (\nu: 18.8)$
$\Omega_m h^2$	$0.1402^{+0.0085}_{-0.0089}$	$100\theta_{s,\text{eq}}$	$0.4498^{+0.0060}_{-0.0065}$		

$$\bar{\chi}_{\text{eff}}^2 = 2798.78; \Delta \bar{\chi}_{\text{eff}}^2 = 1.06; R - 1 = 0.04433$$

10.7 base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\text{b}}h^2$	$0.02217^{+0.00055}_{-0.00057}$	$\Omega_{\text{m}}h^2$	$0.1385^{+0.0089}_{-0.0081}$	$100\theta_{\text{eq}}$	$0.806^{+0.017}_{-0.017}$
$\Omega_{\text{c}}h^2$	$0.1157^{+0.0085}_{-0.0078}$	$\Omega_{\text{m}}h^3$	$0.0904^{+0.011}_{-0.0098}$	$100\theta_{\text{s,eq}}$	$0.4459^{+0.0089}_{-0.0087}$
$100\theta_{\text{MC}}$	$1.0414^{+0.0012}_{-0.0012}$	σ_8	$0.798^{+0.029}_{-0.026}$	$H(0.15)$	$70.5^{+4.2}_{-3.8}$
τ	$0.055^{+0.018}_{-0.013}$	S_8	$0.832^{+0.033}_{-0.032}$	$D_{\text{M}}(0.15)$	664^{+40}_{-39}
N_{eff}	$2.73^{+0.58}_{-0.52}$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.455^{+0.018}_{-0.018}$	$H(0.38)$	$80.7^{+4.2}_{-3.8}$
$\ln(10^{10}A_{\text{s}})$	$3.036^{+0.044}_{-0.035}$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.603^{+0.019}_{-0.019}$	$D_{\text{M}}(0.38)$	1580^{+88}_{-88}
n_{s}	$0.950^{+0.026}_{-0.026}$	$\sigma_8/h^{0.5}$	$0.988^{+0.023}_{-0.022}$	$H(0.51)$	$87.4^{+4.2}_{-3.8}$
$\text{d}n_{\text{s}}/\text{d}\ln k$	$-0.011^{+0.020}_{-0.020}$	$r_{\text{drag}}h$	$97.9^{+3.0}_{-3.1}$	$D_{\text{M}}(0.51)$	2045^{+110}_{-110}
y_{cal}	$1.0004^{+0.0064}_{-0.0062}$	$\langle d^2 \rangle^{1/2}$	$2.451^{+0.062}_{-0.062}$	$H(0.61)$	$93.0^{+4.2}_{-3.9}$
A_{217}^{CIB}	47^{+20}_{-20}	z_{re}	< 9.29	$D_{\text{M}}(0.61)$	2377^{+120}_{-130}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_{\text{s}}$	$2.082^{+0.093}_{-0.071}$	$H(2.33)$	$232.5^{+7.7}_{-7.4}$
A_{143}^{tSZ}	—	$10^9 A_{\text{s}}e^{-2\tau}$	$1.865^{+0.046}_{-0.048}$	$D_{\text{M}}(2.33)$	5901^{+250}_{-250}
A_{100}^{PS}	261^{+70}_{-70}	D_{40}	1223^{+46}_{-47}	$f\sigma_8(0.15)$	$0.459^{+0.017}_{-0.016}$
A_{143}^{PS}	46^{+20}_{-20}	D_{220}	5731^{+96}_{-100}	$\sigma_8(0.15)$	$0.736^{+0.028}_{-0.025}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{810}	2537^{+36}_{-35}	$f\sigma_8(0.38)$	$0.474^{+0.015}_{-0.015}$
A_{217}^{PS}	114^{+30}_{-30}	D_{1420}	816^{+12}_{-13}	$\sigma_8(0.38)$	$0.651^{+0.026}_{-0.024}$
A^{kSZ}	—	D_{2000}	$230.9^{+4.5}_{-4.8}$	$f\sigma_8(0.51)$	$0.471^{+0.014}_{-0.014}$
$A_{100}^{\text{dust}TT}$	$8.8^{+4.6}_{-4.6}$	$n_{\text{s},0.002}$	$0.986^{+0.054}_{-0.053}$	$\sigma_8(0.51)$	$0.608^{+0.025}_{-0.023}$
$A_{143}^{\text{dust}TT}$	$10.8^{+4.5}_{-4.9}$	Y_{P}	$0.2410^{+0.0079}_{-0.0078}$	$f\sigma_8(0.61)$	$0.465^{+0.015}_{-0.014}$
$A_{143 \times 217}^{\text{dust}TT}$	$18.5^{+8.8}_{-8.1}$	$Y_{\text{P}}^{\text{BBN}}$	$0.2423^{+0.0079}_{-0.0078}$	$\sigma_8(0.61)$	$0.579^{+0.025}_{-0.022}$
$A_{217}^{\text{dust}TT}$	94^{+20}_{-20}	$10^5 \text{D}/\text{H}$	$2.51^{+0.14}_{-0.13}$	$f\sigma_8(2.33)$	$0.291^{+0.013}_{-0.012}$
$A_{100}^{\text{dust}TE}$	$0.115^{+0.10}_{-0.094}$	Age/Gyr	$14.12^{+0.59}_{-0.59}$	$\sigma_8(2.33)$	$0.300^{+0.014}_{-0.013}$
$A_{100 \times 143}^{\text{dust}TE}$	$0.134^{+0.078}_{-0.080}$	z_*	$1089.48^{+0.98}_{-0.90}$	f_{2000}^{143}	30^{+8}_{-8}
$A_{100 \times 217}^{\text{dust}TE}$	$0.48^{+0.21}_{-0.22}$	r_*	$147.4^{+5.4}_{-5.3}$	$f_{2000}^{143 \times 217}$	32^{+6}_{-6}
$A_{143}^{\text{dust}TE}$	$0.22^{+0.14}_{-0.14}$	$100\theta_*$	$1.0419^{+0.0016}_{-0.0016}$	f_{2000}^{217}	$107.1^{+5.3}_{-5.2}$
$A_{143 \times 217}^{\text{dust}TE}$	$0.66^{+0.21}_{-0.20}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$14.14^{+0.50}_{-0.49}$	χ_{lensing}^2	$9.18 (\nu: 0.3)$
$A_{217}^{\text{dust}TE}$	$2.07^{+0.70}_{-0.68}$	z_{drag}	$1058.9^{+2.2}_{-2.1}$	χ_{simall}^2	$396.8 (\nu: 1.1)$
c_{100}	$0.9997^{+0.0015}_{-0.0016}$	r_{drag}	$150.1^{+5.6}_{-5.5}$	χ_{lowl}^2	$22.6 (\nu: 1.1)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	k_{D}	$0.1388^{+0.0040}_{-0.0038}$	χ_{plik}^2	$2359.6 (\nu: 17.3)$
H_0	$65.2^{+4.2}_{-3.9}$	$100\theta_{\text{D}}$	$0.1600^{+0.0013}_{-0.0012}$	χ_{prior}^2	$11.4 (\nu: 10.1)$
Ω_{Λ}	$0.674^{+0.025}_{-0.028}$	z_{eq}	3440^{+94}_{-93}	χ_{CMB}^2	$2788.2 (\nu: 18.0)$
Ω_{m}	$0.326^{+0.028}_{-0.025}$	k_{eq}	$0.01027^{+0.00029}_{-0.00028}$		

$$\bar{\chi}_{\text{eff}}^2 = 2799.54; \Delta\bar{\chi}_{\text{eff}}^2 = -0.96; R - 1 = 0.01748$$

10.8 base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02235^{+0.00047}_{-0.00046}$	$\Omega_{\mathrm{m}}h^3$	$0.0933^{+0.010}_{-0.0098}$	$H(0.15)$	$72.0^{+3.4}_{-3.2}$
$\Omega_{\mathrm{c}}h^2$	$0.1169^{+0.0082}_{-0.0086}$	σ_8	$0.803^{+0.029}_{-0.026}$	$D_{\mathrm{M}}(0.15)$	650^{+32}_{-31}
$100\theta_{\mathrm{MC}}$	$1.0413^{+0.0013}_{-0.0012}$	S_8	$0.822^{+0.029}_{-0.027}$	$H(0.38)$	$82.0^{+3.4}_{-3.4}$
τ	$0.057^{+0.018}_{-0.015}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.450^{+0.016}_{-0.015}$	$D_{\mathrm{M}}(0.38)$	1550^{+71}_{-69}
N_{eff}	$2.89^{+0.52}_{-0.52}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.601^{+0.019}_{-0.018}$	$H(0.51)$	$88.7^{+3.6}_{-3.5}$
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.041}_{-0.036}$	$\sigma_8/h^{0.5}$	$0.983^{+0.022}_{-0.020}$	$D_{\mathrm{M}}(0.51)$	2007^{+91}_{-86}
n_{s}	$0.959^{+0.021}_{-0.022}$	$r_{\mathrm{drag}}h$	$99.2^{+2.1}_{-2.1}$	$H(0.61)$	$94.3^{+3.7}_{-3.6}$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	$-0.008^{+0.019}_{-0.019}$	$\langle d^2 \rangle^{1/2}$	$2.435^{+0.057}_{-0.054}$	$D_{\mathrm{M}}(0.61)$	2335^{+110}_{-98}
y_{cal}	$1.0007^{+0.0067}_{-0.0061}$	z_{re}	< 9.54	$H(2.33)$	$234.0^{+7.4}_{-7.7}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_{\mathrm{s}}$	$2.100^{+0.088}_{-0.074}$	$D_{\mathrm{M}}(2.33)$	5826^{+230}_{-210}
$\xi^{\mathrm{tSZ}\times\mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.872^{+0.044}_{-0.043}$	$f\sigma_8(0.15)$	$0.455^{+0.015}_{-0.015}$
A_{143}^{tSZ}	$5.3^{+4.5}_{-4.6}$	D_{40}	1219^{+47}_{-46}	$\sigma_8(0.15)$	$0.742^{+0.027}_{-0.025}$
A_{100}^{PS}	261^{+70}_{-70}	D_{220}	5741^{+99}_{-95}	$f\sigma_8(0.38)$	$0.472^{+0.015}_{-0.014}$
A_{143}^{PS}	46^{+20}_{-20}	D_{810}	2539^{+34}_{-34}	$\sigma_8(0.38)$	$0.657^{+0.026}_{-0.023}$
$A_{143\times 217}^{\mathrm{PS}}$	42^{+20}_{-20}	D_{1420}	817^{+11}_{-13}	$f\sigma_8(0.51)$	$0.470^{+0.015}_{-0.014}$
A_{217}^{PS}	115^{+20}_{-30}	D_{2000}	$231.0^{+4.0}_{-4.8}$	$\sigma_8(0.51)$	$0.615^{+0.024}_{-0.022}$
A^{kSZ}	—	$n_{\mathrm{s},0.002}$	$0.984^{+0.052}_{-0.052}$	$f\sigma_8(0.61)$	$0.465^{+0.015}_{-0.014}$
$A_{100}^{\mathrm{dust}TT}$	$8.8^{+4.7}_{-4.6}$	Y_{P}	$0.2432^{+0.0070}_{-0.0074}$	$\sigma_8(0.61)$	$0.585^{+0.023}_{-0.021}$
$A_{143}^{\mathrm{dust}TT}$	$10.9^{+4.5}_{-4.6}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2445^{+0.0070}_{-0.0075}$	$f\sigma_8(2.33)$	$0.295^{+0.012}_{-0.011}$
$A_{143\times 217}^{\mathrm{dust}TT}$	$18.6^{+7.6}_{-8.1}$	$10^5\mathrm{D}/\mathrm{H}$	$2.53^{+0.13}_{-0.13}$	$\sigma_8(2.33)$	$0.304^{+0.013}_{-0.012}$
$A_{217}^{\mathrm{dust}TT}$	94^{+20}_{-20}	$\mathrm{Age}/\mathrm{Gyr}$	$13.95^{+0.54}_{-0.50}$	f_{2000}^{143}	30^{+8}_{-8}
$A_{100}^{\mathrm{dust}TE}$	$0.115^{+0.10}_{-0.097}$	z_*	$1089.52^{+0.97}_{-0.96}$	$f_{2000}^{143\times 217}$	32^{+6}_{-6}
$A_{100\times 143}^{\mathrm{dust}TE}$	$0.134^{+0.078}_{-0.077}$	r_*	$146.1^{+5.3}_{-4.9}$	f_{2000}^{217}	$107.2^{+5.4}_{-5.2}$
$A_{100\times 217}^{\mathrm{dust}TE}$	$0.48^{+0.21}_{-0.23}$	$100\theta_*$	$1.0416^{+0.0015}_{-0.0015}$	$\chi_{\mathrm{lensing}}^2$	$9.07\ (\nu: 0.2)$
$A_{143}^{\mathrm{dust}TE}$	$0.22^{+0.14}_{-0.14}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.03^{+0.49}_{-0.45}$	χ_{simall}^2	$397.2\ (\nu: 1.6)$
$A_{143\times 217}^{\mathrm{dust}TE}$	$0.66^{+0.21}_{-0.19}$	z_{drag}	$1059.5^{+2.0}_{-1.9}$	χ_{lowl}^2	$22.4\ (\nu: 1.2)$
$A_{217}^{\mathrm{dust}TE}$	$2.06^{+0.66}_{-0.65}$	r_{drag}	$148.8^{+5.5}_{-5.1}$	χ_{plik}^2	$2360.5\ (\nu: 18.5)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_{D}	$0.1397^{+0.0037}_{-0.0038}$	$\chi_{6\mathrm{DF}}^2$	$0.097\ (\nu: 0.0)$
c_{217}	$0.9982^{+0.0015}_{-0.0016}$	$100\theta_{\mathrm{D}}$	$0.1603^{+0.0012}_{-0.0012}$	χ_{MGS}^2	$1.05\ (\nu: 0.1)$
H_0	$66.7^{+3.4}_{-3.2}$	z_{eq}	3401^{+66}_{-61}	$\chi_{\mathrm{DR12BAO}}^2$	$5.7\ (\nu: 1.8)$
Ω_{Λ}	$0.685^{+0.016}_{-0.018}$	k_{eq}	$0.01027^{+0.00029}_{-0.00033}$	χ_{prior}^2	$11.5\ (\nu: 10.4)$
Ω_{m}	$0.315^{+0.018}_{-0.016}$	$100\theta_{\mathrm{eq}}$	$0.814^{+0.012}_{-0.012}$	χ_{CMB}^2	$2789.2\ (\nu: 19.2)$
$\Omega_{\mathrm{m}}h^2$	$0.1399^{+0.0084}_{-0.0089}$	$100\theta_{\mathrm{s,eq}}$	$0.4496^{+0.0058}_{-0.0061}$	χ_{BAO}^2	$6.8\ (\nu: 1.3)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 2807.49; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.77; R - 1 = 0.04192$$

11 nnu+yhe

11.1 base_nnu_yhe_plikHM_TT_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02200	$0.02207^{+0.00083}_{-0.00083}$	S_8	0.846	$0.841^{+0.066}_{-0.061}$	$100\theta_{s,eq}$	0.4442	$0.447^{+0.020}_{-0.019}$
$\Omega_c h^2$	0.1168	$0.119^{+0.023}_{-0.016}$	$\sigma_8 \Omega_m^{0.5}$	0.4635	$0.461^{+0.036}_{-0.034}$	$H(0.15)$	70.2	71^{+9}_{-8}
$100\theta_{MC}$	1.0415	$1.0413^{+0.0049}_{-0.0053}$	$\sigma_8 \Omega_m^{0.25}$	0.6107	$0.610^{+0.033}_{-0.030}$	$D_M(0.15)$	667	657^{+80}_{-80}
τ	0.0521	$0.052^{+0.022}_{-0.022}$	$\sigma_8/h^{0.5}$	0.9994	$0.994^{+0.043}_{-0.043}$	$H(0.38)$	80.5	82^{+9}_{-8}
N_{eff}	2.74	$2.9^{+1.6}_{-1.2}$	$r_{drag} h$	97.2	$98.0^{+6.2}_{-6.0}$	$D_M(0.38)$	1586	1562^{+200}_{-200}
Y_P	0.253	$0.251^{+0.074}_{-0.093}$	$\langle d^2 \rangle^{1/2}$	2.474	$2.46^{+0.12}_{-0.12}$	$H(0.51)$	87.3	$88.5^{+9.6}_{-7.8}$
$\ln(10^{10} A_s)$	3.033	$3.036^{+0.059}_{-0.060}$	z_{re}	7.50	$7.4^{+2.2}_{-2.5}$	$D_M(0.51)$	2051	2022^{+200}_{-200}
n_s	0.9561	$0.960^{+0.035}_{-0.035}$	$10^9 A_s$	2.077	$2.08^{+0.13}_{-0.12}$	$H(0.61)$	92.9	$94.1^{+9.8}_{-8.0}$
y_{cal}	1.0005	$1.0005^{+0.0066}_{-0.0066}$	$10^9 A_s e^{-2\tau}$	1.871	$1.878^{+0.071}_{-0.070}$	$D_M(0.61)$	2384	2351^{+260}_{-260}
A_{217}^{CIB}	47.0	48^{+20}_{-20}	D_{40}	1240	1236^{+58}_{-56}	$H(2.33)$	233.1	235^{+20}_{-15}
$\xi^{tSZ \times CIB}$	0.57	—	D_{220}	5708	5712^{+110}_{-110}	$D_M(2.33)$	5903	5837^{+510}_{-540}
A_{143}^{tSZ}	6.9	—	D_{810}	2537.2	2536^{+37}_{-38}	$f\sigma_8(0.15)$	0.4664	$0.464^{+0.033}_{-0.031}$
A_{100}^{PS}	251	264^{+70}_{-70}	D_{1420}	816.5	814^{+13}_{-14}	$\sigma_8(0.15)$	0.7417	$0.745^{+0.046}_{-0.040}$
A_{143}^{PS}	51.7	50^{+20}_{-20}	D_{2000}	230.8	$229.5^{+6.1}_{-6.2}$	$f\sigma_8(0.38)$	0.4801	$0.479^{+0.026}_{-0.024}$
$A_{143 \times 217}^{PS}$	52.6	44^{+20}_{-20}	$n_{s,0.002}$	0.9561	$0.960^{+0.035}_{-0.035}$	$\sigma_8(0.38)$	0.6553	$0.659^{+0.044}_{-0.039}$
A_{217}^{PS}	121.7	115^{+30}_{-30}	Y_P	0.253	$0.251^{+0.074}_{-0.093}$	$f\sigma_8(0.51)$	0.4763	$0.476^{+0.025}_{-0.022}$
A^{kSZ}	0.0	—	Y_P^{BBN}	0.254	$0.253^{+0.075}_{-0.093}$	$\sigma_8(0.51)$	0.6124	$0.616^{+0.042}_{-0.037}$
A_{100}^{dustTT}	8.82	$8.9^{+4.7}_{-4.7}$	Age/Gyr	14.13	$14.0^{+1.2}_{-1.3}$	$f\sigma_8(0.61)$	0.4698	$0.470^{+0.025}_{-0.021}$
A_{143}^{dustTT}	10.74	$10.7^{+4.6}_{-4.6}$	z_*	1090.28	$1090.4^{+1.9}_{-1.8}$	$\sigma_8(0.61)$	0.5822	$0.586^{+0.041}_{-0.036}$
$A_{143 \times 217}^{dustTT}$	19.6	$18.3^{+8.6}_{-8.5}$	r_*	147.1	146^{+11}_{-12}	$f\sigma_8(2.33)$	0.2928	$0.295^{+0.022}_{-0.019}$
A_{217}^{dustTT}	95.0	93^{+20}_{-20}	$100\theta_*$	1.04163	$1.0414^{+0.0035}_{-0.0037}$	$\sigma_8(2.33)$	0.3010	$0.304^{+0.025}_{-0.021}$
c_{100}	0.99965	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	14.12	$14.0^{+1.0}_{-1.1}$	f_{2000}^{143}	29.4	31^{+10}_{-10}
c_{217}	0.99824	$0.9983^{+0.0016}_{-0.0016}$	z_{drag}	1058.98	$1059.3^{+3.1}_{-3.1}$	$f_{2000}^{143 \times 217}$	32.7	34^{+7}_{-7}
H_0	64.8	66^{+9}_{-8}	r_{drag}	149.9	149^{+11}_{-13}	f_{2000}^{217}	107.1	$108.3^{+6.9}_{-6.7}$
Ω_Λ	0.668	$0.675^{+0.049}_{-0.057}$	k_D	0.1384	$0.139^{+0.013}_{-0.0094}$	χ_{simall}^2	395.90	$396.9 (\nu: 1.3)$
Ω_m	0.332	$0.325^{+0.057}_{-0.049}$	$100\theta_D$	0.16080	$0.1611^{+0.0020}_{-0.0020}$	χ_{lowl}^2	24.6	$24.3 (\nu: 2.6)$
$\Omega_m h^2$	0.1395	$0.142^{+0.024}_{-0.016}$	z_{eq}	3457	3432^{+220}_{-210}	χ_{plik}^2	757.4	$772.6 (\nu: 18.9)$
$\Omega_m h^3$	0.0904	$0.094^{+0.029}_{-0.020}$	k_{eq}	0.01034	$0.01037^{+0.00067}_{-0.00050}$	χ_{prior}^2	1.3	$7.3 (\nu: 6.6)$
σ_8	0.8047	$0.808^{+0.047}_{-0.040}$	$100\theta_{eq}$	0.8028	$0.808^{+0.038}_{-0.037}$	χ_{CMB}^2	1177.9	$1193.8 (\nu: 17.5)$

Best-fit $\chi_{eff}^2 = 1179.18$; $\Delta\chi_{eff}^2 = -0.40$; $\bar{\chi}_{eff}^2 = 1201.13$; $\Delta\bar{\chi}_{eff}^2 = 1.55$; $R - 1 = 0.01463$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.90 (Δ 0.02) commander_dx12_v3.2.29: 24.59 (Δ 0.99) plik_rd12_HM_v22_TT: 757.43 (Δ -1.32)

11.2 base_nnu_yhe_plikHM_TT_lowl_lowE_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02226	$0.02226^{+0.00064}_{-0.00065}$	$\sigma_8 \Omega_m^{0.25}$	0.6026	$0.606^{+0.031}_{-0.028}$	$D_M(0.38)$	1526	1516^{+120}_{-120}
$\Omega_c h^2$	0.1192	$0.121^{+0.021}_{-0.016}$	$\sigma_8/h^{0.5}$	0.9814	$0.983^{+0.031}_{-0.029}$	$H(0.51)$	89.8	$90.5^{+7.5}_{-5.9}$
$100\theta_{MC}$	1.04105	$1.0408^{+0.0046}_{-0.0050}$	$r_{drag}h$	99.88	$99.9^{+2.8}_{-2.7}$	$D_M(0.51)$	1977	1964^{+150}_{-160}
τ	0.0533	$0.054^{+0.022}_{-0.022}$	$\langle d^2 \rangle^{1/2}$	2.423	$2.426^{+0.072}_{-0.071}$	$H(0.61)$	95.4	$96.1^{+7.8}_{-6.2}$
N_{eff}	3.06	$3.2^{+1.3}_{-1.0}$	z_{re}	7.60	$7.7^{+2.3}_{-2.4}$	$D_M(0.61)$	2301	2286^{+170}_{-180}
Y_P	0.247	$0.245^{+0.079}_{-0.089}$	$10^9 A_s$	2.091	$2.10^{+0.12}_{-0.11}$	$H(2.33)$	236.0	238^{+17}_{-13}
$\ln(10^{10} A_s)$	3.040	$3.044^{+0.058}_{-0.054}$	$10^9 A_s e^{-2\tau}$	1.880	$1.886^{+0.066}_{-0.062}$	$D_M(2.33)$	5757	5721^{+380}_{-430}
n_s	0.9685	$0.970^{+0.022}_{-0.022}$	D_{40}	1221.8	1222^{+46}_{-43}	$f\sigma_8(0.15)$	0.4541	$0.456^{+0.024}_{-0.022}$
y_{cal}	1.0005	$1.0006^{+0.0064}_{-0.0067}$	D_{220}	5718	5719^{+100}_{-110}	$\sigma_8(0.15)$	0.7469	$0.751^{+0.043}_{-0.037}$
A_{217}^{CIB}	50.2	48^{+20}_{-20}	D_{810}	2537.1	2537^{+38}_{-37}	$f\sigma_8(0.38)$	0.4729	$0.475^{+0.024}_{-0.021}$
$\xi^{tSZ \times CIB}$	0.11	—	D_{1420}	815.9	815^{+13}_{-14}	$\sigma_8(0.38)$	0.6623	$0.666^{+0.039}_{-0.033}$
A_{143}^{tSZ}	7.1	—	D_{2000}	229.9	$229.3^{+6.2}_{-6.2}$	$f\sigma_8(0.51)$	0.4718	$0.474^{+0.025}_{-0.021}$
A_{100}^{PS}	256	266^{+80}_{-70}	$n_{s,0.002}$	0.9685	$0.970^{+0.022}_{-0.022}$	$\sigma_8(0.51)$	0.6199	$0.623^{+0.037}_{-0.032}$
A_{143}^{PS}	46.6	50^{+20}_{-20}	Y_P	0.247	$0.245^{+0.079}_{-0.089}$	$f\sigma_8(0.61)$	0.4670	$0.469^{+0.024}_{-0.021}$
$A_{143 \times 217}^{PS}$	41	44^{+20}_{-20}	Y_P^{BBN}	0.249	$0.246^{+0.080}_{-0.089}$	$\sigma_8(0.61)$	0.5899	$0.593^{+0.036}_{-0.031}$
A_{217}^{PS}	116.9	115^{+30}_{-30}	Age/Gyr	13.78	$13.70^{+0.90}_{-1.0}$	$f\sigma_8(2.33)$	0.2975	$0.299^{+0.018}_{-0.016}$
A^{kSZ}	0.0	—	z_*	1090.08	$1090.2^{+1.8}_{-1.8}$	$\sigma_8(2.33)$	0.3068	$0.309^{+0.019}_{-0.017}$
A_{100}^{dustTT}	8.95	$9.0^{+5.0}_{-4.7}$	r_*	144.6	$143.7^{+9.2}_{-10}$	f_{2000}^{143}	30.7	32^{+10}_{-10}
A_{143}^{dustTT}	10.80	$10.8^{+4.5}_{-4.5}$	$100\theta_*$	1.04118	$1.0409^{+0.0031}_{-0.0035}$	$f_{2000}^{143 \times 217}$	33.4	34^{+7}_{-8}
$A_{143 \times 217}^{dustTT}$	19.1	$18.4^{+8.6}_{-8.6}$	$D_M(z_*)/\text{Gpc}$	13.89	$13.81^{+0.85}_{-0.96}$	f_{2000}^{217}	107.9	$108.4^{+6.8}_{-7.1}$
A_{217}^{dustTT}	94.1	93^{+20}_{-20}	z_{drag}	1059.70	$1059.8^{+2.8}_{-2.8}$	χ_{simall}^2	395.9	$397.0 (\nu: 1.6)$
c_{100}	0.99964	$0.9996^{+0.0016}_{-0.0016}$	r_{drag}	147.3	$146.4^{+9.4}_{-11}$	χ_{lowl}^2	22.69	$22.8 (\nu: 0.9)$
c_{217}	0.99827	$0.9983^{+0.0016}_{-0.0016}$	k_D	0.1404	$0.141^{+0.011}_{-0.0087}$	χ_{plik}^2	760.2	$774.2 (\nu: 17.6)$
H_0	67.8	$68.3^{+6.2}_{-5.2}$	$100\theta_D$	0.16110	$0.1613^{+0.0019}_{-0.0019}$	χ_{6DF}^2	0.015	$0.059 (\nu: 0.0)$
Ω_Λ	0.6908	$0.691^{+0.022}_{-0.023}$	z_{eq}	3372	3368^{+120}_{-110}	χ_{MGS}^2	1.34	$1.45 (\nu: 0.2)$
Ω_m	0.3092	$0.309^{+0.023}_{-0.022}$	k_{eq}	0.01031	$0.01037^{+0.00066}_{-0.00051}$	$\chi_{DR12BAO}^2$	4.04	$4.7 (\nu: 1.3)$
$\Omega_m h^2$	0.1421	$0.144^{+0.021}_{-0.016}$	$100\theta_{eq}$	0.8185	$0.819^{+0.019}_{-0.019}$	χ_{prior}^2	1.5	$7.3 (\nu: 6.6)$
$\Omega_m h^3$	0.0964	$0.099^{+0.024}_{-0.017}$	$100\theta_{s,eq}$	0.4522	$0.4525^{+0.0099}_{-0.0096}$	χ_{BAO}^2	5.39	$6.2 (\nu: 0.9)$
σ_8	0.8080	$0.813^{+0.045}_{-0.039}$	$H(0.15)$	73.1	$73.6^{+6.4}_{-5.4}$	χ_{CMB}^2	1178.8	$1194.0 (\nu: 17.1)$
S_8	0.8204	$0.824^{+0.045}_{-0.041}$	$D_M(0.15)$	640	635^{+50}_{-52}			
$\sigma_8 \Omega_m^{0.5}$	0.4493	$0.451^{+0.024}_{-0.022}$	$H(0.38)$	83.1	$83.7^{+6.9}_{-5.7}$			

Best-fit $\chi_{eff}^2 = 1185.69$; $\Delta\chi_{eff}^2 = -0.05$; $\bar{\chi}_{eff}^2 = 1207.58$; $\Delta\bar{\chi}_{eff}^2 = 1.55$; $R - 1 = 0.02042$
 χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.01) MGS: 1.34 (Δ 0.06) DR12BAO: 4.04 (Δ -0.15) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.88 (Δ -0.01) commander_dx12_v3_2_29: 22.69 (Δ -0.14) plik_rd12_HM_v22_TT: 760.21 (Δ 0.11)

11.3 base_nnu_yhe_plikHM_TT_lowl_lowE_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02200	$0.02207^{+0.00077}_{-0.00080}$	$\sigma_8 \Omega_m^{0.5}$	0.4582	$0.458^{+0.023}_{-0.023}$	$D_M(0.15)$	672	661^{+80}_{-70}
$\Omega_c h^2$	0.1145	$0.117^{+0.020}_{-0.015}$	$\sigma_8 \Omega_m^{0.25}$	0.6043	$0.606^{+0.023}_{-0.022}$	$H(0.38)$	79.9	$81.1^{+8.6}_{-7.1}$
$100\theta_{MC}$	1.04200	$1.0417^{+0.0047}_{-0.0050}$	$\sigma_8/h^{0.5}$	0.9930	$0.992^{+0.031}_{-0.031}$	$D_M(0.38)$	1597	1573^{+170}_{-170}
τ	0.0502	$0.051^{+0.022}_{-0.022}$	$r_{drag} h$	97.4	$98.0^{+5.1}_{-5.0}$	$H(0.51)$	86.6	$87.8^{+8.8}_{-7.2}$
N_{eff}	2.63	$2.8^{+1.4}_{-1.1}$	$\langle d^2 \rangle^{1/2}$	2.462	$2.455^{+0.081}_{-0.081}$	$D_M(0.51)$	2066	2036^{+210}_{-210}
Y_P	0.256	$0.256^{+0.070}_{-0.087}$	z_{re}	7.27	$7.4^{+2.2}_{-2.4}$	$H(0.61)$	92.2	$93.5^{+9.1}_{-7.3}$
$\ln(10^{10} A_s)$	3.024	$3.031^{+0.056}_{-0.057}$	$10^9 A_s$	2.058	$2.07^{+0.12}_{-0.12}$	$D_M(0.61)$	2401	2367^{+240}_{-240}
n_s	0.9547	$0.959^{+0.031}_{-0.031}$	$10^9 A_s e^{-2\tau}$	1.861	$1.871^{+0.064}_{-0.068}$	$H(2.33)$	231.3	233^{+18}_{-14}
y_{cal}	1.0003	$1.0004^{+0.0066}_{-0.0066}$	D_{40}	1239.1	1235^{+50}_{-48}	$D_M(2.33)$	5948	5878^{+470}_{-510}
A_{217}^{CIB}	46.5	48^{+20}_{-20}	D_{220}	5711	5714^{+110}_{-110}	$f\sigma_8(0.15)$	0.4612	$0.461^{+0.021}_{-0.021}$
$\xi^{tSZ \times CIB}$	0.62	—	D_{810}	2534.9	2535^{+38}_{-38}	$\sigma_8(0.15)$	0.7346	$0.741^{+0.042}_{-0.038}$
A_{143}^{tSZ}	6.9	—	D_{1420}	816.6	814^{+14}_{-14}	$f\sigma_8(0.38)$	0.4750	$0.476^{+0.018}_{-0.017}$
A_{100}^{PS}	250	263^{+70}_{-70}	D_{2000}	230.9	$229.6^{+6.1}_{-6.1}$	$\sigma_8(0.38)$	0.6492	$0.655^{+0.041}_{-0.037}$
A_{143}^{PS}	52.2	49^{+20}_{-20}	$n_{s,0.002}$	0.9547	$0.959^{+0.031}_{-0.031}$	$f\sigma_8(0.51)$	0.4714	$0.473^{+0.019}_{-0.017}$
$A_{143 \times 217}^{PS}$	53.5	44^{+20}_{-20}	Y_P	0.256	$0.256^{+0.070}_{-0.087}$	$\sigma_8(0.51)$	0.6067	$0.613^{+0.039}_{-0.036}$
A_{217}^{PS}	122.2	115^{+20}_{-30}	Y_P^{BBN}	0.258	$0.257^{+0.070}_{-0.087}$	$f\sigma_8(0.61)$	0.4651	$0.467^{+0.019}_{-0.018}$
A^{kSZ}	0.0	—	Age/Gyr	14.23	$14.1^{+1.1}_{-1.2}$	$\sigma_8(0.61)$	0.5768	$0.583^{+0.038}_{-0.035}$
A_{100}^{dustTT}	8.83	$8.9^{+4.7}_{-4.6}$	z_*	1090.17	$1090.4^{+1.9}_{-1.8}$	$f\sigma_8(2.33)$	0.2902	$0.293^{+0.020}_{-0.019}$
A_{143}^{dustTT}	10.81	$10.7^{+4.5}_{-4.4}$	r_*	148.3	147^{+11}_{-12}	$\sigma_8(2.33)$	0.2983	$0.302^{+0.023}_{-0.021}$
$A_{143 \times 217}^{dustTT}$	19.8	$18.3^{+8.7}_{-8.6}$	$100\theta_*$	1.04205	$1.0417^{+0.0035}_{-0.0035}$	f_{2000}^{143}	29.4	31^{+10}_{-10}
A_{217}^{dustTT}	95.4	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	14.23	$14.09^{+0.96}_{-1.1}$	$f_{2000}^{143 \times 217}$	32.6	34^{+7}_{-7}
c_{100}	0.99966	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	1058.90	$1059.3^{+3.0}_{-2.9}$	f_{2000}^{217}	106.9	$108.2^{+6.8}_{-6.8}$
c_{217}	0.99822	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	151.1	150^{+11}_{-12}	$\chi_{lensing}^2$	8.48	$9.3 (\nu: 0.5)$
H_0	64.4	66^{+8}_{-7}	k_D	0.1374	$0.139^{+0.011}_{-0.0088}$	χ_{small}^2	395.70	$396.8 (\nu: 1.1)$
Ω_Λ	0.6694	$0.675^{+0.041}_{-0.047}$	$100\theta_D$	0.16070	$0.1610^{+0.0020}_{-0.0019}$	χ_{lowl}^2	24.56	$24.3 (\nu: 1.9)$
Ω_m	0.3306	$0.325^{+0.047}_{-0.041}$	z_{eq}	3457	3435^{+190}_{-180}	χ_{plik}^2	757.9	$772.0 (\nu: 16.8)$
$\Omega_m h^2$	0.1372	$0.140^{+0.021}_{-0.016}$	k_{eq}	0.01025	$0.01031^{+0.00057}_{-0.00043}$	χ_{prior}^2	1.2	$7.3 (\nu: 6.5)$
$\Omega_m h^3$	0.0884	$0.092^{+0.026}_{-0.018}$	$100\theta_{eq}$	0.8031	$0.807^{+0.033}_{-0.031}$	χ_{CMB}^2	1186.7	$1202.4 (\nu: 17.5)$
σ_8	0.7969	$0.803^{+0.042}_{-0.038}$	$100\theta_{s,eq}$	0.4443	$0.446^{+0.017}_{-0.016}$			
S_8	0.8366	$0.836^{+0.043}_{-0.042}$	$H(0.15)$	69.7	71^{+8}_{-7}			

Best-fit $\chi_{eff}^2 = 1187.84$; $\Delta\chi_{eff}^2 = -0.73$; $\bar{\chi}_{eff}^2 = 1209.69$; $\Delta\bar{\chi}_{eff}^2 = 1.28$; $R - 1 = 0.01748$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.48 (Δ -0.42) small_100x143_offlike5_EE_Aplanck_B: 395.70 (Δ -0.16) commander_dx12_v3_2_29: 24.56 (Δ 1.32) plik_rd12_HM_v22_TT: 757.94 (Δ -1.38)

11.4 base_nnu_yhe_plikHM_TT_lowl_lowE_post_BAO_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02225	$0.02226^{+0.00063}_{-0.00065}$	$\sigma_8 \Omega_m^{0.5}$	0.4511	$0.452^{+0.019}_{-0.018}$	$D_M(0.15)$	641.9	639^{+49}_{-49}
$\Omega_c h^2$	0.1190	$0.120^{+0.019}_{-0.015}$	$\sigma_8 \Omega_m^{0.25}$	0.6040	$0.605^{+0.024}_{-0.022}$	$H(0.38)$	82.9	$83.3^{+6.4}_{-5.4}$
$100\theta_{MC}$	1.04108	$1.0410^{+0.0044}_{-0.0047}$	$\sigma_8/h^{0.5}$	0.9842	$0.985^{+0.024}_{-0.024}$	$D_M(0.38)$	1531	1525^{+110}_{-110}
τ	0.0544	$0.055^{+0.020}_{-0.019}$	$r_{drag} h$	99.65	$99.8^{+2.8}_{-2.6}$	$H(0.51)$	89.6	$90.0^{+6.8}_{-5.6}$
N_{eff}	3.04	$3.10^{+1.2}_{-0.92}$	$\langle d^2 \rangle^{1/2}$	2.431	$2.432^{+0.059}_{-0.059}$	$D_M(0.51)$	1983	1976^{+140}_{-150}
Y_P	0.247	$0.247^{+0.075}_{-0.089}$	z_{re}	7.71	$7.8^{+2.0}_{-2.0}$	$H(0.61)$	95.2	$95.6^{+7.0}_{-5.8}$
$\ln(10^{10} A_s)$	3.0425	$3.045^{+0.045}_{-0.045}$	$10^9 A_s$	2.096	$2.102^{+0.097}_{-0.092}$	$D_M(0.61)$	2308	2299^{+160}_{-170}
n_s	0.9675	$0.968^{+0.021}_{-0.022}$	$10^9 A_s e^{-2\tau}$	1.880	$1.883^{+0.056}_{-0.055}$	$H(2.33)$	235.8	237^{+16}_{-12}
y_{cal}	1.0005	$1.0007^{+0.0064}_{-0.0065}$	D_{40}	1224.0	1225^{+43}_{-43}	$D_M(2.33)$	5769	5749^{+360}_{-390}
A_{217}^{CIB}	48.4	48^{+20}_{-20}	D_{220}	5720	5723^{+100}_{-110}	$f\sigma_8(0.15)$	0.4557	$0.456^{+0.018}_{-0.018}$
$\xi^{tSZ \times CIB}$	0.34	—	D_{810}	2538.3	2538^{+38}_{-36}	$\sigma_8(0.15)$	0.7475	$0.750^{+0.035}_{-0.031}$
A_{143}^{tSZ}	7.1	—	D_{1420}	816.5	815^{+14}_{-14}	$f\sigma_8(0.38)$	0.4741	$0.475^{+0.019}_{-0.018}$
A_{100}^{PS}	253	266^{+80}_{-70}	D_{2000}	230.3	$229.6^{+6.3}_{-6.3}$	$\sigma_8(0.38)$	0.6626	$0.665^{+0.032}_{-0.030}$
A_{143}^{PS}	49.2	50^{+20}_{-20}	$n_{s,0.002}$	0.9675	$0.968^{+0.021}_{-0.022}$	$f\sigma_8(0.51)$	0.4728	$0.474^{+0.019}_{-0.018}$
$A_{143 \times 217}^{PS}$	47.3	44^{+20}_{-20}	Y_P	0.247	$0.247^{+0.075}_{-0.089}$	$\sigma_8(0.51)$	0.6201	$0.622^{+0.030}_{-0.028}$
A_{217}^{PS}	119.8	115^{+30}_{-30}	Y_P^{BBN}	0.249	$0.249^{+0.076}_{-0.090}$	$f\sigma_8(0.61)$	0.4678	$0.469^{+0.019}_{-0.018}$
A^{kSZ}	0.0	—	Age/Gyr	13.81	$13.76^{+0.85}_{-0.94}$	$\sigma_8(0.61)$	0.5901	$0.592^{+0.029}_{-0.027}$
A_{100}^{dustTT}	8.90	$8.9^{+5.0}_{-4.7}$	z_*	1090.07	$1090.2^{+1.7}_{-1.8}$	$f\sigma_8(2.33)$	0.2975	$0.299^{+0.015}_{-0.014}$
A_{143}^{dustTT}	10.75	$10.7^{+4.4}_{-4.4}$	r_*	144.8	$144.4^{+8.6}_{-9.6}$	$\sigma_8(2.33)$	0.3068	$0.308^{+0.016}_{-0.015}$
$A_{143 \times 217}^{dustTT}$	19.4	$18.3^{+8.7}_{-8.6}$	$100\theta_*$	1.04123	$1.0411^{+0.0030}_{-0.0031}$	$\chi^2_{lensing}$	8.87	$9.43 (\nu: 0.4)$
A_{217}^{dustTT}	94.6	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.91	$13.87^{+0.79}_{-0.88}$	χ^2_{small}	396.08	$397.1 (\nu: 1.5)$
c_{100}	0.99968	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	1059.63	$1059.8^{+2.7}_{-2.9}$	χ^2_{lowl}	22.88	$23.0 (\nu: 0.9)$
c_{217}	0.99826	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	147.5	$147.1^{+8.8}_{-9.7}$	χ^2_{plik}	759.9	$773.4 (\nu: 16.6)$
H_0	67.5	$67.9^{+5.7}_{-5.0}$	k_D	0.1403	$0.1406^{+0.0097}_{-0.0081}$	χ^2_{6DF}	0.029	$0.064 (\nu: 0.0)$
Ω_Λ	0.6890	$0.690^{+0.022}_{-0.022}$	$100\theta_D$	0.16104	$0.1612^{+0.0019}_{-0.0019}$	χ^2_{MGS}	1.22	$1.36 (\nu: 0.2)$
Ω_m	0.3110	$0.310^{+0.022}_{-0.022}$	z_{eq}	3380	3376^{+110}_{-110}	$\chi^2_{DR12BAO}$	4.36	$4.9 (\nu: 1.4)$
$\Omega_m h^2$	0.1419	$0.143^{+0.019}_{-0.015}$	k_{eq}	0.01031	$0.01034^{+0.00057}_{-0.00046}$	χ^2_{prior}	1.3	$7.3 (\nu: 6.7)$
$\Omega_m h^3$	0.0958	$0.097^{+0.022}_{-0.016}$	$100\theta_{eq}$	0.8171	$0.818^{+0.019}_{-0.018}$	χ^2_{CMB}	1187.7	$1202.9 (\nu: 17.4)$
σ_8	0.8088	$0.811^{+0.036}_{-0.033}$	$100\theta_{s,eq}$	0.4515	$0.4518^{+0.0099}_{-0.0095}$	χ^2_{BAO}	5.61	$6.3 (\nu: 1.0)$
S_8	0.8236	$0.825^{+0.034}_{-0.033}$	$H(0.15)$	72.8	$73.2^{+5.9}_{-5.1}$			

Best-fit $\chi^2_{eff} = 1194.67$; $\Delta\chi^2_{eff} = -0.01$; $\bar{\chi}^2_{eff} = 1216.49$; $\Delta\bar{\chi}^2_{eff} = 1.76$; $R - 1 = 0.01644$
 χ^2_{eff} : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.36 (Δ -0.01) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.87 (Δ -0.01) small_100x143_offlike5_EE_Aplanck
396.08 (Δ -0.01) commander_dx12_v3.2_29: 22.88 (Δ -0.08) plik_rd12_HM_v22_TT: 759.91 (Δ 0.10)

11.5 base_nnu_yhe_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02210^{+0.00082}_{-0.00080}$	S_8	$0.841^{+0.067}_{-0.061}$	$100\theta_{s,eq}$	$0.447^{+0.019}_{-0.019}$
$\Omega_c h^2$	$0.119^{+0.023}_{-0.016}$	$\sigma_8 \Omega_m^{0.5}$	$0.460^{+0.037}_{-0.034}$	$H(0.15)$	72^{+9}_{-8}
$100\theta_{MC}$	$1.0413^{+0.0049}_{-0.0052}$	$\sigma_8 \Omega_m^{0.25}$	$0.611^{+0.033}_{-0.030}$	$D_M(0.15)$	655^{+80}_{-80}
τ	$0.053^{+0.019}_{-0.012}$	$\sigma_8/h^{0.5}$	$0.995^{+0.043}_{-0.042}$	$H(0.38)$	82^{+9}_{-8}
N_{eff}	$2.9^{+1.6}_{-1.2}$	$r_{drag}h$	$98.2^{+6.2}_{-5.9}$	$D_M(0.38)$	1558^{+200}_{-200}
Y_P	$0.251^{+0.074}_{-0.092}$	$\langle d^2 \rangle^{1/2}$	$2.46^{+0.12}_{-0.12}$	$H(0.51)$	$88.7^{+9.5}_{-7.7}$
$\ln(10^{10} A_s)$	$3.040^{+0.057}_{-0.048}$	z_{re}	< 9.45	$D_M(0.51)$	2017^{+220}_{-230}
n_s	$0.961^{+0.035}_{-0.034}$	$10^9 A_s$	$2.09^{+0.12}_{-0.099}$	$H(0.61)$	$94.3^{+9.7}_{-7.8}$
y_{cal}	$1.0005^{+0.0065}_{-0.0067}$	$10^9 A_s e^{-2\tau}$	$1.879^{+0.071}_{-0.069}$	$D_M(0.61)$	2345^{+250}_{-260}
A_{217}^{CIB}	48^{+20}_{-20}	D_{40}	1235^{+59}_{-56}	$H(2.33)$	235^{+19}_{-15}
$\xi^{tSZ \times CIB}$	—	D_{220}	5712^{+110}_{-110}	$D_M(2.33)$	5827^{+500}_{-540}
A_{143}^{tSZ}	—	D_{810}	2536^{+38}_{-38}	$f\sigma_8(0.15)$	$0.464^{+0.033}_{-0.031}$
A_{100}^{PS}	264^{+70}_{-70}	D_{1420}	814^{+13}_{-14}	$\sigma_8(0.15)$	$0.747^{+0.045}_{-0.039}$
A_{143}^{PS}	50^{+20}_{-20}	D_{2000}	$229.5^{+6.1}_{-6.2}$	$f\sigma_8(0.38)$	$0.479^{+0.026}_{-0.024}$
$A_{143 \times 217}^{PS}$	44^{+20}_{-20}	$n_{s,0.002}$	$0.961^{+0.035}_{-0.034}$	$\sigma_8(0.38)$	$0.661^{+0.043}_{-0.037}$
A_{217}^{PS}	115^{+30}_{-30}	Y_P	$0.251^{+0.074}_{-0.092}$	$f\sigma_8(0.51)$	$0.477^{+0.025}_{-0.022}$
A^{kSZ}	—	Y_P^{BBN}	$0.253^{+0.074}_{-0.092}$	$\sigma_8(0.51)$	$0.618^{+0.042}_{-0.035}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.7}$	Age/Gyr	$13.9^{+1.2}_{-1.3}$	$f\sigma_8(0.61)$	$0.471^{+0.025}_{-0.021}$
A_{143}^{dustTT}	$10.7^{+4.6}_{-4.6}$	z_*	$1090.4^{+1.9}_{-1.8}$	$\sigma_8(0.61)$	$0.588^{+0.041}_{-0.035}$
$A_{143 \times 217}^{dustTT}$	$18.3^{+8.8}_{-8.5}$	r_*	146^{+11}_{-12}	$f\sigma_8(2.33)$	$0.296^{+0.022}_{-0.018}$
A_{217}^{dustTT}	93^{+20}_{-20}	$100\theta_*$	$1.0413^{+0.0035}_{-0.0036}$	$\sigma_8(2.33)$	$0.305^{+0.024}_{-0.021}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	$14.0^{+1.0}_{-1.1}$	f_{2000}^{143}	31^{+10}_{-10}
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	z_{drag}	$1059.4^{+3.1}_{-3.0}$	$f_{2000}^{143 \times 217}$	34^{+7}_{-7}
H_0	66^{+9}_{-8}	r_{drag}	148^{+11}_{-13}	f_{2000}^{217}	$108.3^{+6.9}_{-6.8}$
Ω_Λ	$0.676^{+0.049}_{-0.056}$	k_D	$0.140^{+0.013}_{-0.0094}$	χ_{simall}^2	$396.8 (\nu: 1.3)$
Ω_m	$0.324^{+0.056}_{-0.049}$	$100\theta_D$	$0.1611^{+0.0020}_{-0.0020}$	χ_{lowl}^2	$24.2 (\nu: 2.5)$
$\Omega_m h^2$	$0.142^{+0.023}_{-0.017}$	z_{eq}	3427^{+220}_{-210}	χ_{plik}^2	$772.5 (\nu: 19.0)$
$\Omega_m h^3$	$0.094^{+0.029}_{-0.020}$	k_{eq}	$0.01037^{+0.00066}_{-0.00050}$	χ_{prior}^2	$7.3 (\nu: 6.6)$
σ_8	$0.810^{+0.046}_{-0.040}$	$100\theta_{eq}$	$0.809^{+0.038}_{-0.037}$	χ_{CMB}^2	$1193.5 (\nu: 17.1)$

$\bar{\chi}_{eff}^2 = 1200.83$; $\Delta\bar{\chi}_{eff}^2 = 1.51$; $R - 1 = 0.01329$

11.6 base_nnu_yhe_plikHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02227^{+0.00064}_{-0.00065}$	$\sigma_8 \Omega_m^{0.25}$	$0.606^{+0.031}_{-0.026}$	$D_M(0.38)$	1516^{+120}_{-120}
$\Omega_c h^2$	$0.121^{+0.021}_{-0.016}$	$\sigma_8/h^{0.5}$	$0.984^{+0.030}_{-0.027}$	$H(0.51)$	$90.5^{+7.5}_{-5.9}$
$100\theta_{MC}$	$1.0408^{+0.0046}_{-0.0048}$	$r_{drag}h$	$99.96^{+2.8}_{-2.7}$	$D_M(0.51)$	1964^{+150}_{-160}
τ	$0.055^{+0.020}_{-0.014}$	$\langle d^2 \rangle^{1/2}$	$2.429^{+0.071}_{-0.070}$	$H(0.61)$	$96.1^{+7.8}_{-6.1}$
N_{eff}	$3.2^{+1.3}_{-1.0}$	z_{re}	< 9.69	$D_M(0.61)$	2286^{+170}_{-180}
Y_P	$0.245^{+0.078}_{-0.088}$	$10^9 A_s$	$2.11^{+0.12}_{-0.089}$	$H(2.33)$	238^{+17}_{-13}
$\ln(10^{10} A_s)$	$3.047^{+0.056}_{-0.043}$	$10^9 A_s e^{-2\tau}$	$1.886^{+0.066}_{-0.061}$	$D_M(2.33)$	5721^{+380}_{-430}
n_s	$0.970^{+0.021}_{-0.022}$	D_{40}	1222^{+46}_{-44}	$f\sigma_8(0.15)$	$0.457^{+0.024}_{-0.021}$
y_{cal}	$1.0006^{+0.0064}_{-0.0066}$	D_{220}	5719^{+110}_{-110}	$\sigma_8(0.15)$	$0.752^{+0.043}_{-0.036}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2537^{+38}_{-37}	$f\sigma_8(0.38)$	$0.476^{+0.024}_{-0.020}$
$\xi^{tSZ \times CIB}$	—	D_{1420}	815^{+14}_{-14}	$\sigma_8(0.38)$	$0.667^{+0.039}_{-0.033}$
A_{143}^{tSZ}	—	D_{2000}	$229.3^{+6.3}_{-6.2}$	$f\sigma_8(0.51)$	$0.475^{+0.024}_{-0.020}$
A_{100}^{PS}	266^{+80}_{-70}	$n_{s,0.002}$	$0.970^{+0.021}_{-0.022}$	$\sigma_8(0.51)$	$0.624^{+0.036}_{-0.031}$
A_{143}^{PS}	50^{+20}_{-20}	Y_P	$0.245^{+0.078}_{-0.088}$	$f\sigma_8(0.61)$	$0.470^{+0.024}_{-0.020}$
$A_{143 \times 217}^{PS}$	44^{+20}_{-20}	Y_P^{BBN}	$0.247^{+0.079}_{-0.088}$	$\sigma_8(0.61)$	$0.594^{+0.035}_{-0.030}$
A_{217}^{PS}	115^{+30}_{-30}	Age/Gyr	$13.70^{+0.90}_{-1.0}$	$f\sigma_8(2.33)$	$0.300^{+0.018}_{-0.015}$
A^{kSZ}	—	z_*	$1090.2^{+1.8}_{-1.8}$	$\sigma_8(2.33)$	$0.309^{+0.019}_{-0.016}$
A_{100}^{dustTT}	$9.0^{+5.0}_{-4.7}$	r_*	$143.7^{+9.2}_{-10}$	f_{2000}^{143}	32^{+10}_{-10}
A_{143}^{dustTT}	$10.8^{+4.5}_{-4.4}$	$100\theta_*$	$1.0409^{+0.0031}_{-0.0034}$	$f_{2000}^{143 \times 217}$	34^{+7}_{-8}
$A_{143 \times 217}^{dustTT}$	$18.4^{+8.6}_{-8.6}$	$D_M(z_*)/\text{Gpc}$	$13.81^{+0.85}_{-0.96}$	f_{2000}^{217}	$108.4^{+6.7}_{-7.2}$
A_{217}^{dustTT}	93^{+20}_{-20}	z_{drag}	$1059.8^{+2.7}_{-2.8}$	χ_{simall}^2	$397.0 (\nu: 1.6)$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	r_{drag}	$146.4^{+9.4}_{-11}$	χ_{lowl}^2	$22.8 (\nu: 0.9)$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	k_D	$0.141^{+0.011}_{-0.0087}$	χ_{plik}^2	$774.0 (\nu: 17.6)$
H_0	$68.3^{+6.2}_{-5.2}$	$100\theta_D$	$0.1613^{+0.0019}_{-0.0020}$	χ_{6DF}^2	$0.058 (\nu: 0.0)$
Ω_Λ	$0.691^{+0.022}_{-0.023}$	z_{eq}	3368^{+120}_{-110}	χ_{MGS}^2	$1.47 (\nu: 0.2)$
Ω_m	$0.309^{+0.023}_{-0.022}$	k_{eq}	$0.01036^{+0.00065}_{-0.00051}$	$\chi_{DR12BAO}^2$	$4.7 (\nu: 1.3)$
$\Omega_m h^2$	$0.144^{+0.021}_{-0.016}$	$100\theta_{eq}$	$0.819^{+0.019}_{-0.019}$	χ_{prior}^2	$7.3 (\nu: 6.6)$
$\Omega_m h^3$	$0.099^{+0.024}_{-0.017}$	$100\theta_{s,eq}$	$0.4526^{+0.0099}_{-0.0096}$	χ_{BAO}^2	$6.2 (\nu: 0.9)$
σ_8	$0.813^{+0.045}_{-0.038}$	$H(0.15)$	$73.6^{+6.4}_{-5.3}$	χ_{CMB}^2	$1193.8 (\nu: 16.7)$
S_8	$0.825^{+0.044}_{-0.040}$	$D_M(0.15)$	635^{+50}_{-52}		
$\sigma_8 \Omega_m^{0.5}$	$0.452^{+0.024}_{-0.022}$	$H(0.38)$	$83.8^{+6.9}_{-5.7}$		

$$\bar{\chi}_{eff}^2 = 1207.34; \Delta \bar{\chi}_{eff}^2 = 1.58; R - 1 = 0.02392$$

11.7 base_nnu_yhe_plikHM_TT_lowl_lowE_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\text{b}}h^2$	$0.02210^{+0.00076}_{-0.00074}$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.457^{+0.023}_{-0.023}$	$D_{\text{M}}(0.15)$	659^{+70}_{-70}
$\Omega_{\text{c}}h^2$	$0.117^{+0.020}_{-0.016}$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.606^{+0.023}_{-0.022}$	$H(0.38)$	$81.3^{+8.5}_{-7.0}$
$100\theta_{\text{MC}}$	$1.0416^{+0.0047}_{-0.0050}$	$\sigma_8/h^{0.5}$	$0.992^{+0.031}_{-0.030}$	$D_{\text{M}}(0.38)$	1568^{+160}_{-160}
τ	$0.053^{+0.019}_{-0.012}$	$r_{\text{drag}}h$	$98.3^{+5.0}_{-4.7}$	$H(0.51)$	$88.0^{+8.7}_{-7.1}$
N_{eff}	$2.8^{+1.4}_{-1.1}$	$\langle d^2 \rangle^{1/2}$	$2.455^{+0.081}_{-0.080}$	$D_{\text{M}}(0.51)$	2030^{+210}_{-210}
Y_{P}	$0.255^{+0.070}_{-0.085}$	z_{re}	< 9.35	$H(0.61)$	$93.7^{+8.9}_{-7.4}$
$\ln(10^{10}A_{\text{s}})$	$3.036^{+0.053}_{-0.049}$	$10^9 A_{\text{s}}$	$2.08^{+0.11}_{-0.10}$	$D_{\text{M}}(0.61)$	2360^{+230}_{-230}
n_{s}	$0.960^{+0.030}_{-0.030}$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.871^{+0.064}_{-0.068}$	$H(2.33)$	234^{+17}_{-14}
y_{cal}	$1.0005^{+0.0064}_{-0.0067}$	D_{40}	1234^{+49}_{-48}	$D_{\text{M}}(2.33)$	5866^{+480}_{-500}
A_{217}^{CIB}	48^{+20}_{-20}	D_{220}	5714^{+110}_{-110}	$f\sigma_8(0.15)$	$0.461^{+0.021}_{-0.021}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{810}	2535^{+38}_{-38}	$\sigma_8(0.15)$	$0.742^{+0.041}_{-0.037}$
A_{143}^{tSZ}	—	D_{1420}	814^{+14}_{-14}	$f\sigma_8(0.38)$	$0.476^{+0.018}_{-0.018}$
A_{100}^{PS}	264^{+70}_{-70}	D_{2000}	$229.6^{+6.1}_{-6.0}$	$\sigma_8(0.38)$	$0.657^{+0.040}_{-0.036}$
A_{143}^{PS}	49^{+20}_{-20}	$n_{\text{s},0.002}$	$0.960^{+0.030}_{-0.030}$	$f\sigma_8(0.51)$	$0.474^{+0.019}_{-0.017}$
$A_{143 \times 217}^{\text{PS}}$	44^{+20}_{-20}	Y_{P}	$0.255^{+0.070}_{-0.085}$	$\sigma_8(0.51)$	$0.614^{+0.039}_{-0.034}$
A_{217}^{PS}	115^{+30}_{-30}	$Y_{\text{P}}^{\text{BBN}}$	$0.257^{+0.070}_{-0.085}$	$f\sigma_8(0.61)$	$0.468^{+0.019}_{-0.018}$
A^{kSZ}	—	Age/Gyr	$14.0^{+1.1}_{-1.2}$	$\sigma_8(0.61)$	$0.584^{+0.038}_{-0.033}$
A_{100}^{dustTT}	$8.9^{+4.6}_{-4.6}$	z_*	$1090.3^{+1.9}_{-1.8}$	$f\sigma_8(2.33)$	$0.294^{+0.020}_{-0.018}$
A_{143}^{dustTT}	$10.7^{+4.5}_{-4.4}$	r_*	147^{+11}_{-11}	$\sigma_8(2.33)$	$0.303^{+0.022}_{-0.020}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.7}_{-8.5}$	$100\theta_*$	$1.0416^{+0.0036}_{-0.0034}$	f_{2000}^{143}	31^{+10}_{-10}
A_{217}^{dustTT}	93^{+20}_{-20}	$D_{\text{M}}(z_*)/\text{Gpc}$	$14.08^{+0.97}_{-1.1}$	$f_{2000}^{143 \times 217}$	34^{+7}_{-7}
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	$1059.4^{+3.0}_{-2.9}$	f_{2000}^{217}	$108.2^{+6.8}_{-6.9}$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	149^{+11}_{-12}	χ_{lensing}^2	$9.3 (\nu: 0.5)$
H_0	66^{+8}_{-7}	k_{D}	$0.139^{+0.011}_{-0.0088}$	χ_{simall}^2	$396.7 (\nu: 1.1)$
Ω_{Λ}	$0.677^{+0.040}_{-0.044}$	$100\theta_{\text{D}}$	$0.1611^{+0.0020}_{-0.0019}$	χ_{lowl}^2	$24.1 (\nu: 1.8)$
Ω_{m}	$0.323^{+0.044}_{-0.040}$	z_{eq}	3428^{+180}_{-180}	χ_{plik}^2	$772.0 (\nu: 16.8)$
$\Omega_{\text{m}}h^2$	$0.140^{+0.020}_{-0.016}$	k_{eq}	$0.01030^{+0.00056}_{-0.00044}$	χ_{prior}^2	$7.3 (\nu: 6.5)$
$\Omega_{\text{m}}h^3$	$0.092^{+0.025}_{-0.019}$	$100\theta_{\text{eq}}$	$0.809^{+0.032}_{-0.030}$	χ_{CMB}^2	$1202.1 (\nu: 17.0)$
σ_8	$0.805^{+0.041}_{-0.038}$	$100\theta_{\text{s,eq}}$	$0.447^{+0.016}_{-0.015}$		
S_8	$0.835^{+0.043}_{-0.042}$	$H(0.15)$	71^{+8}_{-7}		

$$\bar{\chi}_{\text{eff}}^2 = 1209.43; \Delta\bar{\chi}_{\text{eff}}^2 = 1.27; R - 1 = 0.01928$$

11.8 base_nnu_yhe_plikHM_TT_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02226^{+0.00062}_{-0.00065}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.605^{+0.024}_{-0.022}$	$D_{\mathrm{M}}(0.38)$	1525^{+110}_{-110}
$\Omega_{\mathrm{c}}h^2$	$0.120^{+0.019}_{-0.015}$	$\sigma_8/h^{0.5}$	$0.985^{+0.024}_{-0.023}$	$H(0.51)$	$90.0^{+6.7}_{-5.6}$
$100\theta_{\mathrm{MC}}$	$1.0410^{+0.0044}_{-0.0046}$	$r_{\mathrm{drag}}h$	$99.8^{+2.8}_{-2.6}$	$D_{\mathrm{M}}(0.51)$	1976^{+140}_{-150}
τ	$0.056^{+0.019}_{-0.014}$	$\langle d^2 \rangle^{1/2}$	$2.433^{+0.059}_{-0.059}$	$H(0.61)$	$95.6^{+7.0}_{-5.8}$
N_{eff}	$3.10^{+1.2}_{-0.91}$	z_{re}	< 9.61	$D_{\mathrm{M}}(0.61)$	2299^{+160}_{-170}
Y_{P}	$0.248^{+0.076}_{-0.089}$	$10^9 A_{\mathrm{s}}$	$2.105^{+0.095}_{-0.082}$	$H(2.33)$	237^{+15}_{-12}
$\ln(10^{10} A_{\mathrm{s}})$	$3.047^{+0.044}_{-0.039}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.883^{+0.056}_{-0.055}$	$D_{\mathrm{M}}(2.33)$	5750^{+360}_{-390}
n_{s}	$0.968^{+0.021}_{-0.021}$	D_{40}	1225^{+43}_{-43}	$f\sigma_8(0.15)$	$0.456^{+0.018}_{-0.018}$
y_{cal}	$1.0007^{+0.0063}_{-0.0065}$	D_{220}	5723^{+100}_{-110}	$\sigma_8(0.15)$	$0.750^{+0.035}_{-0.032}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2538^{+37}_{-35}	$f\sigma_8(0.38)$	$0.475^{+0.019}_{-0.017}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	815^{+14}_{-14}	$\sigma_8(0.38)$	$0.665^{+0.032}_{-0.029}$
A_{143}^{tSZ}	—	D_{2000}	$229.6^{+6.3}_{-6.3}$	$f\sigma_8(0.51)$	$0.474^{+0.019}_{-0.018}$
A_{100}^{PS}	266^{+80}_{-70}	$n_{\mathrm{s},0.002}$	$0.968^{+0.021}_{-0.021}$	$\sigma_8(0.51)$	$0.622^{+0.030}_{-0.028}$
A_{143}^{PS}	50^{+20}_{-20}	Y_{P}	$0.248^{+0.076}_{-0.089}$	$f\sigma_8(0.61)$	$0.469^{+0.019}_{-0.018}$
$A_{143 \times 217}^{\mathrm{PS}}$	44^{+20}_{-20}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.249^{+0.076}_{-0.090}$	$\sigma_8(0.61)$	$0.592^{+0.029}_{-0.027}$
A_{217}^{PS}	115^{+30}_{-30}	Age/Gyr	$13.77^{+0.85}_{-0.92}$	$f\sigma_8(2.33)$	$0.299^{+0.015}_{-0.014}$
A^{kSZ}	—	z_*	$1090.2^{+1.8}_{-1.8}$	$\sigma_8(2.33)$	$0.308^{+0.016}_{-0.015}$
$A_{100}^{\mathrm{dustTT}}$	$8.9^{+5.0}_{-4.7}$	r_*	$144.4^{+8.5}_{-9.4}$	f_{2000}^{143}	32^{+10}_{-10}
$A_{143}^{\mathrm{dustTT}}$	$10.7^{+4.4}_{-4.4}$	$100\theta_*$	$1.0411^{+0.0030}_{-0.0031}$	$f_{2000}^{143 \times 217}$	34^{+7}_{-8}
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3^{+8.8}_{-8.6}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.87^{+0.79}_{-0.87}$	f_{2000}^{217}	$108.3^{+6.7}_{-7.1}$
$A_{217}^{\mathrm{dustTT}}$	93^{+20}_{-20}	z_{drag}	$1059.8^{+2.7}_{-2.9}$	$\chi_{\mathrm{lensing}}^2$	$9.39 (\nu: 0.3)$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	r_{drag}	$147.1^{+8.7}_{-9.6}$	χ_{simall}^2	$397.0 (\nu: 1.5)$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	k_{D}	$0.1406^{+0.0097}_{-0.0081}$	χ_{lowl}^2	$23.0 (\nu: 0.9)$
H_0	$67.9^{+5.7}_{-5.0}$	$100\theta_{\mathrm{D}}$	$0.1612^{+0.0019}_{-0.0019}$	χ_{plik}^2	$773.3 (\nu: 16.5)$
Ω_{Λ}	$0.690^{+0.022}_{-0.022}$	z_{eq}	3376^{+110}_{-110}	$\chi_{6\mathrm{DF}}^2$	$0.062 (\nu: 0.0)$
Ω_{m}	$0.310^{+0.022}_{-0.022}$	k_{eq}	$0.01033^{+0.00056}_{-0.00045}$	χ_{MGS}^2	$1.37 (\nu: 0.2)$
$\Omega_{\mathrm{m}}h^2$	$0.143^{+0.019}_{-0.014}$	$100\theta_{\mathrm{eq}}$	$0.818^{+0.019}_{-0.018}$	$\chi_{\mathrm{DR12BAO}}^2$	$4.8 (\nu: 1.4)$
$\Omega_{\mathrm{m}}h^3$	$0.097^{+0.021}_{-0.016}$	$100\theta_{\mathrm{s,eq}}$	$0.4519^{+0.0099}_{-0.0095}$	χ_{prior}^2	$7.3 (\nu: 6.7)$
σ_8	$0.812^{+0.036}_{-0.033}$	$H(0.15)$	$73.2^{+5.9}_{-5.1}$	χ_{CMB}^2	$1202.8 (\nu: 17.1)$
S_8	$0.825^{+0.034}_{-0.032}$	$D_{\mathrm{M}}(0.15)$	639^{+49}_{-49}	χ_{BAO}^2	$6.2 (\nu: 0.9)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.452^{+0.019}_{-0.018}$	$H(0.38)$	$83.3^{+6.3}_{-5.4}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1216.32; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.75; R - 1 = 0.01882$$

11.9 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02222	$0.02225^{+0.00057}_{-0.00057}$	Ω_m	0.3227	$0.321^{+0.029}_{-0.027}$	k_{eq}	0.010297	$0.01033^{+0.00042}_{-0.00038}$
$\Omega_c h^2$	0.1167	$0.118^{+0.013}_{-0.011}$	$\Omega_m h^2$	0.1395	$0.141^{+0.013}_{-0.011}$	$100\theta_{\text{eq}}$	0.8083	$0.809^{+0.020}_{-0.019}$
$100\theta_{\text{MC}}$	1.04140	$1.0413^{+0.0031}_{-0.0031}$	$\Omega_m h^3$	0.0918	$0.093^{+0.015}_{-0.012}$	$100\theta_{\text{s,eq}}$	0.4469	$0.447^{+0.010}_{-0.0099}$
τ	0.0539	$0.054^{+0.021}_{-0.022}$	σ_8	0.8029	$0.806^{+0.033}_{-0.032}$	$H(0.15)$	71.08	$71.6^{+5.0}_{-4.4}$
N_{eff}	2.81	$2.89^{+0.83}_{-0.70}$	S_8	0.8327	$0.833^{+0.043}_{-0.043}$	$D_{\text{M}}(0.15)$	658.4	654^{+44}_{-45}
Y_{P}	0.2449	$0.246^{+0.043}_{-0.049}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4561	$0.456^{+0.024}_{-0.023}$	$H(0.38)$	81.22	$81.7^{+5.1}_{-4.5}$
$\ln(10^{10} A_{\text{s}})$	3.036	$3.038^{+0.052}_{-0.049}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6051	$0.606^{+0.024}_{-0.025}$	$D_{\text{M}}(0.38)$	1568	1558^{+99}_{-100}
n_{s}	0.9584	$0.960^{+0.022}_{-0.022}$	$\sigma_8/h^{0.5}$	0.9901	$0.990^{+0.030}_{-0.033}$	$H(0.51)$	87.95	$88.5^{+5.2}_{-4.5}$
y_{cal}	1.0005	$1.0007^{+0.0066}_{-0.0062}$	$r_{\text{drag}} h$	98.23	$98.4^{+3.4}_{-3.3}$	$D_{\text{M}}(0.51)$	2029	2017^{+120}_{-130}
A_{217}^{CIB}	43.8	46^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.457	$2.456^{+0.076}_{-0.080}$	$H(0.61)$	93.6	$94.1^{+5.4}_{-4.7}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.89	—	z_{re}	7.60	$7.6^{+2.0}_{-2.3}$	$D_{\text{M}}(0.61)$	2359	2345^{+140}_{-150}
A_{143}^{tSZ}	6.90	> 0.937	$10^9 A_{\text{s}}$	2.082	$2.09^{+0.11}_{-0.10}$	$H(2.33)$	233.5	$235^{+11}_{-9.6}$
A_{100}^{PS}	244	257^{+70}_{-70}	$10^9 A_{\text{s}} e^{-2\tau}$	1.869	$1.874^{+0.051}_{-0.053}$	$D_{\text{M}}(2.33)$	5865	5834^{+290}_{-310}
A_{143}^{PS}	51.4	45^{+20}_{-20}	D_{40}	1238.1	1238^{+43}_{-40}	$f\sigma_8(0.15)$	0.4597	$0.460^{+0.022}_{-0.022}$
$A_{143 \times 217}^{\text{PS}}$	57.2	42^{+20}_{-20}	D_{220}	5730	5733^{+96}_{-96}	$\sigma_8(0.15)$	0.7408	$0.743^{+0.031}_{-0.030}$
A_{217}^{PS}	124.0	115^{+30}_{-30}	D_{810}	2539.1	2538^{+36}_{-34}	$f\sigma_8(0.38)$	0.4754	$0.476^{+0.019}_{-0.020}$
A^{kSZ}	0.0	—	D_{1420}	819.7	818^{+12}_{-12}	$\sigma_8(0.38)$	0.6555	$0.658^{+0.029}_{-0.028}$
A_{100}^{dustTT}	8.69	$8.9^{+4.7}_{-4.7}$	D_{2000}	232.45	$231.5^{+4.6}_{-4.7}$	$f\sigma_8(0.51)$	0.4727	$0.474^{+0.019}_{-0.019}$
A_{143}^{dustTT}	10.86	$10.8^{+4.7}_{-4.6}$	$n_{\text{s},0.002}$	0.9584	$0.960^{+0.022}_{-0.022}$	$\sigma_8(0.51)$	0.6130	$0.615^{+0.028}_{-0.026}$
$A_{143 \times 217}^{\text{dustTT}}$	20.1	$18.5^{+8.5}_{-8.5}$	Y_{P}	0.2449	$0.246^{+0.043}_{-0.049}$	$f\sigma_8(0.61)$	0.4669	$0.468^{+0.018}_{-0.018}$
A_{217}^{dustTT}	95.8	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.2463	$0.247^{+0.043}_{-0.049}$	$\sigma_8(0.61)$	0.5829	$0.585^{+0.027}_{-0.026}$
A_{100}^{dustTE}	0.115	$0.115^{+0.097}_{-0.096}$	Age/Gyr	14.04	$13.97^{+0.70}_{-0.74}$	$f\sigma_8(2.33)$	0.2935	$0.295^{+0.014}_{-0.013}$
$A_{100 \times 143}^{\text{dustTE}}$	0.134	$0.135^{+0.078}_{-0.075}$	z_*	1089.70	$1089.9^{+1.2}_{-1.1}$	$\sigma_8(2.33)$	0.3021	$0.303^{+0.015}_{-0.014}$
$A_{100 \times 217}^{\text{dustTE}}$	0.482	$0.48^{+0.22}_{-0.22}$	r_*	146.6	$145.9^{+6.8}_{-7.1}$	f_{2000}^{143}	27.2	29^{+8}_{-8}
A_{143}^{dustTE}	0.222	$0.22^{+0.14}_{-0.14}$	$100\theta_*$	1.04168	$1.0415^{+0.0023}_{-0.0023}$	$f_{2000}^{143 \times 217}$	30.9	32^{+6}_{-6}
$A_{143 \times 217}^{\text{dustTE}}$	0.665	$0.67^{+0.21}_{-0.21}$	$D_{\text{M}}(z_*)/\text{Gpc}$	14.08	$14.01^{+0.62}_{-0.66}$	f_{2000}^{217}	105.5	$106.6^{+5.3}_{-5.3}$
A_{217}^{dustTE}	2.09	$2.09^{+0.68}_{-0.69}$	z_{drag}	1059.25	$1059.5^{+2.1}_{-2.2}$	χ_{simall}^2	396.03	$397.1 (\nu: 1.6)$
c_{100}	0.99974	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	149.4	$148.7^{+7.0}_{-7.4}$	χ_{lowl}^2	24.26	$24.3 (\nu: 1.2)$
c_{217}	0.99814	$0.9982^{+0.0016}_{-0.0016}$	k_{D}	0.1392	$0.1397^{+0.0067}_{-0.0059}$	χ_{plik}^2	2343.1	$2360.3 (\nu: 19.0)$
H_0	65.76	$66.2^{+5.0}_{-4.4}$	$100\theta_{\text{D}}$	0.16035	$0.1606^{+0.0012}_{-0.0012}$	χ_{prior}^2	1.4	$11.5 (\nu: 10.3)$
Ω_{Λ}	0.6773	$0.679^{+0.027}_{-0.029}$	z_{eq}	3429	3424^{+110}_{-110}	χ_{CMB}^2	2763.3	$2781.7 (\nu: 18.8)$

Best-fit $\chi_{\text{eff}}^2 = 2764.72$; $\Delta\chi_{\text{eff}}^2 = -1.05$; $\bar{\chi}_{\text{eff}}^2 = 2793.18$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.41$; $R - 1 = 0.01243$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.03 (Δ -0.02) commander_dx12_v3.2.29: 24.26 (Δ 1.00) plik_rd12_HM_v22b_TTTEEE: 2343.05 (Δ -1.59)

11.10 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022350	$0.02239^{+0.00048}_{-0.00048}$	$\Omega_m h^3$	0.0946	$0.096^{+0.014}_{-0.013}$	$D_M(0.15)$	645.7	643^{+37}_{-36}
$\Omega_c h^2$	0.1179	$0.119^{+0.013}_{-0.012}$	σ_8	0.8053	$0.807^{+0.033}_{-0.033}$	$H(0.38)$	82.48	$82.8^{+4.5}_{-4.2}$
$100\theta_{MC}$	1.04108	$1.0411^{+0.0030}_{-0.0030}$	S_8	0.8222	$0.823^{+0.037}_{-0.038}$	$D_M(0.38)$	1540	1534^{+86}_{-84}
τ	0.0551	$0.055^{+0.020}_{-0.020}$	$\sigma_8 \Omega_m^{0.5}$	0.4503	$0.451^{+0.020}_{-0.021}$	$H(0.51)$	89.17	$89.5^{+4.7}_{-4.4}$
N_{eff}	2.96	$3.01^{+0.78}_{-0.70}$	$\sigma_8 \Omega_m^{0.25}$	0.6022	$0.603^{+0.024}_{-0.025}$	$D_M(0.51)$	1994	1987^{+110}_{-110}
Y_P	0.2422	$0.244^{+0.042}_{-0.049}$	$\sigma_8/h^{0.5}$	0.9829	$0.983^{+0.028}_{-0.029}$	$H(0.61)$	94.77	$95.1^{+4.9}_{-4.5}$
$\ln(10^{10} A_s)$	3.0401	$3.043^{+0.049}_{-0.049}$	$r_{\text{drag}} h$	99.42	$99.5^{+2.2}_{-2.2}$	$D_M(0.61)$	2320	2313^{+130}_{-120}
n_s	0.9648	$0.965^{+0.017}_{-0.018}$	$\langle d^2 \rangle^{1/2}$	2.435	$2.437^{+0.068}_{-0.066}$	$H(2.33)$	234.9	236^{+11}_{-10}
y_{cal}	1.0003	$1.0007^{+0.0062}_{-0.0063}$	z_{re}	7.71	$7.7^{+2.0}_{-2.2}$	$D_M(2.33)$	5796	5779^{+280}_{-280}
A_{217}^{CIB}	44.5	46^{+20}_{-20}	$10^9 A_s$	2.091	$2.10^{+0.11}_{-0.10}$	$f\sigma_8(0.15)$	0.4548	$0.455^{+0.019}_{-0.020}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.82	—	$10^9 A_s e^{-2\tau}$	1.8726	$1.877^{+0.048}_{-0.050}$	$\sigma_8(0.15)$	0.7440	$0.746^{+0.031}_{-0.031}$
A_{143}^{tSZ}	7.03	> 1.03	D_{40}	1227.9	1230^{+38}_{-35}	$f\sigma_8(0.38)$	0.4728	$0.474^{+0.019}_{-0.019}$
A_{100}^{PS}	244	257^{+70}_{-70}	D_{220}	5729	5738^{+95}_{-97}	$\sigma_8(0.38)$	0.6594	$0.661^{+0.028}_{-0.028}$
A_{143}^{PS}	50.7	45^{+20}_{-20}	D_{810}	2538.4	2539^{+34}_{-35}	$f\sigma_8(0.51)$	0.4712	$0.472^{+0.018}_{-0.019}$
$A_{143 \times 217}^{\text{PS}}$	55.6	42^{+20}_{-20}	D_{1420}	819.4	818^{+12}_{-12}	$\sigma_8(0.51)$	0.6170	$0.619^{+0.027}_{-0.026}$
A_{217}^{PS}	122.8	115^{+30}_{-30}	D_{2000}	232.14	$231.4^{+4.6}_{-4.7}$	$f\sigma_8(0.61)$	0.4662	$0.467^{+0.018}_{-0.019}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9648	$0.965^{+0.017}_{-0.018}$	$\sigma_8(0.61)$	0.5871	$0.589^{+0.026}_{-0.025}$
A_{100}^{dustTT}	8.83	$8.9^{+4.6}_{-4.7}$	Y_P	0.2422	$0.244^{+0.042}_{-0.049}$	$f\sigma_8(2.33)$	0.2960	$0.297^{+0.013}_{-0.013}$
A_{143}^{dustTT}	10.99	$10.9^{+4.5}_{-4.6}$	Y_P^{BBN}	0.2435	$0.246^{+0.043}_{-0.049}$	$\sigma_8(2.33)$	0.3051	$0.306^{+0.014}_{-0.013}$
$A_{143 \times 217}^{\text{dustTT}}$	20.3	$18.6^{+9.4}_{-8.4}$	Age/Gyr	13.87	$13.83^{+0.67}_{-0.66}$	f_{2000}^{143}	27.5	29^{+8}_{-8}
A_{217}^{dustTT}	95.9	94^{+20}_{-20}	z_*	1089.60	$1089.7^{+1.1}_{-1.1}$	$f_{2000}^{143 \times 217}$	31.1	32^{+5}_{-6}
A_{100}^{dustTE}	0.114	$0.114^{+0.099}_{-0.094}$	r_*	145.4	$145.1^{+6.9}_{-6.8}$	f_{2000}^{217}	105.6	$106.7^{+5.2}_{-5.4}$
$A_{100 \times 143}^{\text{dustTE}}$	0.134	$0.135^{+0.077}_{-0.076}$	$100\theta_*$	1.04138	$1.0413^{+0.0024}_{-0.0023}$	χ_{small}^2	396.16	$397.3 (\nu: 2.0)$
$A_{100 \times 217}^{\text{dustTE}}$	0.483	$0.48^{+0.22}_{-0.22}$	$D_M(z_*)/\text{Gpc}$	13.96	$13.93^{+0.63}_{-0.62}$	χ_{lowl}^2	23.25	$23.4 (\nu: 0.7)$
A_{143}^{dustTE}	0.225	$0.22^{+0.14}_{-0.14}$	z_{drag}	1059.59	$1059.8^{+1.9}_{-2.0}$	χ_{plik}^2	2344.8	$2361.2 (\nu: 19.0)$
$A_{143 \times 217}^{\text{dustTE}}$	0.667	$0.66^{+0.19}_{-0.21}$	r_{drag}	148.1	$147.7^{+7.0}_{-7.0}$	$\chi_{6\text{DF}}^2$	0.047	$0.069 (\nu: 0.0)$
A_{217}^{dustTE}	2.08	$2.08^{+0.67}_{-0.66}$	k_D	0.1402	$0.1405^{+0.0065}_{-0.0060}$	χ_{MGS}^2	1.10	$1.23 (\nu: 0.1)$
c_{100}	0.99974	$0.9997^{+0.0016}_{-0.0015}$	$100\theta_D$	0.16047	$0.1606^{+0.0012}_{-0.0012}$	χ_{DR12BAO}^2	4.80	$5.1 (\nu: 1.4)$
c_{217}	0.99817	$0.9982^{+0.0016}_{-0.0017}$	z_{eq}	3391	3389^{+83}_{-82}	χ_{prior}^2	1.5	$11.6 (\nu: 10.2)$
H_0	67.13	$67.4^{+4.1}_{-3.8}$	k_{eq}	0.010291	$0.01031^{+0.00041}_{-0.00040}$	χ_{BAO}^2	5.94	$6.4 (\nu: 1.0)$
Ω_Λ	0.6873	$0.688^{+0.018}_{-0.019}$	$100\theta_{\text{eq}}$	0.8153	$0.816^{+0.014}_{-0.014}$	χ_{CMB}^2	2764.2	$2781.9 (\nu: 18.1)$
Ω_m	0.3127	$0.312^{+0.019}_{-0.018}$	$100\theta_{s,\text{eq}}$	0.4505	$0.4507^{+0.0072}_{-0.0072}$			
$\Omega_m h^2$	0.1409	$0.142^{+0.013}_{-0.012}$	$H(0.15)$	72.40	$72.7^{+4.2}_{-3.9}$			

Best-fit $\chi_{\text{eff}}^2 = 2771.61$; $\Delta\chi_{\text{eff}}^2 = -0.31$; $\bar{\chi}_{\text{eff}}^2 = 2799.87$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.96$; $R - 1 = 0.02630$
 χ_{eff}^2 : BAO - 6DF: 0.05 (Δ 0.02) MGS: 1.10 (Δ -0.12) DR12BAO: 4.80 (Δ 0.39) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.16 (Δ -0.04) commander_dx12_v3_2_29: 23.25 (Δ 0.38) plik_rd12_HM_v22b_TTTEEE: 2344.78 (Δ -0.73)

11.11 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02222	$0.02224^{+0.00057}_{-0.00056}$	$\Omega_m h^2$	0.1391	$0.140^{+0.012}_{-0.010}$	$100\theta_{s,eq}$	0.4470	$0.4474^{+0.0098}_{-0.0095}$
$\Omega_c h^2$	0.1163	$0.117^{+0.012}_{-0.010}$	$\Omega_m h^3$	0.0914	$0.092^{+0.015}_{-0.012}$	$H(0.15)$	71.01	$71.3^{+4.9}_{-4.3}$
$100\theta_{MC}$	1.04151	$1.0415^{+0.0030}_{-0.0031}$	σ_8	0.8019	$0.803^{+0.030}_{-0.029}$	$D_M(0.15)$	659.0	656^{+44}_{-44}
τ	0.0539	$0.053^{+0.020}_{-0.021}$	S_8	0.8312	$0.831^{+0.034}_{-0.034}$	$H(0.38)$	81.14	$81.5^{+5.0}_{-4.4}$
N_{eff}	2.79	$2.84^{+0.82}_{-0.67}$	$\sigma_8 \Omega_m^{0.5}$	0.4552	$0.455^{+0.018}_{-0.019}$	$D_M(0.38)$	1569	1563^{+97}_{-99}
Y_P	0.2458	$0.247^{+0.042}_{-0.048}$	$\sigma_8 \Omega_m^{0.25}$	0.6042	$0.605^{+0.020}_{-0.020}$	$H(0.51)$	87.85	$88.2^{+5.2}_{-4.4}$
$\ln(10^{10} A_s)$	3.0349	$3.036^{+0.047}_{-0.045}$	$\sigma_8/h^{0.5}$	0.9893	$0.989^{+0.024}_{-0.024}$	$D_M(0.51)$	2031	2023^{+120}_{-130}
n_s	0.9583	$0.959^{+0.021}_{-0.023}$	$r_{drag} h$	98.28	$98.4^{+3.2}_{-3.0}$	$H(0.61)$	93.46	$93.8^{+5.3}_{-4.5}$
y_{cal}	1.0005	$1.0007^{+0.0064}_{-0.0061}$	$\langle d^2 \rangle^{1/2}$	2.456	$2.454^{+0.061}_{-0.063}$	$D_M(0.61)$	2362	2353^{+140}_{-140}
A_{217}^{CIB}	44.0	46^{+20}_{-20}	z_{re}	7.60	$7.6^{+1.9}_{-2.3}$	$H(2.33)$	233.1	$234^{+11}_{-9.1}$
$\xi^{tSZ \times CIB}$	0.89	—	$10^9 A_s$	2.080	$2.082^{+0.099}_{-0.092}$	$D_M(2.33)$	5872	5853^{+290}_{-310}
A_{143}^{tSZ}	6.95	> 0.942	$10^9 A_s e^{-2\tau}$	1.8673	$1.871^{+0.048}_{-0.049}$	$f\sigma_8(0.15)$	0.4589	$0.459^{+0.017}_{-0.018}$
A_{100}^{PS}	244	256^{+70}_{-70}	D_{40}	1237.7	1238^{+41}_{-39}	$\sigma_8(0.15)$	0.7399	$0.741^{+0.029}_{-0.028}$
A_{143}^{PS}	51.6	45^{+20}_{-20}	D_{220}	5730	5734^{+96}_{-97}	$f\sigma_8(0.38)$	0.4747	$0.475^{+0.015}_{-0.016}$
$A_{143 \times 217}^{PS}$	57.1	42^{+20}_{-20}	D_{810}	2538.7	2538^{+35}_{-32}	$\sigma_8(0.38)$	0.6547	$0.656^{+0.028}_{-0.026}$
A_{217}^{PS}	123.5	115^{+30}_{-30}	D_{1420}	819.6	818^{+12}_{-12}	$f\sigma_8(0.51)$	0.4720	$0.472^{+0.015}_{-0.015}$
A^{kSZ}	0.0	—	D_{2000}	232.44	$231.6^{+4.6}_{-4.7}$	$\sigma_8(0.51)$	0.6123	$0.614^{+0.027}_{-0.025}$
A_{100}^{dustTT}	8.71	$8.9^{+4.6}_{-4.8}$	$n_{s,0.002}$	0.9583	$0.959^{+0.021}_{-0.023}$	$f\sigma_8(0.61)$	0.4663	$0.467^{+0.016}_{-0.015}$
A_{143}^{dustTT}	10.92	$10.8^{+4.7}_{-4.6}$	Y_P	0.2458	$0.247^{+0.042}_{-0.048}$	$\sigma_8(0.61)$	0.5823	$0.584^{+0.026}_{-0.024}$
$A_{143 \times 217}^{dustTT}$	20.3	$18.5^{+8.7}_{-8.9}$	Y_P^{BBN}	0.2472	$0.249^{+0.043}_{-0.049}$	$f\sigma_8(2.33)$	0.2932	$0.294^{+0.014}_{-0.013}$
A_{217}^{dustTT}	96.0	94^{+20}_{-20}	Age/Gyr	14.06	$14.01^{+0.69}_{-0.73}$	$\sigma_8(2.33)$	0.3018	$0.303^{+0.015}_{-0.014}$
A_{100}^{dustTE}	0.114	$0.115^{+0.098}_{-0.095}$	z_*	1089.69	$1089.8^{+1.1}_{-1.1}$	f_{2000}^{143}	27.3	29^{+8}_{-8}
$A_{100 \times 143}^{dustTE}$	0.135	$0.135^{+0.078}_{-0.075}$	r_*	146.8	$146.4^{+6.5}_{-7.1}$	$f_{2000}^{143 \times 217}$	31.0	32^{+6}_{-6}
$A_{100 \times 217}^{dustTE}$	0.483	$0.48^{+0.22}_{-0.21}$	$100\theta_*$	1.04177	$1.0417^{+0.0023}_{-0.0023}$	f_{2000}^{217}	105.5	$106.6^{+5.3}_{-5.2}$
A_{143}^{dustTE}	0.227	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	14.10	$14.05^{+0.59}_{-0.65}$	$\chi_{lensing}^2$	8.49	$9.01 (\nu: 0.3)$
$A_{143 \times 217}^{dustTE}$	0.667	$0.67^{+0.20}_{-0.21}$	z_{drag}	1059.25	$1059.4^{+2.1}_{-2.2}$	χ_{small}^2	396.03	$396.9 (\nu: 1.3)$
A_{217}^{dustTE}	2.09	$2.09^{+0.69}_{-0.68}$	r_{drag}	149.6	$149.1^{+6.7}_{-7.3}$	χ_{lowl}^2	24.24	$24.3 (\nu: 1.1)$
c_{100}	0.99974	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.1390	$0.1393^{+0.0067}_{-0.0058}$	χ_{plik}^2	2343.0	$2359.9 (\nu: 18.0)$
c_{217}	0.99817	$0.9982^{+0.0016}_{-0.0017}$	$100\theta_D$	0.16035	$0.1605^{+0.0012}_{-0.0012}$	χ_{prior}^2	1.5	$11.5 (\nu: 10.0)$
H_0	65.70	$66.0^{+4.8}_{-4.3}$	z_{eq}	3429	3425^{+110}_{-110}	χ_{CMB}^2	2771.8	$2790.2 (\nu: 19.0)$
Ω_Λ	0.6777	$0.679^{+0.026}_{-0.027}$	k_{eq}	0.010281	$0.01030^{+0.00037}_{-0.00033}$			
Ω_m	0.3223	$0.321^{+0.027}_{-0.026}$	$100\theta_{eq}$	0.8085	$0.809^{+0.019}_{-0.019}$			

Best-fit $\chi_{eff}^2 = 2773.24$; $\Delta\chi_{eff}^2 = -1.39$; $\bar{\chi}_{eff}^2 = 2801.64$; $\Delta\bar{\chi}_{eff}^2 = 0.95$; $R - 1 = 0.01539$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.49 (Δ -0.37) small_100x143_offlike5_EE_Aplanck_B: 396.03 (Δ -0.02) commander_dx12_v3_2_29: 24.23 (Δ 0.98) plik_rd12_HM_v22b_TTTEEE: 2343.02 (Δ -1.91)

11.12 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022358	$0.02238^{+0.00049}_{-0.00049}$	$\Omega_m h^2$	0.1404	$0.141^{+0.012}_{-0.011}$	$100\theta_{s,eq}$	0.4503	$0.4504^{+0.0072}_{-0.0070}$
$\Omega_c h^2$	0.1174	$0.118^{+0.012}_{-0.011}$	$\Omega_m h^3$	0.0940	$0.095^{+0.014}_{-0.012}$	$H(0.15)$	72.24	$72.5^{+4.3}_{-3.8}$
$100\theta_{MC}$	1.04126	$1.0412^{+0.0029}_{-0.0029}$	σ_8	0.8054	$0.807^{+0.029}_{-0.028}$	$D_M(0.15)$	647.1	645^{+37}_{-37}
τ	0.0563	$0.056^{+0.018}_{-0.019}$	S_8	0.8225	$0.824^{+0.029}_{-0.030}$	$H(0.38)$	82.30	$82.6^{+4.5}_{-4.1}$
N_{eff}	2.93	$2.97^{+0.77}_{-0.67}$	$\sigma_8 \Omega_m^{0.5}$	0.4505	$0.451^{+0.016}_{-0.016}$	$D_M(0.38)$	1543	1538^{+84}_{-86}
Y_P	0.2443	$0.245^{+0.042}_{-0.049}$	$\sigma_8 \Omega_m^{0.25}$	0.6024	$0.603^{+0.020}_{-0.020}$	$H(0.51)$	88.98	$89.3^{+4.7}_{-4.2}$
$\ln(10^{10} A_s)$	3.0426	$3.044^{+0.044}_{-0.042}$	$\sigma_8/h^{0.5}$	0.9841	$0.984^{+0.023}_{-0.023}$	$D_M(0.51)$	1999	1993^{+110}_{-110}
n_s	0.9644	$0.964^{+0.018}_{-0.018}$	$r_{drag} h$	99.42	$99.5^{+2.8}_{-2.2}$	$H(0.61)$	94.57	$94.9^{+4.8}_{-4.4}$
y_{cal}	1.0007	$1.0008^{+0.0061}_{-0.0063}$	$\langle d^2 \rangle^{1/2}$	2.439	$2.440^{+0.055}_{-0.056}$	$D_M(0.61)$	2325	2319^{+120}_{-120}
A_{217}^{CIB}	44.4	46^{+20}_{-20}	z_{re}	7.83	$7.8^{+1.8}_{-2.0}$	$H(2.33)$	234.4	$235^{+10}_{-9.3}$
$\xi^{tSZ \times CIB}$	0.80	—	$10^9 A_s$	2.096	$2.099^{+0.095}_{-0.088}$	$D_M(2.33)$	5808	5791^{+270}_{-280}
A_{143}^{tSZ}	7.00	> 1.02	$10^9 A_s e^{-2\tau}$	1.8727	$1.875^{+0.045}_{-0.048}$	$f\sigma_8(0.15)$	0.4550	$0.456^{+0.016}_{-0.016}$
A_{100}^{PS}	245	257^{+70}_{-70}	D_{40}	1229.6	1231^{+36}_{-35}	$\sigma_8(0.15)$	0.7441	$0.746^{+0.028}_{-0.027}$
A_{143}^{PS}	50.5	45^{+20}_{-20}	D_{220}	5737	5741^{+96}_{-99}	$f\sigma_8(0.38)$	0.4729	$0.474^{+0.015}_{-0.016}$
$A_{143 \times 217}^{PS}$	55.2	42^{+20}_{-20}	D_{810}	2540.5	2539^{+33}_{-33}	$\sigma_8(0.38)$	0.6595	$0.661^{+0.026}_{-0.025}$
A_{217}^{PS}	123.0	115^{+30}_{-30}	D_{1420}	820.1	818^{+12}_{-12}	$f\sigma_8(0.51)$	0.4713	$0.472^{+0.016}_{-0.016}$
A^{kSZ}	0.0	—	D_{2000}	232.36	$231.5^{+4.5}_{-4.8}$	$\sigma_8(0.51)$	0.6171	$0.618^{+0.024}_{-0.024}$
A_{100}^{dustTT}	8.82	$8.9^{+4.7}_{-4.7}$	$n_{s,0.002}$	0.9644	$0.964^{+0.018}_{-0.018}$	$f\sigma_8(0.61)$	0.4663	$0.467^{+0.016}_{-0.016}$
A_{143}^{dustTT}	10.98	$10.8^{+4.7}_{-4.6}$	Y_P	0.2443	$0.245^{+0.042}_{-0.049}$	$\sigma_8(0.61)$	0.5871	$0.588^{+0.024}_{-0.023}$
$A_{143 \times 217}^{dustTT}$	20.2	$18.6^{+9.2}_{-8.7}$	Y_P^{BBN}	0.2456	$0.246^{+0.043}_{-0.050}$	$f\sigma_8(2.33)$	0.2960	$0.297^{+0.012}_{-0.012}$
A_{217}^{dustTT}	96.0	94^{+20}_{-20}	Age/Gyr	13.90	$13.86^{+0.64}_{-0.66}$	$\sigma_8(2.33)$	0.3051	$0.306^{+0.013}_{-0.012}$
A_{100}^{dustTE}	0.115	$0.114^{+0.098}_{-0.094}$	z_*	1089.61	$1089.7^{+1.1}_{-1.1}$	$\chi^2_{lensing}$	8.56	$9.06 (\nu: 0.2)$
$A_{100 \times 143}^{dustTE}$	0.134	$0.135^{+0.077}_{-0.076}$	r_*	145.7	$145.3^{+6.6}_{-6.6}$	χ^2_{small}	396.43	$397.3 (\nu: 1.8)$
$A_{100 \times 217}^{dustTE}$	0.484	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	1.04150	$1.0414^{+0.0022}_{-0.0023}$	χ^2_{lowl}	23.32	$23.5 (\nu: 0.7)$
A_{143}^{dustTE}	0.223	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.99	$13.96^{+0.60}_{-0.60}$	χ^2_{plik}	2344.5	$2360.6 (\nu: 17.9)$
$A_{143 \times 217}^{dustTE}$	0.665	$0.66^{+0.19}_{-0.21}$	z_{drag}	1059.63	$1059.8^{+2.0}_{-2.0}$	χ^2_{6DF}	0.048	$0.074 (\nu: 0.0)$
A_{217}^{dustTE}	2.08	$2.08^{+0.67}_{-0.67}$	r_{drag}	148.4	$148.0^{+6.7}_{-6.7}$	χ^2_{MGS}	1.10	$1.18 (\nu: 0.1)$
c_{100}	0.99975	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.1399	$0.1402^{+0.0063}_{-0.0056}$	$\chi^2_{DR12BAO}$	4.79	$5.2 (\nu: 1.4)$
c_{217}	0.99816	$0.9982^{+0.0016}_{-0.0017}$	$100\theta_D$	0.16047	$0.1606^{+0.0012}_{-0.0012}$	χ^2_{prior}	1.5	$11.6 (\nu: 10.1)$
H_0	66.98	$67.2^{+4.2}_{-3.7}$	z_{eq}	3393	3393^{+82}_{-80}	χ^2_{CMB}	2772.8	$2790.5 (\nu: 18.3)$
Ω_Λ	0.6872	$0.687^{+0.018}_{-0.019}$	k_{eq}	0.010274	$0.01030^{+0.00038}_{-0.00036}$	χ^2_{BAO}	5.94	$6.4 (\nu: 1.0)$
Ω_m	0.3128	$0.313^{+0.019}_{-0.018}$	$100\theta_{eq}$	0.8150	$0.815^{+0.014}_{-0.014}$			

Best-fit $\chi^2_{eff} = 2780.20$; $\Delta\chi^2_{eff} = -0.50$; $\bar{\chi}^2_{eff} = 2808.46$; $\Delta\bar{\chi}^2_{eff} = 1.62$; $R - 1 = 0.02254$
 χ^2_{eff} : BAO - 6DF: 0.05 (Δ 0.02) MGS: 1.10 (Δ -0.12) DR12BAO: 4.79 (Δ 0.37) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p-teb_consext8: 8.56 (Δ -0.17) simall_100x143_offlike5_EE_Aplanck 396.44 (Δ -0.09) commander_dx12_v3.2_29: 23.32 (Δ 0.42) plik_rd12_HM_v22b_TTTEEE: 2344.47 (Δ -0.85)

11.13 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02226^{+0.00056}_{-0.00054}$	Ω_m	$0.321^{+0.028}_{-0.027}$	k_{eq}	$0.01033^{+0.00042}_{-0.00038}$
$\Omega_c h^2$	$0.118^{+0.013}_{-0.011}$	$\Omega_m h^2$	$0.141^{+0.013}_{-0.011}$	$100\theta_{\text{eq}}$	$0.810^{+0.020}_{-0.019}$
$100\theta_{\text{MC}}$	$1.0413^{+0.0031}_{-0.0031}$	$\Omega_m h^3$	$0.093^{+0.015}_{-0.012}$	$100\theta_{\text{s,eq}}$	$0.448^{+0.010}_{-0.0099}$
τ	$0.055^{+0.019}_{-0.013}$	σ_8	$0.807^{+0.032}_{-0.031}$	$H(0.15)$	$71.6^{+5.0}_{-4.3}$
N_{eff}	$2.89^{+0.83}_{-0.70}$	S_8	$0.834^{+0.043}_{-0.043}$	$D_{\text{M}}(0.15)$	654^{+43}_{-45}
Y_{P}	$0.246^{+0.043}_{-0.049}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.457^{+0.023}_{-0.023}$	$H(0.38)$	$81.8^{+5.1}_{-4.4}$
$\ln(10^{10} A_{\text{s}})$	$3.041^{+0.049}_{-0.040}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.607^{+0.024}_{-0.024}$	$D_{\text{M}}(0.38)$	1557^{+98}_{-100}
n_{s}	$0.960^{+0.021}_{-0.021}$	$\sigma_8/h^{0.5}$	$0.991^{+0.029}_{-0.031}$	$H(0.51)$	$88.5^{+5.2}_{-4.5}$
y_{cal}	$1.0007^{+0.0065}_{-0.0061}$	$r_{\text{drag}} h$	$98.5^{+3.3}_{-3.2}$	$D_{\text{M}}(0.51)$	2015^{+120}_{-130}
A_{217}^{CIB}	46^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	$2.458^{+0.075}_{-0.076}$	$H(0.61)$	$94.2^{+5.4}_{-4.7}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	< 9.43	$D_{\text{M}}(0.61)$	2344^{+140}_{-140}
A_{143}^{tSZ}	> 0.948	$10^9 A_{\text{s}}$	$2.09^{+0.11}_{-0.081}$	$H(2.33)$	$235^{+11}_{-9.6}$
A_{100}^{PS}	256^{+70}_{-70}	$10^9 A_{\text{s}} e^{-2\tau}$	$1.874^{+0.051}_{-0.053}$	$D_{\text{M}}(2.33)$	5832^{+290}_{-310}
A_{143}^{PS}	45^{+20}_{-20}	D_{40}	1238^{+42}_{-40}	$f\sigma_8(0.15)$	$0.461^{+0.022}_{-0.022}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{220}	5733^{+96}_{-96}	$\sigma_8(0.15)$	$0.745^{+0.030}_{-0.029}$
A_{217}^{PS}	115^{+30}_{-30}	D_{810}	2538^{+35}_{-34}	$f\sigma_8(0.38)$	$0.477^{+0.019}_{-0.020}$
A^{kSZ}	—	D_{1420}	818^{+12}_{-12}	$\sigma_8(0.38)$	$0.659^{+0.028}_{-0.027}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.7}$	D_{2000}	$231.5^{+4.6}_{-4.7}$	$f\sigma_8(0.51)$	$0.474^{+0.018}_{-0.018}$
A_{143}^{dustTT}	$10.8^{+4.7}_{-4.6}$	$n_{\text{s},0.002}$	$0.960^{+0.021}_{-0.021}$	$\sigma_8(0.51)$	$0.616^{+0.027}_{-0.025}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.5^{+8.5}_{-8.6}$	Y_{P}	$0.246^{+0.043}_{-0.049}$	$f\sigma_8(0.61)$	$0.469^{+0.018}_{-0.017}$
A_{217}^{dustTT}	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.248^{+0.043}_{-0.049}$	$\sigma_8(0.61)$	$0.586^{+0.026}_{-0.024}$
A_{100}^{dustTE}	$0.115^{+0.097}_{-0.096}$	Age/Gyr	$13.96^{+0.70}_{-0.74}$	$f\sigma_8(2.33)$	$0.295^{+0.014}_{-0.013}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.078}_{-0.075}$	z_*	$1089.8^{+1.2}_{-1.1}$	$\sigma_8(2.33)$	$0.304^{+0.015}_{-0.014}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	r_*	$145.9^{+6.8}_{-7.1}$	f_{2000}^{143}	29^{+8}_{-8}
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$100\theta_*$	$1.0415^{+0.0023}_{-0.0023}$	$f_{2000}^{143 \times 217}$	32^{+6}_{-6}
$A_{143 \times 217}^{\text{dustTE}}$	$0.67^{+0.21}_{-0.21}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$14.01^{+0.62}_{-0.66}$	f_{2000}^{217}	$106.6^{+5.3}_{-5.3}$
A_{217}^{dustTE}	$2.09^{+0.69}_{-0.69}$	z_{drag}	$1059.5^{+2.1}_{-2.1}$	χ_{small}^2	$397.0 (\nu: 1.7)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	$148.6^{+7.0}_{-7.3}$	χ_{lowl}^2	$24.3 (\nu: 1.2)$
c_{217}	$0.9982^{+0.0016}_{-0.0017}$	k_{D}	$0.1397^{+0.0066}_{-0.0058}$	χ_{plik}^2	$2360.1 (\nu: 18.9)$
H_0	$66.3^{+5.0}_{-4.3}$	$100\theta_{\text{D}}$	$0.1606^{+0.0012}_{-0.0012}$	χ_{prior}^2	$11.5 (\nu: 10.3)$
Ω_{Λ}	$0.679^{+0.027}_{-0.028}$	z_{eq}	3422^{+110}_{-110}	χ_{CMB}^2	$2781.4 (\nu: 18.3)$

$$\bar{\chi}_{\text{eff}}^2 = 2792.90; \Delta \bar{\chi}_{\text{eff}}^2 = 1.36; R - 1 = 0.01223$$

11.14 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}} h^2$	$0.02239^{+0.00048}_{-0.00048}$	$\Omega_{\mathrm{m}} h^3$	$0.096^{+0.014}_{-0.012}$	$D_{\mathrm{M}}(0.15)$	643^{+37}_{-36}
$\Omega_{\mathrm{c}} h^2$	$0.119^{+0.013}_{-0.011}$	σ_8	$0.808^{+0.032}_{-0.032}$	$H(0.38)$	$82.8^{+4.5}_{-4.2}$
$100\theta_{\mathrm{MC}}$	$1.0411^{+0.0030}_{-0.0031}$	S_8	$0.824^{+0.036}_{-0.039}$	$D_{\mathrm{M}}(0.38)$	1534^{+86}_{-84}
τ	$0.056^{+0.019}_{-0.015}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.451^{+0.020}_{-0.021}$	$H(0.51)$	$89.5^{+4.7}_{-4.4}$
N_{eff}	$3.01^{+0.78}_{-0.70}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.604^{+0.024}_{-0.024}$	$D_{\mathrm{M}}(0.51)$	1987^{+110}_{-110}
Y_{P}	$0.244^{+0.043}_{-0.050}$	$\sigma_8/h^{0.5}$	$0.984^{+0.027}_{-0.028}$	$H(0.61)$	$95.1^{+4.8}_{-4.5}$
$\ln(10^{10} A_{\mathrm{s}})$	$3.045^{+0.049}_{-0.041}$	$r_{\mathrm{drag}} h$	$99.6^{+2.2}_{-2.2}$	$D_{\mathrm{M}}(0.61)$	2312^{+130}_{-120}
n_{s}	$0.965^{+0.017}_{-0.018}$	$\langle d^2 \rangle^{1/2}$	$2.439^{+0.066}_{-0.062}$	$H(2.33)$	$236^{+11}_{-9.9}$
y_{cal}	$1.0007^{+0.0061}_{-0.0063}$	z_{re}	< 9.54	$D_{\mathrm{M}}(2.33)$	5778^{+280}_{-280}
A_{217}^{CIB}	46^{+20}_{-20}	$10^9 A_{\mathrm{s}}$	$2.10^{+0.10}_{-0.084}$	$f\sigma_8(0.15)$	$0.456^{+0.019}_{-0.020}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.877^{+0.049}_{-0.051}$	$\sigma_8(0.15)$	$0.747^{+0.031}_{-0.030}$
A_{143}^{tSZ}	> 1.04	D_{40}	1230^{+38}_{-37}	$f\sigma_8(0.38)$	$0.474^{+0.019}_{-0.019}$
A_{100}^{PS}	257^{+70}_{-70}	D_{220}	5738^{+94}_{-99}	$\sigma_8(0.38)$	$0.662^{+0.028}_{-0.027}$
A_{143}^{PS}	45^{+20}_{-20}	D_{810}	2539^{+34}_{-35}	$f\sigma_8(0.51)$	$0.473^{+0.018}_{-0.019}$
$A_{143 \times 217}^{\mathrm{PS}}$	42^{+20}_{-20}	D_{1420}	818^{+12}_{-12}	$\sigma_8(0.51)$	$0.619^{+0.026}_{-0.026}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$231.4^{+4.6}_{-4.7}$	$f\sigma_8(0.61)$	$0.468^{+0.018}_{-0.018}$
A^{kSZ}	—	$n_{\mathrm{s},0.002}$	$0.965^{+0.017}_{-0.018}$	$\sigma_8(0.61)$	$0.589^{+0.025}_{-0.025}$
$A_{100}^{\mathrm{dust}TT}$	$8.9^{+4.7}_{-4.6}$	Y_{P}	$0.244^{+0.043}_{-0.050}$	$f\sigma_8(2.33)$	$0.297^{+0.013}_{-0.013}$
$A_{143}^{\mathrm{dust}TT}$	$10.9^{+4.7}_{-4.6}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246^{+0.043}_{-0.050}$	$\sigma_8(2.33)$	$0.306^{+0.014}_{-0.013}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.6^{+9.5}_{-8.4}$	Age/Gyr	$13.83^{+0.67}_{-0.66}$	f_{2000}^{143}	29^{+8}_{-8}
$A_{217}^{\mathrm{dust}TT}$	94^{+20}_{-20}	z_*	$1089.7^{+1.1}_{-1.1}$	$f_{2000}^{143 \times 217}$	32^{+6}_{-6}
$A_{100}^{\mathrm{dust}TE}$	$0.114^{+0.098}_{-0.094}$	r_*	$145.0^{+6.9}_{-6.8}$	f_{2000}^{217}	$106.7^{+5.3}_{-5.4}$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.135^{+0.077}_{-0.076}$	$100\theta_*$	$1.0413^{+0.0023}_{-0.0023}$	χ_{simall}^2	$397.3 (\nu: 2.1)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.48^{+0.22}_{-0.22}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.93^{+0.63}_{-0.62}$	χ_{lowl}^2	$23.4 (\nu: 0.7)$
$A_{143}^{\mathrm{dust}TE}$	$0.22^{+0.14}_{-0.14}$	z_{drag}	$1059.8^{+1.9}_{-2.0}$	χ_{plik}^2	$2361.0 (\nu: 18.7)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.66^{+0.20}_{-0.21}$	r_{drag}	$147.7^{+7.0}_{-6.9}$	$\chi_{6\mathrm{DF}}^2$	$0.068 (\nu: 0.0)$
$A_{217}^{\mathrm{dust}TE}$	$2.08^{+0.67}_{-0.66}$	k_{D}	$0.1405^{+0.0065}_{-0.0059}$	χ_{MGS}^2	$1.23 (\nu: 0.1)$
c_{100}	$0.9997^{+0.0016}_{-0.0015}$	$100\theta_{\mathrm{D}}$	$0.1606^{+0.0012}_{-0.0012}$	$\chi_{\mathrm{DR12BAO}}^2$	$5.1 (\nu: 1.4)$
c_{217}	$0.9982^{+0.0016}_{-0.0018}$	z_{eq}	3389^{+84}_{-82}	χ_{prior}^2	$11.6 (\nu: 10.3)$
H_0	$67.4^{+4.1}_{-3.8}$	k_{eq}	$0.01031^{+0.00041}_{-0.00039}$	χ_{BAO}^2	$6.3 (\nu: 0.9)$
Ω_{Λ}	$0.688^{+0.018}_{-0.019}$	$100\theta_{\mathrm{eq}}$	$0.816^{+0.014}_{-0.014}$	χ_{CMB}^2	$2781.7 (\nu: 17.7)$
Ω_{m}	$0.312^{+0.019}_{-0.018}$	$100\theta_{\mathrm{s,eq}}$	$0.4507^{+0.0072}_{-0.0072}$		
$\Omega_{\mathrm{m}} h^2$	$0.142^{+0.013}_{-0.011}$	$H(0.15)$	$72.7^{+4.2}_{-3.9}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2799.64; \Delta \bar{\chi}_{\mathrm{eff}}^2 = 1.93; R - 1 = 0.02640$$

11.15 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02225^{+0.00056}_{-0.00053}$	$\Omega_{\mathrm{m}}h^2$	$0.140^{+0.013}_{-0.010}$	$100\theta_{\mathrm{s,eq}}$	$0.4476^{+0.0096}_{-0.0091}$
$\Omega_{\mathrm{c}}h^2$	$0.117^{+0.012}_{-0.010}$	$\Omega_{\mathrm{m}}h^3$	$0.093^{+0.015}_{-0.012}$	$H(0.15)$	$71.4^{+4.9}_{-4.3}$
$100\theta_{\mathrm{MC}}$	$1.0415^{+0.0029}_{-0.0031}$	σ_8	$0.804^{+0.030}_{-0.027}$	$D_{\mathrm{M}}(0.15)$	656^{+43}_{-44}
τ	$0.055^{+0.018}_{-0.013}$	S_8	$0.831^{+0.034}_{-0.034}$	$H(0.38)$	$81.5^{+5.0}_{-4.4}$
N_{eff}	$2.85^{+0.82}_{-0.68}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.455^{+0.018}_{-0.019}$	$D_{\mathrm{M}}(0.38)$	1561^{+98}_{-100}
Y_{P}	$0.248^{+0.042}_{-0.049}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.605^{+0.019}_{-0.020}$	$H(0.51)$	$88.3^{+5.1}_{-4.5}$
$\ln(10^{10}A_{\mathrm{s}})$	$3.038^{+0.045}_{-0.036}$	$\sigma_8/h^{0.5}$	$0.989^{+0.024}_{-0.024}$	$D_{\mathrm{M}}(0.51)$	2021^{+120}_{-130}
n_{s}	$0.959^{+0.021}_{-0.021}$	$r_{\mathrm{drag}}h$	$98.5^{+3.1}_{-2.9}$	$H(0.61)$	$93.9^{+5.3}_{-4.5}$
y_{cal}	$1.0006^{+0.0063}_{-0.0061}$	$\langle d^2 \rangle^{1/2}$	$2.455^{+0.061}_{-0.061}$	$D_{\mathrm{M}}(0.61)$	2351^{+140}_{-140}
A_{217}^{CIB}	46^{+20}_{-20}	z_{re}	< 9.34	$H(2.33)$	$234^{+11}_{-9.1}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}$	$2.087^{+0.095}_{-0.075}$	$D_{\mathrm{M}}(2.33)$	5850^{+290}_{-310}
A_{143}^{tSZ}	> 0.957	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.870^{+0.048}_{-0.049}$	$f\sigma_8(0.15)$	$0.459^{+0.017}_{-0.018}$
A_{100}^{PS}	256^{+70}_{-70}	D_{40}	1238^{+40}_{-39}	$\sigma_8(0.15)$	$0.742^{+0.029}_{-0.027}$
A_{143}^{PS}	45^{+20}_{-20}	D_{220}	5734^{+96}_{-97}	$f\sigma_8(0.38)$	$0.475^{+0.015}_{-0.016}$
$A_{143 \times 217}^{\mathrm{PS}}$	42^{+20}_{-20}	D_{810}	2537^{+34}_{-33}	$\sigma_8(0.38)$	$0.657^{+0.027}_{-0.025}$
A_{217}^{PS}	115^{+30}_{-30}	D_{1420}	818^{+12}_{-12}	$f\sigma_8(0.51)$	$0.473^{+0.015}_{-0.015}$
A^{kSZ}	—	D_{2000}	$231.5^{+4.6}_{-4.7}$	$\sigma_8(0.51)$	$0.614^{+0.026}_{-0.024}$
$A_{100}^{\mathrm{dust}TT}$	$8.9^{+4.6}_{-4.7}$	$n_{\mathrm{s},0.002}$	$0.959^{+0.021}_{-0.021}$	$f\sigma_8(0.61)$	$0.467^{+0.015}_{-0.015}$
$A_{143}^{\mathrm{dust}TT}$	$10.8^{+4.7}_{-4.6}$	Y_{P}	$0.248^{+0.042}_{-0.049}$	$\sigma_8(0.61)$	$0.584^{+0.025}_{-0.024}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.5^{+8.6}_{-8.9}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.249^{+0.043}_{-0.049}$	$f\sigma_8(2.33)$	$0.294^{+0.013}_{-0.012}$
$A_{217}^{\mathrm{dust}TT}$	94^{+20}_{-20}	Age/Gyr	$14.00^{+0.69}_{-0.74}$	$\sigma_8(2.33)$	$0.303^{+0.015}_{-0.013}$
$A_{100}^{\mathrm{dust}TE}$	$0.115^{+0.098}_{-0.095}$	z_*	$1089.8^{+1.1}_{-1.1}$	f_{2000}^{143}	29^{+8}_{-8}
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.135^{+0.078}_{-0.075}$	r_*	$146.4^{+6.5}_{-7.0}$	$f_{2000}^{143 \times 217}$	32^{+6}_{-6}
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	$1.0417^{+0.0023}_{-0.0023}$	f_{2000}^{217}	$106.5^{+5.3}_{-5.2}$
$A_{143}^{\mathrm{dust}TE}$	$0.22^{+0.14}_{-0.14}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.05^{+0.59}_{-0.65}$	$\chi_{\mathrm{lensing}}^2$	$9.00 (\nu: 0.3)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.67^{+0.20}_{-0.21}$	z_{drag}	$1059.5^{+2.1}_{-2.1}$	χ_{simall}^2	$396.9 (\nu: 1.4)$
$A_{217}^{\mathrm{dust}TE}$	$2.09^{+0.69}_{-0.68}$	r_{drag}	$149.1^{+6.7}_{-7.3}$	χ_{lowl}^2	$24.3 (\nu: 1.1)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_{D}	$0.1393^{+0.0067}_{-0.0057}$	χ_{plik}^2	$2359.7 (\nu: 17.9)$
c_{217}	$0.9982^{+0.0016}_{-0.0017}$	$100\theta_{\mathrm{D}}$	$0.1605^{+0.0012}_{-0.0012}$	χ_{prior}^2	$11.4 (\nu: 10.0)$
H_0	$66.1^{+4.8}_{-4.2}$	z_{eq}	3423^{+100}_{-110}	χ_{CMB}^2	$2789.9 (\nu: 18.5)$
Ω_{Λ}	$0.679^{+0.025}_{-0.025}$	k_{eq}	$0.01030^{+0.00038}_{-0.00034}$		
Ω_{m}	$0.321^{+0.025}_{-0.025}$	$100\theta_{\mathrm{eq}}$	$0.810^{+0.019}_{-0.018}$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2801.36$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.85$; $R - 1 = 0.01489$

11.16 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02238^{+0.00049}_{-0.00049}$	$\Omega_m h^3$	$0.095^{+0.014}_{-0.012}$	$D_M(0.15)$	645^{+36}_{-37}
$\Omega_c h^2$	$0.118^{+0.012}_{-0.011}$	σ_8	$0.807^{+0.029}_{-0.028}$	$H(0.38)$	$82.6^{+4.5}_{-4.1}$
$100\theta_{MC}$	$1.0412^{+0.0029}_{-0.0029}$	S_8	$0.824^{+0.029}_{-0.029}$	$D_M(0.38)$	1538^{+84}_{-86}
τ	$0.057^{+0.018}_{-0.015}$	$\sigma_8 \Omega_m^{0.5}$	$0.451^{+0.016}_{-0.016}$	$H(0.51)$	$89.3^{+4.7}_{-4.2}$
N_{eff}	$2.97^{+0.77}_{-0.67}$	$\sigma_8 \Omega_m^{0.25}$	$0.604^{+0.020}_{-0.020}$	$D_M(0.51)$	1993^{+110}_{-110}
Y_P	$0.245^{+0.042}_{-0.050}$	$\sigma_8/h^{0.5}$	$0.985^{+0.022}_{-0.022}$	$H(0.61)$	$94.9^{+4.8}_{-4.4}$
$\ln(10^{10} A_s)$	$3.045^{+0.044}_{-0.036}$	$r_{\text{drag}} h$	$99.5^{+2.2}_{-2.1}$	$D_M(0.61)$	2318^{+120}_{-120}
n_s	$0.964^{+0.018}_{-0.018}$	$\langle d^2 \rangle^{1/2}$	$2.441^{+0.054}_{-0.052}$	$H(2.33)$	$235^{+10}_{-9.3}$
y_{cal}	$1.0008^{+0.0062}_{-0.0063}$	z_{re}	< 9.47	$D_M(2.33)$	5791^{+270}_{-280}
A_{217}^{CIB}	46^{+20}_{-20}	$10^9 A_s$	$2.101^{+0.094}_{-0.075}$	$f\sigma_8(0.15)$	$0.456^{+0.016}_{-0.016}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.875^{+0.045}_{-0.048}$	$\sigma_8(0.15)$	$0.746^{+0.028}_{-0.027}$
A_{143}^{tSZ}	> 1.02	D_{40}	1231^{+36}_{-35}	$f\sigma_8(0.38)$	$0.474^{+0.015}_{-0.015}$
A_{100}^{PS}	257^{+70}_{-70}	D_{220}	5740^{+94}_{-99}	$\sigma_8(0.38)$	$0.661^{+0.025}_{-0.024}$
A_{143}^{PS}	45^{+20}_{-20}	D_{810}	2539^{+33}_{-33}	$f\sigma_8(0.51)$	$0.472^{+0.015}_{-0.015}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	818^{+12}_{-12}	$\sigma_8(0.51)$	$0.619^{+0.024}_{-0.023}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$231.5^{+4.5}_{-4.8}$	$f\sigma_8(0.61)$	$0.467^{+0.015}_{-0.015}$
A^{kSZ}	—	$n_{s,0.002}$	$0.964^{+0.018}_{-0.018}$	$\sigma_8(0.61)$	$0.589^{+0.023}_{-0.022}$
$A_{100}^{\text{dust}TT}$	$8.9^{+4.7}_{-4.7}$	Y_P	$0.245^{+0.042}_{-0.050}$	$f\sigma_8(2.33)$	$0.297^{+0.012}_{-0.012}$
$A_{143}^{\text{dust}TT}$	$10.8^{+4.7}_{-4.6}$	Y_{BBN}	$0.247^{+0.042}_{-0.050}$	$\sigma_8(2.33)$	$0.306^{+0.013}_{-0.012}$
$A_{143 \times 217}^{\text{dust}TT}$	$18.6^{+9.2}_{-8.7}$	Age/Gyr	$13.86^{+0.64}_{-0.66}$	f_{2000}^{143}	29^{+8}_{-8}
$A_{217}^{\text{dust}TT}$	94^{+20}_{-20}	z_*	$1089.7^{+1.1}_{-1.1}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-6}
$A_{100}^{\text{dust}TE}$	$0.114^{+0.098}_{-0.094}$	r_*	$145.3^{+6.6}_{-6.5}$	f_{2000}^{217}	$106.6^{+5.3}_{-5.4}$
$A_{100 \times 143}^{\text{dust}TE}$	$0.134^{+0.076}_{-0.076}$	$100\theta_*$	$1.0414^{+0.0022}_{-0.0023}$	χ^2_{lensing}	$9.03 (\nu: 0.2)$
$A_{100 \times 217}^{\text{dust}TE}$	$0.48^{+0.22}_{-0.22}$	$D_M(z_*)/\text{Gpc}$	$13.96^{+0.60}_{-0.60}$	χ^2_{simall}	$397.3 (\nu: 1.9)$
$A_{143}^{\text{dust}TE}$	$0.22^{+0.14}_{-0.14}$	z_{drag}	$1059.8^{+2.0}_{-2.0}$	χ^2_{lowl}	$23.5 (\nu: 0.7)$
$A_{143 \times 217}^{\text{dust}TE}$	$0.66^{+0.20}_{-0.21}$	r_{drag}	$148.0^{+6.7}_{-6.7}$	χ^2_{plik}	$2360.5 (\nu: 17.8)$
$A_{217}^{\text{dust}TE}$	$2.08^{+0.67}_{-0.67}$	k_D	$0.1402^{+0.0063}_{-0.0056}$	$\chi^2_{6\text{DF}}$	$0.072 (\nu: 0.0)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.1606^{+0.0012}_{-0.0012}$	χ^2_{MGS}	$1.19 (\nu: 0.1)$
c_{217}	$0.9982^{+0.0016}_{-0.0017}$	z_{eq}	3392^{+82}_{-80}	χ^2_{DR12BAO}	$5.1 (\nu: 1.4)$
H_0	$67.2^{+4.2}_{-3.7}$	k_{eq}	$0.01030^{+0.00037}_{-0.00036}$	χ^2_{prior}	$11.6 (\nu: 10.1)$
Ω_Λ	$0.688^{+0.018}_{-0.018}$	$100\theta_{\text{eq}}$	$0.815^{+0.014}_{-0.014}$	χ^2_{CMB}	$2790.3 (\nu: 18.1)$
Ω_m	$0.312^{+0.018}_{-0.018}$	$100\theta_{s,\text{eq}}$	$0.4504^{+0.0072}_{-0.0070}$	χ^2_{BAO}	$6.4 (\nu: 0.9)$
$\Omega_m h^2$	$0.141^{+0.012}_{-0.011}$	$H(0.15)$	$72.5^{+4.3}_{-3.8}$		

$$\bar{\chi}^2_{\text{eff}} = 2808.31; \Delta\bar{\chi}^2_{\text{eff}} = 1.59; R - 1 = 0.02301$$

12 nrun

12.1 base_nrun_plikHM_TT_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02218	$0.02216^{+0.00061}_{-0.00059}$	$\sigma_8 \Omega_m^{0.5}$	0.4595	$0.460^{+0.036}_{-0.033}$	$100\theta_{s,eq}$	0.4483	$0.448^{+0.012}_{-0.012}$
$\Omega_c h^2$	0.1206	$0.1208^{+0.0056}_{-0.0052}$	$\sigma_8 \Omega_m^{0.25}$	0.6110	$0.612^{+0.031}_{-0.030}$	$H(0.15)$	72.32	$72.3^{+2.0}_{-2.0}$
$100\theta_{MC}$	1.04080	$1.0408^{+0.0012}_{-0.0012}$	$\sigma_8/h^{0.5}$	0.9928	$0.994^{+0.042}_{-0.041}$	$D_M(0.15)$	646.9	648^{+21}_{-20}
τ	0.0531	$0.053^{+0.023}_{-0.022}$	$r_{drag}h$	98.52	$98.4^{+4.1}_{-4.2}$	$H(0.38)$	82.57	$82.5^{+1.5}_{-1.4}$
$\ln(10^{10} A_s)$	3.0432	$3.044^{+0.047}_{-0.047}$	$\langle d^2 \rangle^{1/2}$	2.447	$2.45^{+0.10}_{-0.097}$	$D_M(0.38)$	1540.8	1542^{+41}_{-40}
n_s	0.9635	$0.962^{+0.016}_{-0.015}$	z_{re}	7.60	$7.6^{+2.2}_{-2.5}$	$H(0.51)$	89.37	$89.3^{+1.2}_{-1.1}$
$dn_s/d \ln k$	-0.0029	$-0.004^{+0.020}_{-0.019}$	$10^9 A_s$	2.097	$2.10^{+0.10}_{-0.096}$	$D_M(0.51)$	1994.7	1996^{+48}_{-47}
y_{cal}	1.0004	$1.0004^{+0.0063}_{-0.0064}$	$10^9 A_s e^{-2\tau}$	1.8860	$1.887^{+0.036}_{-0.036}$	$H(0.61)$	95.06	$95.03^{+0.95}_{-0.87}$
A_{217}^{CIB}	49.4	48^{+20}_{-20}	D_{40}	1224	1225^{+54}_{-55}	$D_M(0.61)$	2320	2322^{+52}_{-51}
$\xi^{tSZ \times CIB}$	0.24	—	D_{220}	5712	5713^{+110}_{-110}	$H(2.33)$	236.75	$236.8^{+3.4}_{-3.3}$
A_{143}^{tSZ}	7.0	—	D_{810}	2539.2	2538^{+36}_{-36}	$D_M(2.33)$	5774.7	5776^{+41}_{-43}
A_{100}^{PS}	256	266^{+70}_{-70}	D_{1420}	815.3	814^{+13}_{-14}	$f\sigma_8(0.15)$	0.4634	$0.464^{+0.033}_{-0.031}$
A_{143}^{PS}	49.3	50^{+20}_{-20}	D_{2000}	229.8	$229.1^{+4.9}_{-5.1}$	$\sigma_8(0.15)$	0.7498	$0.750^{+0.019}_{-0.020}$
$A_{143 \times 217}^{PS}$	45.4	44^{+20}_{-20}	$n_{s,0.002}$	0.973	$0.976^{+0.060}_{-0.059}$	$f\sigma_8(0.38)$	0.4799	$0.480^{+0.025}_{-0.024}$
A_{217}^{PS}	118.7	115^{+30}_{-30}	Y_P	0.245317	$0.24530^{+0.00024}_{-0.00028}$	$\sigma_8(0.38)$	0.6637	$0.664^{+0.016}_{-0.016}$
A^{kSZ}	0.0	—	Y_P^{BBN}	0.246643	$0.24663^{+0.00024}_{-0.00028}$	$f\sigma_8(0.51)$	0.4775	$0.478^{+0.021}_{-0.021}$
A_{100}^{dustTT}	8.89	$9.0^{+4.8}_{-4.7}$	$10^5 D/H$	2.622	$2.63^{+0.11}_{-0.11}$	$\sigma_8(0.51)$	0.6208	$0.621^{+0.014}_{-0.015}$
A_{143}^{dustTT}	10.86	$10.8^{+4.5}_{-4.6}$	Age/Gyr	13.823	$13.826^{+0.094}_{-0.096}$	$f\sigma_8(0.61)$	0.4718	$0.472^{+0.019}_{-0.019}$
$A_{143 \times 217}^{dustTT}$	19.4	$18.3^{+8.8}_{-8.7}$	z_*	1090.21	$1090.3^{+1.1}_{-1.0}$	$\sigma_8(0.61)$	0.5904	$0.590^{+0.014}_{-0.014}$
A_{217}^{dustTT}	94.4	93^{+20}_{-20}	r_*	144.43	$144.4^{+1.3}_{-1.3}$	$f\sigma_8(2.33)$	0.2974	$0.2972^{+0.0068}_{-0.0068}$
c_{100}	0.99963	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	1.04100	$1.0410^{+0.0012}_{-0.0012}$	$\sigma_8(2.33)$	0.3062	$0.3060^{+0.0072}_{-0.0071}$
c_{217}	0.99825	$0.9983^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.874	$13.87^{+0.12}_{-0.12}$	f_{2000}^{143}	30.9	32^{+8}_{-8}
H_0	66.95	$66.9^{+2.4}_{-2.4}$	z_{drag}	1059.55	$1059.5^{+1.3}_{-1.3}$	$f_{2000}^{143 \times 217}$	33.6	34^{+6}_{-6}
Ω_Λ	0.6801	$0.679^{+0.032}_{-0.036}$	r_{drag}	147.15	$147.1^{+1.3}_{-1.3}$	f_{2000}^{217}	108.0	$108.6^{+5.4}_{-5.3}$
Ω_m	0.3199	$0.321^{+0.036}_{-0.032}$	k_D	0.14066	$0.1407^{+0.0015}_{-0.0015}$	χ_{small}^2	395.91	$397.1 (\nu: 1.5)$
$\Omega_m h^2$	0.1434	$0.1436^{+0.0053}_{-0.0051}$	$100\theta_D$	0.16099	$0.16101^{+0.00075}_{-0.00072}$	χ_{lowl}^2	22.74	$23.1 (\nu: 2.2)$
$\Omega_m h^3$	0.09601	$0.0960^{+0.0013}_{-0.0013}$	z_{eq}	3412	3415^{+130}_{-120}	χ_{plik}^2	759.4	$772.7 (\nu: 16.2)$
σ_8	0.8123	$0.812^{+0.023}_{-0.024}$	k_{eq}	0.010413	$0.01042^{+0.00039}_{-0.00037}$	χ_{prior}^2	1.4	$7.3 (\nu: 6.7)$
S_8	0.839	$0.841^{+0.065}_{-0.060}$	$100\theta_{eq}$	0.8110	$0.810^{+0.023}_{-0.023}$	χ_{CMB}^2	1178.0	$1192.9 (\nu: 15.8)$

Best-fit $\chi_{eff}^2 = 1179.45$; $\Delta\chi_{eff}^2 = -0.13$; $\bar{\chi}_{eff}^2 = 1200.22$; $\Delta\bar{\chi}_{eff}^2 = 0.64$; $R - 1 = 0.00668$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.91 (Δ 0.03) commander_dx12_v3.2.29: 22.74 (Δ -0.86) plik_rd12_HM_v22_TT: 759.37 (Δ 0.62)

12.2 base_nrun_plikHM_TT_lowl_lowE_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02225	$0.02225^{+0.00054}_{-0.00054}$	$\sigma_8/h^{0.5}$	0.9819	$0.982^{+0.029}_{-0.030}$	$D_M(0.38)$	1529.2	1529^{+24}_{-24}
$\Omega_c h^2$	0.11900	$0.1190^{+0.0032}_{-0.0031}$	$r_{\text{drag}} h$	99.76	$99.8^{+2.4}_{-2.4}$	$H(0.51)$	89.69	$89.69^{+0.79}_{-0.75}$
$100\theta_{\text{MC}}$	1.04101	$1.0410^{+0.0011}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	2.423	$2.424^{+0.072}_{-0.073}$	$D_M(0.51)$	1981.1	1981^{+29}_{-28}
τ	0.0549	$0.055^{+0.024}_{-0.022}$	z_{re}	7.75	$7.7^{+2.3}_{-2.3}$	$H(0.61)$	95.29	$95.29^{+0.68}_{-0.64}$
$\ln(10^{10} A_s)$	3.0428	$3.043^{+0.050}_{-0.046}$	$10^9 A_s$	2.096	$2.10^{+0.11}_{-0.096}$	$D_M(0.61)$	2305.4	2305^{+31}_{-31}
n_s	0.9663	$0.966^{+0.012}_{-0.012}$	$10^9 A_s e^{-2\tau}$	1.8784	$1.879^{+0.032}_{-0.031}$	$H(2.33)$	235.79	$235.8^{+2.1}_{-2.1}$
$dn_s/d \ln k$	-0.0034	$-0.004^{+0.020}_{-0.019}$	D_{40}	1217	1218^{+51}_{-53}	$D_M(2.33)$	5765.1	5765^{+33}_{-33}
y_{cal}	1.0003	$1.0006^{+0.0065}_{-0.0063}$	D_{220}	5717	5721^{+100}_{-100}	$f\sigma_8(0.15)$	0.4544	$0.454^{+0.020}_{-0.019}$
A_{217}^{CIB}	51.1	48^{+20}_{-20}	D_{810}	2536.4	2537^{+37}_{-36}	$\sigma_8(0.15)$	0.7463	$0.746^{+0.018}_{-0.018}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.06	—	D_{1420}	815.0	815^{+13}_{-13}	$f\sigma_8(0.38)$	0.4730	$0.473^{+0.017}_{-0.016}$
A_{143}^{tSZ}	7.2	—	D_{2000}	229.65	$229.6^{+4.8}_{-4.8}$	$\sigma_8(0.38)$	0.6617	$0.662^{+0.016}_{-0.016}$
A_{100}^{PS}	258	264^{+70}_{-70}	$n_{s,0.002}$	0.977	$0.977^{+0.060}_{-0.060}$	$f\sigma_8(0.51)$	0.4718	$0.472^{+0.015}_{-0.015}$
A_{143}^{PS}	46.5	49^{+20}_{-20}	Y_{P}	0.245348	$0.24534^{+0.00021}_{-0.00025}$	$\sigma_8(0.51)$	0.6193	$0.619^{+0.015}_{-0.015}$
$A_{143 \times 217}^{\text{PS}}$	40	43^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246675	$0.24667^{+0.00021}_{-0.00025}$	$f\sigma_8(0.61)$	0.4669	$0.467^{+0.014}_{-0.014}$
A_{217}^{PS}	115.5	114^{+30}_{-30}	$10^5 \text{D}/\text{H}$	2.607	$2.61^{+0.10}_{-0.099}$	$\sigma_8(0.61)$	0.5893	$0.589^{+0.014}_{-0.014}$
A^{kSZ}	0.1	—	Age/Gyr	13.802	$13.802^{+0.077}_{-0.077}$	$f\sigma_8(2.33)$	0.2972	$0.2972^{+0.0072}_{-0.0069}$
A_{100}^{dustTT}	8.98	$9.0^{+4.7}_{-4.8}$	z_*	1089.98	$1089.98^{+0.81}_{-0.79}$	$\sigma_8(2.33)$	0.3065	$0.3065^{+0.0074}_{-0.0070}$
A_{143}^{dustTT}	10.79	$10.8^{+4.6}_{-4.7}$	r_*	144.78	$144.79^{+0.88}_{-0.85}$	f_{2000}^{143}	31.1	32^{+8}_{-9}
$A_{143 \times 217}^{\text{dustTT}}$	19.0	$18.4^{+8.2}_{-8.5}$	$100\theta_*$	1.04120	$1.0412^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33.7	34^{+6}_{-6}
A_{217}^{dustTT}	93.6	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.905	$13.906^{+0.087}_{-0.083}$	f_{2000}^{217}	108.0	$108.3^{+5.4}_{-5.2}$
c_{100}	0.99963	$0.9996^{+0.0015}_{-0.0015}$	z_{drag}	1059.59	$1059.6^{+1.3}_{-1.3}$	χ_{small}^2	396.07	$397.2 (\nu: 1.7)$
c_{217}	0.99828	$0.9983^{+0.0016}_{-0.0017}$	r_{drag}	147.49	$147.5^{+1.0}_{-0.94}$	χ_{lowl}^2	22.13	$22.6 (\nu: 1.7)$
H_0	67.64	$67.6^{+1.4}_{-1.4}$	k_{D}	0.14036	$0.1404^{+0.0012}_{-0.0013}$	χ_{plik}^2	760.4	$773.1 (\nu: 16.1)$
Ω_Λ	0.6898	$0.690^{+0.018}_{-0.020}$	$100\theta_{\text{D}}$	0.16096	$0.16097^{+0.00072}_{-0.00069}$	$\chi_{6\text{DF}}^2$	0.022	$0.058 (\nu: 0.0)$
Ω_{m}	0.3102	$0.310^{+0.020}_{-0.018}$	z_{eq}	3376	3375^{+76}_{-73}	χ_{MGS}^2	1.28	$1.36 (\nu: 0.1)$
$\Omega_{\text{m}} h^2$	0.14190	$0.1419^{+0.0032}_{-0.0030}$	k_{eq}	0.010303	$0.01030^{+0.00023}_{-0.00022}$	χ_{DR12BAO}^2	4.20	$4.8 (\nu: 1.3)$
$\Omega_{\text{m}} h^3$	0.09598	$0.0960^{+0.0013}_{-0.0013}$	$100\theta_{\text{eq}}$	0.8178	$0.818^{+0.013}_{-0.014}$	χ_{prior}^2	1.6	$7.4 (\nu: 6.9)$
σ_8	0.8075	$0.808^{+0.021}_{-0.020}$	$100\theta_{\text{s,eq}}$	0.4518	$0.4519^{+0.0070}_{-0.0071}$	χ_{BAO}^2	5.50	$6.2 (\nu: 0.9)$
S_8	0.8211	$0.821^{+0.039}_{-0.037}$	$H(0.15)$	72.90	$72.9^{+1.2}_{-1.2}$	χ_{CMB}^2	1178.6	$1192.9 (\nu: 15.5)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4497	$0.450^{+0.021}_{-0.020}$	$D_M(0.15)$	641.0	641^{+12}_{-12}			
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6026	$0.603^{+0.021}_{-0.020}$	$H(0.38)$	82.99	$82.99^{+0.93}_{-0.90}$			

Best-fit $\chi_{\text{eff}}^2 = 1185.71$; $\Delta\chi_{\text{eff}}^2 = -0.04$; $\bar{\chi}_{\text{eff}}^2 = 1206.47$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.44$; $R - 1 = 0.01307$

χ_{eff}^2 : BAO - 6DF: 0.02 (Δ 0.00) MGS: 1.28 (Δ 0.00) DR12BAO: 4.20 (Δ 0.02) CMB - simall_100x143.offlike5_EE_Aplanck_B: 396.07 (Δ 0.19) commander_dx12_v3_2_29: 22.13 (Δ -0.70) plik_rd12_HM_v22_TT: 760.40 (Δ 0.30)

12.3 base_nrun_plikHM_TT_lowl_lowE_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02217	$0.02218^{+0.00059}_{-0.00058}$	$\sigma_8 \Omega_m^{0.25}$	0.6087	$0.609^{+0.020}_{-0.020}$	$D_M(0.15)$	646.0	646^{+16}_{-16}
$\Omega_c h^2$	0.12026	$0.1202^{+0.0041}_{-0.0039}$	$\sigma_8/h^{0.5}$	0.9898	$0.990^{+0.027}_{-0.027}$	$H(0.38)$	82.63	$82.7^{+1.2}_{-1.2}$
$100\theta_{MC}$	1.04081	$1.0408^{+0.0011}_{-0.0012}$	$r_{drag}h$	98.75	$98.8^{+3.2}_{-3.2}$	$D_M(0.38)$	1539.0	1538^{+33}_{-31}
τ	0.0527	$0.053^{+0.022}_{-0.022}$	$\langle d^2 \rangle^{1/2}$	2.445	$2.443^{+0.068}_{-0.070}$	$H(0.51)$	89.41	$89.44^{+0.98}_{-0.92}$
$\ln(10^{10} A_s)$	3.0407	$3.043^{+0.042}_{-0.041}$	z_{re}	7.56	$7.6^{+2.0}_{-2.3}$	$D_M(0.51)$	1992.6	1992^{+38}_{-37}
n_s	0.9634	$0.963^{+0.013}_{-0.013}$	$10^9 A_s$	2.092	$2.096^{+0.089}_{-0.084}$	$H(0.61)$	95.08	$95.10^{+0.81}_{-0.77}$
$dn_s/d \ln k$	-0.0016	$-0.003^{+0.020}_{-0.019}$	$10^9 A_s e^{-2\tau}$	1.8827	$1.884^{+0.031}_{-0.031}$	$D_M(0.61)$	2317.8	2317^{+41}_{-40}
y_{cal}	1.0002	$1.0005^{+0.0063}_{-0.0064}$	D_{40}	1227	1225^{+52}_{-52}	$H(2.33)$	236.52	$236.5^{+2.5}_{-2.5}$
A_{217}^{CIB}	51.0	48^{+20}_{-20}	D_{220}	5713	5716^{+100}_{-110}	$D_M(2.33)$	5774.2	5773^{+38}_{-38}
$\xi^{tSZ \times CIB}$	0.01	—	D_{810}	2535.9	2537^{+36}_{-36}	$f\sigma_8(0.15)$	0.4612	$0.461^{+0.021}_{-0.021}$
A_{143}^{tSZ}	7.2	—	D_{1420}	814.3	814^{+14}_{-14}	$\sigma_8(0.15)$	0.7483	$0.748^{+0.014}_{-0.014}$
A_{100}^{PS}	258	265^{+70}_{-70}	D_{2000}	229.5	$229.3^{+4.9}_{-5.1}$	$f\sigma_8(0.38)$	0.4781	$0.478^{+0.016}_{-0.016}$
A_{143}^{PS}	45.8	50^{+20}_{-20}	$n_{s,0.002}$	0.968	$0.973^{+0.059}_{-0.059}$	$\sigma_8(0.38)$	0.6626	$0.663^{+0.013}_{-0.013}$
$A_{143 \times 217}^{PS}$	39	43^{+20}_{-20}	Y_P	0.245313	$0.24531^{+0.00023}_{-0.00027}$	$f\sigma_8(0.51)$	0.4759	$0.476^{+0.014}_{-0.014}$
A_{217}^{PS}	115.9	115^{+30}_{-30}	Y_P^{BBN}	0.246639	$0.24664^{+0.00023}_{-0.00028}$	$\sigma_8(0.51)$	0.6198	$0.620^{+0.012}_{-0.012}$
A^{kSZ}	0.0	—	$10^5 D/H$	2.624	$2.62^{+0.11}_{-0.11}$	$f\sigma_8(0.61)$	0.4704	$0.470^{+0.012}_{-0.012}$
A_{100}^{dustTT}	8.95	$9.0^{+4.7}_{-4.8}$	Age/Gyr	13.822	$13.820^{+0.087}_{-0.088}$	$\sigma_8(0.61)$	0.5896	$0.590^{+0.011}_{-0.012}$
A_{143}^{dustTT}	10.82	$10.7^{+4.5}_{-4.6}$	z_*	1090.20	$1090.18^{+0.97}_{-0.95}$	$f\sigma_8(2.33)$	0.2970	$0.2971^{+0.0061}_{-0.0061}$
$A_{143 \times 217}^{dustTT}$	19.0	$18.4^{+8.3}_{-8.5}$	r_*	144.52	$144.53^{+0.98}_{-0.97}$	$\sigma_8(2.33)$	0.3059	$0.3060^{+0.0066}_{-0.0067}$
A_{217}^{dustTT}	93.8	93^{+20}_{-20}	$100\theta_*$	1.04102	$1.0410^{+0.0011}_{-0.0011}$	f_{2000}^{143}	31.2	32^{+8}_{-8}
c_{100}	0.99962	$0.9996^{+0.0016}_{-0.0015}$	$D_M(z_*)/Gpc$	13.882	$13.884^{+0.093}_{-0.090}$	$f_{2000}^{143 \times 217}$	33.7	34^{+6}_{-6}
c_{217}	0.99827	$0.9983^{+0.0016}_{-0.0016}$	z_{drag}	1059.47	$1059.5^{+1.3}_{-1.3}$	f_{2000}^{217}	108.2	$108.5^{+5.5}_{-5.3}$
H_0	67.06	$67.1^{+1.8}_{-1.8}$	r_{drag}	147.25	$147.3^{+1.0}_{-1.0}$	$\chi^2_{lensing}$	8.93	$9.59 (\nu: 0.5)$
Ω_Λ	0.6819	$0.682^{+0.024}_{-0.027}$	k_D	0.14055	$0.1405^{+0.0013}_{-0.0013}$	χ^2_{small}	395.89	$397.0 (\nu: 1.3)$
Ω_m	0.3181	$0.318^{+0.027}_{-0.024}$	$100\theta_D$	0.16102	$0.16101^{+0.00074}_{-0.00071}$	χ^2_{lowl}	23.13	$23.2 (\nu: 2.2)$
$\Omega_m h^2$	0.14307	$0.1430^{+0.0039}_{-0.0038}$	z_{eq}	3404	3402^{+94}_{-91}	χ^2_{plik}	758.9	$772.1 (\nu: 15.2)$
$\Omega_m h^3$	0.09595	$0.0960^{+0.0013}_{-0.0012}$	k_{eq}	0.010388	$0.01038^{+0.00029}_{-0.00028}$	χ^2_{prior}	1.6	$7.3 (\nu: 6.8)$
σ_8	0.8105	$0.811^{+0.016}_{-0.016}$	$100\theta_{eq}$	0.8124	$0.813^{+0.017}_{-0.017}$	χ^2_{CMB}	1186.9	$1201.9 (\nu: 15.7)$
S_8	0.8347	$0.834^{+0.043}_{-0.041}$	$100\theta_{s,eq}$	0.4491	$0.4493^{+0.0090}_{-0.0089}$			
$\sigma_8 \Omega_m^{0.5}$	0.4572	$0.457^{+0.023}_{-0.022}$	$H(0.15)$	72.41	$72.4^{+1.6}_{-1.6}$			

Best-fit $\chi^2_{eff} = 1188.47$; $\Delta\chi^2_{eff} = -0.10$; $\bar{\chi}^2_{eff} = 1209.27$; $\Delta\bar{\chi}^2_{eff} = 0.86$; $R - 1 = 0.01153$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp.p_teb_consext8: 8.93 (Δ 0.03) small_100x143_offlike5_EE_Aplanck_B: 395.89 (Δ 0.02) commander_dx12_v3.2_29: 23.13 (Δ -0.10) plik_rd12_HM_v22_TT: 758.91 (Δ -0.41)

12.4 base_nrun_plikHM_TT_lowl_lowE_post_BAO_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02226	$0.02225^{+0.00054}_{-0.00054}$	$\sigma_8/h^{0.5}$	0.9836	$0.984^{+0.023}_{-0.023}$	$D_M(0.38)$	1529.3	1530^{+23}_{-22}
$\Omega_c h^2$	0.11902	$0.1191^{+0.0029}_{-0.0027}$	$r_{\text{drag}} h$	99.74	$99.7^{+2.1}_{-2.2}$	$H(0.51)$	89.68	$89.67^{+0.75}_{-0.72}$
$100\theta_{\text{MC}}$	1.04101	$1.0410^{+0.0011}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	2.430	$2.431^{+0.059}_{-0.061}$	$D_M(0.51)$	1981.2	1982^{+27}_{-27}
τ	0.0553	$0.056^{+0.022}_{-0.020}$	z_{re}	7.79	$7.9^{+2.0}_{-2.1}$	$H(0.61)$	95.29	$95.28^{+0.64}_{-0.63}$
$\ln(10^{10} A_s)$	3.0442	$3.046^{+0.043}_{-0.040}$	$10^9 A_s$	2.099	$2.104^{+0.092}_{-0.082}$	$D_M(0.61)$	2305.6	2306^{+29}_{-29}
n_s	0.9672	$0.966^{+0.011}_{-0.011}$	$10^9 A_s e^{-2\tau}$	1.8795	$1.880^{+0.030}_{-0.030}$	$H(2.33)$	235.81	$235.8^{+1.8}_{-1.9}$
$dn_s/d \ln k$	-0.0008	$-0.003^{+0.020}_{-0.019}$	D_{40}	1223	1221^{+49}_{-53}	$D_M(2.33)$	5765.1	5766^{+33}_{-33}
y_{cal}	1.0007	$1.0007^{+0.0064}_{-0.0064}$	D_{220}	5723	5725^{+100}_{-100}	$f\sigma_8(0.15)$	0.4553	$0.456^{+0.016}_{-0.015}$
A_{217}^{CIB}	48.8	48^{+20}_{-20}	D_{810}	2538.8	2538^{+36}_{-36}	$\sigma_8(0.15)$	0.7476	$0.748^{+0.015}_{-0.015}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.32	—	D_{1420}	816.8	815^{+14}_{-13}	$f\sigma_8(0.38)$	0.4739	$0.474^{+0.013}_{-0.013}$
A_{143}^{tSZ}	7.0	—	D_{2000}	230.43	$229.8^{+4.9}_{-4.8}$	$\sigma_8(0.38)$	0.6628	$0.663^{+0.013}_{-0.013}$
A_{100}^{PS}	254	264^{+70}_{-70}	$n_{s,0.002}$	0.970	$0.975^{+0.059}_{-0.059}$	$f\sigma_8(0.51)$	0.4726	$0.473^{+0.012}_{-0.012}$
A_{143}^{PS}	49.0	49^{+20}_{-20}	Y_{P}	0.245350	$0.24534^{+0.00021}_{-0.00025}$	$\sigma_8(0.51)$	0.6204	$0.620^{+0.012}_{-0.012}$
$A_{143 \times 217}^{\text{PS}}$	46.7	43^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246676	$0.24667^{+0.00021}_{-0.00025}$	$f\sigma_8(0.61)$	0.4677	$0.468^{+0.011}_{-0.011}$
A_{217}^{PS}	119.1	114^{+30}_{-30}	$10^5 \text{D}/\text{H}$	2.607	$2.61^{+0.10}_{-0.099}$	$\sigma_8(0.61)$	0.5903	$0.590^{+0.012}_{-0.011}$
A^{kSZ}	0.0	—	Age/Gyr	13.802	$13.803^{+0.076}_{-0.074}$	$f\sigma_8(2.33)$	0.2977	$0.2977^{+0.0060}_{-0.0059}$
A_{100}^{dustTT}	8.86	$9.0^{+4.6}_{-4.8}$	z_*	1089.98	$1089.99^{+0.81}_{-0.77}$	$\sigma_8(2.33)$	0.3070	$0.3069^{+0.0063}_{-0.0063}$
A_{143}^{dustTT}	10.79	$10.7^{+4.6}_{-4.7}$	r_*	144.77	$144.76^{+0.78}_{-0.77}$	f_{2000}^{143}	30.1	31^{+8}_{-9}
$A_{143 \times 217}^{\text{dustTT}}$	19.3	$18.4^{+8.1}_{-8.5}$	$100\theta_*$	1.04120	$1.0412^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33.1	34^{+6}_{-6}
A_{217}^{dustTT}	94.5	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.904	$13.903^{+0.079}_{-0.075}$	f_{2000}^{217}	107.6	$108.2^{+5.4}_{-5.2}$
c_{100}	0.99965	$0.9996^{+0.0015}_{-0.0015}$	z_{drag}	1059.59	$1059.6^{+1.2}_{-1.2}$	χ^2_{lensing}	8.88	$9.35 (\nu: 0.3)$
c_{217}	0.99825	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	147.48	$147.47^{+0.89}_{-0.86}$	χ^2_{simall}	396.19	$397.2 (\nu: 1.7)$
H_0	67.63	$67.6^{+1.3}_{-1.3}$	k_{D}	0.14038	$0.1404^{+0.0012}_{-0.0012}$	χ^2_{lowl}	22.70	$22.8 (\nu: 1.8)$
Ω_Λ	0.6897	$0.689^{+0.016}_{-0.017}$	$100\theta_{\text{D}}$	0.16096	$0.16097^{+0.00072}_{-0.00069}$	χ^2_{plik}	759.9	$772.4 (\nu: 15.2)$
Ω_{m}	0.3103	$0.311^{+0.017}_{-0.016}$	z_{eq}	3376	3378^{+67}_{-66}	$\chi^2_{6\text{DF}}$	0.023	$0.056 (\nu: 0.0)$
$\Omega_{\text{m}} h^2$	0.14193	$0.1420^{+0.0028}_{-0.0027}$	k_{eq}	0.010305	$0.01031^{+0.00020}_{-0.00020}$	χ^2_{MGS}	1.28	$1.30 (\nu: 0.1)$
$\Omega_{\text{m}} h^3$	0.09599	$0.0960^{+0.0013}_{-0.0013}$	$100\theta_{\text{eq}}$	0.8177	$0.817^{+0.012}_{-0.012}$	χ^2_{DR12BAO}	4.23	$4.8 (\nu: 1.1)$
σ_8	0.8089	$0.809^{+0.016}_{-0.016}$	$100\theta_{\text{s,eq}}$	0.4518	$0.4517^{+0.0063}_{-0.0063}$	χ^2_{prior}	1.4	$7.4 (\nu: 6.9)$
S_8	0.8227	$0.823^{+0.031}_{-0.030}$	$H(0.15)$	72.90	$72.9^{+1.1}_{-1.1}$	χ^2_{CMB}	1187.7	$1201.8 (\nu: 15.5)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4506	$0.451^{+0.017}_{-0.016}$	$D_M(0.15)$	641.1	641^{+11}_{-11}	χ^2_{BAO}	5.53	$6.1 (\nu: 0.7)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6037	$0.604^{+0.016}_{-0.016}$	$H(0.38)$	82.98	$82.96^{+0.87}_{-0.85}$			

Best-fit $\chi^2_{\text{eff}} = 1194.63$; $\Delta\chi^2_{\text{eff}} = -0.05$; $\bar{\chi}^2_{\text{eff}} = 1215.34$; $\Delta\bar{\chi}^2_{\text{eff}} = 0.61$; $R - 1 = 0.01612$

χ^2_{eff} : BAO - 6DF: 0.02 (Δ -0.01) MGS: 1.28 (Δ 0.06) DR12BAO: 4.23 (Δ -0.15) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.88 (Δ 0.01) simall_100x143_offlike5_EE_Aplanck 396.19 (Δ 0.09) commander_dx12.v3.2.29: 22.70 (Δ -0.26) plik_rd12_HM.v22.TT: 759.95 (Δ 0.14)

12.5 base_nrun_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\text{b}} h^2$	$0.02217^{+0.00061}_{-0.00057}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.461^{+0.036}_{-0.033}$	$100\theta_{\text{s,eq}}$	$0.448^{+0.012}_{-0.012}$
$\Omega_{\text{c}} h^2$	$0.1207^{+0.0055}_{-0.0052}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.612^{+0.031}_{-0.029}$	$H(0.15)$	$72.3^{+2.0}_{-2.0}$
$100\theta_{\text{MC}}$	$1.0408^{+0.0012}_{-0.0012}$	$\sigma_8/h^{0.5}$	$0.994^{+0.042}_{-0.040}$	$D_{\text{M}}(0.15)$	647^{+21}_{-20}
τ	$0.055^{+0.019}_{-0.014}$	$r_{\text{drag}} h$	$98.5^{+4.1}_{-4.1}$	$H(0.38)$	$82.6^{+1.5}_{-1.4}$
$\ln(10^{10} A_{\text{s}})$	$3.047^{+0.045}_{-0.034}$	$\langle d^2 \rangle^{1/2}$	$2.452^{+0.099}_{-0.096}$	$D_{\text{M}}(0.38)$	1542^{+41}_{-40}
n_{s}	$0.962^{+0.016}_{-0.015}$	z_{re}	< 9.57	$H(0.51)$	$89.4^{+1.2}_{-1.1}$
$\text{d}n_{\text{s}}/\text{d} \ln k$	$-0.005^{+0.019}_{-0.019}$	$10^9 A_{\text{s}}$	$2.106^{+0.096}_{-0.070}$	$D_{\text{M}}(0.51)$	1996^{+47}_{-47}
y_{cal}	$1.0005^{+0.0063}_{-0.0064}$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.887^{+0.037}_{-0.036}$	$H(0.61)$	$95.05^{+0.95}_{-0.86}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{40}	1224^{+53}_{-55}	$D_{\text{M}}(0.61)$	2321^{+51}_{-50}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{220}	5713^{+110}_{-110}	$H(2.33)$	$236.8^{+3.4}_{-3.2}$
A_{143}^{tSZ}	—	D_{810}	2538^{+36}_{-37}	$D_{\text{M}}(2.33)$	5775^{+41}_{-43}
A_{100}^{PS}	266^{+70}_{-70}	D_{1420}	814^{+13}_{-14}	$f\sigma_8(0.15)$	$0.464^{+0.032}_{-0.030}$
A_{143}^{PS}	50^{+20}_{-20}	D_{2000}	$229.2^{+4.9}_{-5.1}$	$\sigma_8(0.15)$	$0.751^{+0.019}_{-0.018}$
$A_{143 \times 217}^{\text{PS}}$	44^{+20}_{-20}	$n_{\text{s},0.002}$	$0.977^{+0.059}_{-0.059}$	$f\sigma_8(0.38)$	$0.481^{+0.025}_{-0.024}$
A_{217}^{PS}	115^{+30}_{-30}	Y_{P}	$0.24531^{+0.00024}_{-0.00027}$	$\sigma_8(0.38)$	$0.664^{+0.015}_{-0.013}$
A^{kSZ}	—	$Y_{\text{P}}^{\text{BBN}}$	$0.24663^{+0.00024}_{-0.00027}$	$f\sigma_8(0.51)$	$0.478^{+0.021}_{-0.021}$
$A_{100}^{\text{dust}TT}$	$9.0^{+4.8}_{-4.7}$	$10^5 \text{D}/\text{H}$	$2.62^{+0.11}_{-0.11}$	$\sigma_8(0.51)$	$0.621^{+0.014}_{-0.012}$
$A_{143}^{\text{dust}TT}$	$10.8^{+4.5}_{-4.7}$	Age/Gyr	$13.824^{+0.092}_{-0.096}$	$f\sigma_8(0.61)$	$0.473^{+0.019}_{-0.018}$
$A_{143 \times 217}^{\text{dust}TT}$	$18.3^{+8.7}_{-8.7}$	z_*	$1090.2^{+1.0}_{-1.0}$	$\sigma_8(0.61)$	$0.591^{+0.013}_{-0.011}$
$A_{217}^{\text{dust}TT}$	93^{+20}_{-20}	r_*	$144.4^{+1.3}_{-1.3}$	$f\sigma_8(2.33)$	$0.2977^{+0.0065}_{-0.0050}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	$1.0410^{+0.0012}_{-0.0012}$	$\sigma_8(2.33)$	$0.3065^{+0.0068}_{-0.0051}$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.87^{+0.12}_{-0.12}$	f_{2000}^{143}	32^{+8}_{-8}
H_0	$66.9^{+2.3}_{-2.3}$	z_{drag}	$1059.5^{+1.3}_{-1.3}$	$f_{2000}^{143 \times 217}$	34^{+6}_{-6}
Ω_{Λ}	$0.679^{+0.031}_{-0.035}$	r_{drag}	$147.1^{+1.3}_{-1.3}$	f_{2000}^{217}	$108.6^{+5.4}_{-5.4}$
Ω_{m}	$0.321^{+0.035}_{-0.031}$	k_{D}	$0.1407^{+0.0015}_{-0.0015}$	χ_{simall}^2	$397.0 (\nu: 1.5)$
$\Omega_{\text{m}} h^2$	$0.1435^{+0.0053}_{-0.0050}$	$100\theta_{\text{D}}$	$0.16100^{+0.00074}_{-0.00072}$	χ_{lowl}^2	$23.0 (\nu: 2.0)$
$\Omega_{\text{m}} h^3$	$0.0960^{+0.0013}_{-0.0013}$	z_{eq}	3414^{+130}_{-120}	χ_{plik}^2	$772.6 (\nu: 16.2)$
σ_8	$0.813^{+0.023}_{-0.022}$	k_{eq}	$0.01042^{+0.00039}_{-0.00037}$	χ_{prior}^2	$7.3 (\nu: 6.8)$
S_8	$0.841^{+0.065}_{-0.059}$	$100\theta_{\text{eq}}$	$0.811^{+0.023}_{-0.023}$	χ_{CMB}^2	$1192.6 (\nu: 15.4)$

$$\bar{\chi}_{\text{eff}}^2 = 1199.98; \Delta \bar{\chi}_{\text{eff}}^2 = 0.66; R - 1 = 0.00614$$

12.6 base_nrun_plikHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02226^{+0.00054}_{-0.00053}$	$\sigma_8/h^{0.5}$	$0.983^{+0.029}_{-0.027}$	$D_M(0.38)$	1529^{+24}_{-24}
$\Omega_c h^2$	$0.1190^{+0.0032}_{-0.0031}$	$r_{\text{drag}} h$	$99.8^{+2.4}_{-2.4}$	$H(0.51)$	$89.70^{+0.78}_{-0.75}$
$100\theta_{\text{MC}}$	$1.0410^{+0.0011}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	$2.426^{+0.071}_{-0.070}$	$D_M(0.51)$	1981^{+29}_{-28}
τ	$0.056^{+0.021}_{-0.015}$	z_{re}	< 9.71	$H(0.61)$	$95.30^{+0.68}_{-0.64}$
$\ln(10^{10} A_s)$	$3.046^{+0.048}_{-0.033}$	$10^9 A_s$	$2.103^{+0.096}_{-0.075}$	$D_M(0.61)$	2305^{+31}_{-31}
n_s	$0.966^{+0.012}_{-0.012}$	$10^9 A_s e^{-2\tau}$	$1.879^{+0.032}_{-0.031}$	$H(2.33)$	$235.8^{+2.1}_{-2.1}$
$dn_s/d \ln k$	$-0.004^{+0.020}_{-0.019}$	D_{40}	1218^{+51}_{-53}	$D_M(2.33)$	5765^{+33}_{-33}
y_{cal}	$1.0006^{+0.0065}_{-0.0063}$	D_{220}	5721^{+100}_{-100}	$f\sigma_8(0.15)$	$0.455^{+0.020}_{-0.019}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2537^{+37}_{-36}	$\sigma_8(0.15)$	$0.747^{+0.018}_{-0.015}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	815^{+13}_{-13}	$f\sigma_8(0.38)$	$0.473^{+0.016}_{-0.016}$
A_{143}^{tSZ}	—	D_{2000}	$229.6^{+4.8}_{-4.8}$	$\sigma_8(0.38)$	$0.662^{+0.016}_{-0.013}$
A_{100}^{PS}	264^{+70}_{-70}	$n_{s,0.002}$	$0.978^{+0.059}_{-0.059}$	$f\sigma_8(0.51)$	$0.472^{+0.015}_{-0.014}$
A_{143}^{PS}	49^{+20}_{-20}	Y_{P}	$0.24535^{+0.00021}_{-0.00025}$	$\sigma_8(0.51)$	$0.620^{+0.015}_{-0.012}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24667^{+0.00021}_{-0.00025}$	$f\sigma_8(0.61)$	$0.467^{+0.013}_{-0.013}$
A_{217}^{PS}	114^{+30}_{-30}	$10^5 \text{D}/\text{H}$	$2.61^{+0.10}_{-0.099}$	$\sigma_8(0.61)$	$0.590^{+0.014}_{-0.011}$
A^{kSZ}	—	Age/Gyr	$13.801^{+0.076}_{-0.077}$	$f\sigma_8(2.33)$	$0.2976^{+0.0069}_{-0.0052}$
A_{100}^{dustTT}	$9.0^{+4.6}_{-4.8}$	z_*	$1089.97^{+0.81}_{-0.78}$	$\sigma_8(2.33)$	$0.3068^{+0.0072}_{-0.0053}$
A_{143}^{dustTT}	$10.8^{+4.6}_{-4.7}$	r_*	$144.78^{+0.88}_{-0.85}$	f_{2000}^{143}	32^{+8}_{-9}
$A_{143 \times 217}^{\text{dustTT}}$	$18.4^{+8.4}_{-8.5}$	$100\theta_*$	$1.0412^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	34^{+6}_{-6}
A_{217}^{dustTT}	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	$13.905^{+0.087}_{-0.083}$	f_{2000}^{217}	$108.3^{+5.5}_{-5.2}$
c_{100}	$0.9996^{+0.0015}_{-0.0015}$	z_{drag}	$1059.6^{+1.2}_{-1.3}$	χ_{simall}^2	$397.1 (\nu: 1.8)$
c_{217}	$0.9983^{+0.0016}_{-0.0017}$	r_{drag}	$147.5^{+1.0}_{-0.94}$	χ_{lowl}^2	$22.6 (\nu: 1.6)$
H_0	$67.7^{+1.4}_{-1.4}$	k_{D}	$0.1404^{+0.0012}_{-0.0013}$	χ_{plik}^2	$773.0 (\nu: 16.0)$
Ω_{Λ}	$0.690^{+0.018}_{-0.019}$	$100\theta_{\text{D}}$	$0.16096^{+0.00073}_{-0.00069}$	$\chi_{6\text{DF}}^2$	$0.057 (\nu: 0.0)$
Ω_{m}	$0.310^{+0.019}_{-0.018}$	z_{eq}	3375^{+76}_{-73}	χ_{MGS}^2	$1.36 (\nu: 0.1)$
$\Omega_{\text{m}} h^2$	$0.1419^{+0.0032}_{-0.0030}$	k_{eq}	$0.01030^{+0.00023}_{-0.00022}$	χ_{DR12BAO}^2	$4.7 (\nu: 1.3)$
$\Omega_{\text{m}} h^3$	$0.0960^{+0.0013}_{-0.0013}$	$100\theta_{\text{eq}}$	$0.818^{+0.013}_{-0.014}$	χ_{prior}^2	$7.4 (\nu: 6.9)$
σ_8	$0.808^{+0.020}_{-0.017}$	$100\theta_{\text{s,eq}}$	$0.4519^{+0.0071}_{-0.0071}$	χ_{BAO}^2	$6.2 (\nu: 0.9)$
S_8	$0.822^{+0.039}_{-0.036}$	$H(0.15)$	$72.9^{+1.2}_{-1.2}$	χ_{CMB}^2	$1192.6 (\nu: 15.1)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.450^{+0.021}_{-0.020}$	$D_M(0.15)$	641^{+12}_{-12}		
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.603^{+0.020}_{-0.019}$	$H(0.38)$	$83.00^{+0.93}_{-0.90}$		

$$\bar{\chi}_{\text{eff}}^2 = 1206.22; \Delta \bar{\chi}_{\text{eff}}^2 = 0.46; R - 1 = 0.01231$$

12.7 base_nrun_plikHM_TT_lowl_lowE_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\text{b}} h^2$	$0.02219^{+0.00058}_{-0.00057}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.609^{+0.020}_{-0.019}$	$D_{\text{M}}(0.15)$	645^{+16}_{-15}
$\Omega_{\text{c}} h^2$	$0.1200^{+0.0040}_{-0.0039}$	$\sigma_8 / h^{0.5}$	$0.990^{+0.027}_{-0.027}$	$H(0.38)$	$82.7^{+1.2}_{-1.1}$
$100\theta_{\text{MC}}$	$1.0408^{+0.0011}_{-0.0011}$	$r_{\text{drag}} h$	$98.9^{+3.1}_{-3.0}$	$D_{\text{M}}(0.38)$	1537^{+31}_{-31}
τ	$0.055^{+0.019}_{-0.014}$	$\langle d^2 \rangle^{1/2}$	$2.444^{+0.068}_{-0.069}$	$H(0.51)$	$89.47^{+0.96}_{-0.89}$
$\ln(10^{10} A_{\text{s}})$	$3.045^{+0.040}_{-0.030}$	z_{re}	< 9.43	$D_{\text{M}}(0.51)$	1991^{+37}_{-36}
n_{s}	$0.963^{+0.013}_{-0.013}$	$10^9 A_{\text{s}}$	$2.101^{+0.085}_{-0.063}$	$H(0.61)$	$95.12^{+0.81}_{-0.74}$
$\text{d}n_{\text{s}}/\text{d} \ln k$	$-0.003^{+0.019}_{-0.019}$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.883^{+0.031}_{-0.031}$	$D_{\text{M}}(0.61)$	2316^{+40}_{-39}
y_{cal}	$1.0004^{+0.0063}_{-0.0065}$	D_{40}	1224^{+51}_{-52}	$H(2.33)$	$236.4^{+2.5}_{-2.5}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{220}	5717^{+100}_{-110}	$D_{\text{M}}(2.33)$	5772^{+37}_{-38}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{810}	2537^{+36}_{-36}	$f\sigma_8(0.15)$	$0.461^{+0.021}_{-0.020}$
A_{143}^{tSZ}	—	D_{1420}	814^{+14}_{-14}	$\sigma_8(0.15)$	$0.749^{+0.014}_{-0.013}$
A_{100}^{PS}	265^{+70}_{-70}	D_{2000}	$229.3^{+4.9}_{-5.1}$	$f\sigma_8(0.38)$	$0.478^{+0.016}_{-0.016}$
A_{143}^{PS}	50^{+20}_{-20}	$n_{\text{s},0.002}$	$0.974^{+0.059}_{-0.057}$	$\sigma_8(0.38)$	$0.663^{+0.012}_{-0.011}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	Y_{P}	$0.24532^{+0.00023}_{-0.00027}$	$f\sigma_8(0.51)$	$0.476^{+0.014}_{-0.014}$
A_{217}^{PS}	114^{+30}_{-30}	$Y_{\text{P}}^{\text{BBN}}$	$0.24664^{+0.00023}_{-0.00027}$	$\sigma_8(0.51)$	$0.621^{+0.011}_{-0.0098}$
A^{kSZ}	—	$10^5 \text{D}/\text{H}$	$2.62^{+0.11}_{-0.11}$	$f\sigma_8(0.61)$	$0.470^{+0.012}_{-0.012}$
A_{100}^{dustTT}	$9.0^{+4.7}_{-4.8}$	Age/Gyr	$13.818^{+0.083}_{-0.087}$	$\sigma_8(0.61)$	$0.590^{+0.011}_{-0.0093}$
A_{143}^{dustTT}	$10.7^{+4.5}_{-4.6}$	z_*	$1090.15^{+0.92}_{-0.92}$	$f\sigma_8(2.33)$	$0.2975^{+0.0058}_{-0.0048}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.4^{+8.3}_{-8.6}$	r_*	$144.56^{+0.98}_{-0.96}$	$\sigma_8(2.33)$	$0.3065^{+0.0063}_{-0.0051}$
A_{217}^{dustTT}	93^{+20}_{-20}	$100\theta_*$	$1.0410^{+0.0011}_{-0.0011}$	f_{2000}^{143}	32^{+8}_{-9}
c_{100}	$0.9996^{+0.0016}_{-0.0015}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.886^{+0.093}_{-0.090}$	$f_{2000}^{143 \times 217}$	34^{+6}_{-6}
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	z_{drag}	$1059.5^{+1.3}_{-1.2}$	f_{2000}^{217}	$108.4^{+5.5}_{-5.3}$
H_0	$67.2^{+1.8}_{-1.8}$	r_{drag}	$147.3^{+1.0}_{-1.0}$	χ_{lensing}^2	$9.58 (\nu: 0.5)$
Ω_{Λ}	$0.683^{+0.024}_{-0.026}$	k_{D}	$0.1405^{+0.0013}_{-0.0013}$	χ_{simall}^2	$396.9 (\nu: 1.3)$
Ω_{m}	$0.317^{+0.026}_{-0.024}$	$100\theta_{\text{D}}$	$0.16100^{+0.00073}_{-0.00070}$	χ_{lowl}^2	$23.1 (\nu: 2.1)$
$\Omega_{\text{m}} h^2$	$0.1429^{+0.0038}_{-0.0038}$	z_{eq}	3399^{+91}_{-90}	χ_{plik}^2	$772.1 (\nu: 15.3)$
$\Omega_{\text{m}} h^3$	$0.0960^{+0.0012}_{-0.0013}$	k_{eq}	$0.01037^{+0.00028}_{-0.00027}$	χ_{prior}^2	$7.3 (\nu: 6.8)$
σ_8	$0.811^{+0.015}_{-0.015}$	$100\theta_{\text{eq}}$	$0.813^{+0.017}_{-0.017}$	χ_{CMB}^2	$1201.7 (\nu: 15.3)$
S_8	$0.834^{+0.042}_{-0.040}$	$100\theta_{\text{s,eq}}$	$0.4495^{+0.0088}_{-0.0086}$		
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.457^{+0.023}_{-0.022}$	$H(0.15)$	$72.5^{+1.5}_{-1.5}$		

$$\bar{\chi}_{\text{eff}}^2 = 1209.03; \Delta \bar{\chi}_{\text{eff}}^2 = 0.87; R - 1 = 0.01103$$

12.8 base_nrun_plikHM_TT_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02226^{+0.00054}_{-0.00054}$	$\sigma_8/h^{0.5}$	$0.984^{+0.023}_{-0.022}$	$D_M(0.38)$	1530^{+22}_{-22}
$\Omega_c h^2$	$0.1191^{+0.0028}_{-0.0027}$	$r_{\text{drag}} h$	$99.7^{+2.1}_{-2.1}$	$H(0.51)$	$89.68^{+0.74}_{-0.71}$
$100\theta_{\text{MC}}$	$1.0410^{+0.0011}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	$2.432^{+0.059}_{-0.059}$	$D_M(0.51)$	1982^{+26}_{-27}
τ	$0.057^{+0.019}_{-0.015}$	z_{re}	< 9.61	$H(0.61)$	$95.29^{+0.64}_{-0.62}$
$\ln(10^{10} A_s)$	$3.047^{+0.042}_{-0.033}$	$10^9 A_s$	$2.106^{+0.089}_{-0.068}$	$D_M(0.61)$	2306^{+29}_{-29}
n_s	$0.966^{+0.011}_{-0.011}$	$10^9 A_s e^{-2\tau}$	$1.880^{+0.029}_{-0.030}$	$H(2.33)$	$235.8^{+1.8}_{-1.9}$
$dn_s/d \ln k$	$-0.003^{+0.019}_{-0.019}$	D_{40}	1221^{+48}_{-54}	$D_M(2.33)$	5765^{+33}_{-33}
y_{cal}	$1.0007^{+0.0064}_{-0.0064}$	D_{220}	5725^{+100}_{-100}	$f\sigma_8(0.15)$	$0.456^{+0.016}_{-0.015}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2538^{+37}_{-36}	$\sigma_8(0.15)$	$0.748^{+0.014}_{-0.013}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	815^{+14}_{-13}	$f\sigma_8(0.38)$	$0.474^{+0.013}_{-0.013}$
A_{143}^{tSZ}	—	D_{2000}	$229.8^{+4.8}_{-4.8}$	$\sigma_8(0.38)$	$0.663^{+0.013}_{-0.011}$
A_{100}^{PS}	264^{+70}_{-70}	$n_{s,0.002}$	$0.976^{+0.059}_{-0.058}$	$f\sigma_8(0.51)$	$0.473^{+0.011}_{-0.011}$
A_{143}^{PS}	49^{+20}_{-20}	Y_{P}	$0.24535^{+0.00021}_{-0.00025}$	$\sigma_8(0.51)$	$0.621^{+0.012}_{-0.010}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24667^{+0.00021}_{-0.00025}$	$f\sigma_8(0.61)$	$0.468^{+0.011}_{-0.010}$
A_{217}^{PS}	114^{+30}_{-30}	$10^5 \text{D}/\text{H}$	$2.61^{+0.10}_{-0.098}$	$\sigma_8(0.61)$	$0.591^{+0.012}_{-0.0096}$
A^{kSZ}	—	Age/Gyr	$13.803^{+0.076}_{-0.074}$	$f\sigma_8(2.33)$	$0.2979^{+0.0059}_{-0.0049}$
A_{100}^{dustTT}	$9.0^{+4.6}_{-4.8}$	z_*	$1089.98^{+0.80}_{-0.77}$	$\sigma_8(2.33)$	$0.3071^{+0.0063}_{-0.0052}$
A_{143}^{dustTT}	$10.7^{+4.6}_{-4.7}$	r_*	$144.76^{+0.79}_{-0.76}$	f_{2000}^{143}	31^{+8}_{-8}
$A_{143 \times 217}^{\text{dustTT}}$	$18.4^{+8.1}_{-8.5}$	$100\theta_*$	$1.0412^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	34^{+6}_{-6}
A_{217}^{dustTT}	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	$13.904^{+0.079}_{-0.075}$	f_{2000}^{217}	$108.2^{+5.4}_{-5.2}$
c_{100}	$0.9996^{+0.0015}_{-0.0015}$	z_{drag}	$1059.6^{+1.2}_{-1.2}$	χ_{lensing}^2	$9.32 (\nu: 0.2)$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	$147.47^{+0.88}_{-0.86}$	χ_{simall}^2	$397.2 (\nu: 1.7)$
H_0	$67.6^{+1.3}_{-1.3}$	k_{D}	$0.1404^{+0.0012}_{-0.0012}$	χ_{lowl}^2	$22.8 (\nu: 1.8)$
Ω_{Λ}	$0.689^{+0.016}_{-0.017}$	$100\theta_{\text{D}}$	$0.16096^{+0.00073}_{-0.00068}$	χ_{plik}^2	$772.4 (\nu: 15.2)$
Ω_{m}	$0.311^{+0.017}_{-0.016}$	z_{eq}	3377^{+66}_{-66}	$\chi_{6\text{DF}}^2$	$0.054 (\nu: 0.0)$
$\Omega_{\text{m}} h^2$	$0.1420^{+0.0028}_{-0.0027}$	k_{eq}	$0.01031^{+0.00020}_{-0.00020}$	χ_{MGS}^2	$1.31 (\nu: 0.1)$
$\Omega_{\text{m}} h^3$	$0.0960^{+0.0013}_{-0.0013}$	$100\theta_{\text{eq}}$	$0.818^{+0.012}_{-0.012}$	χ_{DR12BAO}^2	$4.7 (\nu: 1.1)$
σ_8	$0.809^{+0.016}_{-0.014}$	$100\theta_{\text{s,eq}}$	$0.4517^{+0.0062}_{-0.0062}$	χ_{prior}^2	$7.4 (\nu: 6.9)$
S_8	$0.824^{+0.031}_{-0.030}$	$H(0.15)$	$72.9^{+1.1}_{-1.1}$	χ_{CMB}^2	$1201.7 (\nu: 15.2)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.451^{+0.017}_{-0.016}$	$D_M(0.15)$	641^{+11}_{-11}	χ_{BAO}^2	$6.1 (\nu: 0.7)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.604^{+0.016}_{-0.015}$	$H(0.38)$	$82.97^{+0.87}_{-0.84}$		

$\bar{\chi}_{\text{eff}}^2 = 1215.17$; $\Delta \bar{\chi}_{\text{eff}}^2 = 0.60$; $R - 1 = 0.01603$

12.9 base_nrun_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022392	$0.02239^{+0.00041}_{-0.00039}$	$\Omega_m h^2$	0.14339	$0.1434^{+0.0033}_{-0.0033}$	k_{eq}	0.010411	$0.01041^{+0.00024}_{-0.00024}$
$\Omega_c h^2$	0.12035	$0.1203^{+0.0035}_{-0.0035}$	$\Omega_m h^3$	0.09641	$0.09640^{+0.00081}_{-0.00080}$	$100\theta_{\text{eq}}$	0.8117	$0.812^{+0.015}_{-0.015}$
$100\theta_{\text{MC}}$	1.04089	$1.04090^{+0.00080}_{-0.00081}$	σ_8	0.8122	$0.813^{+0.020}_{-0.020}$	$100\theta_{\text{s,eq}}$	0.4486	$0.4486^{+0.0076}_{-0.0074}$
τ	0.0548	$0.056^{+0.022}_{-0.020}$	S_8	0.8351	$0.836^{+0.043}_{-0.042}$	$H(0.15)$	72.58	$72.6^{+1.4}_{-1.3}$
$\ln(10^{10} A_s)$	3.0469	$3.049^{+0.047}_{-0.044}$	$\sigma_8 \Omega_m^{0.5}$	0.4574	$0.458^{+0.023}_{-0.023}$	$D_M(0.15)$	644.4	644^{+14}_{-13}
n_s	0.9643	$0.964^{+0.012}_{-0.011}$	$\sigma_8 \Omega_m^{0.25}$	0.6095	$0.610^{+0.022}_{-0.022}$	$H(0.38)$	82.81	$82.8^{+1.0}_{-0.96}$
$dn_s/d \ln k$	-0.0047	$-0.006^{+0.017}_{-0.017}$	$\sigma_8/h^{0.5}$	0.9905	$0.991^{+0.032}_{-0.032}$	$D_M(0.38)$	1535.4	1535^{+27}_{-27}
y_{cal}	1.0004	$1.0007^{+0.0064}_{-0.0064}$	$r_{\text{drag}} h$	98.82	$98.8^{+2.7}_{-2.7}$	$H(0.51)$	89.59	$89.59^{+0.81}_{-0.75}$
A_{217}^{CIB}	48.9	48^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.442	$2.445^{+0.076}_{-0.076}$	$D_M(0.51)$	1988.0	1988^{+31}_{-31}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.24	—	z_{re}	7.73	$7.8^{+2.1}_{-2.2}$	$H(0.61)$	95.26	$95.26^{+0.67}_{-0.60}$
A_{143}^{tSZ}	7.3	—	$10^9 A_s$	2.105	$2.11^{+0.10}_{-0.090}$	$D_M(0.61)$	2312.6	2313^{+34}_{-34}
A_{100}^{PS}	254	263^{+70}_{-70}	$10^9 A_s e^{-2\tau}$	1.8867	$1.887^{+0.031}_{-0.031}$	$H(2.33)$	236.81	$236.8^{+2.1}_{-2.1}$
A_{143}^{PS}	46.8	48^{+20}_{-20}	D_{40}	1220.4	1221^{+49}_{-47}	$D_M(2.33)$	5763.9	5764^{+28}_{-30}
$A_{143 \times 217}^{\text{PS}}$	43.9	42^{+20}_{-20}	D_{220}	5728	5733^{+99}_{-100}	$f\sigma_8(0.15)$	0.4615	$0.462^{+0.022}_{-0.022}$
A_{217}^{PS}	118.2	115^{+30}_{-30}	D_{810}	2541.5	2542^{+35}_{-35}	$\sigma_8(0.15)$	0.7499	$0.750^{+0.018}_{-0.017}$
A^{kSZ}	0.0	—	D_{1420}	816.8	816^{+13}_{-13}	$f\sigma_8(0.38)$	0.4786	$0.479^{+0.018}_{-0.018}$
A_{100}^{dustTT}	8.93	$8.9^{+4.6}_{-4.7}$	D_{2000}	230.48	$230.2^{+4.5}_{-4.8}$	$\sigma_8(0.38)$	0.6642	$0.665^{+0.015}_{-0.015}$
A_{143}^{dustTT}	11.07	$11.0^{+4.6}_{-4.6}$	$n_{\text{s},0.002}$	0.979	$0.981^{+0.052}_{-0.054}$	$f\sigma_8(0.51)$	0.4766	$0.477^{+0.016}_{-0.016}$
$A_{143 \times 217}^{\text{dustTT}}$	19.7	$18.6^{+8.5}_{-8.3}$	Y_{P}	0.245404	$0.24540^{+0.00015}_{-0.00016}$	$\sigma_8(0.51)$	0.6213	$0.622^{+0.014}_{-0.014}$
A_{217}^{dustTT}	94.5	93^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246731	$0.24673^{+0.00016}_{-0.00016}$	$f\sigma_8(0.61)$	0.4711	$0.471^{+0.014}_{-0.015}$
A_{100}^{dustTE}	0.114	$0.115^{+0.10}_{-0.095}$	$10^5 D/H$	2.581	$2.583^{+0.075}_{-0.074}$	$\sigma_8(0.61)$	0.5910	$0.591^{+0.014}_{-0.013}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.134^{+0.075}_{-0.074}$	Age/Gyr	13.798	$13.798^{+0.063}_{-0.065}$	$f\sigma_8(2.33)$	0.2978	$0.2980^{+0.0068}_{-0.0064}$
$A_{100 \times 217}^{\text{dustTE}}$	0.482	$0.48^{+0.22}_{-0.22}$	z_*	1089.92	$1089.93^{+0.72}_{-0.74}$	$\sigma_8(2.33)$	0.3067	$0.3070^{+0.0070}_{-0.0065}$
A_{143}^{dustTE}	0.226	$0.22^{+0.14}_{-0.14}$	r_*	144.32	$144.33^{+0.77}_{-0.77}$	f_{2000}^{143}	29.9	31^{+8}_{-8}
$A_{143 \times 217}^{\text{dustTE}}$	0.667	$0.66^{+0.21}_{-0.21}$	$100\theta_*$	1.04107	$1.04108^{+0.00079}_{-0.00080}$	$f_{2000}^{143 \times 217}$	32.8	33^{+6}_{-6}
A_{217}^{dustTE}	2.09	$2.09^{+0.67}_{-0.69}$	$D_M(z_*)/\text{Gpc}$	13.863	$13.864^{+0.072}_{-0.072}$	f_{2000}^{217}	107.4	$107.8^{+5.1}_{-5.2}$
c_{100}	0.99972	$0.9997^{+0.0015}_{-0.0016}$	z_{drag}	1060.01	$1060.00^{+0.81}_{-0.79}$	χ_{small}^2	396.1	$397.3 (\nu: 2.0)$
c_{217}	0.99820	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	146.97	$146.99^{+0.77}_{-0.78}$	χ_{lowl}^2	22.25	$22.6 (\nu: 1.3)$
H_0	67.24	$67.2^{+1.6}_{-1.6}$	k_{D}	0.14101	$0.14099^{+0.00087}_{-0.00085}$	χ_{plik}^2	2345.3	$2360.9 (\nu: 17.7)$
Ω_Λ	0.6828	$0.683^{+0.021}_{-0.023}$	$100\theta_{\text{D}}$	0.160712	$0.16072^{+0.00046}_{-0.00047}$	χ_{prior}^2	1.8	$11.5 (\nu: 10.4)$
Ω_{m}	0.3172	$0.317^{+0.023}_{-0.021}$	z_{eq}	3411	3411^{+79}_{-78}	χ_{CMB}^2	2763.6	$2780.7 (\nu: 17.5)$

Best-fit $\chi_{\text{eff}}^2 = 2765.41$; $\Delta\chi_{\text{eff}}^2 = -0.36$; $\bar{\chi}_{\text{eff}}^2 = 2792.22$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.45$; $R - 1 = 0.01212$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.07 (Δ 0.02) commander_dx12_v3.2.29: 22.25 (Δ -1.00) plik_rd12_HM_v22b_TTTEEE: 2345.28 (Δ 0.63)

12.10 base_nrun_plikHM_TTTEEE_lowl_lowE_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022465	$0.02245^{+0.00038}_{-0.00035}$	σ_8	0.8102	$0.810^{+0.020}_{-0.019}$	$D_M(0.15)$	640.3	$640.8^{+9.9}_{-9.9}$
$\Omega_c h^2$	0.11929	$0.1194^{+0.0026}_{-0.0026}$	S_8	0.8243	$0.825^{+0.034}_{-0.033}$	$H(0.38)$	83.09	$83.06^{+0.79}_{-0.72}$
$100\theta_{MC}$	1.04100	$1.04101^{+0.00075}_{-0.00080}$	$\sigma_8 \Omega_m^{0.5}$	0.4515	$0.452^{+0.018}_{-0.018}$	$D_M(0.38)$	1527.3	1528^{+20}_{-20}
τ	0.0566	$0.057^{+0.023}_{-0.020}$	$\sigma_8 \Omega_m^{0.25}$	0.6048	$0.605^{+0.019}_{-0.018}$	$H(0.51)$	89.81	$89.78^{+0.65}_{-0.58}$
$\ln(10^{10} A_s)$	3.0483	$3.049^{+0.049}_{-0.044}$	$\sigma_8/h^{0.5}$	0.9846	$0.985^{+0.028}_{-0.027}$	$D_M(0.51)$	1978.7	1980^{+23}_{-24}
n_s	0.9674	$0.966^{+0.010}_{-0.010}$	$r_{drag} h$	99.66	$99.6^{+2.0}_{-2.0}$	$H(0.61)$	95.43	$95.41^{+0.54}_{-0.48}$
$dn_s/d \ln k$	-0.0034	$-0.005^{+0.018}_{-0.017}$	$\langle d^2 \rangle^{1/2}$	2.429	$2.431^{+0.068}_{-0.064}$	$D_M(0.61)$	2302.6	2304^{+25}_{-26}
y_{cal}	1.0006	$1.0007^{+0.0061}_{-0.0062}$	z_{re}	7.88	$7.9^{+2.2}_{-2.1}$	$H(2.33)$	236.19	$236.2^{+1.6}_{-1.6}$
A_{217}^{CIB}	47.4	48^{+20}_{-20}	$10^9 A_s$	2.108	$2.11^{+0.11}_{-0.091}$	$D_M(2.33)$	5756.8	5758^{+23}_{-25}
$\xi^{tSZ \times CIB}$	0.48	—	$10^9 A_s e^{-2\tau}$	1.8824	$1.883^{+0.029}_{-0.028}$	$f\sigma_8(0.15)$	0.4562	$0.457^{+0.017}_{-0.017}$
A_{143}^{tSZ}	7.2	—	D_{40}	1218.0	1218^{+46}_{-47}	$\sigma_8(0.15)$	0.7487	$0.749^{+0.018}_{-0.017}$
A_{100}^{PS}	251	262^{+70}_{-70}	D_{220}	5735	5737^{+95}_{-99}	$f\sigma_8(0.38)$	0.4747	$0.475^{+0.015}_{-0.015}$
A_{143}^{PS}	49.3	47^{+20}_{-20}	D_{810}	2541.7	2541^{+35}_{-33}	$\sigma_8(0.38)$	0.6638	$0.664^{+0.016}_{-0.015}$
$A_{143 \times 217}^{PS}$	49.4	42^{+20}_{-20}	D_{1420}	818.3	817^{+12}_{-12}	$f\sigma_8(0.51)$	0.4734	$0.474^{+0.014}_{-0.013}$
A_{217}^{PS}	120.2	114^{+30}_{-30}	D_{2000}	231.12	$230.5^{+4.3}_{-4.5}$	$\sigma_8(0.51)$	0.6212	$0.621^{+0.015}_{-0.013}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.978	$0.982^{+0.053}_{-0.054}$	$f\sigma_8(0.61)$	0.4685	$0.469^{+0.013}_{-0.013}$
A_{100}^{dustTT}	8.86	$8.9^{+4.7}_{-4.6}$	Y_P	0.245432	$0.24542^{+0.00014}_{-0.00014}$	$\sigma_8(0.61)$	0.5912	$0.591^{+0.014}_{-0.013}$
A_{143}^{dustTT}	11.05	$11.0^{+4.6}_{-4.7}$	Y_P^{BBN}	0.246758	$0.24675^{+0.00014}_{-0.00014}$	$f\sigma_8(2.33)$	0.2981	$0.2980^{+0.0070}_{-0.0064}$
$A_{143 \times 217}^{dustTT}$	20.0	$18.6^{+8.6}_{-8.6}$	$10^5 D/H$	2.568	$2.572^{+0.066}_{-0.067}$	$\sigma_8(2.33)$	0.3074	$0.3072^{+0.0072}_{-0.0065}$
A_{217}^{dustTT}	95.0	93^{+20}_{-20}	Age/Gyr	13.782	$13.784^{+0.053}_{-0.057}$	f_{2000}^{143}	29.3	30^{+8}_{-8}
A_{100}^{dustTE}	0.114	$0.115^{+0.095}_{-0.095}$	z_*	1089.74	$1089.77^{+0.58}_{-0.61}$	$f_{2000}^{143 \times 217}$	32.3	33^{+5}_{-5}
$A_{100 \times 143}^{dustTE}$	0.134	$0.134^{+0.076}_{-0.074}$	r_*	144.54	$144.53^{+0.59}_{-0.62}$	f_{2000}^{217}	106.9	$107.6^{+5.0}_{-5.1}$
$A_{100 \times 217}^{dustTE}$	0.484	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	1.04118	$1.04119^{+0.00073}_{-0.00082}$	χ_{small}^2	396.4	$397.4 (\nu: 2.4)$
A_{143}^{dustTE}	0.225	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.883	$13.881^{+0.057}_{-0.059}$	χ_{lowl}^2	22.10	$22.3 (\nu: 1.2)$
$A_{143 \times 217}^{dustTE}$	0.662	$0.66^{+0.20}_{-0.21}$	z_{drag}	1060.09	$1060.07^{+0.78}_{-0.79}$	χ_{plik}^2	2345.8	$2360.9 (\nu: 17.3)$
A_{217}^{dustTE}	2.08	$2.08^{+0.69}_{-0.65}$	r_{drag}	147.18	$147.17^{+0.62}_{-0.64}$	χ_{6DF}^2	0.029	$0.060 (\nu: 0.0)$
c_{100}	0.99973	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14085	$0.14085^{+0.00078}_{-0.00078}$	χ_{MGS}^2	1.22	$1.23 (\nu: 0.1)$
c_{217}	0.99819	$0.9982^{+0.0016}_{-0.0015}$	$100\theta_D$	0.160664	$0.16069^{+0.00046}_{-0.00046}$	$\chi_{DR12BAO}^2$	4.42	$5.0 (\nu: 1.1)$
H_0	67.71	$67.7^{+1.2}_{-1.1}$	z_{eq}	3387	3390^{+60}_{-59}	χ_{prior}^2	1.7	$11.6 (\nu: 10.5)$
Ω_Λ	0.6894	$0.689^{+0.015}_{-0.016}$	k_{eq}	0.010339	$0.01035^{+0.00018}_{-0.00018}$	χ_{BAO}^2	5.67	$6.3 (\nu: 0.7)$
Ω_m	0.3106	$0.311^{+0.016}_{-0.015}$	$100\theta_{eq}$	0.8163	$0.816^{+0.011}_{-0.011}$	χ_{CMB}^2	2764.3	$2780.6 (\nu: 16.8)$
$\Omega_m h^2$	0.14240	$0.1425^{+0.0025}_{-0.0025}$	$100\theta_{s,eq}$	0.4509	$0.4507^{+0.0057}_{-0.0056}$			
$\Omega_m h^3$	0.09642	$0.09641^{+0.00077}_{-0.00079}$	$H(0.15)$	72.99	$72.9^{+1.0}_{-0.98}$			

Best-fit $\chi_{eff}^2 = 2771.68$; $\Delta\chi_{eff}^2 = -0.24$; $\bar{\chi}_{eff}^2 = 2798.48$; $\Delta\bar{\chi}_{eff}^2 = 0.57$; $R - 1 = 0.02043$

χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.42 (Δ 0.01) CMB - small_100x143.offlike5_EE_Aplanck_B: 396.37 (Δ 0.16) commander_dx12_v3_2_29: 22.11 (Δ -0.77) plik_rd12_HM_v22b_TTTEEE: 2345.83 (Δ 0.33)

12.11 base_nrun_plikHM_TTTEEE_lowl_lowE_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022396	$0.02240^{+0.00040}_{-0.00037}$	$\Omega_m h^3$	0.09638	$0.09639^{+0.00077}_{-0.00078}$	$100\theta_{s,eq}$	0.4493	$0.4492^{+0.0065}_{-0.0066}$
$\Omega_c h^2$	0.12003	$0.1200^{+0.0031}_{-0.0030}$	σ_8	0.8113	$0.811^{+0.015}_{-0.016}$	$H(0.15)$	72.69	$72.7^{+1.2}_{-1.2}$
$100\theta_{MC}$	1.04091	$1.04092^{+0.00078}_{-0.00081}$	S_8	0.8317	$0.832^{+0.034}_{-0.033}$	$D_M(0.15)$	643.3	643^{+12}_{-12}
τ	0.0546	$0.055^{+0.020}_{-0.019}$	$\sigma_8 \Omega_m^{0.5}$	0.4555	$0.456^{+0.018}_{-0.018}$	$H(0.38)$	82.87	$82.88^{+0.91}_{-0.85}$
$\ln(10^{10} A_s)$	3.0457	$3.047^{+0.041}_{-0.039}$	$\sigma_8 \Omega_m^{0.25}$	0.6079	$0.608^{+0.016}_{-0.017}$	$D_M(0.38)$	1533.3	1533^{+24}_{-24}
n_s	0.9650	$0.964^{+0.011}_{-0.011}$	$\sigma_8/h^{0.5}$	0.9885	$0.989^{+0.023}_{-0.024}$	$H(0.51)$	89.64	$89.64^{+0.76}_{-0.68}$
$dn_s/d \ln k$	-0.0025	$-0.005^{+0.018}_{-0.017}$	$r_{drag} h$	99.06	$99.1^{+2.4}_{-2.4}$	$D_M(0.51)$	1985.7	1986^{+28}_{-28}
y_{cal}	1.0006	$1.0007^{+0.0063}_{-0.0064}$	$\langle d^2 \rangle^{1/2}$	2.441	$2.441^{+0.059}_{-0.061}$	$H(0.61)$	95.29	$95.30^{+0.61}_{-0.54}$
A_{217}^{CIB}	48.9	48^{+20}_{-20}	z_{re}	7.71	$7.8^{+1.9}_{-2.0}$	$D_M(0.61)$	2310.1	2310^{+30}_{-31}
$\xi^{tSZ \times CIB}$	0.23	—	$10^9 A_s$	2.102	$2.106^{+0.087}_{-0.080}$	$H(2.33)$	236.61	$236.6^{+1.8}_{-1.7}$
A_{143}^{tSZ}	7.3	—	$10^9 A_s e^{-2\tau}$	1.8848	$1.886^{+0.028}_{-0.028}$	$D_M(2.33)$	5762.7	5762^{+26}_{-29}
A_{100}^{PS}	253	263^{+70}_{-70}	D_{40}	1225.1	1222^{+45}_{-47}	$f\sigma_8(0.15)$	0.4598	$0.460^{+0.017}_{-0.017}$
A_{143}^{PS}	45.9	47^{+20}_{-20}	D_{220}	5733	5735^{+97}_{-100}	$\sigma_8(0.15)$	0.7493	$0.749^{+0.014}_{-0.014}$
$A_{143 \times 217}^{PS}$	42.9	42^{+20}_{-20}	D_{810}	2541.0	2541^{+35}_{-34}	$f\sigma_8(0.38)$	0.4773	$0.477^{+0.013}_{-0.014}$
A_{217}^{PS}	117.7	115^{+30}_{-30}	D_{1420}	817.3	816^{+13}_{-13}	$\sigma_8(0.38)$	0.6638	$0.664^{+0.012}_{-0.012}$
A^{kSZ}	0.0	—	D_{2000}	230.77	$230.3^{+4.4}_{-4.7}$	$f\sigma_8(0.51)$	0.4755	$0.476^{+0.012}_{-0.012}$
A_{100}^{dustTT}	8.90	$8.9^{+4.7}_{-4.7}$	$n_{s,0.002}$	0.973	$0.979^{+0.053}_{-0.052}$	$\sigma_8(0.51)$	0.6210	$0.621^{+0.012}_{-0.011}$
A_{143}^{dustTT}	11.01	$11.0^{+4.7}_{-4.6}$	Y_P	0.245406	$0.24540^{+0.00015}_{-0.00015}$	$f\sigma_8(0.61)$	0.4702	$0.470^{+0.011}_{-0.011}$
$A_{143 \times 217}^{dustTT}$	19.6	$18.6^{+8.9}_{-8.6}$	Y_P^{BBN}	0.246732	$0.24673^{+0.00015}_{-0.00015}$	$\sigma_8(0.61)$	0.5908	$0.591^{+0.011}_{-0.011}$
A_{217}^{dustTT}	94.5	93^{+20}_{-20}	$10^5 D/H$	2.581	$2.581^{+0.070}_{-0.071}$	$f\sigma_8(2.33)$	0.2977	$0.2977^{+0.0058}_{-0.0057}$
A_{100}^{dustTE}	0.116	$0.115^{+0.10}_{-0.095}$	Age/Gyr	13.795	$13.795^{+0.059}_{-0.064}$	$\sigma_8(2.33)$	0.3068	$0.3068^{+0.0062}_{-0.0060}$
$A_{100 \times 143}^{dustTE}$	0.134	$0.134^{+0.075}_{-0.074}$	z_*	1089.89	$1089.89^{+0.67}_{-0.68}$	f_{2000}^{143}	29.7	31^{+8}_{-8}
$A_{100 \times 217}^{dustTE}$	0.481	$0.48^{+0.22}_{-0.23}$	r_*	144.40	$144.40^{+0.67}_{-0.68}$	$f_{2000}^{143 \times 217}$	32.5	33^{+6}_{-6}
A_{143}^{dustTE}	0.225	$0.22^{+0.14}_{-0.14}$	$100\theta_*$	1.04110	$1.04110^{+0.00074}_{-0.00079}$	f_{2000}^{217}	107.2	$107.7^{+5.2}_{-5.2}$
$A_{143 \times 217}^{dustTE}$	0.665	$0.66^{+0.20}_{-0.21}$	$D_M(z_*)/\text{Gpc}$	13.870	$13.870^{+0.062}_{-0.064}$	$\chi^2_{lensing}$	8.89	$9.43 (\nu: 0.3)$
A_{217}^{dustTE}	2.08	$2.08^{+0.68}_{-0.65}$	z_{drag}	1060.01	$1060.00^{+0.81}_{-0.76}$	χ^2_{small}	396.06	$397.1 (\nu: 1.5)$
c_{100}	0.99971	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	147.05	$147.05^{+0.68}_{-0.69}$	χ^2_{lowl}	22.71	$22.7 (\nu: 1.4)$
c_{217}	0.99821	$0.9982^{+0.0016}_{-0.0015}$	k_D	0.14093	$0.14093^{+0.00080}_{-0.00077}$	χ^2_{plik}	2345.0	$2360.5 (\nu: 16.8)$
H_0	67.36	$67.4^{+1.4}_{-1.4}$	$100\theta_D$	0.160720	$0.16072^{+0.00047}_{-0.00046}$	χ^2_{prior}	1.8	$11.6 (\nu: 10.6)$
Ω_Λ	0.6847	$0.685^{+0.019}_{-0.020}$	z_{eq}	3404	3404^{+69}_{-66}	χ^2_{CMB}	2772.6	$2789.7 (\nu: 17.3)$
Ω_m	0.3153	$0.315^{+0.020}_{-0.019}$	k_{eq}	0.010388	$0.01039^{+0.00021}_{-0.00020}$			
$\Omega_m h^2$	0.14308	$0.1431^{+0.0029}_{-0.0027}$	$100\theta_{eq}$	0.8131	$0.813^{+0.013}_{-0.013}$			

Best-fit $\chi^2_{eff} = 2774.42$; $\Delta\chi^2_{eff} = -0.22$; $\bar{\chi}^2_{eff} = 2801.27$; $\Delta\bar{\chi}^2_{eff} = 0.58$; $R - 1 = 0.02010$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consect8: 8.89 (Δ 0.02) small_100x143_offlike5_EE_Aplanck_B: 396.06 (Δ 0.01) commander_dx12_v3.2_29: 22.71 (Δ -0.54) plik_rd12_HM_v22b_TTTEEE: 2344.96 (Δ 0.03)

12.12 base_nrun_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022447	$0.02245^{+0.00037}_{-0.00035}$	σ_8	0.8101	$0.810^{+0.016}_{-0.015}$	$D_M(0.15)$	640.4	$640.7^{+9.2}_{-9.4}$
$\Omega_c h^2$	0.11930	$0.1194^{+0.0024}_{-0.0023}$	S_8	0.8245	$0.825^{+0.027}_{-0.028}$	$H(0.38)$	83.08	$83.07^{+0.73}_{-0.68}$
$100\theta_{MC}$	1.04103	$1.04101^{+0.00075}_{-0.00085}$	$\sigma_8 \Omega_m^{0.5}$	0.4516	$0.452^{+0.015}_{-0.015}$	$D_M(0.38)$	1527.6	1528^{+18}_{-19}
τ	0.0565	$0.057^{+0.021}_{-0.019}$	$\sigma_8 \Omega_m^{0.25}$	0.6048	$0.605^{+0.015}_{-0.015}$	$H(0.51)$	89.80	$89.79^{+0.63}_{-0.55}$
$\ln(10^{10} A_s)$	3.0482	$3.049^{+0.041}_{-0.039}$	$\sigma_8/h^{0.5}$	0.9846	$0.985^{+0.021}_{-0.022}$	$D_M(0.51)$	1979.0	1980^{+22}_{-23}
n_s	0.9669	$0.966^{+0.010}_{-0.010}$	$r_{drag} h$	99.65	$99.6^{+1.9}_{-1.8}$	$H(0.61)$	95.415	$95.41^{+0.53}_{-0.46}$
$dn_s/d \ln k$	-0.0033	$-0.004^{+0.018}_{-0.017}$	$\langle d^2 \rangle^{1/2}$	2.431	$2.433^{+0.057}_{-0.058}$	$D_M(0.61)$	2302.9	2304^{+23}_{-25}
y_{cal}	1.0006	$1.0008^{+0.0061}_{-0.0062}$	z_{re}	7.88	$7.9^{+2.0}_{-2.0}$	$H(2.33)$	236.19	$236.2^{+1.5}_{-1.3}$
A_{217}^{CIB}	48.6	47^{+20}_{-20}	$10^9 A_s$	2.108	$2.111^{+0.087}_{-0.082}$	$D_M(2.33)$	5757.3	5758^{+23}_{-25}
$\xi^{tSZ \times CIB}$	0.31	—	$10^9 A_s e^{-2\tau}$	1.8823	$1.883^{+0.028}_{-0.027}$	$f\sigma_8(0.15)$	0.4562	$0.457^{+0.014}_{-0.014}$
A_{143}^{tSZ}	7.2	—	D_{40}	1219.2	1220^{+44}_{-46}	$\sigma_8(0.15)$	0.7487	$0.749^{+0.014}_{-0.014}$
A_{100}^{PS}	253	262^{+70}_{-70}	D_{220}	5735	5739^{+94}_{-99}	$f\sigma_8(0.38)$	0.4747	$0.475^{+0.012}_{-0.012}$
A_{143}^{PS}	46.9	47^{+20}_{-20}	D_{810}	2541.3	2541^{+34}_{-33}	$\sigma_8(0.38)$	0.6637	$0.664^{+0.012}_{-0.012}$
$A_{143 \times 217}^{PS}$	44.8	42^{+20}_{-20}	D_{1420}	817.9	817^{+12}_{-12}	$f\sigma_8(0.51)$	0.4734	$0.474^{+0.011}_{-0.011}$
A_{217}^{PS}	118.2	114^{+30}_{-30}	D_{2000}	230.96	$230.6^{+4.2}_{-4.4}$	$\sigma_8(0.51)$	0.6212	$0.621^{+0.012}_{-0.011}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.978	$0.979^{+0.053}_{-0.053}$	$f\sigma_8(0.61)$	0.4685	$0.469^{+0.010}_{-0.010}$
A_{100}^{dustTT}	8.93	$8.9^{+4.7}_{-4.5}$	Y_P	0.245425	$0.24542^{+0.00014}_{-0.00014}$	$\sigma_8(0.61)$	0.5911	$0.591^{+0.011}_{-0.011}$
A_{143}^{dustTT}	11.07	$11.0^{+4.6}_{-4.8}$	Y_P^{BBN}	0.246752	$0.24675^{+0.00014}_{-0.00014}$	$f\sigma_8(2.33)$	0.2981	$0.2981^{+0.0057}_{-0.0057}$
$A_{143 \times 217}^{dustTT}$	19.7	$18.6^{+8.6}_{-8.6}$	$10^5 D/H$	2.571	$2.572^{+0.065}_{-0.067}$	$\sigma_8(2.33)$	0.3073	$0.3073^{+0.0061}_{-0.0061}$
A_{217}^{dustTT}	94.6	93^{+20}_{-20}	Age/Gyr	13.784	$13.784^{+0.052}_{-0.056}$	f_{2000}^{143}	29.5	30^{+8}_{-8}
A_{100}^{dustTE}	0.115	$0.115^{+0.097}_{-0.096}$	z_*	1089.76	$1089.77^{+0.56}_{-0.60}$	$f_{2000}^{143 \times 217}$	32.5	33^{+5}_{-5}
$A_{100 \times 143}^{dustTE}$	0.135	$0.134^{+0.079}_{-0.074}$	r_*	144.55	$144.54^{+0.54}_{-0.58}$	f_{2000}^{217}	107.1	$107.5^{+5.1}_{-5.2}$
$A_{100 \times 217}^{dustTE}$	0.483	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	1.04120	$1.04118^{+0.00073}_{-0.00084}$	$\chi^2_{lensing}$	8.84	$9.25 (\nu: 0.2)$
A_{143}^{dustTE}	0.224	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.883	$13.882^{+0.051}_{-0.055}$	χ^2_{small}	396.36	$397.3 (\nu: 1.9)$
$A_{143 \times 217}^{dustTE}$	0.663	$0.66^{+0.20}_{-0.21}$	z_{drag}	1060.05	$1060.07^{+0.78}_{-0.78}$	χ^2_{lowl}	22.20	$22.5 (\nu: 1.3)$
A_{217}^{dustTE}	2.08	$2.08^{+0.69}_{-0.64}$	r_{drag}	147.19	$147.17^{+0.58}_{-0.60}$	χ^2_{plik}	2345.6	$2360.5 (\nu: 16.5)$
c_{100}	0.99970	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14082	$0.14084^{+0.00075}_{-0.00073}$	χ^2_{6DF}	0.030	$0.055 (\nu: 0.0)$
c_{217}	0.99821	$0.9982^{+0.0015}_{-0.0015}$	$100\theta_D$	0.160691	$0.16069^{+0.00045}_{-0.00045}$	χ^2_{MGS}	1.22	$1.24 (\nu: 0.1)$
H_0	67.70	$67.7^{+1.1}_{-1.1}$	z_{eq}	3387	3389^{+55}_{-51}	$\chi^2_{DR12BAO}$	4.44	$4.9 (\nu: 0.9)$
Ω_Λ	0.6893	$0.689^{+0.014}_{-0.015}$	k_{eq}	0.010339	$0.01034^{+0.00017}_{-0.00015}$	χ^2_{prior}	1.8	$11.6 (\nu: 10.5)$
Ω_m	0.3107	$0.311^{+0.015}_{-0.014}$	$100\theta_{eq}$	0.8162	$0.8160^{+0.0099}_{-0.010}$	χ^2_{CMB}	2773.0	$2789.6 (\nu: 16.7)$
$\Omega_m h^2$	0.14240	$0.1425^{+0.0023}_{-0.0021}$	$100\theta_{s,eq}$	0.4509	$0.4507^{+0.0050}_{-0.0052}$	χ^2_{BAO}	5.68	$6.2 (\nu: 0.6)$
$\Omega_m h^3$	0.09640	$0.09640^{+0.00078}_{-0.00078}$	$H(0.15)$	72.98	$72.95^{+0.97}_{-0.92}$			

Best-fit $\chi^2_{eff} = 2780.51$; $\Delta\chi^2_{eff} = -0.19$; $\bar{\chi}^2_{eff} = 2807.32$; $\Delta\bar{\chi}^2_{eff} = 0.48$; $R - 1 = 0.02542$

χ^2_{eff} : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.43 (Δ 0.01) CMB - smicadx12_Dec5_ft1_mv2_ndclpp_p.teb_consext8: 8.84 (Δ 0.11) small_100x143_offlike5_EE_Aplanck.L 396.36 (Δ -0.16) commander_dx12_v3.2_29: 22.20 (Δ -0.70) plik_rd12_HM_v22b_TTTEEE: 2345.61 (Δ 0.30)

12.13 base_nrun_plikHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02239^{+0.00041}_{-0.00039}$	$\Omega_{\mathrm{m}}h^2$	$0.1434^{+0.0033}_{-0.0033}$	k_{eq}	$0.01041^{+0.00024}_{-0.00024}$
$\Omega_{\mathrm{c}}h^2$	$0.1203^{+0.0035}_{-0.0035}$	$\Omega_{\mathrm{m}}h^3$	$0.09641^{+0.00081}_{-0.00080}$	$100\theta_{\mathrm{eq}}$	$0.812^{+0.015}_{-0.014}$
$100\theta_{\mathrm{MC}}$	$1.04090^{+0.00080}_{-0.00082}$	σ_8	$0.813^{+0.020}_{-0.018}$	$100\theta_{\mathrm{s,eq}}$	$0.4487^{+0.0076}_{-0.0074}$
τ	$0.057^{+0.020}_{-0.015}$	S_8	$0.836^{+0.043}_{-0.042}$	$H(0.15)$	$72.6^{+1.4}_{-1.3}$
$\ln(10^{10}A_{\mathrm{s}})$	$3.051^{+0.045}_{-0.035}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.458^{+0.023}_{-0.023}$	$D_{\mathrm{M}}(0.15)$	644^{+13}_{-13}
n_{s}	$0.964^{+0.011}_{-0.011}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.610^{+0.022}_{-0.021}$	$H(0.38)$	$82.8^{+1.0}_{-0.95}$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	$-0.006^{+0.017}_{-0.017}$	$\sigma_8/h^{0.5}$	$0.992^{+0.031}_{-0.031}$	$D_{\mathrm{M}}(0.38)$	1535^{+27}_{-27}
y_{cal}	$1.0007^{+0.0063}_{-0.0064}$	$r_{\mathrm{drag}}h$	$98.9^{+2.7}_{-2.7}$	$H(0.51)$	$89.60^{+0.81}_{-0.74}$
A_{217}^{CIB}	48^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	$2.446^{+0.075}_{-0.075}$	$D_{\mathrm{M}}(0.51)$	1988^{+31}_{-31}
$\xi^{\mathrm{tSZ}\times\mathrm{CIB}}$	—	z_{re}	< 9.72	$H(0.61)$	$95.26^{+0.67}_{-0.59}$
A_{143}^{tSZ}	$5.2^{+4.5}_{-4.7}$	$10^9 A_{\mathrm{s}}$	$2.114^{+0.098}_{-0.073}$	$D_{\mathrm{M}}(0.61)$	2312^{+34}_{-34}
A_{100}^{PS}	263^{+70}_{-70}	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.887^{+0.031}_{-0.031}$	$H(2.33)$	$236.8^{+2.1}_{-2.1}$
A_{143}^{PS}	48^{+20}_{-20}	D_{40}	1221^{+49}_{-47}	$D_{\mathrm{M}}(2.33)$	5764^{+28}_{-30}
$A_{143\times 217}^{\mathrm{PS}}$	42^{+20}_{-20}	D_{220}	5733^{+100}_{-100}	$f\sigma_8(0.15)$	$0.462^{+0.022}_{-0.022}$
A_{217}^{PS}	115^{+30}_{-30}	D_{810}	2542^{+35}_{-35}	$\sigma_8(0.15)$	$0.751^{+0.018}_{-0.016}$
A^{kSZ}	—	D_{1420}	816^{+13}_{-13}	$f\sigma_8(0.38)$	$0.479^{+0.018}_{-0.018}$
$A_{100}^{\mathrm{dustTT}}$	$8.9^{+4.6}_{-4.7}$	D_{2000}	$230.2^{+4.5}_{-4.8}$	$\sigma_8(0.38)$	$0.665^{+0.015}_{-0.013}$
$A_{143}^{\mathrm{dustTT}}$	$10.9^{+4.6}_{-4.6}$	$n_{\mathrm{s},0.002}$	$0.982^{+0.052}_{-0.054}$	$f\sigma_8(0.51)$	$0.477^{+0.016}_{-0.015}$
$A_{143\times 217}^{\mathrm{dustTT}}$	$18.6^{+8.5}_{-8.3}$	Y_{P}	$0.24540^{+0.00015}_{-0.00016}$	$\sigma_8(0.51)$	$0.622^{+0.014}_{-0.011}$
$A_{217}^{\mathrm{dustTT}}$	93^{+20}_{-20}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24673^{+0.00015}_{-0.00016}$	$f\sigma_8(0.61)$	$0.472^{+0.014}_{-0.014}$
$A_{100}^{\mathrm{dustTE}}$	$0.115^{+0.10}_{-0.095}$	$10^5\mathrm{D}/\mathrm{H}$	$2.583^{+0.074}_{-0.073}$	$\sigma_8(0.61)$	$0.592^{+0.013}_{-0.010}$
$A_{100\times 143}^{\mathrm{dustTE}}$	$0.134^{+0.075}_{-0.074}$	$\mathrm{Age}/\mathrm{Gyr}$	$13.797^{+0.063}_{-0.066}$	$f\sigma_8(2.33)$	$0.2982^{+0.0065}_{-0.0051}$
$A_{100\times 217}^{\mathrm{dustTE}}$	$0.48^{+0.22}_{-0.22}$	z_*	$1089.93^{+0.72}_{-0.74}$	$\sigma_8(2.33)$	$0.3072^{+0.0068}_{-0.0052}$
$A_{143}^{\mathrm{dustTE}}$	$0.22^{+0.13}_{-0.14}$	r_*	$144.34^{+0.77}_{-0.77}$	f_{2000}^{143}	31^{+8}_{-8}
$A_{143\times 217}^{\mathrm{dustTE}}$	$0.67^{+0.21}_{-0.21}$	$100\theta_*$	$1.04108^{+0.00079}_{-0.00081}$	$f_{2000}^{143\times 217}$	33^{+6}_{-6}
$A_{217}^{\mathrm{dustTE}}$	$2.09^{+0.68}_{-0.69}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.864^{+0.072}_{-0.072}$	f_{2000}^{217}	$107.8^{+5.1}_{-5.2}$
c_{100}	$0.9997^{+0.0015}_{-0.0016}$	z_{drag}	$1060.00^{+0.81}_{-0.79}$	χ_{small}^2	$397.3 (\nu: 2.1)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	$146.99^{+0.77}_{-0.78}$	χ_{lowl}^2	$22.6 (\nu: 1.3)$
H_0	$67.3^{+1.6}_{-1.5}$	k_{D}	$0.14099^{+0.00087}_{-0.00085}$	χ_{plik}^2	$2360.7 (\nu: 17.5)$
Ω_{Λ}	$0.683^{+0.021}_{-0.022}$	$100\theta_{\mathrm{D}}$	$0.16072^{+0.00046}_{-0.00047}$	χ_{prior}^2	$11.5 (\nu: 10.3)$
Ω_{m}	$0.317^{+0.022}_{-0.021}$	z_{eq}	3410^{+78}_{-78}	χ_{CMB}^2	$2780.5 (\nu: 17.2)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 2792.02; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.49; R - 1 = 0.01357$$

12.14 base_nrun_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02245^{+0.00038}_{-0.00035}$	σ_8	$0.811^{+0.019}_{-0.017}$	$D_{\mathrm{M}}(0.15)$	$640.7^{+9.9}_{-10}$
$\Omega_{\mathrm{c}}h^2$	$0.1194^{+0.0026}_{-0.0026}$	S_8	$0.826^{+0.033}_{-0.033}$	$H(0.38)$	$83.07^{+0.79}_{-0.72}$
$100\theta_{\mathrm{MC}}$	$1.04101^{+0.00075}_{-0.00081}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.452^{+0.018}_{-0.018}$	$D_{\mathrm{M}}(0.38)$	1528^{+20}_{-20}
τ	$0.057^{+0.020}_{-0.016}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.605^{+0.019}_{-0.018}$	$H(0.51)$	$89.79^{+0.65}_{-0.58}$
$\ln(10^{10}A_{\mathrm{s}})$	$3.050^{+0.048}_{-0.036}$	$\sigma_8/h^{0.5}$	$0.986^{+0.028}_{-0.026}$	$D_{\mathrm{M}}(0.51)$	1980^{+23}_{-24}
n_{s}	$0.966^{+0.010}_{-0.011}$	$r_{\mathrm{drag}}h$	$99.6^{+2.0}_{-2.0}$	$H(0.61)$	$95.41^{+0.55}_{-0.48}$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	$-0.005^{+0.018}_{-0.017}$	$\langle d^2 \rangle^{1/2}$	$2.433^{+0.067}_{-0.064}$	$D_{\mathrm{M}}(0.61)$	2304^{+25}_{-26}
y_{cal}	$1.0007^{+0.0060}_{-0.0062}$	z_{re}	< 9.83	$H(2.33)$	$236.2^{+1.6}_{-1.6}$
A_{217}^{CIB}	48^{+20}_{-20}	$10^9 A_{\mathrm{s}}$	$2.11^{+0.10}_{-0.075}$	$D_{\mathrm{M}}(2.33)$	5758^{+23}_{-25}
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.883^{+0.029}_{-0.028}$	$f\sigma_8(0.15)$	$0.457^{+0.017}_{-0.017}$
A_{143}^{tSZ}	—	D_{40}	1218^{+46}_{-47}	$\sigma_8(0.15)$	$0.749^{+0.017}_{-0.014}$
A_{100}^{PS}	262^{+70}_{-70}	D_{220}	5737^{+96}_{-97}	$f\sigma_8(0.38)$	$0.475^{+0.015}_{-0.014}$
A_{143}^{PS}	47^{+20}_{-20}	D_{810}	2541^{+35}_{-33}	$\sigma_8(0.38)$	$0.664^{+0.016}_{-0.012}$
$A_{143 \times 217}^{\mathrm{PS}}$	42^{+20}_{-20}	D_{1420}	817^{+12}_{-12}	$f\sigma_8(0.51)$	$0.474^{+0.014}_{-0.013}$
A_{217}^{PS}	114^{+30}_{-30}	D_{2000}	$230.5^{+4.3}_{-4.4}$	$\sigma_8(0.51)$	$0.621^{+0.014}_{-0.011}$
A^{kSZ}	—	$n_{\mathrm{s},0.002}$	$0.982^{+0.053}_{-0.054}$	$f\sigma_8(0.61)$	$0.469^{+0.013}_{-0.012}$
$A_{100}^{\mathrm{dust}TT}$	$8.9^{+4.7}_{-4.7}$	Y_{P}	$0.24542^{+0.00014}_{-0.00014}$	$\sigma_8(0.61)$	$0.591^{+0.014}_{-0.010}$
$A_{143}^{\mathrm{dust}TT}$	$11.0^{+4.5}_{-4.6}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24675^{+0.00014}_{-0.00014}$	$f\sigma_8(2.33)$	$0.2982^{+0.0068}_{-0.0051}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.6^{+8.6}_{-8.6}$	$10^5 \mathrm{D}/\mathrm{H}$	$2.571^{+0.066}_{-0.068}$	$\sigma_8(2.33)$	$0.3074^{+0.0072}_{-0.0053}$
$A_{217}^{\mathrm{dust}TT}$	93^{+20}_{-20}	$\mathrm{Age}/\mathrm{Gyr}$	$13.784^{+0.053}_{-0.057}$	f_{2000}^{143}	30^{+8}_{-8}
$A_{100}^{\mathrm{dust}TE}$	$0.115^{+0.095}_{-0.095}$	z_*	$1089.77^{+0.58}_{-0.61}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.134^{+0.076}_{-0.074}$	r_*	$144.53^{+0.60}_{-0.62}$	f_{2000}^{217}	$107.6^{+5.0}_{-5.2}$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	$1.04119^{+0.00073}_{-0.00082}$	χ_{simall}^2	$397.4 (\nu: 2.5)$
$A_{143}^{\mathrm{dust}TE}$	$0.22^{+0.14}_{-0.14}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.881^{+0.057}_{-0.060}$	χ_{lowl}^2	$22.3 (\nu: 1.2)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.66^{+0.20}_{-0.21}$	z_{drag}	$1060.07^{+0.77}_{-0.79}$	χ_{plik}^2	$2360.8 (\nu: 17.1)$
$A_{217}^{\mathrm{dust}TE}$	$2.08^{+0.69}_{-0.65}$	r_{drag}	$147.17^{+0.62}_{-0.64}$	$\chi_{6\mathrm{DF}}^2$	$0.059 (\nu: 0.0)$
c_{100}	$0.9997^{+0.0016}_{-0.0015}$	k_{D}	$0.14085^{+0.00078}_{-0.00080}$	χ_{MGS}^2	$1.24 (\nu: 0.1)$
c_{217}	$0.9982^{+0.0016}_{-0.0015}$	$100\theta_{\mathrm{D}}$	$0.16068^{+0.00046}_{-0.00046}$	$\chi_{\mathrm{DR12BAO}}^2$	$4.9 (\nu: 1.1)$
H_0	$67.7^{+1.2}_{-1.1}$	z_{eq}	3389^{+60}_{-59}	χ_{prior}^2	$11.6 (\nu: 10.4)$
Ω_{Λ}	$0.689^{+0.015}_{-0.016}$	k_{eq}	$0.01034^{+0.00018}_{-0.00018}$	χ_{BAO}^2	$6.2 (\nu: 0.7)$
Ω_{m}	$0.311^{+0.016}_{-0.015}$	$100\theta_{\mathrm{eq}}$	$0.816^{+0.011}_{-0.011}$	χ_{CMB}^2	$2780.5 (\nu: 16.5)$
$\Omega_{\mathrm{m}}h^2$	$0.1425^{+0.0025}_{-0.0025}$	$100\theta_{\mathrm{s,eq}}$	$0.4507^{+0.0057}_{-0.0056}$		
$\Omega_{\mathrm{m}}h^3$	$0.09641^{+0.00077}_{-0.00079}$	$H(0.15)$	$73.0^{+1.0}_{-0.98}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2798.32; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.61; R - 1 = 0.02163$$

12.15 base_nrun_plikHM_TTTEEE_lowl_lowE_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02240^{+0.00039}_{-0.00037}$	$\Omega_m h^3$	$0.09639^{+0.00077}_{-0.00078}$	$100\theta_{s,eq}$	$0.4493^{+0.0064}_{-0.0064}$
$\Omega_c h^2$	$0.1200^{+0.0030}_{-0.0030}$	σ_8	$0.812^{+0.015}_{-0.015}$	$H(0.15)$	$72.7^{+1.2}_{-1.1}$
$100\theta_{MC}$	$1.04093^{+0.00078}_{-0.00082}$	S_8	$0.832^{+0.033}_{-0.033}$	$D_M(0.15)$	643^{+12}_{-12}
τ	$0.056^{+0.018}_{-0.014}$	$\sigma_8 \Omega_m^{0.5}$	$0.456^{+0.018}_{-0.018}$	$H(0.38)$	$82.89^{+0.90}_{-0.83}$
$\ln(10^{10} A_s)$	$3.049^{+0.040}_{-0.030}$	$\sigma_8 \Omega_m^{0.25}$	$0.608^{+0.016}_{-0.017}$	$D_M(0.38)$	1533^{+23}_{-24}
n_s	$0.964^{+0.011}_{-0.011}$	$\sigma_8/h^{0.5}$	$0.989^{+0.023}_{-0.024}$	$H(0.51)$	$89.65^{+0.75}_{-0.65}$
$dn_s/d \ln k$	$-0.005^{+0.018}_{-0.017}$	$r_{drag} h$	$99.1^{+2.4}_{-2.3}$	$D_M(0.51)$	1985^{+27}_{-28}
y_{cal}	$1.0006^{+0.0063}_{-0.0062}$	$\langle d^2 \rangle^{1/2}$	$2.441^{+0.058}_{-0.060}$	$H(0.61)$	$95.30^{+0.61}_{-0.54}$
A_{217}^{CIB}	48^{+20}_{-20}	z_{re}	< 9.48	$D_M(0.61)$	2310^{+29}_{-30}
$\xi^{tSZ \times CIB}$	—	$10^9 A_s$	$2.109^{+0.085}_{-0.063}$	$H(2.33)$	$236.6^{+1.8}_{-1.7}$
A_{143}^{tSZ}	—	$10^9 A_s e^{-2\tau}$	$1.885^{+0.028}_{-0.028}$	$D_M(2.33)$	5762^{+26}_{-28}
A_{100}^{PS}	263^{+70}_{-70}	D_{40}	1222^{+45}_{-47}	$f\sigma_8(0.15)$	$0.460^{+0.017}_{-0.017}$
A_{143}^{PS}	47^{+20}_{-20}	D_{220}	5734^{+97}_{-100}	$\sigma_8(0.15)$	$0.750^{+0.014}_{-0.013}$
$A_{143 \times 217}^{PS}$	42^{+20}_{-20}	D_{810}	2541^{+34}_{-33}	$f\sigma_8(0.38)$	$0.478^{+0.013}_{-0.014}$
A_{217}^{PS}	114^{+30}_{-30}	D_{1420}	816^{+12}_{-13}	$\sigma_8(0.38)$	$0.664^{+0.012}_{-0.011}$
A^{kSZ}	—	D_{2000}	$230.3^{+4.4}_{-4.7}$	$f\sigma_8(0.51)$	$0.476^{+0.012}_{-0.012}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.7}$	$n_{s,0.002}$	$0.979^{+0.053}_{-0.052}$	$\sigma_8(0.51)$	$0.621^{+0.011}_{-0.0097}$
A_{143}^{dustTT}	$11.0^{+4.6}_{-4.6}$	Y_P	$0.24541^{+0.00015}_{-0.00015}$	$f\sigma_8(0.61)$	$0.470^{+0.010}_{-0.011}$
$A_{143 \times 217}^{dustTT}$	$18.6^{+8.8}_{-8.6}$	Y_P^{BBN}	$0.24673^{+0.00015}_{-0.00015}$	$\sigma_8(0.61)$	$0.591^{+0.011}_{-0.0092}$
A_{217}^{dustTT}	93^{+20}_{-20}	$10^5 D/H$	$2.580^{+0.070}_{-0.071}$	$f\sigma_8(2.33)$	$0.2980^{+0.0057}_{-0.0046}$
A_{100}^{dustTE}	$0.115^{+0.10}_{-0.094}$	Age/Gyr	$13.794^{+0.058}_{-0.064}$	$\sigma_8(2.33)$	$0.3070^{+0.0061}_{-0.0048}$
$A_{100 \times 143}^{dustTE}$	$0.134^{+0.075}_{-0.074}$	z_*	$1089.88^{+0.64}_{-0.68}$	f_{2000}^{143}	31^{+8}_{-8}
$A_{100 \times 217}^{dustTE}$	$0.48^{+0.22}_{-0.23}$	r_*	$144.41^{+0.66}_{-0.67}$	$f_{2000}^{143 \times 217}$	33^{+6}_{-6}
A_{143}^{dustTE}	$0.22^{+0.13}_{-0.14}$	$100\theta_*$	$1.04111^{+0.00074}_{-0.00080}$	f_{2000}^{217}	$107.7^{+5.1}_{-5.1}$
$A_{143 \times 217}^{dustTE}$	$0.66^{+0.20}_{-0.21}$	$D_M(z_*)/\text{Gpc}$	$13.871^{+0.062}_{-0.063}$	$\chi_{lensing}^2$	$9.42 (\nu: 0.3)$
A_{217}^{dustTE}	$2.08^{+0.68}_{-0.65}$	z_{drag}	$1060.01^{+0.80}_{-0.76}$	χ_{simall}^2	$397.0 (\nu: 1.5)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	$147.06^{+0.68}_{-0.69}$	χ_{lowl}^2	$22.7 (\nu: 1.4)$
c_{217}	$0.9982^{+0.0016}_{-0.0015}$	k_D	$0.14093^{+0.00080}_{-0.00078}$	χ_{plik}^2	$2360.4 (\nu: 16.7)$
H_0	$67.4^{+1.4}_{-1.3}$	$100\theta_D$	$0.16072^{+0.00047}_{-0.00046}$	χ_{prior}^2	$11.6 (\nu: 10.5)$
Ω_Λ	$0.685^{+0.018}_{-0.019}$	z_{eq}	3403^{+67}_{-65}	χ_{CMB}^2	$2789.5 (\nu: 17.1)$
Ω_m	$0.315^{+0.019}_{-0.018}$	k_{eq}	$0.01039^{+0.00020}_{-0.00020}$		
$\Omega_m h^2$	$0.1431^{+0.0028}_{-0.0027}$	$100\theta_{eq}$	$0.813^{+0.013}_{-0.013}$		

$$\bar{\chi}_{\text{eff}}^2 = 2801.11; \Delta \bar{\chi}_{\text{eff}}^2 = 0.60; R - 1 = 0.02119$$

12.16 base_nrun_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02245^{+0.00037}_{-0.00035}$	σ_8	$0.811^{+0.015}_{-0.014}$	$D_M(0.15)$	$640.6^{+9.2}_{-9.3}$
$\Omega_c h^2$	$0.1194^{+0.0024}_{-0.0023}$	S_8	$0.825^{+0.027}_{-0.028}$	$H(0.38)$	$83.07^{+0.74}_{-0.67}$
$100\theta_{MC}$	$1.04101^{+0.00075}_{-0.00085}$	$\sigma_8 \Omega_m^{0.5}$	$0.452^{+0.015}_{-0.015}$	$D_M(0.38)$	1528^{+18}_{-19}
τ	$0.057^{+0.019}_{-0.015}$	$\sigma_8 \Omega_m^{0.25}$	$0.605^{+0.014}_{-0.015}$	$H(0.51)$	$89.79^{+0.62}_{-0.55}$
$\ln(10^{10} A_s)$	$3.050^{+0.040}_{-0.031}$	$\sigma_8/h^{0.5}$	$0.985^{+0.021}_{-0.022}$	$D_M(0.51)$	1979^{+21}_{-22}
n_s	$0.966^{+0.010}_{-0.010}$	$r_{\text{drag}} h$	$99.6^{+1.9}_{-1.8}$	$H(0.61)$	$95.41^{+0.53}_{-0.46}$
$dn_s/d \ln k$	$-0.004^{+0.018}_{-0.017}$	$\langle d^2 \rangle^{1/2}$	$2.434^{+0.056}_{-0.057}$	$D_M(0.61)$	2303^{+23}_{-24}
y_{cal}	$1.0008^{+0.0060}_{-0.0062}$	z_{re}	< 9.58	$H(2.33)$	$236.2^{+1.5}_{-1.4}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.112^{+0.086}_{-0.065}$	$D_M(2.33)$	5758^{+23}_{-25}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.883^{+0.027}_{-0.027}$	$f\sigma_8(0.15)$	$0.457^{+0.014}_{-0.014}$
A_{143}^{tSZ}	—	D_{40}	1220^{+44}_{-47}	$\sigma_8(0.15)$	$0.749^{+0.014}_{-0.013}$
A_{100}^{PS}	262^{+80}_{-70}	D_{220}	5739^{+94}_{-98}	$f\sigma_8(0.38)$	$0.475^{+0.012}_{-0.012}$
A_{143}^{PS}	47^{+20}_{-20}	D_{810}	2541^{+34}_{-33}	$\sigma_8(0.38)$	$0.664^{+0.012}_{-0.011}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	817^{+12}_{-12}	$f\sigma_8(0.51)$	$0.474^{+0.011}_{-0.011}$
A_{217}^{PS}	114^{+30}_{-30}	D_{2000}	$230.6^{+4.2}_{-4.4}$	$\sigma_8(0.51)$	$0.622^{+0.011}_{-0.010}$
A^{kSZ}	—	$n_{s,0.002}$	$0.979^{+0.053}_{-0.053}$	$f\sigma_8(0.61)$	$0.4689^{+0.0099}_{-0.010}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.5}$	Y_P	$0.24542^{+0.00014}_{-0.00014}$	$\sigma_8(0.61)$	$0.591^{+0.011}_{-0.0096}$
A_{143}^{dustTT}	$11.0^{+4.6}_{-4.8}$	Y_P^{BBN}	$0.24675^{+0.00014}_{-0.00014}$	$f\sigma_8(2.33)$	$0.2982^{+0.0056}_{-0.0048}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.6}_{-8.7}$	$10^5 D/H$	$2.572^{+0.065}_{-0.066}$	$\sigma_8(2.33)$	$0.3075^{+0.0060}_{-0.0050}$
A_{217}^{dustTT}	93^{+20}_{-20}	Age/Gyr	$13.784^{+0.052}_{-0.056}$	f_{2000}^{143}	30^{+8}_{-8}
A_{100}^{dustTE}	$0.115^{+0.097}_{-0.096}$	z_*	$1089.77^{+0.56}_{-0.60}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	$0.134^{+0.078}_{-0.075}$	r_*	$144.54^{+0.54}_{-0.57}$	f_{2000}^{217}	$107.5^{+5.1}_{-5.4}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	$1.04118^{+0.00073}_{-0.00084}$	χ_{lensing}^2	$9.23 (\nu: 0.2)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.882^{+0.052}_{-0.055}$	χ_{simall}^2	$397.3 (\nu: 1.9)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.20}_{-0.21}$	z_{drag}	$1060.07^{+0.78}_{-0.79}$	χ_{lowl}^2	$22.5 (\nu: 1.3)$
A_{217}^{dustTE}	$2.08^{+0.69}_{-0.64}$	r_{drag}	$147.18^{+0.57}_{-0.59}$	χ_{plik}^2	$2360.4 (\nu: 16.4)$
c_{100}	$0.9997^{+0.0016}_{-0.0015}$	k_D	$0.14084^{+0.00075}_{-0.00073}$	$\chi_{6\text{DF}}^2$	$0.054 (\nu: 0.0)$
c_{217}	$0.9982^{+0.0016}_{-0.0015}$	$100\theta_D$	$0.16069^{+0.00045}_{-0.00045}$	χ_{MGS}^2	$1.24 (\nu: 0.1)$
H_0	$67.7^{+1.1}_{-1.1}$	z_{eq}	3389^{+55}_{-50}	χ_{DR12BAO}^2	$4.8 (\nu: 0.9)$
Ω_Λ	$0.689^{+0.014}_{-0.015}$	k_{eq}	$0.01034^{+0.00017}_{-0.00015}$	χ_{prior}^2	$11.6 (\nu: 10.4)$
Ω_m	$0.311^{+0.015}_{-0.014}$	$100\theta_{\text{eq}}$	$0.8160^{+0.0098}_{-0.010}$	χ_{CMB}^2	$2789.5 (\nu: 16.5)$
$\Omega_m h^2$	$0.1424^{+0.0023}_{-0.0021}$	$100\theta_{s,\text{eq}}$	$0.4508^{+0.0050}_{-0.0052}$	χ_{BAO}^2	$6.1 (\nu: 0.6)$
$\Omega_m h^3$	$0.09640^{+0.00078}_{-0.00078}$	$H(0.15)$	$72.96^{+0.96}_{-0.91}$		

$$\bar{\chi}_{\text{eff}}^2 = 2807.20; \Delta \bar{\chi}_{\text{eff}}^2 = 0.48; R - 1 = 0.02657$$

13 nrun+nrnunrun

13.1 base_nrun_nrunrun_plikHM_TTTEE_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022332	$0.02234^{+0.00042}_{-0.00043}$	$\Omega_m h^2$	0.14367	$0.1436^{+0.0037}_{-0.0034}$	$100\theta_{\text{eq}}$	0.8103	$0.811^{+0.016}_{-0.017}$
$\Omega_c h^2$	0.12070	$0.1206^{+0.0040}_{-0.0036}$	$\Omega_m h^3$	0.09633	$0.09636^{+0.00082}_{-0.00078}$	$100\theta_{\text{s,eq}}$	0.4479	$0.4480^{+0.0080}_{-0.0085}$
$100\theta_{\text{MC}}$	1.04082	$1.04086^{+0.00080}_{-0.00078}$	σ_8	0.8178	$0.817^{+0.023}_{-0.022}$	$H(0.15)$	72.42	$72.5^{+1.4}_{-1.5}$
τ	0.0570	$0.058^{+0.025}_{-0.022}$	S_8	0.8441	$0.843^{+0.048}_{-0.045}$	$D_{\text{M}}(0.15)$	646.0	646^{+15}_{-14}
$\ln(10^{10} A_{\text{s}})$	3.0513	$3.053^{+0.050}_{-0.044}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4623	$0.462^{+0.026}_{-0.025}$	$H(0.38)$	82.68	$82.7^{+1.0}_{-1.0}$
n_{s}	0.9624	$0.961^{+0.013}_{-0.014}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6149	$0.614^{+0.025}_{-0.024}$	$D_{\text{M}}(0.38)$	1538.7	1538^{+30}_{-28}
$\text{d}n_{\text{s}}/\text{d} \ln k$	0.0053	$0.001^{+0.026}_{-0.026}$	$\sigma_8/h^{0.5}$	0.9987	$0.997^{+0.036}_{-0.035}$	$H(0.51)$	89.48	$89.51^{+0.81}_{-0.82}$
$\text{d}^2 n_{\text{s}}/\text{d} \ln k^2$	0.0139	$0.012^{+0.032}_{-0.035}$	$r_{\text{drag}} h$	98.53	$98.6^{+2.8}_{-3.1}$	$D_{\text{M}}(0.51)$	1992.0	1991^{+35}_{-32}
y_{cal}	1.0005	$1.0006^{+0.0062}_{-0.0062}$	$\langle d^2 \rangle^{1/2}$	2.448	$2.446^{+0.074}_{-0.072}$	$H(0.61)$	95.17	$95.20^{+0.66}_{-0.65}$
A_{217}^{CIB}	45.2	47^{+20}_{-20}	z_{re}	7.98	$8.0^{+2.4}_{-2.3}$	$D_{\text{M}}(0.61)$	2316.9	2316^{+38}_{-35}
$\xi^{\text{tSZ}} \times \text{CIB}$	0.70	—	$10^9 A_{\text{s}}$	2.114	$2.12^{+0.11}_{-0.091}$	$H(2.33)$	236.97	$237.0^{+2.4}_{-2.2}$
A_{143}^{tSZ}	7.08	$5.4^{+4.5}_{-4.6}$	$10^9 A_{\text{s}} e^{-2\tau}$	1.8864	$1.887^{+0.031}_{-0.030}$	$D_{\text{M}}(2.33)$	5768.0	5767^{+31}_{-30}
A_{100}^{PS}	247	259^{+70}_{-70}	D_{40}	1221.4	1218^{+48}_{-47}	$f\sigma_8(0.15)$	0.4663	$0.465^{+0.024}_{-0.023}$
A_{143}^{PS}	49.0	45^{+20}_{-20}	D_{220}	5739	5740^{+96}_{-100}	$\sigma_8(0.15)$	0.7549	$0.754^{+0.021}_{-0.020}$
$A_{143 \times 217}^{\text{PS}}$	52.6	41^{+20}_{-20}	D_{810}	2540.2	2539^{+36}_{-34}	$f\sigma_8(0.38)$	0.4829	$0.482^{+0.020}_{-0.019}$
A_{217}^{PS}	121.3	114^{+20}_{-30}	D_{1420}	818.9	817^{+13}_{-12}	$\sigma_8(0.38)$	0.6683	$0.668^{+0.018}_{-0.016}$
A^{kSZ}	0.0	—	D_{2000}	232.2	$231.2^{+5.3}_{-5.2}$	$f\sigma_8(0.51)$	0.4806	$0.480^{+0.018}_{-0.017}$
A_{100}^{dustTT}	8.80	$8.9^{+4.8}_{-4.7}$	$n_{\text{s},0.002}$	1.017	$1.02^{+0.11}_{-0.12}$	$\sigma_8(0.51)$	0.6250	$0.624^{+0.017}_{-0.015}$
A_{143}^{dustTT}	11.05	$10.9^{+4.8}_{-4.6}$	Y_{P}	0.245380	$0.24538^{+0.00016}_{-0.00018}$	$f\sigma_8(0.61)$	0.4749	$0.474^{+0.016}_{-0.016}$
$A_{143 \times 217}^{\text{dustTT}}$	20.1	$18.5^{+8.4}_{-8.3}$	$Y_{\text{P}}^{\text{BBN}}$	0.246707	$0.24671^{+0.00016}_{-0.00019}$	$\sigma_8(0.61)$	0.5945	$0.594^{+0.016}_{-0.014}$
A_{217}^{dustTT}	95.6	94^{+20}_{-20}	$10^5 \text{D}/\text{H}$	2.593	$2.591^{+0.081}_{-0.076}$	$f\sigma_8(2.33)$	0.2994	$0.2992^{+0.0080}_{-0.0070}$
A_{100}^{dustTE}	0.115	$0.115^{+0.096}_{-0.098}$	Age/Gyr	13.807	$13.804^{+0.069}_{-0.067}$	$\sigma_8(2.33)$	0.3084	$0.3081^{+0.0085}_{-0.0073}$
$A_{100 \times 143}^{\text{dustTE}}$	0.134	$0.135^{+0.075}_{-0.075}$	z_*	1090.03	$1090.01^{+0.79}_{-0.75}$	f_{2000}^{143}	27.5	29^{+9}_{-9}
$A_{100 \times 217}^{\text{dustTE}}$	0.480	$0.48^{+0.22}_{-0.22}$	r_*	144.28	$144.29^{+0.80}_{-0.88}$	$f_{2000}^{143 \times 217}$	31.0	32^{+6}_{-6}
A_{143}^{dustTE}	0.225	$0.23^{+0.14}_{-0.14}$	$100\theta_*$	1.04101	$1.04104^{+0.00078}_{-0.00076}$	f_{2000}^{217}	105.6	$106.7^{+6.0}_{-5.8}$
$A_{143 \times 217}^{\text{dustTE}}$	0.668	$0.67^{+0.20}_{-0.20}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.860	$13.860^{+0.074}_{-0.081}$	χ_{simall}^2	396.4	$397.5 (\nu: 2.1)$
A_{217}^{dustTE}	2.09	$2.10^{+0.70}_{-0.71}$	z_{drag}	1059.89	$1059.92^{+0.85}_{-0.87}$	χ_{lowl}^2	21.69	$22.4 (\nu: 1.1)$
c_{100}	0.99975	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	146.95	$146.95^{+0.79}_{-0.86}$	χ_{plik}^2	2344.6	$2360.7 (\nu: 17.5)$
c_{217}	0.99815	$0.9982^{+0.0016}_{-0.0016}$	k_{D}	0.14099	$0.14099^{+0.00090}_{-0.00087}$	χ_{prior}^2	1.5	$11.5 (\nu: 10.4)$
H_0	67.05	$67.1^{+1.6}_{-1.8}$	$100\theta_{\text{D}}$	0.160775	$0.16077^{+0.00050}_{-0.00049}$	χ_{CMB}^2	2762.7	$2780.6 (\nu: 18.7)$
Ω_{Λ}	0.6804	$0.681^{+0.022}_{-0.026}$	z_{eq}	3418	3417^{+89}_{-81}			
Ω_{m}	0.3196	$0.319^{+0.026}_{-0.022}$	k_{eq}	0.010432	$0.01043^{+0.00027}_{-0.00025}$			

Best-fit $\chi_{\text{eff}}^2 = 2764.20$; $\Delta\chi_{\text{eff}}^2 = -1.57$; $\bar{\chi}_{\text{eff}}^2 = 2792.05$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.29$; $R - 1 = 0.02103$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.42 (Δ 0.37) commander_dx12_v3.2.29: 21.69 (Δ -1.57) plik_rd12_HM_v22b_TTTEE: 2344.61 (Δ -0.04)

13.2 base_nrun_nrunrun_plikHM_TTTEE_lowl_lowE_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022418	$0.02243^{+0.00036}_{-0.00037}$	$\Omega_m h^3$	0.09639	$0.09638^{+0.00079}_{-0.00077}$	$H(0.15)$	72.87	$72.9^{+1.0}_{-1.0}$
$\Omega_c h^2$	0.11958	$0.1195^{+0.0027}_{-0.0025}$	σ_8	0.8146	$0.814^{+0.024}_{-0.022}$	$D_M(0.15)$	641.5	641^{+10}_{-10}
$100\theta_{MC}$	1.04101	$1.04100^{+0.00074}_{-0.00072}$	S_8	0.8313	$0.830^{+0.036}_{-0.036}$	$H(0.38)$	83.00	$83.03^{+0.76}_{-0.77}$
τ	0.0586	$0.059^{+0.025}_{-0.021}$	$\sigma_8 \Omega_m^{0.5}$	0.4553	$0.454^{+0.020}_{-0.020}$	$D_M(0.38)$	1529.8	1529^{+21}_{-20}
$\ln(10^{10} A_s)$	3.0524	$3.053^{+0.053}_{-0.041}$	$\sigma_8 \Omega_m^{0.25}$	0.6090	$0.608^{+0.021}_{-0.021}$	$H(0.51)$	89.74	$89.75^{+0.61}_{-0.61}$
n_s	0.9652	$0.964^{+0.011}_{-0.012}$	$\sigma_8/h^{0.5}$	0.9910	$0.990^{+0.032}_{-0.031}$	$D_M(0.51)$	1981.5	1981^{+24}_{-23}
$dn_s/d \ln k$	0.0033	$0.000^{+0.027}_{-0.027}$	$r_{drag} h$	99.43	$99.5^{+2.0}_{-2.0}$	$H(0.61)$	95.37	$95.38^{+0.52}_{-0.51}$
$d^2 n_s/d \ln k^2$	0.0112	$0.009^{+0.034}_{-0.035}$	$\langle d^2 \rangle^{1/2}$	2.433	$2.432^{+0.067}_{-0.066}$	$D_M(0.61)$	2305.7	2305^{+26}_{-25}
y_{cal}	1.0006	$1.0007^{+0.0062}_{-0.0061}$	z_{re}	8.09	$8.1^{+2.4}_{-2.2}$	$H(2.33)$	236.34	$236.3^{+1.6}_{-1.6}$
A_{217}^{CIB}	45.9	47^{+20}_{-20}	$10^9 A_s$	2.117	$2.12^{+0.12}_{-0.086}$	$D_M(2.33)$	5759.5	5759^{+24}_{-24}
$\xi^{tSZ \times CIB}$	0.58	—	$10^9 A_s e^{-2\tau}$	1.8826	$1.882^{+0.029}_{-0.028}$	$f\sigma_8(0.15)$	0.4599	$0.459^{+0.019}_{-0.019}$
A_{143}^{tSZ}	7.19	> 0.943	D_{40}	1216.6	1215^{+48}_{-47}	$\sigma_8(0.15)$	0.7527	$0.752^{+0.022}_{-0.019}$
A_{100}^{PS}	248	259^{+70}_{-70}	D_{220}	5744	5744^{+98}_{-100}	$f\sigma_8(0.38)$	0.4781	$0.477^{+0.017}_{-0.017}$
A_{143}^{PS}	47.3	45^{+20}_{-20}	D_{810}	2540.6	2540^{+36}_{-34}	$\sigma_8(0.38)$	0.6671	$0.666^{+0.019}_{-0.016}$
$A_{143 \times 217}^{PS}$	49.7	41^{+20}_{-20}	D_{1420}	819.3	818^{+13}_{-12}	$f\sigma_8(0.51)$	0.4766	$0.476^{+0.016}_{-0.015}$
A_{217}^{PS}	120.5	114^{+30}_{-30}	D_{2000}	232.2	$231.4^{+5.9}_{-5.1}$	$\sigma_8(0.51)$	0.6242	$0.624^{+0.018}_{-0.014}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	1.013	$1.01^{+0.12}_{-0.11}$	$f\sigma_8(0.61)$	0.4715	$0.471^{+0.015}_{-0.014}$
A_{100}^{dustTT}	8.83	$8.9^{+4.8}_{-4.5}$	Y_P	0.245414	$0.24542^{+0.00014}_{-0.00015}$	$\sigma_8(0.61)$	0.5939	$0.593^{+0.017}_{-0.014}$
A_{143}^{dustTT}	11.06	$10.9^{+4.5}_{-4.7}$	Y_P^{BBN}	0.246741	$0.24674^{+0.00014}_{-0.00015}$	$f\sigma_8(2.33)$	0.2994	$0.2992^{+0.0084}_{-0.0067}$
$A_{143 \times 217}^{dustTT}$	19.9	$18.5^{+8.2}_{-8.3}$	$10^5 D/H$	2.577	$2.575^{+0.071}_{-0.064}$	$\sigma_8(2.33)$	0.3087	$0.3084^{+0.0087}_{-0.0072}$
A_{217}^{dustTT}	95.4	93^{+20}_{-20}	Age/Gyr	13.788	$13.787^{+0.055}_{-0.053}$	f_{2000}^{143}	27.7	29^{+9}_{-9}
A_{100}^{dustTE}	0.114	$0.114^{+0.093}_{-0.095}$	z_*	1089.82	$1089.80^{+0.61}_{-0.57}$	$f_{2000}^{143 \times 217}$	31.2	32^{+6}_{-6}
$A_{100 \times 143}^{dustTE}$	0.134	$0.135^{+0.081}_{-0.073}$	r_*	144.50	$144.52^{+0.62}_{-0.63}$	f_{2000}^{217}	105.9	$106.7^{+6.5}_{-5.6}$
$A_{100 \times 217}^{dustTE}$	0.481	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	1.04119	$1.04118^{+0.00073}_{-0.00071}$	χ_{small}^2	396.6	$397.7 (\nu: 2.7)$
A_{143}^{dustTE}	0.222	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.879	$13.880^{+0.058}_{-0.060}$	χ_{lowl}^2	21.44	$22.2 (\nu: 1.2)$
$A_{143 \times 217}^{dustTE}$	0.666	$0.66^{+0.21}_{-0.21}$	z_{drag}	1060.01	$1060.03^{+0.78}_{-0.79}$	χ_{plik}^2	2345.1	$2360.9 (\nu: 18.0)$
A_{217}^{dustTE}	2.08	$2.08^{+0.68}_{-0.73}$	r_{drag}	147.15	$147.16^{+0.64}_{-0.65}$	χ_{6DF}^2	0.047	$0.068 (\nu: 0.0)$
c_{100}	0.99974	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14084	$0.14084^{+0.00077}_{-0.00079}$	χ_{MGS}^2	1.10	$1.19 (\nu: 0.1)$
c_{217}	0.99817	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	0.160720	$0.16071^{+0.00048}_{-0.00045}$	$\chi_{DR12BAO}^2$	4.82	$5.1 (\nu: 1.3)$
H_0	67.57	$67.6^{+1.2}_{-1.2}$	z_{eq}	3393	3391^{+61}_{-59}	χ_{prior}^2	1.6	$11.5 (\nu: 9.9)$
Ω_Λ	0.6876	$0.688^{+0.016}_{-0.017}$	k_{eq}	0.010357	$0.01035^{+0.00019}_{-0.00018}$	χ_{BAO}^2	5.97	$6.4 (\nu: 0.9)$
Ω_m	0.3124	$0.312^{+0.017}_{-0.016}$	$100\theta_{eq}$	0.8151	$0.815^{+0.011}_{-0.011}$	χ_{CMB}^2	2763.2	$2780.9 (\nu: 18.6)$
$\Omega_m h^2$	0.14264	$0.1426^{+0.0026}_{-0.0025}$	$100\theta_{s,eq}$	0.4503	$0.4505^{+0.0058}_{-0.0058}$			

Best-fit $\chi_{eff}^2 = 2770.78$; $\Delta\chi_{eff}^2 = -1.14$; $\bar{\chi}_{eff}^2 = 2798.78$; $\Delta\bar{\chi}_{eff}^2 = 0.87$; $R - 1 = 0.02726$
 χ_{eff}^2 : BAO - 6DF: 0.05 (Δ 0.02) MGS: 1.10 (Δ -0.12) DR12BAO: 4.83 (Δ 0.41) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.62 (Δ 0.42) commander_dx12_v3_2_29: 21.44 (Δ -1.43) plik_rd12_HM_v22b_TTTEE: 2345.10 (Δ -0.40)

13.3 base_nrun_nrunrun_plikHM_TTTEE_lowl_lowE_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022365	$0.02237^{+0.00041}_{-0.00040}$	$\Omega_m h^2$	0.14319	$0.1432^{+0.0029}_{-0.0030}$	$100\theta_{\text{eq}}$	0.8125	$0.813^{+0.014}_{-0.013}$
$\Omega_c h^2$	0.12018	$0.1202^{+0.0031}_{-0.0031}$	$\Omega_m h^3$	0.09634	$0.09634^{+0.00080}_{-0.00076}$	$100\theta_{\text{s,eq}}$	0.4490	$0.4490^{+0.0070}_{-0.0066}$
$100\theta_{\text{MC}}$	1.04091	$1.04090^{+0.00077}_{-0.00073}$	σ_8	0.8152	$0.814^{+0.018}_{-0.017}$	$H(0.15)$	72.62	$72.6^{+1.2}_{-1.2}$
τ	0.0564	$0.056^{+0.023}_{-0.021}$	S_8	0.8371	$0.836^{+0.035}_{-0.034}$	$D_{\text{M}}(0.15)$	644.0	644^{+12}_{-12}
$\ln(10^{10} A_{\text{s}})$	3.0482	$3.049^{+0.043}_{-0.038}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4585	$0.458^{+0.019}_{-0.019}$	$H(0.38)$	82.82	$82.83^{+0.89}_{-0.88}$
n_{s}	0.9639	$0.963^{+0.012}_{-0.013}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6114	$0.611^{+0.018}_{-0.018}$	$D_{\text{M}}(0.38)$	1534.7	1535^{+25}_{-24}
$\text{d}n_{\text{s}}/\text{d} \ln k$	0.0057	$0.002^{+0.027}_{-0.025}$	$\sigma_8/h^{0.5}$	0.9939	$0.993^{+0.026}_{-0.025}$	$H(0.51)$	89.59	$89.60^{+0.72}_{-0.70}$
$\text{d}^2 n_{\text{s}}/\text{d} \ln k^2$	0.0129	$0.010^{+0.033}_{-0.035}$	$r_{\text{drag}} h$	98.94	$98.9^{+2.5}_{-2.4}$	$D_{\text{M}}(0.51)$	1987.3	1987^{+29}_{-28}
y_{cal}	1.0002	$1.0005^{+0.0063}_{-0.0061}$	$\langle d^2 \rangle^{1/2}$	2.439	$2.439^{+0.058}_{-0.057}$	$H(0.61)$	95.25	$95.26^{+0.60}_{-0.56}$
A_{217}^{CIB}	45.3	47^{+20}_{-20}	z_{re}	7.90	$7.9^{+2.1}_{-2.2}$	$D_{\text{M}}(0.61)$	2311.9	2312^{+31}_{-30}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.70	—	$10^9 A_{\text{s}}$	2.108	$2.110^{+0.092}_{-0.079}$	$H(2.33)$	236.67	$236.7^{+1.9}_{-1.9}$
A_{143}^{tSZ}	7.1	—	$10^9 A_{\text{s}} e^{-2\tau}$	1.8830	$1.884^{+0.028}_{-0.028}$	$D_{\text{M}}(2.33)$	5764.4	5764^{+27}_{-28}
A_{100}^{PS}	246	259^{+70}_{-70}	D_{40}	1220.7	1219^{+46}_{-45}	$f\sigma_8(0.15)$	0.4627	$0.462^{+0.018}_{-0.018}$
A_{143}^{PS}	48.6	45^{+20}_{-20}	D_{220}	5738	5740^{+96}_{-99}	$\sigma_8(0.15)$	0.7528	$0.752^{+0.016}_{-0.015}$
$A_{143 \times 217}^{\text{PS}}$	52.4	41^{+20}_{-20}	D_{810}	2538.6	2538^{+36}_{-33}	$f\sigma_8(0.38)$	0.4801	$0.479^{+0.014}_{-0.014}$
A_{217}^{PS}	121.0	114^{+20}_{-30}	D_{1420}	818.9	817^{+13}_{-12}	$\sigma_8(0.38)$	0.6668	$0.666^{+0.014}_{-0.013}$
A^{kSZ}	0.0	—	D_{2000}	232.2	$231.2^{+5.6}_{-5.0}$	$f\sigma_8(0.51)$	0.4781	$0.477^{+0.013}_{-0.013}$
$A_{100}^{\text{dust}TT}$	8.81	$8.9^{+4.7}_{-4.6}$	$n_{\text{s},0.002}$	1.012	$1.01^{+0.11}_{-0.11}$	$\sigma_8(0.51)$	0.6238	$0.623^{+0.014}_{-0.012}$
$A_{143}^{\text{dust}TT}$	10.97	$10.9^{+4.6}_{-4.6}$	Y_{P}	0.245394	$0.24539^{+0.00015}_{-0.00017}$	$f\sigma_8(0.61)$	0.4727	$0.472^{+0.012}_{-0.012}$
$A_{143 \times 217}^{\text{dust}TT}$	20.0	$18.5^{+8.4}_{-8.3}$	$Y_{\text{P}}^{\text{BBN}}$	0.246720	$0.24672^{+0.00015}_{-0.00017}$	$\sigma_8(0.61)$	0.5934	$0.593^{+0.013}_{-0.012}$
$A_{217}^{\text{dust}TT}$	95.4	94^{+20}_{-20}	$10^5 \text{D}/\text{H}$	2.586	$2.587^{+0.075}_{-0.073}$	$f\sigma_8(2.33)$	0.2990	$0.2986^{+0.0067}_{-0.0062}$
$A_{100}^{\text{dust}TE}$	0.115	$0.114^{+0.096}_{-0.096}$	Age/Gyr	13.799	$13.799^{+0.061}_{-0.062}$	$\sigma_8(2.33)$	0.3081	$0.3077^{+0.0072}_{-0.0065}$
$A_{100 \times 143}^{\text{dust}TE}$	0.135	$0.135^{+0.077}_{-0.074}$	z_*	1089.94	$1089.94^{+0.70}_{-0.68}$	f_{2000}^{143}	27.3	29^{+9}_{-9}
$A_{100 \times 217}^{\text{dust}TE}$	0.484	$0.48^{+0.22}_{-0.22}$	r_*	144.39	$144.39^{+0.71}_{-0.70}$	$f_{2000}^{143 \times 217}$	30.9	32^{+6}_{-7}
$A_{143}^{\text{dust}TE}$	0.224	$0.23^{+0.14}_{-0.14}$	$100\theta_*$	1.04109	$1.04108^{+0.00075}_{-0.00072}$	f_{2000}^{217}	105.5	$106.6^{+6.2}_{-5.6}$
$A_{143 \times 217}^{\text{dust}TE}$	0.668	$0.67^{+0.20}_{-0.21}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.869	$13.869^{+0.065}_{-0.065}$	χ_{lensing}^2	8.98	$9.47 (\nu: 0.4)$
$A_{217}^{\text{dust}TE}$	2.09	$2.09^{+0.71}_{-0.72}$	z_{drag}	1059.93	$1059.94^{+0.83}_{-0.81}$	χ_{simall}^2	396.28	$397.2 (\nu: 1.4)$
c_{100}	0.99975	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	147.05	$147.05^{+0.72}_{-0.70}$	χ_{lowl}^2	21.70	$22.5 (\nu: 1.3)$
c_{217}	0.99817	$0.9982^{+0.0016}_{-0.0016}$	k_{D}	0.14091	$0.14091^{+0.00078}_{-0.00085}$	χ_{plik}^2	2344.9	$2360.5 (\nu: 16.3)$
H_0	67.28	$67.3^{+1.4}_{-1.4}$	$100\theta_{\text{D}}$	0.160757	$0.16075^{+0.00049}_{-0.00047}$	χ_{prior}^2	1.5	$11.5 (\nu: 10.1)$
Ω_{Λ}	0.6837	$0.684^{+0.019}_{-0.020}$	z_{eq}	3406	3407^{+70}_{-72}	χ_{CMB}^2	2771.8	$2789.6 (\nu: 18.4)$
Ω_{m}	0.3163	$0.316^{+0.020}_{-0.019}$	k_{eq}	0.010396	$0.01040^{+0.00021}_{-0.00022}$			

Best-fit $\chi_{\text{eff}}^2 = 2773.34$; $\Delta\chi_{\text{eff}}^2 = -1.29$; $\bar{\chi}_{\text{eff}}^2 = 2801.12$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.43$; $R - 1 = 0.02893$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.98 (Δ 0.11) simall.100x143_offlike5_EE_Aplanck_B: 396.28 (Δ 0.23) commander_dx12_v3.2_29: 21.70 (Δ -1.55) plik_rd12_HM_v22b_TTTEE: 2344.88 (Δ -0.05)

13.4 base_nrun_nrunrun_plikHM_TTTEE_lowl_lowE_post_BAO_lensing

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02243^{+0.00036}_{-0.00038}$	$\Omega_{\mathrm{m}}h^3$	$0.09637^{+0.00076}_{-0.00076}$	$H(0.15)$	$72.93^{+0.97}_{-0.97}$
$\Omega_{\mathrm{c}}h^2$	$0.1194^{+0.0025}_{-0.0024}$	σ_8	$0.813^{+0.019}_{-0.017}$	$D_{\mathrm{M}}(0.15)$	$640.9^{+9.7}_{-9.4}$
$100\theta_{\mathrm{MC}}$	$1.04100^{+0.00074}_{-0.00071}$	S_8	$0.828^{+0.030}_{-0.028}$	$H(0.38)$	$83.05^{+0.72}_{-0.72}$
τ	$0.059^{+0.022}_{-0.019}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.454^{+0.016}_{-0.015}$	$D_{\mathrm{M}}(0.38)$	1529^{+19}_{-19}
$\ln(10^{10}A_{\mathrm{s}})$	$3.052^{+0.042}_{-0.037}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.607^{+0.016}_{-0.016}$	$H(0.51)$	$89.77^{+0.60}_{-0.58}$
n_{s}	$0.965^{+0.010}_{-0.011}$	$\sigma_8/h^{0.5}$	$0.989^{+0.024}_{-0.023}$	$D_{\mathrm{M}}(0.51)$	1980^{+23}_{-23}
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	$0.001^{+0.027}_{-0.025}$	$r_{\mathrm{drag}}h$	$99.6^{+1.9}_{-1.9}$	$H(0.61)$	$95.39^{+0.50}_{-0.48}$
$\mathrm{d}^2n_{\mathrm{s}}/\mathrm{d}\ln k^2$	$0.009^{+0.033}_{-0.034}$	$\langle d^2 \rangle^{1/2}$	$2.431^{+0.056}_{-0.056}$	$D_{\mathrm{M}}(0.61)$	2304^{+25}_{-25}
y_{cal}	$1.0007^{+0.0062}_{-0.0061}$	z_{re}	$8.1^{+2.0}_{-2.0}$	$H(2.33)$	$236.2^{+1.5}_{-1.5}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_{\mathrm{s}}$	$2.117^{+0.091}_{-0.077}$	$D_{\mathrm{M}}(2.33)$	5759^{+23}_{-23}
$\xi^{\mathrm{tSZ}\times\mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.882^{+0.028}_{-0.029}$	$f\sigma_8(0.15)$	$0.458^{+0.015}_{-0.015}$
A_{143}^{tSZ}	> 0.943	D_{40}	1217^{+47}_{-47}	$\sigma_8(0.15)$	$0.751^{+0.017}_{-0.015}$
A_{100}^{PS}	258^{+70}_{-70}	D_{220}	5745^{+97}_{-100}	$f\sigma_8(0.38)$	$0.477^{+0.013}_{-0.013}$
A_{143}^{PS}	45^{+20}_{-20}	D_{810}	2539^{+35}_{-35}	$\sigma_8(0.38)$	$0.666^{+0.015}_{-0.013}$
$A_{143\times 217}^{\mathrm{PS}}$	41^{+20}_{-20}	D_{1420}	818^{+13}_{-13}	$f\sigma_8(0.51)$	$0.475^{+0.012}_{-0.012}$
A_{217}^{PS}	114^{+30}_{-30}	D_{2000}	$231.5^{+5.9}_{-5.1}$	$\sigma_8(0.51)$	$0.623^{+0.014}_{-0.012}$
A^{kSZ}	—	$n_{\mathrm{s},0.002}$	$1.01^{+0.11}_{-0.12}$	$f\sigma_8(0.61)$	$0.470^{+0.011}_{-0.011}$
$A_{100}^{\mathrm{dust}TT}$	$8.9^{+4.9}_{-4.5}$	Y_{P}	$0.24542^{+0.00013}_{-0.00015}$	$\sigma_8(0.61)$	$0.593^{+0.014}_{-0.012}$
$A_{143}^{\mathrm{dust}TT}$	$10.9^{+4.5}_{-4.6}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24674^{+0.00014}_{-0.00015}$	$f\sigma_8(2.33)$	$0.2990^{+0.0069}_{-0.0060}$
$A_{143\times 217}^{\mathrm{dust}TT}$	$18.5^{+7.8}_{-8.5}$	$10^5\mathrm{D}/\mathrm{H}$	$2.575^{+0.071}_{-0.064}$	$\sigma_8(2.33)$	$0.3083^{+0.0075}_{-0.0063}$
$A_{217}^{\mathrm{dust}TT}$	93^{+20}_{-20}	$\mathrm{Age}/\mathrm{Gyr}$	$13.786^{+0.053}_{-0.052}$	f_{2000}^{143}	29^{+9}_{-9}
$A_{100}^{\mathrm{dust}TE}$	$0.114^{+0.095}_{-0.095}$	z_{*}	$1089.79^{+0.60}_{-0.57}$	$f_{2000}^{143\times 217}$	32^{+6}_{-7}
$A_{100\times 143}^{\mathrm{dust}TE}$	$0.135^{+0.080}_{-0.073}$	r_{*}	$144.54^{+0.59}_{-0.58}$	f_{2000}^{217}	$106.6^{+6.3}_{-5.5}$
$A_{100\times 217}^{\mathrm{dust}TE}$	$0.48^{+0.22}_{-0.22}$	$100\theta_{*}$	$1.04118^{+0.00072}_{-0.00069}$	$\chi_{\mathrm{lensing}}^2$	$9.21\ (\nu: 0.2)$
$A_{143}^{\mathrm{dust}TE}$	$0.22^{+0.14}_{-0.14}$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$13.883^{+0.054}_{-0.056}$	χ_{small}^2	$397.5\ (\nu: 1.9)$
$A_{143\times 217}^{\mathrm{dust}TE}$	$0.66^{+0.21}_{-0.20}$	z_{drag}	$1060.03^{+0.78}_{-0.82}$	χ_{lowl}^2	$22.3\ (\nu: 1.4)$
$A_{217}^{\mathrm{dust}TE}$	$2.08^{+0.68}_{-0.73}$	r_{drag}	$147.19^{+0.61}_{-0.61}$	χ_{plik}^2	$2360.7\ (\nu: 16.9)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_{D}	$0.14081^{+0.00075}_{-0.00077}$	$\chi_{6\mathrm{DF}}^2$	$0.059\ (\nu: 0.0)$
c_{217}	$0.9982^{+0.0017}_{-0.0016}$	$100\theta_{\mathrm{D}}$	$0.16071^{+0.00049}_{-0.00045}$	χ_{MGS}^2	$1.22\ (\nu: 0.1)$
H_0	$67.6^{+1.1}_{-1.1}$	z_{eq}	3389^{+56}_{-55}	$\chi_{\mathrm{DR12BAO}}^2$	$5.0\ (\nu: 1.0)$
Ω_{Λ}	$0.689^{+0.014}_{-0.015}$	k_{eq}	$0.01034^{+0.00017}_{-0.00017}$	χ_{prior}^2	$11.5\ (\nu: 9.8)$
Ω_{m}	$0.311^{+0.015}_{-0.014}$	$100\theta_{\mathrm{eq}}$	$0.816^{+0.010}_{-0.010}$	χ_{CMB}^2	$2789.8\ (\nu: 18.4)$
$\Omega_{\mathrm{m}}h^2$	$0.1425^{+0.0023}_{-0.0023}$	$100\theta_{\mathrm{s,eq}}$	$0.4507^{+0.0054}_{-0.0053}$	χ_{BAO}^2	$6.2\ (\nu: 0.7)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 2807.58; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.74; R - 1 = 0.02956$$

13.5 base_nrun_nrunrun_plikHM_TTTEE_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02235^{+0.00042}_{-0.00043}$	$\Omega_{\mathrm{m}}h^2$	$0.1436^{+0.0037}_{-0.0034}$	$100\theta_{\mathrm{eq}}$	$0.811^{+0.016}_{-0.017}$
$\Omega_{\mathrm{c}}h^2$	$0.1206^{+0.0040}_{-0.0036}$	$\Omega_{\mathrm{m}}h^3$	$0.09636^{+0.00081}_{-0.00078}$	$100\theta_{\mathrm{s,eq}}$	$0.4480^{+0.0080}_{-0.0085}$
$100\theta_{\mathrm{MC}}$	$1.04086^{+0.00080}_{-0.00079}$	σ_8	$0.817^{+0.023}_{-0.020}$	$H(0.15)$	$72.5^{+1.4}_{-1.5}$
τ	$0.058^{+0.023}_{-0.017}$	S_8	$0.843^{+0.048}_{-0.044}$	$D_{\mathrm{M}}(0.15)$	646^{+15}_{-14}
$\ln(10^{10}A_{\mathrm{s}})$	$3.054^{+0.049}_{-0.034}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.462^{+0.026}_{-0.024}$	$H(0.38)$	$82.7^{+1.0}_{-1.1}$
n_{s}	$0.961^{+0.013}_{-0.014}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.614^{+0.025}_{-0.023}$	$D_{\mathrm{M}}(0.38)$	1538^{+30}_{-27}
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	$0.001^{+0.026}_{-0.026}$	$\sigma_8/h^{0.5}$	$0.998^{+0.035}_{-0.033}$	$H(0.51)$	$89.52^{+0.81}_{-0.83}$
$\mathrm{d}^2n_{\mathrm{s}}/\mathrm{d}\ln k^2$	$0.012^{+0.032}_{-0.035}$	$r_{\mathrm{drag}}h$	$98.6^{+2.8}_{-3.1}$	$D_{\mathrm{M}}(0.51)$	1991^{+35}_{-32}
y_{cal}	$1.0005^{+0.0062}_{-0.0062}$	$\langle d^2 \rangle^{1/2}$	$2.447^{+0.074}_{-0.069}$	$H(0.61)$	$95.20^{+0.66}_{-0.65}$
A_{217}^{CIB}	47^{+20}_{-20}	z_{re}	< 10.1	$D_{\mathrm{M}}(0.61)$	2316^{+38}_{-35}
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}$	$2.12^{+0.10}_{-0.077}$	$H(2.33)$	$236.9^{+2.4}_{-2.1}$
A_{143}^{tSZ}	$5.4^{+4.5}_{-4.6}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.887^{+0.031}_{-0.030}$	$D_{\mathrm{M}}(2.33)$	5767^{+31}_{-30}
A_{100}^{PS}	259^{+70}_{-70}	D_{40}	1218^{+48}_{-47}	$f\sigma_8(0.15)$	$0.466^{+0.024}_{-0.023}$
A_{143}^{PS}	45^{+20}_{-20}	D_{220}	5740^{+96}_{-100}	$\sigma_8(0.15)$	$0.755^{+0.020}_{-0.017}$
$A_{143 \times 217}^{\mathrm{PS}}$	41^{+20}_{-20}	D_{810}	2539^{+36}_{-34}	$f\sigma_8(0.38)$	$0.482^{+0.020}_{-0.019}$
A_{217}^{PS}	114^{+20}_{-30}	D_{1420}	817^{+13}_{-12}	$\sigma_8(0.38)$	$0.668^{+0.018}_{-0.014}$
A^{kSZ}	—	D_{2000}	$231.2^{+5.3}_{-5.2}$	$f\sigma_8(0.51)$	$0.480^{+0.018}_{-0.017}$
$A_{100}^{\mathrm{dust}TT}$	$8.9^{+4.8}_{-4.7}$	$n_{\mathrm{s},0.002}$	$1.02^{+0.11}_{-0.12}$	$\sigma_8(0.51)$	$0.625^{+0.016}_{-0.013}$
$A_{143}^{\mathrm{dust}TT}$	$10.9^{+4.8}_{-4.6}$	Y_{P}	$0.24538^{+0.00016}_{-0.00019}$	$f\sigma_8(0.61)$	$0.475^{+0.016}_{-0.015}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.5^{+8.4}_{-8.3}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24671^{+0.00016}_{-0.00019}$	$\sigma_8(0.61)$	$0.594^{+0.016}_{-0.012}$
$A_{217}^{\mathrm{dust}TT}$	94^{+20}_{-20}	$10^5 \mathrm{D}/\mathrm{H}$	$2.591^{+0.082}_{-0.076}$	$f\sigma_8(2.33)$	$0.2994^{+0.0079}_{-0.0058}$
$A_{100}^{\mathrm{dust}TE}$	$0.115^{+0.096}_{-0.099}$	Age/Gyr	$13.804^{+0.069}_{-0.067}$	$\sigma_8(2.33)$	$0.3083^{+0.0083}_{-0.0060}$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.135^{+0.075}_{-0.076}$	z_*	$1090.01^{+0.79}_{-0.74}$	f_{2000}^{143}	29^{+9}_{-9}
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.48^{+0.22}_{-0.22}$	r_*	$144.29^{+0.80}_{-0.88}$	$f_{2000}^{143 \times 217}$	32^{+6}_{-6}
$A_{143}^{\mathrm{dust}TE}$	$0.23^{+0.14}_{-0.14}$	$100\theta_*$	$1.04105^{+0.00079}_{-0.00077}$	f_{2000}^{217}	$106.7^{+6.0}_{-5.8}$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.67^{+0.20}_{-0.20}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.860^{+0.074}_{-0.081}$	χ_{small}^2	$397.5 (\nu: 2.2)$
$A_{217}^{\mathrm{dust}TE}$	$2.10^{+0.69}_{-0.72}$	z_{drag}	$1059.93^{+0.85}_{-0.87}$	χ_{lowl}^2	$22.4 (\nu: 1.0)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	$146.96^{+0.79}_{-0.86}$	χ_{plik}^2	$2360.5 (\nu: 17.4)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	k_{D}	$0.14099^{+0.00090}_{-0.00088}$	χ_{prior}^2	$11.4 (\nu: 10.3)$
H_0	$67.1^{+1.6}_{-1.8}$	$100\theta_{\mathrm{D}}$	$0.16076^{+0.00050}_{-0.00049}$	χ_{CMB}^2	$2780.4 (\nu: 18.3)$
Ω_{Λ}	$0.681^{+0.022}_{-0.026}$	z_{eq}	3417^{+89}_{-81}		
Ω_{m}	$0.319^{+0.026}_{-0.022}$	k_{eq}	$0.01043^{+0.00027}_{-0.00025}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2791.89; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.35; R - 1 = 0.02012$$

13.6 base_nrun_nrunrun_plikHM_TTTEE_lowl_lowE_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02243^{+0.00036}_{-0.00038}$	$\Omega_m h^3$	$0.09638^{+0.00079}_{-0.00077}$	$H(0.15)$	$72.9^{+1.0}_{-1.0}$
$\Omega_c h^2$	$0.1195^{+0.0027}_{-0.0026}$	σ_8	$0.814^{+0.024}_{-0.018}$	$D_M(0.15)$	$641^{+10}_{-9.9}$
$100\theta_{MC}$	$1.04100^{+0.00075}_{-0.00071}$	S_8	$0.830^{+0.036}_{-0.034}$	$H(0.38)$	$83.03^{+0.76}_{-0.77}$
τ	$0.060^{+0.023}_{-0.018}$	$\sigma_8 \Omega_m^{0.5}$	$0.455^{+0.020}_{-0.018}$	$D_M(0.38)$	1529^{+21}_{-20}
$\ln(10^{10} A_s)$	$3.054^{+0.052}_{-0.035}$	$\sigma_8 \Omega_m^{0.25}$	$0.608^{+0.021}_{-0.019}$	$H(0.51)$	$89.76^{+0.61}_{-0.61}$
n_s	$0.964^{+0.011}_{-0.012}$	$\sigma_8/h^{0.5}$	$0.990^{+0.032}_{-0.028}$	$D_M(0.51)$	1981^{+24}_{-23}
$dn_s/d \ln k$	$0.000^{+0.027}_{-0.027}$	$r_{drag} h$	$99.5^{+2.0}_{-2.0}$	$H(0.61)$	$95.38^{+0.51}_{-0.51}$
$d^2 n_s/d \ln k^2$	$0.0095^{+0.033}_{-0.035}$	$\langle d^2 \rangle^{1/2}$	$2.433^{+0.067}_{-0.063}$	$D_M(0.61)$	2305^{+26}_{-25}
y_{cal}	$1.0007^{+0.0063}_{-0.0061}$	z_{re}	< 10.2	$H(2.33)$	$236.3^{+1.6}_{-1.6}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.12^{+0.11}_{-0.073}$	$D_M(2.33)$	5759^{+24}_{-24}
$\xi^{tSZ \times CIB}$	—	$10^9 A_s e^{-2\tau}$	$1.882^{+0.029}_{-0.029}$	$f\sigma_8(0.15)$	$0.459^{+0.019}_{-0.018}$
A_{143}^{tSZ}	> 0.943	D_{40}	1215^{+48}_{-47}	$\sigma_8(0.15)$	$0.752^{+0.021}_{-0.016}$
A_{100}^{PS}	258^{+70}_{-70}	D_{220}	5744^{+99}_{-100}	$f\sigma_8(0.38)$	$0.478^{+0.017}_{-0.015}$
A_{143}^{PS}	45^{+20}_{-20}	D_{810}	2539^{+37}_{-34}	$\sigma_8(0.38)$	$0.667^{+0.019}_{-0.014}$
$A_{143 \times 217}^{PS}$	41^{+20}_{-20}	D_{1420}	818^{+13}_{-12}	$f\sigma_8(0.51)$	$0.476^{+0.016}_{-0.014}$
A_{217}^{PS}	114^{+30}_{-30}	D_{2000}	$231.4^{+6.0}_{-5.1}$	$\sigma_8(0.51)$	$0.624^{+0.017}_{-0.013}$
A^{kSZ}	—	$n_{s,0.002}$	$1.01^{+0.11}_{-0.12}$	$f\sigma_8(0.61)$	$0.471^{+0.015}_{-0.013}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.6}$	Y_P	$0.24542^{+0.00014}_{-0.00015}$	$\sigma_8(0.61)$	$0.594^{+0.017}_{-0.012}$
A_{143}^{dustTT}	$10.9^{+4.5}_{-4.6}$	Y_P^{BBN}	$0.24674^{+0.00014}_{-0.00015}$	$f\sigma_8(2.33)$	$0.2993^{+0.0083}_{-0.0058}$
$A_{143 \times 217}^{dustTT}$	$18.5^{+8.0}_{-8.3}$	$10^5 D/H$	$2.575^{+0.071}_{-0.064}$	$\sigma_8(2.33)$	$0.3086^{+0.0085}_{-0.0060}$
A_{217}^{dustTT}	93^{+20}_{-20}	Age/Gyr	$13.787^{+0.054}_{-0.053}$	f_{2000}^{143}	29^{+9}_{-9}
A_{100}^{dustTE}	$0.114^{+0.094}_{-0.095}$	z_*	$1089.80^{+0.61}_{-0.58}$	$f_{2000}^{143 \times 217}$	32^{+6}_{-6}
$A_{100 \times 143}^{dustTE}$	$0.135^{+0.080}_{-0.073}$	r_*	$144.52^{+0.62}_{-0.63}$	f_{2000}^{217}	$106.6^{+6.2}_{-5.5}$
$A_{100 \times 217}^{dustTE}$	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	$1.04118^{+0.00073}_{-0.00070}$	χ_{simall}^2	$397.7 (\nu: 2.7)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.880^{+0.058}_{-0.059}$	χ_{lowl}^2	$22.2 (\nu: 1.2)$
$A_{143 \times 217}^{dustTE}$	$0.67^{+0.21}_{-0.21}$	z_{drag}	$1060.03^{+0.78}_{-0.79}$	χ_{plik}^2	$2360.8 (\nu: 17.8)$
A_{217}^{dustTE}	$2.09^{+0.68}_{-0.74}$	r_{drag}	$147.16^{+0.64}_{-0.65}$	χ_{6DF}^2	$0.067 (\nu: 0.0)$
c_{100}	$0.9997^{+0.0017}_{-0.0016}$	k_D	$0.14084^{+0.00077}_{-0.00079}$	χ_{MGS}^2	$1.19 (\nu: 0.1)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.16071^{+0.00048}_{-0.00045}$	$\chi_{DR12BAO}^2$	$5.1 (\nu: 1.3)$
H_0	$67.6^{+1.2}_{-1.2}$	z_{eq}	3391^{+61}_{-59}	χ_{prior}^2	$11.5 (\nu: 9.7)$
Ω_Λ	$0.688^{+0.015}_{-0.017}$	k_{eq}	$0.01035^{+0.00019}_{-0.00018}$	χ_{BAO}^2	$6.4 (\nu: 0.9)$
Ω_m	$0.312^{+0.017}_{-0.015}$	$100\theta_{eq}$	$0.816^{+0.011}_{-0.011}$	χ_{CMB}^2	$2780.8 (\nu: 18.3)$
$\Omega_m h^2$	$0.1426^{+0.0025}_{-0.0025}$	$100\theta_{s,eq}$	$0.4505^{+0.0058}_{-0.0058}$		

$$\bar{\chi}_{eff}^2 = 2798.65; \Delta \bar{\chi}_{eff}^2 = 0.93; R - 1 = 0.02773$$

13.7 base_nrun_nrunrun_plikHM_TTTEE_lowl_lowE_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\text{b}}h^2$	$0.02237^{+0.00040}_{-0.00039}$	$\Omega_{\text{m}}h^2$	$0.1432^{+0.0029}_{-0.0030}$	$100\theta_{\text{eq}}$	$0.813^{+0.013}_{-0.013}$
$\Omega_{\text{c}}h^2$	$0.1201^{+0.0031}_{-0.0031}$	$\Omega_{\text{m}}h^3$	$0.09634^{+0.00080}_{-0.00077}$	$100\theta_{\text{s,eq}}$	$0.4491^{+0.0069}_{-0.0066}$
$100\theta_{\text{MC}}$	$1.04090^{+0.00077}_{-0.00073}$	σ_8	$0.815^{+0.018}_{-0.016}$	$H(0.15)$	$72.6^{+1.2}_{-1.2}$
τ	$0.057^{+0.020}_{-0.016}$	S_8	$0.836^{+0.035}_{-0.034}$	$D_{\text{M}}(0.15)$	644^{+12}_{-12}
$\ln(10^{10}A_{\text{s}})$	$3.050^{+0.042}_{-0.030}$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.458^{+0.019}_{-0.019}$	$H(0.38)$	$82.84^{+0.90}_{-0.86}$
n_{s}	$0.963^{+0.012}_{-0.013}$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.611^{+0.018}_{-0.018}$	$D_{\text{M}}(0.38)$	1534^{+24}_{-24}
$\text{d}n_{\text{s}}/\text{d}\ln k$	$0.002^{+0.027}_{-0.025}$	$\sigma_8/h^{0.5}$	$0.993^{+0.026}_{-0.025}$	$H(0.51)$	$89.61^{+0.72}_{-0.68}$
$\text{d}^2n_{\text{s}}/\text{d}\ln k^2$	$0.011^{+0.032}_{-0.034}$	$r_{\text{drag}}h$	$99.0^{+2.5}_{-2.4}$	$D_{\text{M}}(0.51)$	1987^{+28}_{-28}
y_{cal}	$1.0005^{+0.0063}_{-0.0061}$	$\langle d^2 \rangle^{1/2}$	$2.439^{+0.058}_{-0.056}$	$H(0.61)$	$95.26^{+0.59}_{-0.55}$
A_{217}^{CIB}	47^{+20}_{-20}	z_{re}	< 9.75	$D_{\text{M}}(0.61)$	2312^{+31}_{-31}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_{\text{s}}$	$2.112^{+0.091}_{-0.063}$	$H(2.33)$	$236.7^{+1.8}_{-1.9}$
A_{143}^{tSZ}	> 0.866	$10^9 A_{\text{s}}e^{-2\tau}$	$1.884^{+0.028}_{-0.027}$	$D_{\text{M}}(2.33)$	5764^{+27}_{-28}
A_{100}^{PS}	259^{+70}_{-70}	D_{40}	1219^{+46}_{-45}	$f\sigma_8(0.15)$	$0.462^{+0.018}_{-0.018}$
A_{143}^{PS}	45^{+20}_{-20}	D_{220}	5740^{+97}_{-100}	$\sigma_8(0.15)$	$0.752^{+0.016}_{-0.014}$
$A_{143 \times 217}^{\text{PS}}$	41^{+20}_{-20}	D_{810}	2538^{+35}_{-33}	$f\sigma_8(0.38)$	$0.480^{+0.014}_{-0.014}$
A_{217}^{PS}	114^{+20}_{-30}	D_{1420}	817^{+13}_{-12}	$\sigma_8(0.38)$	$0.666^{+0.014}_{-0.012}$
A^{kSZ}	—	D_{2000}	$231.3^{+5.6}_{-5.0}$	$f\sigma_8(0.51)$	$0.478^{+0.013}_{-0.013}$
$A_{100}^{\text{dust}TT}$	$8.9^{+4.7}_{-4.7}$	$n_{\text{s},0.002}$	$1.01^{+0.11}_{-0.11}$	$\sigma_8(0.51)$	$0.623^{+0.014}_{-0.011}$
$A_{143}^{\text{dust}TT}$	$10.9^{+4.7}_{-4.4}$	Y_{P}	$0.24539^{+0.00015}_{-0.00016}$	$f\sigma_8(0.61)$	$0.472^{+0.012}_{-0.011}$
$A_{143 \times 217}^{\text{dust}TT}$	$18.6^{+8.2}_{-8.3}$	$Y_{\text{P}}^{\text{BBN}}$	$0.24672^{+0.00015}_{-0.00016}$	$\sigma_8(0.61)$	$0.593^{+0.013}_{-0.010}$
$A_{217}^{\text{dust}TT}$	94^{+20}_{-20}	10^5D/H	$2.586^{+0.074}_{-0.073}$	$f\sigma_8(2.33)$	$0.2988^{+0.0066}_{-0.0053}$
$A_{100}^{\text{dust}TE}$	$0.114^{+0.096}_{-0.096}$	Age/Gyr	$13.798^{+0.060}_{-0.062}$	$\sigma_8(2.33)$	$0.3079^{+0.0071}_{-0.0055}$
$A_{100 \times 143}^{\text{dust}TE}$	$0.135^{+0.077}_{-0.074}$	z_*	$1089.93^{+0.68}_{-0.68}$	f_{2000}^{143}	29^{+9}_{-9}
$A_{100 \times 217}^{\text{dust}TE}$	$0.48^{+0.22}_{-0.22}$	r_*	$144.39^{+0.71}_{-0.67}$	$f_{2000}^{143 \times 217}$	32^{+6}_{-7}
$A_{143}^{\text{dust}TE}$	$0.23^{+0.14}_{-0.14}$	$100\theta_*$	$1.04109^{+0.00076}_{-0.00071}$	f_{2000}^{217}	$106.6^{+6.1}_{-5.7}$
$A_{143 \times 217}^{\text{dust}TE}$	$0.67^{+0.21}_{-0.21}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.870^{+0.064}_{-0.063}$	χ_{lensing}^2	$9.47 (\nu: 0.4)$
$A_{217}^{\text{dust}TE}$	$2.09^{+0.71}_{-0.72}$	z_{drag}	$1059.95^{+0.82}_{-0.82}$	χ_{small}^2	$397.2 (\nu: 1.4)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	$147.05^{+0.73}_{-0.69}$	χ_{lowl}^2	$22.4 (\nu: 1.2)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	k_{D}	$0.14091^{+0.00078}_{-0.00084}$	χ_{plik}^2	$2360.4 (\nu: 16.1)$
H_0	$67.3^{+1.4}_{-1.4}$	$100\theta_{\text{D}}$	$0.16075^{+0.00049}_{-0.00047}$	χ_{prior}^2	$11.5 (\nu: 10.0)$
Ω_{Λ}	$0.684^{+0.019}_{-0.020}$	z_{eq}	3406^{+69}_{-71}	χ_{CMB}^2	$2789.5 (\nu: 17.9)$
Ω_{m}	$0.316^{+0.020}_{-0.019}$	k_{eq}	$0.01039^{+0.00021}_{-0.00022}$		

$$\bar{\chi}_{\text{eff}}^2 = 2800.94; \Delta\bar{\chi}_{\text{eff}}^2 = 0.43; R - 1 = 0.02757$$

13.8 base_nrun_nrunrun_plikHM_TTTEE_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02243^{+0.00036}_{-0.00038}$	$\Omega_m h^3$	$0.09637^{+0.00076}_{-0.00076}$	$H(0.15)$	$72.93^{+0.96}_{-0.97}$
$\Omega_c h^2$	$0.1194^{+0.0025}_{-0.0024}$	σ_8	$0.813^{+0.019}_{-0.016}$	$D_M(0.15)$	$640.9^{+9.7}_{-9.3}$
$100\theta_{MC}$	$1.04100^{+0.00074}_{-0.00070}$	S_8	$0.828^{+0.029}_{-0.028}$	$H(0.38)$	$83.05^{+0.71}_{-0.71}$
τ	$0.059^{+0.021}_{-0.015}$	$\sigma_8 \Omega_m^{0.5}$	$0.454^{+0.016}_{-0.015}$	$D_M(0.38)$	1528^{+19}_{-19}
$\ln(10^{10} A_s)$	$3.053^{+0.041}_{-0.032}$	$\sigma_8 \Omega_m^{0.25}$	$0.607^{+0.016}_{-0.015}$	$H(0.51)$	$89.77^{+0.59}_{-0.57}$
n_s	$0.965^{+0.010}_{-0.011}$	$\sigma_8/h^{0.5}$	$0.989^{+0.024}_{-0.023}$	$D_M(0.51)$	1980^{+23}_{-23}
$dn_s/d \ln k$	$0.001^{+0.027}_{-0.025}$	$r_{drag} h$	$99.6^{+1.9}_{-1.9}$	$H(0.61)$	$95.39^{+0.50}_{-0.48}$
$d^2 n_s/d \ln k^2$	$0.009^{+0.034}_{-0.034}$	$\langle d^2 \rangle^{1/2}$	$2.432^{+0.056}_{-0.054}$	$D_M(0.61)$	2304^{+25}_{-24}
y_{cal}	$1.0007^{+0.0063}_{-0.0060}$	z_{re}	< 9.97	$H(2.33)$	$236.2^{+1.5}_{-1.5}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.118^{+0.089}_{-0.066}$	$D_M(2.33)$	5759^{+23}_{-23}
$\xi^{tSZ \times CIB}$	—	$10^9 A_s e^{-2\tau}$	$1.882^{+0.027}_{-0.029}$	$f\sigma_8(0.15)$	$0.458^{+0.015}_{-0.015}$
A_{143}^{tSZ}	> 0.943	D_{40}	1217^{+47}_{-47}	$\sigma_8(0.15)$	$0.752^{+0.017}_{-0.014}$
A_{100}^{PS}	258^{+70}_{-70}	D_{220}	5745^{+98}_{-100}	$f\sigma_8(0.38)$	$0.477^{+0.013}_{-0.012}$
A_{143}^{PS}	44^{+20}_{-20}	D_{810}	2539^{+36}_{-34}	$\sigma_8(0.38)$	$0.666^{+0.015}_{-0.012}$
$A_{143 \times 217}^{PS}$	41^{+20}_{-20}	D_{1420}	818^{+13}_{-13}	$f\sigma_8(0.51)$	$0.475^{+0.012}_{-0.011}$
A_{217}^{PS}	114^{+30}_{-30}	D_{2000}	$231.5^{+5.9}_{-5.1}$	$\sigma_8(0.51)$	$0.623^{+0.014}_{-0.011}$
A^{kSZ}	—	$n_{s,0.002}$	$1.01^{+0.11}_{-0.12}$	$f\sigma_8(0.61)$	$0.470^{+0.011}_{-0.011}$
A_{100}^{dustTT}	$8.9^{+4.9}_{-4.5}$	Y_P	$0.24542^{+0.00013}_{-0.00015}$	$\sigma_8(0.61)$	$0.593^{+0.013}_{-0.011}$
A_{143}^{dustTT}	$10.9^{+4.5}_{-4.5}$	Y_P^{BBN}	$0.24674^{+0.00013}_{-0.00015}$	$f\sigma_8(2.33)$	$0.2991^{+0.0070}_{-0.0054}$
$A_{143 \times 217}^{dustTT}$	$18.5^{+7.8}_{-8.5}$	$10^5 D/H$	$2.575^{+0.071}_{-0.064}$	$\sigma_8(2.33)$	$0.3084^{+0.0074}_{-0.0056}$
A_{217}^{dustTT}	93^{+20}_{-20}	Age/Gyr	$13.786^{+0.052}_{-0.053}$	f_{2000}^{143}	29^{+9}_{-9}
A_{100}^{dustTE}	$0.114^{+0.095}_{-0.095}$	z_*	$1089.79^{+0.60}_{-0.57}$	$f_{2000}^{143 \times 217}$	32^{+6}_{-6}
$A_{100 \times 143}^{dustTE}$	$0.135^{+0.080}_{-0.073}$	r_*	$144.55^{+0.59}_{-0.57}$	f_{2000}^{217}	$106.5^{+6.3}_{-5.6}$
$A_{100 \times 217}^{dustTE}$	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	$1.04118^{+0.00071}_{-0.00068}$	$\chi_{lensing}^2$	$9.20 (\nu: 0.2)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.883^{+0.055}_{-0.055}$	χ_{small}^2	$397.5 (\nu: 1.9)$
$A_{143 \times 217}^{dustTE}$	$0.66^{+0.21}_{-0.20}$	z_{drag}	$1060.03^{+0.78}_{-0.82}$	χ_{lowl}^2	$22.3 (\nu: 1.3)$
A_{217}^{dustTE}	$2.09^{+0.68}_{-0.74}$	r_{drag}	$147.19^{+0.61}_{-0.60}$	χ_{plik}^2	$2360.7 (\nu: 16.7)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_D	$0.14081^{+0.00075}_{-0.00077}$	χ_{6DF}^2	$0.058 (\nu: 0.0)$
c_{217}	$0.9982^{+0.0017}_{-0.0016}$	$100\theta_D$	$0.16071^{+0.00049}_{-0.00045}$	χ_{MGS}^2	$1.23 (\nu: 0.1)$
H_0	$67.7^{+1.1}_{-1.1}$	z_{eq}	3389^{+56}_{-55}	$\chi_{DR12BAO}^2$	$4.9 (\nu: 1.0)$
Ω_Λ	$0.689^{+0.014}_{-0.015}$	k_{eq}	$0.01034^{+0.00017}_{-0.00017}$	χ_{prior}^2	$11.5 (\nu: 9.6)$
Ω_m	$0.311^{+0.015}_{-0.014}$	$100\theta_{eq}$	$0.816^{+0.010}_{-0.010}$	χ_{CMB}^2	$2789.7 (\nu: 18.2)$
$\Omega_m h^2$	$0.1425^{+0.0023}_{-0.0023}$	$100\theta_{s,eq}$	$0.4507^{+0.0054}_{-0.0053}$	χ_{BAO}^2	$6.2 (\nu: 0.6)$

$$\bar{\chi}_{\text{eff}}^2 = 2807.47; \Delta \bar{\chi}_{\text{eff}}^2 = 0.75; R - 1 = 0.02999$$

14 nrun+r

14.1 base_nrun_r_plikHM_TT_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02217	$0.02221^{+0.00061}_{-0.00058}$	$\sigma_8/h^{0.5}$	0.9939	$0.991^{+0.041}_{-0.042}$	$H(0.51)$	89.33	$89.4^{+1.2}_{-1.1}$
$\Omega_c h^2$	0.1208	$0.1205^{+0.0054}_{-0.0054}$	$r_{\text{drag}} h$	98.35	$98.6^{+4.3}_{-4.0}$	$D_M(0.51)$	1996.5	1993^{+47}_{-48}
$100\theta_{\text{MC}}$	1.04076	$1.0408^{+0.0012}_{-0.0012}$	$\langle d^2 \rangle^{1/2}$	2.450	$2.438^{+0.099}_{-0.10}$	$H(0.61)$	95.02	$95.10^{+0.99}_{-0.88}$
τ	0.0529	$0.054^{+0.023}_{-0.023}$	z_{re}	7.60	$7.6^{+2.2}_{-2.5}$	$D_M(0.61)$	2322	2318^{+50}_{-52}
$\ln(10^{10} A_s)$	3.0434	$3.045^{+0.047}_{-0.048}$	$10^9 A_s$	2.098	$2.10^{+0.10}_{-0.099}$	$H(2.33)$	236.87	$236.7^{+3.3}_{-3.3}$
n_s	0.9625	$0.963^{+0.016}_{-0.015}$	$10^9 A_s e^{-2\tau}$	1.8870	$1.887^{+0.036}_{-0.036}$	$D_M(2.33)$	5776.0	5773^{+42}_{-44}
$dn_s/d \ln k$	-0.0036	$-0.008^{+0.021}_{-0.023}$	D_{40}	1225	1233^{+60}_{-55}	$f\sigma_8(0.15)$	0.4644	$0.462^{+0.032}_{-0.032}$
r	0.000	< 0.215	D_{220}	5712	5711^{+100}_{-110}	$\sigma_8(0.15)$	0.7500	$0.749^{+0.020}_{-0.020}$
y_{cal}	1.0004	$1.0005^{+0.0064}_{-0.0064}$	D_{810}	2538.8	2539^{+36}_{-35}	$f\sigma_8(0.38)$	0.4806	$0.479^{+0.024}_{-0.025}$
A_{217}^{CIB}	50.9	49^{+20}_{-20}	D_{1420}	814.7	814^{+13}_{-13}	$\sigma_8(0.38)$	0.6638	$0.663^{+0.016}_{-0.016}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.07	—	D_{2000}	229.49	$229.0^{+5.0}_{-4.8}$	$f\sigma_8(0.51)$	0.4781	$0.476^{+0.021}_{-0.022}$
A_{143}^{tSZ}	7.1	—	$n_{s,0.002}$	0.974	$0.988^{+0.072}_{-0.066}$	$\sigma_8(0.51)$	0.6207	$0.620^{+0.015}_{-0.015}$
A_{100}^{PS}	258	267^{+70}_{-70}	Y_{P}	0.245313	$0.24533^{+0.00024}_{-0.00027}$	$f\sigma_8(0.61)$	0.4723	$0.471^{+0.018}_{-0.019}$
A_{143}^{PS}	46.9	51^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246639	$0.24665^{+0.00024}_{-0.00027}$	$\sigma_8(0.61)$	0.5904	$0.590^{+0.014}_{-0.014}$
$A_{143 \times 217}^{\text{PS}}$	41.0	44^{+20}_{-20}	$10^5 D/H$	2.624	$2.62^{+0.11}_{-0.11}$	$f\sigma_8(2.33)$	0.2973	$0.2971^{+0.0070}_{-0.0068}$
A_{217}^{PS}	116.7	115^{+30}_{-30}	Age/Gyr	13.826	$13.818^{+0.096}_{-0.098}$	$\sigma_8(2.33)$	0.3061	$0.3060^{+0.0074}_{-0.0072}$
A^{kSZ}	0.0	—	z_*	1090.25	$1090.2^{+1.1}_{-1.1}$	$r_{0.002}$	0.000	< 0.232
A_{100}^{dustTT}	8.90	$9.0^{+4.8}_{-4.8}$	r_*	144.38	$144.4^{+1.3}_{-1.3}$	$r_{0.01}$	0.000	< 0.218
A_{143}^{dustTT}	10.82	$10.8^{+4.5}_{-4.6}$	$100\theta_*$	1.04097	$1.0410^{+0.0012}_{-0.0012}$	$\ln(10^{10} A_t)$	-6.50	$-0.4^{+2.2}_{-4.1}$
$A_{143 \times 217}^{\text{dustTT}}$	19.0	$18.4^{+8.4}_{-8.5}$	$D_M(z_*)/\text{Gpc}$	13.870	$13.87^{+0.12}_{-0.12}$	r_{10}	0.000	< 0.125
A_{217}^{dustTT}	93.8	93^{+20}_{-20}	z_{drag}	1059.51	$1059.6^{+1.3}_{-1.3}$	$10^9 A_t$	0.000	< 0.455
c_{100}	0.99964	$0.9996^{+0.0016}_{-0.0016}$	r_{drag}	147.11	$147.1^{+1.3}_{-1.3}$	$10^9 A_t e^{-2\tau}$	0.000	< 0.406
c_{217}	0.99828	$0.9983^{+0.0016}_{-0.0016}$	k_{D}	0.14070	$0.1407^{+0.0015}_{-0.0015}$	f_{2000}^{143}	31.2	32^{+8}_{-8}
H_0	66.86	$67.0^{+2.4}_{-2.3}$	$100\theta_{\text{D}}$	0.16099	$0.16095^{+0.00074}_{-0.00074}$	$f_{2000}^{143 \times 217}$	33.8	34^{+6}_{-6}
Ω_{Λ}	0.6787	$0.681^{+0.033}_{-0.035}$	z_{eq}	3417	3410^{+120}_{-120}	f_{2000}^{217}	108.3	$108.9^{+5.4}_{-5.4}$
Ω_{m}	0.3213	$0.319^{+0.035}_{-0.033}$	k_{eq}	0.010428	$0.01041^{+0.00038}_{-0.00038}$	χ_{small}^2	395.91	$397.3 (\nu: 1.6)$
$\Omega_{\text{m}} h^2$	0.1436	$0.1433^{+0.0052}_{-0.0052}$	$100\theta_{\text{eq}}$	0.8101	$0.812^{+0.024}_{-0.022}$	χ_{lowl}^2	22.7	$23.7 (\nu: 2.5)$
$\Omega_{\text{m}} h^3$	0.09602	$0.0961^{+0.0013}_{-0.0013}$	$100\theta_{s,\text{eq}}$	0.4478	$0.449^{+0.012}_{-0.012}$	χ_{plik}^2	759.2	$773.6 (\nu: 17.0)$
σ_8	0.8127	$0.811^{+0.023}_{-0.024}$	$H(0.15)$	72.24	$72.4^{+2.1}_{-2.0}$	χ_{prior}^2	1.5	$7.3 (\nu: 6.8)$
S_8	0.841	$0.837^{+0.063}_{-0.062}$	$D_M(0.15)$	647.7	646^{+20}_{-21}	χ_{CMB}^2	1177.9	$1194.6 (\nu: 17.4)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4607	$0.458^{+0.035}_{-0.034}$	$H(0.38)$	82.52	$82.6^{+1.5}_{-1.4}$			
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6119	$0.610^{+0.030}_{-0.030}$	$D_M(0.38)$	1542.4	1540^{+40}_{-41}			

Best-fit $\chi_{\text{eff}}^2 = 1179.41$; $\Delta\chi_{\text{eff}}^2 = -0.16$; $\bar{\chi}_{\text{eff}}^2 = 1201.96$; $\Delta\bar{\chi}_{\text{eff}}^2 = 2.38$; $R - 1 = 0.00730$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.91 (Δ 0.03) commander_dx12_v3.2.29: 22.73 (Δ -0.87) plik_rd12_HM_v22_TT: 759.25 (Δ 0.50)

14.2 base_nrun_r_plikHM_TT_lowl_lowE_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02227	$0.02230^{+0.00056}_{-0.00056}$	$r_{\text{drag}} h$	99.84	$99.8^{+2.5}_{-2.4}$	$H(0.61)$	95.32	$95.34^{+0.68}_{-0.64}$
$\Omega_c h^2$	0.11893	$0.1189^{+0.0032}_{-0.0032}$	$\langle d^2 \rangle^{1/2}$	2.420	$2.415^{+0.077}_{-0.078}$	$D_M(0.61)$	2304.2	2304^{+31}_{-32}
$100\theta_{\text{MC}}$	1.04106	$1.0410^{+0.0011}_{-0.0011}$	z_{re}	7.64	$7.8^{+2.2}_{-2.3}$	$H(2.33)$	235.76	$235.8^{+2.1}_{-2.0}$
τ	0.0539	$0.055^{+0.024}_{-0.022}$	$10^9 A_s$	2.091	$2.10^{+0.10}_{-0.10}$	$D_M(2.33)$	5763.8	5763^{+32}_{-33}
$\ln(10^{10} A_s)$	3.0401	$3.045^{+0.048}_{-0.049}$	$10^9 A_s e^{-2\tau}$	1.8772	$1.880^{+0.032}_{-0.031}$	$f\sigma_8(0.15)$	0.4535	$0.454^{+0.020}_{-0.020}$
n_s	0.9671	$0.966^{+0.011}_{-0.011}$	D_{40}	1217	1228^{+60}_{-53}	$\sigma_8(0.15)$	0.7455	$0.746^{+0.019}_{-0.018}$
$dn_s/d\ln k$	-0.0024	$-0.008^{+0.020}_{-0.023}$	D_{220}	5715	5717^{+100}_{-110}	$f\sigma_8(0.38)$	0.4722	$0.472^{+0.017}_{-0.017}$
r	0.000	< 0.225	D_{810}	2535.9	2538^{+36}_{-34}	$\sigma_8(0.38)$	0.6611	$0.661^{+0.016}_{-0.016}$
y_{cal}	1.0002	$1.0006^{+0.0063}_{-0.0062}$	D_{1420}	815.4	815^{+13}_{-12}	$f\sigma_8(0.51)$	0.4710	$0.471^{+0.015}_{-0.015}$
A_{217}^{CIB}	50.7	49^{+20}_{-20}	D_{2000}	229.88	$229.3^{+4.8}_{-4.7}$	$\sigma_8(0.51)$	0.6188	$0.619^{+0.015}_{-0.014}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.04	—	$n_{s,0.002}$	0.975	$0.991^{+0.075}_{-0.065}$	$f\sigma_8(0.61)$	0.4662	$0.466^{+0.014}_{-0.014}$
A_{143}^{tSZ}	7.2	—	Y_P	0.245354	$0.24536^{+0.00022}_{-0.00026}$	$\sigma_8(0.61)$	0.5888	$0.589^{+0.014}_{-0.014}$
A_{100}^{PS}	257	266^{+70}_{-70}	Y_P^{BBN}	0.246680	$0.24669^{+0.00022}_{-0.00026}$	$f\sigma_8(2.33)$	0.2970	$0.2971^{+0.0072}_{-0.0067}$
A_{143}^{PS}	45.3	50^{+20}_{-20}	10^5D/H	2.605	$2.60^{+0.11}_{-0.10}$	$\sigma_8(2.33)$	0.3062	$0.3064^{+0.0075}_{-0.0068}$
$A_{143 \times 217}^{\text{PS}}$	39	43^{+20}_{-20}	Age/Gyr	13.799	$13.797^{+0.075}_{-0.076}$	$r_{0.002}$	0.000	< 0.247
A_{217}^{PS}	115.9	114^{+30}_{-30}	z_*	1089.95	$1089.92^{+0.80}_{-0.80}$	$r_{0.01}$	0.000	< 0.228
A^{kSZ}	0.0	—	r_*	144.79	$144.76^{+0.85}_{-0.85}$	$\ln(10^{10} A_t)$	-7.24	$-0.3^{+2.2}_{-4.1}$
A_{100}^{dustTT}	8.96	$9.0^{+4.6}_{-4.8}$	$100\theta_*$	1.04125	$1.0412^{+0.0011}_{-0.0011}$	r_{10}	0.000	< 0.132
A_{143}^{dustTT}	10.79	$10.8^{+4.5}_{-4.6}$	$D_M(z_*)/\text{Gpc}$	13.905	$13.903^{+0.082}_{-0.084}$	$10^9 A_t$	0.000	< 0.475
$A_{143 \times 217}^{\text{dustTT}}$	19.0	$18.4^{+8.3}_{-8.5}$	z_{drag}	1059.63	$1059.7^{+1.3}_{-1.2}$	$10^9 A_t e^{-2\tau}$	0.000	< 0.423
A_{217}^{dustTT}	93.8	93^{+20}_{-20}	r_{drag}	147.49	$147.45^{+0.94}_{-0.95}$	f_{2000}^{143}	30.7	32^{+8}_{-8}
c_{100}	0.99965	$0.9996^{+0.0016}_{-0.0016}$	k_D	0.14037	$0.1404^{+0.0013}_{-0.0012}$	$f_{2000}^{143 \times 217}$	33.3	34^{+6}_{-6}
c_{217}	0.99827	$0.9983^{+0.0016}_{-0.0016}$	$100\theta_D$	0.16096	$0.16091^{+0.00073}_{-0.00073}$	f_{2000}^{217}	107.8	$108.6^{+5.2}_{-5.4}$
H_0	67.69	$67.7^{+1.5}_{-1.4}$	z_{eq}	3374	3375^{+75}_{-75}	χ_{small}^2	395.9	$397.4 (\nu: 1.8)$
Ω_Λ	0.6905	$0.690^{+0.019}_{-0.019}$	k_{eq}	0.010298	$0.01030^{+0.00023}_{-0.00023}$	χ_{lowl}^2	22.22	$23.2 (\nu: 2.1)$
Ω_m	0.3095	$0.310^{+0.019}_{-0.019}$	$100\theta_{\text{eq}}$	0.8182	$0.818^{+0.014}_{-0.014}$	χ_{plik}^2	760.6	$774.0 (\nu: 16.1)$
$\Omega_m h^2$	0.14184	$0.1419^{+0.0031}_{-0.0031}$	$100\theta_{s,\text{eq}}$	0.4520	$0.4519^{+0.0073}_{-0.0070}$	$\chi_{6\text{DF}}^2$	0.017	$0.055 (\nu: 0.0)$
$\Omega_m h^3$	0.09601	$0.0961^{+0.0013}_{-0.0013}$	$H(0.15)$	72.95	$73.0^{+1.3}_{-1.2}$	χ_{MGS}^2	1.34	$1.38 (\nu: 0.1)$
σ_8	0.8066	$0.807^{+0.021}_{-0.020}$	$D_M(0.15)$	640.6	641^{+12}_{-12}	χ_{DR12BAO}^2	4.08	$4.7 (\nu: 1.2)$
S_8	0.8193	$0.820^{+0.039}_{-0.037}$	$H(0.38)$	83.02	$83.04^{+0.96}_{-0.90}$	χ_{prior}^2	1.5	$7.4 (\nu: 6.9)$
$\sigma_8 \Omega_m^{0.5}$	0.4488	$0.449^{+0.021}_{-0.021}$	$D_M(0.38)$	1528.2	1528^{+24}_{-25}	χ_{BAO}^2	5.44	$6.2 (\nu: 0.8)$
$\sigma_8 \Omega_m^{0.25}$	0.6016	$0.602^{+0.021}_{-0.021}$	$H(0.51)$	89.72	$89.73^{+0.79}_{-0.74}$	χ_{CMB}^2	1178.8	$1194.6 (\nu: 16.8)$
$\sigma_8/h^{0.5}$	0.9804	$0.981^{+0.030}_{-0.030}$	$D_M(0.51)$	1980.0	1980^{+28}_{-29}			

Best-fit $\chi_{\text{eff}}^2 = 1185.74$; $\Delta\chi_{\text{eff}}^2 = -0.01$; $\bar{\chi}_{\text{eff}}^2 = 1208.12$; $\Delta\bar{\chi}_{\text{eff}}^2 = 2.09$; $R - 1 = 0.01047$

χ_{eff}^2 : BAO - 6DF: 0.02 (Δ -0.00) MGS: 1.34 (Δ 0.06) DR12BAO: 4.08 (Δ -0.10) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.94 (Δ 0.06) commander_dx12_v3_2_29: 22.22 (Δ -0.61) plik_rd12_HM_v22_TT: 760.60 (Δ 0.50)

14.3 base_nrun_r_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02222^{+0.00061}_{-0.00058}$	$\sigma_8/h^{0.5}$	$0.992^{+0.040}_{-0.042}$	$H(0.51)$	$89.4^{+1.2}_{-1.1}$
$\Omega_c h^2$	$0.1204^{+0.0054}_{-0.0054}$	$r_{\text{drag}} h$	$98.7^{+4.3}_{-4.0}$	$D_M(0.51)$	1992^{+47}_{-48}
$100\theta_{\text{MC}}$	$1.0408^{+0.0012}_{-0.0013}$	$\langle d^2 \rangle^{1/2}$	$2.440^{+0.099}_{-0.10}$	$H(0.61)$	$95.12^{+0.98}_{-0.88}$
τ	$0.055^{+0.020}_{-0.014}$	z_{re}	< 9.63	$D_M(0.61)$	2317^{+50}_{-52}
$\ln(10^{10} A_s)$	$3.048^{+0.045}_{-0.034}$	$10^9 A_s$	$2.107^{+0.096}_{-0.070}$	$H(2.33)$	$236.7^{+3.3}_{-3.3}$
n_s	$0.963^{+0.016}_{-0.015}$	$10^9 A_s e^{-2\tau}$	$1.887^{+0.036}_{-0.036}$	$D_M(2.33)$	5772^{+42}_{-44}
$dn_s/d \ln k$	$-0.008^{+0.021}_{-0.022}$	D_{40}	1233^{+60}_{-55}	$f\sigma_8(0.15)$	$0.462^{+0.032}_{-0.031}$
r	< 0.218	D_{220}	5711^{+100}_{-110}	$\sigma_8(0.15)$	$0.750^{+0.019}_{-0.018}$
y_{cal}	$1.0005^{+0.0064}_{-0.0064}$	D_{810}	2539^{+36}_{-35}	$f\sigma_8(0.38)$	$0.479^{+0.024}_{-0.025}$
A_{217}^{CIB}	49^{+20}_{-20}	D_{1420}	814^{+13}_{-13}	$\sigma_8(0.38)$	$0.664^{+0.015}_{-0.014}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{2000}	$229.0^{+5.0}_{-4.8}$	$f\sigma_8(0.51)$	$0.477^{+0.021}_{-0.021}$
A_{143}^{tSZ}	—	$n_{s,0.002}$	$0.989^{+0.072}_{-0.067}$	$\sigma_8(0.51)$	$0.621^{+0.014}_{-0.012}$
A_{100}^{PS}	267^{+70}_{-70}	Y_{P}	$0.24533^{+0.00024}_{-0.00027}$	$f\sigma_8(0.61)$	$0.471^{+0.018}_{-0.019}$
A_{143}^{PS}	51^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24666^{+0.00024}_{-0.00027}$	$\sigma_8(0.61)$	$0.591^{+0.013}_{-0.011}$
$A_{143 \times 217}^{\text{PS}}$	44^{+20}_{-20}	$10^5 \text{D}/\text{H}$	$2.61^{+0.11}_{-0.11}$	$f\sigma_8(2.33)$	$0.2975^{+0.0066}_{-0.0050}$
A_{217}^{PS}	115^{+30}_{-30}	Age/Gyr	$13.816^{+0.095}_{-0.097}$	$\sigma_8(2.33)$	$0.3064^{+0.0070}_{-0.0051}$
A^{kSZ}	—	z_*	$1090.1^{+1.0}_{-1.1}$	$r_{0.002}$	< 0.235
A_{100}^{dustTT}	$9.0^{+4.8}_{-4.8}$	r_*	$144.4^{+1.3}_{-1.3}$	$r_{0.01}$	< 0.220
A_{143}^{dustTT}	$10.8^{+4.5}_{-4.6}$	$100\theta_*$	$1.0410^{+0.0012}_{-0.0012}$	$\ln(10^{10} A_t)$	$-0.4^{+2.2}_{-4.0}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.4^{+8.3}_{-8.5}$	$D_M(z_*)/\text{Gpc}$	$13.87^{+0.12}_{-0.12}$	r_{10}	< 0.126
A_{217}^{dustTT}	93^{+20}_{-20}	z_{drag}	$1059.6^{+1.3}_{-1.3}$	$10^9 A_t$	< 0.459
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	r_{drag}	$147.1^{+1.3}_{-1.3}$	$10^9 A_t e^{-2\tau}$	< 0.410
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	k_{D}	$0.1407^{+0.0015}_{-0.0014}$	f_{2000}^{143}	32^{+8}_{-8}
H_0	$67.1^{+2.4}_{-2.3}$	$100\theta_{\text{D}}$	$0.16094^{+0.00072}_{-0.00074}$	$f_{2000}^{143 \times 217}$	34^{+6}_{-6}
Ω_{Λ}	$0.681^{+0.032}_{-0.034}$	z_{eq}	3409^{+120}_{-120}	f_{2000}^{217}	$108.8^{+5.4}_{-5.4}$
Ω_{m}	$0.319^{+0.034}_{-0.032}$	k_{eq}	$0.01040^{+0.00038}_{-0.00037}$	χ_{simall}^2	$397.2 (\nu: 1.6)$
$\Omega_{\text{m}} h^2$	$0.1433^{+0.0052}_{-0.0051}$	$100\theta_{\text{eq}}$	$0.812^{+0.023}_{-0.022}$	χ_{lowl}^2	$23.6 (\nu: 2.5)$
$\Omega_{\text{m}} h^3$	$0.0961^{+0.0013}_{-0.0013}$	$100\theta_{\text{s,eq}}$	$0.449^{+0.012}_{-0.012}$	χ_{plik}^2	$773.6 (\nu: 17.0)$
σ_8	$0.812^{+0.023}_{-0.022}$	$H(0.15)$	$72.4^{+2.1}_{-2.0}$	χ_{prior}^2	$7.3 (\nu: 6.8)$
S_8	$0.837^{+0.063}_{-0.062}$	$D_M(0.15)$	646^{+20}_{-21}	χ_{CMB}^2	$1194.4 (\nu: 17.2)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.459^{+0.035}_{-0.034}$	$H(0.38)$	$82.7^{+1.5}_{-1.4}$		
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.610^{+0.030}_{-0.030}$	$D_M(0.38)$	1539^{+40}_{-41}		

$$\bar{\chi}_{\text{eff}}^2 = 1201.72; \Delta \bar{\chi}_{\text{eff}}^2 = 2.40; R - 1 = 0.00869$$

14.4 base_nrun_r_plikHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02231^{+0.00056}_{-0.00054}$	$r_{\text{drag}} h$	$99.8^{+2.5}_{-2.4}$	$H(0.61)$	$95.34^{+0.67}_{-0.64}$
$\Omega_c h^2$	$0.1189^{+0.0032}_{-0.0032}$	$\langle d^2 \rangle^{1/2}$	$2.417^{+0.075}_{-0.074}$	$D_M(0.61)$	2304^{+31}_{-32}
$100\theta_{\text{MC}}$	$1.0410^{+0.0011}_{-0.0011}$	z_{re}	< 9.79	$H(2.33)$	$235.8^{+2.1}_{-2.0}$
τ	$0.056^{+0.021}_{-0.015}$	$10^9 A_s$	$2.105^{+0.099}_{-0.071}$	$D_M(2.33)$	5763^{+33}_{-33}
$\ln(10^{10} A_s)$	$3.047^{+0.046}_{-0.034}$	$10^9 A_s e^{-2\tau}$	$1.880^{+0.031}_{-0.030}$	$f\sigma_8(0.15)$	$0.454^{+0.020}_{-0.019}$
n_s	$0.966^{+0.011}_{-0.011}$	D_{40}	1228^{+60}_{-53}	$\sigma_8(0.15)$	$0.747^{+0.018}_{-0.015}$
$dn_s/d \ln k$	$-0.008^{+0.020}_{-0.023}$	D_{220}	5717^{+100}_{-110}	$f\sigma_8(0.38)$	$0.473^{+0.016}_{-0.016}$
r	< 0.226	D_{810}	2538^{+36}_{-34}	$\sigma_8(0.38)$	$0.662^{+0.015}_{-0.012}$
y_{cal}	$1.0006^{+0.0063}_{-0.0062}$	D_{1420}	815^{+13}_{-12}	$f\sigma_8(0.51)$	$0.472^{+0.015}_{-0.014}$
A_{217}^{CIB}	49^{+20}_{-20}	D_{2000}	$229.3^{+4.8}_{-4.7}$	$\sigma_8(0.51)$	$0.620^{+0.014}_{-0.011}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$n_{\text{s},0.002}$	$0.992^{+0.074}_{-0.064}$	$f\sigma_8(0.61)$	$0.467^{+0.014}_{-0.013}$
A_{143}^{tSZ}	—	Y_{P}	$0.24537^{+0.00022}_{-0.00025}$	$\sigma_8(0.61)$	$0.590^{+0.014}_{-0.010}$
A_{100}^{PS}	266^{+70}_{-70}	$Y_{\text{P}}^{\text{BBN}}$	$0.24669^{+0.00022}_{-0.00025}$	$f\sigma_8(2.33)$	$0.2974^{+0.0069}_{-0.0051}$
A_{143}^{PS}	50^{+20}_{-20}	10^5D/H	$2.60^{+0.10}_{-0.10}$	$\sigma_8(2.33)$	$0.3067^{+0.0073}_{-0.0052}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	Age/Gyr	$13.796^{+0.075}_{-0.075}$	$r_{0.002}$	< 0.250
A_{217}^{PS}	114^{+30}_{-30}	z_*	$1089.91^{+0.80}_{-0.80}$	$r_{0.01}$	< 0.230
A^{kSZ}	—	r_*	$144.76^{+0.85}_{-0.85}$	$\ln(10^{10} A_{\text{t}})$	$-0.3^{+2.2}_{-4.0}$
A_{100}^{dustTT}	$9.0^{+4.7}_{-4.8}$	$100\theta_*$	$1.0412^{+0.0011}_{-0.0011}$	r_{10}	< 0.133
A_{143}^{dustTT}	$10.8^{+4.5}_{-4.6}$	$D_M(z_*)/\text{Gpc}$	$13.903^{+0.081}_{-0.084}$	$10^9 A_{\text{t}}$	< 0.477
$A_{143 \times 217}^{\text{dustTT}}$	$18.4^{+8.3}_{-8.6}$	z_{drag}	$1059.7^{+1.3}_{-1.2}$	$10^9 A_{\text{t}} e^{-2\tau}$	< 0.427
A_{217}^{dustTT}	93^{+20}_{-20}	r_{drag}	$147.45^{+0.93}_{-0.96}$	f_{2000}^{143}	32^{+8}_{-8}
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	k_{D}	$0.1404^{+0.0013}_{-0.0012}$	$f_{2000}^{143 \times 217}$	34^{+6}_{-6}
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	$100\theta_{\text{D}}$	$0.16090^{+0.00073}_{-0.00073}$	f_{2000}^{217}	$108.6^{+5.2}_{-5.3}$
H_0	$67.7^{+1.4}_{-1.4}$	z_{eq}	3375^{+75}_{-75}	χ_{simall}^2	$397.4 (\nu: 1.9)$
Ω_{Λ}	$0.690^{+0.019}_{-0.019}$	k_{eq}	$0.01030^{+0.00023}_{-0.00023}$	χ_{lowl}^2	$23.2 (\nu: 2.1)$
Ω_{m}	$0.310^{+0.019}_{-0.019}$	$100\theta_{\text{eq}}$	$0.818^{+0.014}_{-0.014}$	χ_{plik}^2	$773.9 (\nu: 16.1)$
$\Omega_{\text{m}} h^2$	$0.1419^{+0.0031}_{-0.0031}$	$100\theta_{\text{s,eq}}$	$0.4519^{+0.0072}_{-0.0070}$	$\chi_{6\text{DF}}^2$	$0.054 (\nu: 0.0)$
$\Omega_{\text{m}} h^3$	$0.0961^{+0.0013}_{-0.0012}$	$H(0.15)$	$73.0^{+1.2}_{-1.2}$	χ_{MGS}^2	$1.39 (\nu: 0.1)$
σ_8	$0.808^{+0.021}_{-0.017}$	$D_M(0.15)$	640^{+12}_{-12}	χ_{DR12BAO}^2	$4.7 (\nu: 1.2)$
S_8	$0.820^{+0.038}_{-0.037}$	$H(0.38)$	$83.05^{+0.95}_{-0.89}$	χ_{prior}^2	$7.4 (\nu: 6.9)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.449^{+0.021}_{-0.020}$	$D_M(0.38)$	1528^{+24}_{-25}	χ_{BAO}^2	$6.1 (\nu: 0.8)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.603^{+0.020}_{-0.020}$	$H(0.51)$	$89.74^{+0.78}_{-0.74}$	χ_{CMB}^2	$1194.4 (\nu: 16.6)$
$\sigma_8/h^{0.5}$	$0.982^{+0.030}_{-0.028}$	$D_M(0.51)$	1979^{+28}_{-29}		

$$\bar{\chi}_{\text{eff}}^2 = 1207.94; \Delta \bar{\chi}_{\text{eff}}^2 = 2.18; R - 1 = 0.01172$$

14.5 base_nrun_r_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022399	$0.02241^{+0.00041}_{-0.00040}$	σ_8	0.8129	$0.812^{+0.020}_{-0.020}$	$H(0.38)$	82.84	$82.9^{+1.0}_{-0.96}$
$\Omega_c h^2$	0.12022	$0.1202^{+0.0036}_{-0.0036}$	S_8	0.8348	$0.833^{+0.043}_{-0.043}$	$D_M(0.38)$	1534.5	1534^{+27}_{-28}
$100\theta_{MC}$	1.04090	$1.04091^{+0.00080}_{-0.00085}$	$\sigma_8 \Omega_m^{0.5}$	0.4572	$0.456^{+0.024}_{-0.024}$	$H(0.51)$	89.61	$89.64^{+0.81}_{-0.76}$
τ	0.0561	$0.056^{+0.023}_{-0.022}$	$\sigma_8 \Omega_m^{0.25}$	0.6097	$0.609^{+0.022}_{-0.022}$	$D_M(0.51)$	1987.0	1986^{+32}_{-32}
$\ln(10^{10} A_s)$	3.0495	$3.050^{+0.045}_{-0.045}$	$\sigma_8/h^{0.5}$	0.9910	$0.989^{+0.032}_{-0.032}$	$H(0.61)$	95.27	$95.30^{+0.65}_{-0.61}$
n_s	0.9647	$0.964^{+0.012}_{-0.012}$	$r_{\text{drag}} h$	98.92	$99.0^{+2.8}_{-2.7}$	$D_M(0.61)$	2311.5	2311^{+34}_{-35}
$dn_s/d \ln k$	-0.0044	$-0.009^{+0.019}_{-0.020}$	$\langle d^2 \rangle^{1/2}$	2.444	$2.433^{+0.080}_{-0.082}$	$H(2.33)$	236.73	$236.7^{+2.2}_{-2.1}$
r	0.000	< 0.223	z_{re}	7.86	$7.9^{+2.1}_{-2.3}$	$D_M(2.33)$	5763.3	5762^{+29}_{-29}
y_{cal}	1.0005	$1.0007^{+0.0066}_{-0.0064}$	$10^9 A_s$	2.110	$2.113^{+0.097}_{-0.093}$	$f\sigma_8(0.15)$	0.4614	$0.461^{+0.022}_{-0.022}$
A_{217}^{CIB}	48.9	48^{+20}_{-20}	$10^9 A_s e^{-2\tau}$	1.8865	$1.888^{+0.032}_{-0.031}$	$\sigma_8(0.15)$	0.7507	$0.750^{+0.018}_{-0.017}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.26	—	D_{40}	1221	1232^{+59}_{-51}	$f\sigma_8(0.38)$	0.4787	$0.478^{+0.018}_{-0.018}$
A_{143}^{tSZ}	7.3	—	D_{220}	5730	5726^{+100}_{-100}	$\sigma_8(0.38)$	0.6649	$0.664^{+0.015}_{-0.015}$
A_{100}^{PS}	253	264^{+70}_{-70}	D_{810}	2541.9	2543^{+35}_{-35}	$f\sigma_8(0.51)$	0.4768	$0.476^{+0.016}_{-0.016}$
A_{143}^{PS}	46.8	49^{+20}_{-20}	D_{1420}	817.1	816^{+13}_{-12}	$\sigma_8(0.51)$	0.6220	$0.621^{+0.014}_{-0.014}$
$A_{143 \times 217}^{\text{PS}}$	44.0	43^{+20}_{-20}	D_{2000}	230.61	$229.9^{+4.8}_{-4.7}$	$f\sigma_8(0.61)$	0.4714	$0.471^{+0.014}_{-0.015}$
A_{217}^{PS}	118.0	115^{+30}_{-30}	$n_{s,0.002}$	0.979	$0.995^{+0.065}_{-0.058}$	$\sigma_8(0.61)$	0.5917	$0.591^{+0.013}_{-0.013}$
A^{kSZ}	0.0	—	Y_{P}	0.245407	$0.24541^{+0.00015}_{-0.00016}$	$f\sigma_8(2.33)$	0.2982	$0.2979^{+0.0067}_{-0.0065}$
A_{100}^{dustTT}	8.90	$8.9^{+4.7}_{-4.7}$	$Y_{\text{P}}^{\text{BBN}}$	0.246733	$0.24674^{+0.00015}_{-0.00016}$	$\sigma_8(2.33)$	0.3072	$0.3069^{+0.0070}_{-0.0068}$
A_{143}^{dustTT}	11.06	$10.9^{+4.6}_{-4.5}$	$10^5 D/H$	2.580	$2.578^{+0.075}_{-0.073}$	$r_{0.002}$	0.000	< 0.243
$A_{143 \times 217}^{\text{dustTT}}$	19.7	$18.6^{+8.4}_{-8.5}$	Age/Gyr	13.796	$13.794^{+0.065}_{-0.064}$	$r_{0.01}$	0.000	< 0.227
A_{217}^{dustTT}	94.6	93^{+20}_{-20}	z_*	1089.90	$1089.88^{+0.72}_{-0.72}$	$\ln(10^{10} A_t)$	-6.53	$-0.1^{+2.0}_{-3.9}$
A_{100}^{dustTE}	0.114	$0.116^{+0.097}_{-0.096}$	r_*	144.35	$144.36^{+0.80}_{-0.80}$	r_{10}	0.000	< 0.130
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.136^{+0.075}_{-0.076}$	$100\theta_*$	1.04107	$1.04109^{+0.00079}_{-0.00084}$	$10^9 A_t$	0.000	< 0.475
$A_{100 \times 217}^{\text{dustTE}}$	0.484	$0.48^{+0.22}_{-0.22}$	$D_M(z_*)/\text{Gpc}$	13.866	$13.866^{+0.075}_{-0.075}$	$10^9 A_t e^{-2\tau}$	0.000	< 0.420
A_{143}^{dustTE}	0.226	$0.23^{+0.14}_{-0.14}$	z_{drag}	1060.01	$1060.05^{+0.80}_{-0.84}$	f_{2000}^{143}	29.9	31^{+8}_{-8}
$A_{143 \times 217}^{\text{dustTE}}$	0.666	$0.66^{+0.20}_{-0.21}$	r_{drag}	147.00	$147.00^{+0.80}_{-0.80}$	$f_{2000}^{143 \times 217}$	32.7	33^{+6}_{-6}
A_{217}^{dustTE}	2.09	$2.08^{+0.69}_{-0.68}$	k_{D}	0.14098	$0.14099^{+0.00089}_{-0.00089}$	f_{2000}^{217}	107.3	$108.1^{+5.2}_{-5.2}$
c_{100}	0.99971	$0.9997^{+0.0016}_{-0.0016}$	$100\theta_{\text{D}}$	0.160708	$0.16069^{+0.00048}_{-0.00047}$	χ_{small}^2	396.34	$397.6 (\nu: 2.0)$
c_{217}	0.99821	$0.9982^{+0.0016}_{-0.0016}$	z_{eq}	3408	3407^{+80}_{-80}	χ_{lowl}^2	22.29	$23.3 (\nu: 1.7)$
H_0	67.29	$67.3^{+1.6}_{-1.6}$	k_{eq}	0.010402	$0.01040^{+0.00025}_{-0.00024}$	χ_{plik}^2	2344.9	$2361.1 (\nu: 18.7)$
Ω_{Λ}	0.6836	$0.684^{+0.022}_{-0.023}$	$100\theta_{\text{eq}}$	0.8123	$0.813^{+0.015}_{-0.015}$	χ_{prior}^2	1.9	$11.6 (\nu: 10.4)$
Ω_{m}	0.3164	$0.316^{+0.023}_{-0.022}$	$100\theta_{\text{s,eq}}$	0.4488	$0.4490^{+0.0078}_{-0.0076}$	χ_{CMB}^2	2763.6	$2782.0 (\nu: 19.3)$
$\Omega_{\text{m}} h^2$	0.14326	$0.1432^{+0.0034}_{-0.0034}$	$H(0.15)$	72.63	$72.7^{+1.4}_{-1.3}$			
$\Omega_{\text{m}} h^3$	0.09640	$0.09643^{+0.00080}_{-0.00080}$	$D_M(0.15)$	643.9	644^{+14}_{-14}			

Best-fit $\chi_{\text{eff}}^2 = 2765.44$; $\Delta\chi_{\text{eff}}^2 = -0.33$; $\bar{\chi}_{\text{eff}}^2 = 2793.62$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.86$; $R - 1 = 0.01370$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.35 (Δ 0.30) commander_dx12_v3.2.29: 22.29 (Δ -0.96) plik_rd12_HM_v22b_TTTEEE: 2344.95 (Δ 0.30)

14.6 base_nrun_r_plikHM_TTTEEE_lowl_lowE_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022443	$0.02247^{+0.00037}_{-0.00036}$	S_8	0.8261	$0.824^{+0.034}_{-0.033}$	$H(0.51)$	89.77	$89.82^{+0.62}_{-0.59}$
$\Omega_c h^2$	0.11944	$0.1193^{+0.0027}_{-0.0026}$	$\sigma_8 \Omega_m^{0.5}$	0.4525	$0.451^{+0.019}_{-0.018}$	$D_M(0.51)$	1980.2	1978^{+24}_{-24}
$100\theta_{MC}$	1.04101	$1.04102^{+0.00074}_{-0.00078}$	$\sigma_8 \Omega_m^{0.25}$	0.6057	$0.604^{+0.018}_{-0.018}$	$H(0.61)$	95.39	$95.44^{+0.51}_{-0.49}$
τ	0.0568	$0.057^{+0.023}_{-0.022}$	$\sigma_8/h^{0.5}$	0.9858	$0.984^{+0.027}_{-0.027}$	$D_M(0.61)$	2304.2	2302^{+26}_{-26}
$\ln(10^{10} A_s)$	3.0489	$3.051^{+0.046}_{-0.045}$	$r_{\text{drag}} h$	99.54	$99.7^{+2.0}_{-2.0}$	$H(2.33)$	236.27	$236.2^{+1.6}_{-1.6}$
n_s	0.9667	$0.966^{+0.010}_{-0.011}$	$\langle d^2 \rangle^{1/2}$	2.432	$2.420^{+0.070}_{-0.072}$	$D_M(2.33)$	5758.2	5756^{+24}_{-24}
$dn_s/d \ln k$	-0.0038	$-0.009^{+0.019}_{-0.021}$	z_{re}	7.91	$7.9^{+2.2}_{-2.3}$	$f\sigma_8(0.15)$	0.4571	$0.456^{+0.018}_{-0.017}$
r	0.001	< 0.231	$10^9 A_s$	2.109	$2.113^{+0.099}_{-0.093}$	$\sigma_8(0.15)$	0.7491	$0.748^{+0.017}_{-0.017}$
y_{cal}	1.0005	$1.0008^{+0.0064}_{-0.0062}$	$10^9 A_s e^{-2\tau}$	1.8827	$1.884^{+0.030}_{-0.028}$	$f\sigma_8(0.38)$	0.4754	$0.474^{+0.015}_{-0.015}$
A_{217}^{CIB}	48.8	48^{+20}_{-20}	D_{40}	1219	1230^{+57}_{-50}	$\sigma_8(0.38)$	0.6641	$0.663^{+0.015}_{-0.015}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.25	—	D_{220}	5733	5729^{+100}_{-98}	$f\sigma_8(0.51)$	0.4740	$0.473^{+0.014}_{-0.013}$
A_{143}^{tSZ}	7.3	—	D_{810}	2541.1	2542^{+36}_{-34}	$\sigma_8(0.51)$	0.6214	$0.621^{+0.014}_{-0.014}$
A_{100}^{PS}	253	263^{+70}_{-70}	D_{1420}	817.7	817^{+13}_{-13}	$f\sigma_8(0.61)$	0.4690	$0.468^{+0.013}_{-0.013}$
A_{143}^{PS}	45.9	48^{+20}_{-20}	D_{2000}	230.87	$230.2^{+4.6}_{-4.7}$	$\sigma_8(0.61)$	0.5913	$0.591^{+0.014}_{-0.013}$
$A_{143 \times 217}^{\text{PS}}$	43.2	42^{+20}_{-20}	$n_{s,0.002}$	0.979	$0.996^{+0.068}_{-0.059}$	$f\sigma_8(2.33)$	0.2981	$0.2979^{+0.0068}_{-0.0065}$
A_{217}^{PS}	117.6	114^{+30}_{-30}	Y_{P}	0.245424	$0.24543^{+0.00014}_{-0.00014}$	$\sigma_8(2.33)$	0.3074	$0.3072^{+0.0071}_{-0.0067}$
A^{kSZ}	0.0	—	$Y_{\text{P}}^{\text{BBN}}$	0.246750	$0.24676^{+0.00014}_{-0.00014}$	$r_{0.002}$	0.001	< 0.254
A_{100}^{dustTT}	8.89	$8.9^{+4.7}_{-4.8}$	10^5D/H	2.572	$2.567^{+0.067}_{-0.066}$	$r_{0.01}$	0.001	< 0.236
A_{143}^{dustTT}	11.01	$11.0^{+4.6}_{-4.5}$	Age/Gyr	13.785	$13.781^{+0.054}_{-0.054}$	$\ln(10^{10} A_t)$	-3.97	$0.0^{+2.0}_{-4.0}$
$A_{143 \times 217}^{\text{dustTT}}$	19.6	$18.6^{+8.5}_{-8.4}$	z_*	1089.78	$1089.73^{+0.59}_{-0.58}$	r_{10}	0.000	< 0.135
A_{217}^{dustTT}	94.5	93^{+20}_{-20}	r_*	144.52	$144.54^{+0.63}_{-0.63}$	$10^9 A_t$	0.002	< 0.492
A_{100}^{dustTE}	0.115	$0.116^{+0.096}_{-0.096}$	$100\theta_*$	1.04118	$1.04119^{+0.00073}_{-0.00077}$	$10^9 A_t e^{-2\tau}$	0.002	< 0.435
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.135^{+0.074}_{-0.075}$	$D_M(z_*)/\text{Gpc}$	13.881	$13.882^{+0.060}_{-0.061}$	f_{2000}^{143}	29.5	31^{+8}_{-8}
$A_{100 \times 217}^{\text{dustTE}}$	0.478	$0.48^{+0.22}_{-0.21}$	z_{drag}	1060.05	$1060.12^{+0.80}_{-0.76}$	$f_{2000}^{143 \times 217}$	32.4	33^{+6}_{-6}
A_{143}^{dustTE}	0.225	$0.22^{+0.14}_{-0.14}$	r_{drag}	147.16	$147.17^{+0.65}_{-0.66}$	f_{2000}^{217}	107.1	$107.9^{+5.2}_{-5.1}$
$A_{143 \times 217}^{\text{dustTE}}$	0.664	$0.66^{+0.19}_{-0.21}$	k_{D}	0.14085	$0.14086^{+0.00081}_{-0.00082}$	χ_{small}^2	396.4	$397.8 (\nu: 2.3)$
A_{217}^{dustTE}	2.07	$2.07^{+0.70}_{-0.67}$	$100\theta_{\text{D}}$	0.160689	$0.16066^{+0.00046}_{-0.00046}$	χ_{lowl}^2	22.15	$23.1 (\nu: 1.6)$
c_{100}	0.99972	$0.9997^{+0.0016}_{-0.0016}$	z_{eq}	3390	3387^{+61}_{-59}	χ_{plik}^2	2345.5	$2361.2 (\nu: 19.1)$
c_{217}	0.99821	$0.9982^{+0.0015}_{-0.0016}$	k_{eq}	0.010348	$0.01034^{+0.00019}_{-0.00018}$	$\chi_{6\text{DF}}^2$	0.038	$0.053 (\nu: 0.0)$
H_0	67.64	$67.7^{+1.2}_{-1.2}$	$100\theta_{\text{eq}}$	0.8157	$0.816^{+0.011}_{-0.011}$	χ_{MGS}^2	1.16	$1.29 (\nu: 0.1)$
Ω_{Λ}	0.6885	$0.690^{+0.015}_{-0.016}$	$100\theta_{s,\text{eq}}$	0.4506	$0.4509^{+0.0057}_{-0.0058}$	χ_{DR12BAO}^2	4.63	$4.8 (\nu: 1.0)$
Ω_{m}	0.3115	$0.310^{+0.016}_{-0.015}$	$H(0.15)$	72.93	$73.0^{+1.0}_{-1.0}$	χ_{prior}^2	1.8	$11.6 (\nu: 10.2)$
$\Omega_{\text{m}} h^2$	0.14252	$0.1424^{+0.0026}_{-0.0025}$	$D_M(0.15)$	640.9	$640^{+10}_{-9.9}$	χ_{BAO}^2	5.82	$6.1 (\nu: 0.7)$
$\Omega_{\text{m}} h^3$	0.09640	$0.09643^{+0.00080}_{-0.00077}$	$H(0.38)$	83.05	$83.11^{+0.76}_{-0.74}$	χ_{CMB}^2	2764.1	$2782.0 (\nu: 19.4)$
σ_8	0.8107	$0.810^{+0.019}_{-0.019}$	$D_M(0.38)$	1528.6	1527^{+20}_{-20}			

Best-fit $\chi_{\text{eff}}^2 = 2771.67$; $\Delta\chi_{\text{eff}}^2 = -0.25$; $\bar{\chi}_{\text{eff}}^2 = 2799.74$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.83$; $R - 1 = 0.01808$
 χ_{eff}^2 : BAO - 6DF: 0.04 (Δ 0.01) MGS: 1.16 (Δ -0.06) DR12BAO: 4.63 (Δ 0.21) CMB - small_100x143.offlike5_EE_Aplanck.B: 396.43 (Δ 0.23) commander_dx12_v3_2_29: 22.15 (Δ -0.72) plik_rd12_HM_v22b_TTTEEE: 2345.48 (Δ -0.02)

14.7 base_nrun_r_plikHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02242^{+0.00040}_{-0.00040}$	σ_8	$0.812^{+0.020}_{-0.018}$	$H(0.38)$	$82.9^{+1.0}_{-0.95}$
$\Omega_c h^2$	$0.1201^{+0.0036}_{-0.0035}$	S_8	$0.834^{+0.043}_{-0.042}$	$D_M(0.38)$	1534^{+27}_{-27}
$100\theta_{MC}$	$1.04091^{+0.00080}_{-0.00085}$	$\sigma_8 \Omega_m^{0.5}$	$0.457^{+0.023}_{-0.023}$	$H(0.51)$	$89.64^{+0.81}_{-0.75}$
τ	$0.057^{+0.020}_{-0.015}$	$\sigma_8 \Omega_m^{0.25}$	$0.609^{+0.022}_{-0.022}$	$D_M(0.51)$	1986^{+32}_{-32}
$\ln(10^{10} A_s)$	$3.052^{+0.044}_{-0.034}$	$\sigma_8/h^{0.5}$	$0.990^{+0.031}_{-0.031}$	$H(0.61)$	$95.30^{+0.65}_{-0.61}$
n_s	$0.964^{+0.012}_{-0.012}$	$r_{\text{drag}} h$	$99.0^{+2.8}_{-2.7}$	$D_M(0.61)$	2310^{+34}_{-34}
$dn_s/d \ln k$	$-0.0095^{+0.018}_{-0.020}$	$\langle d^2 \rangle^{1/2}$	$2.435^{+0.080}_{-0.079}$	$H(2.33)$	$236.7^{+2.2}_{-2.1}$
r	< 0.223	z_{re}	< 9.75	$D_M(2.33)$	5762^{+29}_{-29}
y_{cal}	$1.0007^{+0.0065}_{-0.0064}$	$10^9 A_s$	$2.116^{+0.094}_{-0.071}$	$f\sigma_8(0.15)$	$0.461^{+0.022}_{-0.022}$
A_{217}^{CIB}	48^{+20}_{-20}	$10^9 A_s e^{-2\tau}$	$1.888^{+0.032}_{-0.031}$	$\sigma_8(0.15)$	$0.750^{+0.017}_{-0.016}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{40}	1232^{+59}_{-51}	$f\sigma_8(0.38)$	$0.478^{+0.018}_{-0.018}$
A_{143}^{tSZ}	—	D_{220}	5726^{+100}_{-100}	$\sigma_8(0.38)$	$0.665^{+0.015}_{-0.013}$
A_{100}^{PS}	264^{+70}_{-70}	D_{810}	2543^{+35}_{-35}	$f\sigma_8(0.51)$	$0.476^{+0.016}_{-0.016}$
A_{143}^{PS}	49^{+20}_{-20}	D_{1420}	816^{+13}_{-12}	$\sigma_8(0.51)$	$0.622^{+0.014}_{-0.011}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	D_{2000}	$229.9^{+4.8}_{-4.7}$	$f\sigma_8(0.61)$	$0.471^{+0.014}_{-0.014}$
A_{217}^{PS}	115^{+30}_{-30}	$n_{s,0.002}$	$0.995^{+0.065}_{-0.057}$	$\sigma_8(0.61)$	$0.592^{+0.013}_{-0.011}$
A^{kSZ}	—	Y_P	$0.24541^{+0.00015}_{-0.00016}$	$f\sigma_8(2.33)$	$0.2981^{+0.0065}_{-0.0051}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.7}$	Y_P^{BBN}	$0.24674^{+0.00015}_{-0.00016}$	$\sigma_8(2.33)$	$0.3072^{+0.0068}_{-0.0053}$
A_{143}^{dustTT}	$10.9^{+4.7}_{-4.5}$	10^5D/H	$2.577^{+0.075}_{-0.072}$	$r_{0.002}$	< 0.244
$A_{143 \times 217}^{\text{dustTT}}$	$18.7^{+8.4}_{-8.5}$	Age/Gyr	$13.793^{+0.064}_{-0.064}$	$r_{0.01}$	< 0.227
A_{217}^{dustTT}	93^{+20}_{-20}	z_*	$1089.87^{+0.72}_{-0.72}$	$\ln(10^{10} A_t)$	$-0.1^{+2.0}_{-3.9}$
A_{100}^{dustTE}	$0.116^{+0.097}_{-0.095}$	r_*	$144.36^{+0.80}_{-0.80}$	r_{10}	< 0.130
$A_{100 \times 143}^{\text{dustTE}}$	$0.136^{+0.075}_{-0.076}$	$100\theta_*$	$1.04109^{+0.00079}_{-0.00084}$	$10^9 A_t$	< 0.477
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	$D_M(z_*)/\text{Gpc}$	$13.866^{+0.075}_{-0.075}$	$10^9 A_t e^{-2\tau}$	< 0.421
A_{143}^{dustTE}	$0.23^{+0.14}_{-0.14}$	z_{drag}	$1060.06^{+0.83}_{-0.81}$	f_{2000}^{143}	31^{+8}_{-8}
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.20}_{-0.21}$	r_{drag}	$147.00^{+0.80}_{-0.80}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-6}
A_{217}^{dustTE}	$2.08^{+0.69}_{-0.68}$	k_D	$0.14099^{+0.00089}_{-0.00089}$	f_{2000}^{217}	$108.1^{+5.1}_{-5.2}$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.16069^{+0.00047}_{-0.00047}$	χ_{simall}^2	$397.6 (\nu: 2.0)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	z_{eq}	3407^{+80}_{-80}	χ_{lowl}^2	$23.3 (\nu: 1.7)$
H_0	$67.3^{+1.6}_{-1.6}$	k_{eq}	$0.01040^{+0.00025}_{-0.00024}$	χ_{plik}^2	$2360.9 (\nu: 18.5)$
Ω_Λ	$0.684^{+0.021}_{-0.023}$	$100\theta_{\text{eq}}$	$0.813^{+0.015}_{-0.015}$	χ_{prior}^2	$11.6 (\nu: 10.3)$
Ω_m	$0.316^{+0.023}_{-0.021}$	$100\theta_{s,\text{eq}}$	$0.4490^{+0.0077}_{-0.0076}$	χ_{CMB}^2	$2781.8 (\nu: 18.9)$
$\Omega_m h^2$	$0.1432^{+0.0034}_{-0.0033}$	$H(0.15)$	$72.7^{+1.4}_{-1.3}$		
$\Omega_m h^3$	$0.09643^{+0.00081}_{-0.00080}$	$D_M(0.15)$	643^{+14}_{-14}		

$$\bar{\chi}_{\text{eff}}^2 = 2793.42; \Delta \bar{\chi}_{\text{eff}}^2 = 1.88; R - 1 = 0.01323$$

14.8 base_nrun_r_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}} h^2$	$0.02248^{+0.00037}_{-0.00035}$	S_8	$0.824^{+0.034}_{-0.032}$	$H(0.51)$	$89.82^{+0.62}_{-0.59}$
$\Omega_{\mathrm{c}} h^2$	$0.1193^{+0.0027}_{-0.0026}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.451^{+0.018}_{-0.017}$	$D_{\mathrm{M}}(0.51)$	1978^{+24}_{-24}
$100\theta_{\mathrm{MC}}$	$1.04102^{+0.00074}_{-0.00078}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.605^{+0.018}_{-0.017}$	$H(0.61)$	$95.44^{+0.51}_{-0.49}$
τ	$0.058^{+0.020}_{-0.016}$	$\sigma_8/h^{0.5}$	$0.984^{+0.027}_{-0.026}$	$D_{\mathrm{M}}(0.61)$	2302^{+25}_{-26}
$\ln(10^{10} A_{\mathrm{s}})$	$3.052^{+0.045}_{-0.035}$	$r_{\mathrm{drag}} h$	$99.7^{+2.0}_{-2.0}$	$H(2.33)$	$236.2^{+1.6}_{-1.6}$
n_{s}	$0.967^{+0.010}_{-0.010}$	$\langle d^2 \rangle^{1/2}$	$2.422^{+0.069}_{-0.067}$	$D_{\mathrm{M}}(2.33)$	5756^{+24}_{-24}
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d} \ln k$	$-0.009^{+0.018}_{-0.021}$	z_{re}	< 9.84	$f\sigma_8(0.15)$	$0.456^{+0.017}_{-0.016}$
r	< 0.233	$10^9 A_{\mathrm{s}}$	$2.116^{+0.096}_{-0.073}$	$\sigma_8(0.15)$	$0.749^{+0.017}_{-0.015}$
y_{cal}	$1.0007^{+0.0064}_{-0.0062}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.884^{+0.030}_{-0.028}$	$f\sigma_8(0.38)$	$0.475^{+0.015}_{-0.014}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{40}	1230^{+57}_{-50}	$\sigma_8(0.38)$	$0.664^{+0.015}_{-0.012}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{220}	5729^{+100}_{-98}	$f\sigma_8(0.51)$	$0.473^{+0.013}_{-0.013}$
A_{143}^{tSZ}	—	D_{810}	2542^{+36}_{-34}	$\sigma_8(0.51)$	$0.621^{+0.014}_{-0.011}$
A_{100}^{PS}	263^{+70}_{-70}	D_{1420}	817^{+13}_{-12}	$f\sigma_8(0.61)$	$0.468^{+0.012}_{-0.012}$
A_{143}^{PS}	48^{+20}_{-20}	D_{2000}	$230.2^{+4.6}_{-4.7}$	$\sigma_8(0.61)$	$0.591^{+0.013}_{-0.011}$
$A_{143 \times 217}^{\mathrm{PS}}$	42^{+20}_{-20}	$n_{\mathrm{s},0.002}$	$0.997^{+0.068}_{-0.058}$	$f\sigma_8(2.33)$	$0.2981^{+0.0067}_{-0.0053}$
A_{217}^{PS}	114^{+30}_{-30}	Y_{P}	$0.24543^{+0.00014}_{-0.00014}$	$\sigma_8(2.33)$	$0.3074^{+0.0069}_{-0.0054}$
A^{kSZ}	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24676^{+0.00014}_{-0.00014}$	$r_{0.002}$	< 0.254
$A_{100}^{\mathrm{dust}TT}$	$8.9^{+4.6}_{-4.8}$	$10^5 \mathrm{D}/\mathrm{H}$	$2.567^{+0.066}_{-0.065}$	$r_{0.01}$	< 0.237
$A_{143}^{\mathrm{dust}TT}$	$11.0^{+4.7}_{-4.5}$	$\mathrm{Age}/\mathrm{Gyr}$	$13.781^{+0.054}_{-0.054}$	$\ln(10^{10} A_{\mathrm{t}})$	$0.0^{+2.0}_{-4.0}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.6^{+8.6}_{-8.4}$	z_*	$1089.72^{+0.59}_{-0.58}$	r_{10}	< 0.135
$A_{217}^{\mathrm{dust}TT}$	93^{+20}_{-20}	r_*	$144.54^{+0.62}_{-0.63}$	$10^9 A_{\mathrm{t}}$	< 0.493
$A_{100}^{\mathrm{dust}TE}$	$0.116^{+0.096}_{-0.095}$	$100\theta_*$	$1.04119^{+0.00074}_{-0.00077}$	$10^9 A_{\mathrm{t}} e^{-2\tau}$	< 0.437
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.135^{+0.074}_{-0.075}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.882^{+0.060}_{-0.061}$	f_{2000}^{143}	31^{+8}_{-8}
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.48^{+0.22}_{-0.21}$	z_{drag}	$1060.13^{+0.80}_{-0.77}$	$f_{2000}^{143 \times 217}$	33^{+6}_{-6}
$A_{143}^{\mathrm{dust}TE}$	$0.22^{+0.14}_{-0.14}$	r_{drag}	$147.17^{+0.65}_{-0.66}$	f_{2000}^{217}	$107.9^{+5.2}_{-5.1}$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.66^{+0.19}_{-0.21}$	k_{D}	$0.14086^{+0.00081}_{-0.00081}$	χ_{simall}^2	$397.7 (\nu: 2.3)$
$A_{217}^{\mathrm{dust}TE}$	$2.07^{+0.70}_{-0.68}$	$100\theta_{\mathrm{D}}$	$0.16065^{+0.00045}_{-0.00045}$	χ_{lowl}^2	$23.1 (\nu: 1.6)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	z_{eq}	3387^{+61}_{-58}	χ_{plik}^2	$2361.0 (\nu: 18.8)$
c_{217}	$0.9982^{+0.0015}_{-0.0016}$	k_{eq}	$0.01034^{+0.00019}_{-0.00018}$	$\chi_{6\mathrm{DF}}^2$	$0.053 (\nu: 0.0)$
H_0	$67.7^{+1.2}_{-1.2}$	$100\theta_{\mathrm{eq}}$	$0.816^{+0.011}_{-0.011}$	χ_{MGS}^2	$1.29 (\nu: 0.1)$
Ω_{Λ}	$0.690^{+0.015}_{-0.016}$	$100\theta_{\mathrm{s,eq}}$	$0.4509^{+0.0057}_{-0.0058}$	$\chi_{\mathrm{DR12BAO}}^2$	$4.8 (\nu: 1.0)$
Ω_{m}	$0.310^{+0.016}_{-0.015}$	$H(0.15)$	$73.0^{+1.0}_{-1.0}$	χ_{prior}^2	$11.6 (\nu: 10.3)$
$\Omega_{\mathrm{m}} h^2$	$0.1424^{+0.0025}_{-0.0024}$	$D_{\mathrm{M}}(0.15)$	$640^{+10}_{-9.9}$	χ_{BAO}^2	$6.1 (\nu: 0.6)$
$\Omega_{\mathrm{m}} h^3$	$0.09644^{+0.00081}_{-0.00078}$	$H(0.38)$	$83.11^{+0.76}_{-0.74}$	χ_{CMB}^2	$2781.9 (\nu: 18.9)$
σ_8	$0.810^{+0.019}_{-0.017}$	$D_{\mathrm{M}}(0.38)$	1527^{+20}_{-20}		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2799.55; \Delta \bar{\chi}_{\mathrm{eff}}^2 = 1.83; R - 1 = 0.01821$$

14.9 base_nrun_r_plikHM_TT_lowl_lowE_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02219	$0.02223^{+0.00064}_{-0.00059}$	$\sigma_8/h^{0.5}$	0.9883	$0.988^{+0.026}_{-0.028}$	$H(0.51)$	89.46	$89.49^{+0.99}_{-0.91}$
$\Omega_c h^2$	0.11999	$0.1201^{+0.0040}_{-0.0041}$	$r_{\text{drag}} h$	98.95	$98.9^{+3.2}_{-3.1}$	$D_M(0.51)$	1990.3	1990^{+38}_{-38}
$100\theta_{\text{MC}}$	1.04084	$1.0408^{+0.0011}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	2.441	$2.435^{+0.072}_{-0.073}$	$H(0.61)$	95.12	$95.15^{+0.83}_{-0.76}$
τ	0.0528	$0.054^{+0.022}_{-0.021}$	z_{re}	7.56	$7.6^{+2.1}_{-2.2}$	$D_M(0.61)$	2315.4	2315^{+40}_{-41}
$\ln(10^{10} A_s)$	3.0406	$3.044^{+0.042}_{-0.040}$	$10^9 A_s$	2.092	$2.099^{+0.090}_{-0.083}$	$H(2.33)$	236.36	$236.5^{+2.5}_{-2.6}$
n_s	0.9646	$0.964^{+0.013}_{-0.013}$	$10^9 A_s e^{-2\tau}$	1.8821	$1.885^{+0.030}_{-0.030}$	$D_M(2.33)$	5772.5	5771^{+37}_{-40}
$dn_s/d \ln k$	-0.0010	$-0.006^{+0.020}_{-0.022}$	D_{40}	1227	1235^{+60}_{-51}	$f\sigma_8(0.15)$	0.4599	$0.460^{+0.021}_{-0.022}$
r	0.000	< 0.205	D_{220}	5715	5716^{+110}_{-100}	$\sigma_8(0.15)$	0.7480	$0.748^{+0.015}_{-0.015}$
y_{cal}	1.0003	$1.0006^{+0.0063}_{-0.0065}$	D_{810}	2537.2	2539^{+34}_{-34}	$f\sigma_8(0.38)$	0.4771	$0.477^{+0.016}_{-0.017}$
A_{217}^{CIB}	49.7	49^{+20}_{-20}	D_{1420}	815.3	814^{+13}_{-13}	$\sigma_8(0.38)$	0.6625	$0.663^{+0.013}_{-0.012}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.22	—	D_{2000}	229.84	$229.2^{+4.9}_{-5.0}$	$f\sigma_8(0.51)$	0.4751	$0.475^{+0.013}_{-0.015}$
A_{143}^{tSZ}	7.0	—	$n_{s,0.002}$	0.968	$0.983^{+0.070}_{-0.064}$	$\sigma_8(0.51)$	0.6198	$0.620^{+0.012}_{-0.012}$
A_{100}^{PS}	256	266^{+70}_{-70}	Y_{P}	0.245320	$0.24533^{+0.00025}_{-0.00028}$	$f\sigma_8(0.61)$	0.4697	$0.470^{+0.012}_{-0.013}$
A_{143}^{PS}	48.4	50^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246646	$0.24666^{+0.00025}_{-0.00028}$	$\sigma_8(0.61)$	0.5896	$0.590^{+0.012}_{-0.011}$
$A_{143 \times 217}^{\text{PS}}$	44.4	43^{+20}_{-20}	$10^5 \text{D}/\text{H}$	2.621	$2.61^{+0.11}_{-0.12}$	$f\sigma_8(2.33)$	0.2971	$0.2971^{+0.0062}_{-0.0059}$
A_{217}^{PS}	117.9	114^{+30}_{-30}	Age/Gyr	13.818	$13.815^{+0.085}_{-0.090}$	$\sigma_8(2.33)$	0.3061	$0.3061^{+0.0070}_{-0.0066}$
A^{kSZ}	0.0	—	z_*	1090.15	$1090.11^{+0.97}_{-0.98}$	$r_{0.002}$	0.000	< 0.220
A_{100}^{dustTT}	9.07	$9.0^{+4.7}_{-4.8}$	r_*	144.57	$144.5^{+1.0}_{-0.97}$	$r_{0.01}$	0.000	< 0.208
A_{143}^{dustTT}	10.88	$10.8^{+4.7}_{-4.6}$	$100\theta_*$	1.04105	$1.0410^{+0.0011}_{-0.0011}$	$\ln(10^{10} A_t)$	-8.76	$-0.4^{+2.2}_{-4.0}$
$A_{143 \times 217}^{\text{dustTT}}$	19.3	$18.3^{+8.5}_{-8.6}$	$D_M(z_*)/\text{Gpc}$	13.887	$13.882^{+0.094}_{-0.092}$	r_{10}	0.000	< 0.117
A_{217}^{dustTT}	94.3	93^{+20}_{-20}	z_{drag}	1059.51	$1059.6^{+1.4}_{-1.3}$	$10^9 A_t$	0.000	< 0.436
c_{100}	0.99966	$0.9996^{+0.0016}_{-0.0016}$	r_{drag}	147.30	$147.2^{+1.0}_{-1.0}$	$10^9 A_t e^{-2\tau}$	0.000	< 0.386
c_{217}	0.99830	$0.9983^{+0.0016}_{-0.0016}$	k_{D}	0.14050	$0.1406^{+0.0013}_{-0.0013}$	f_{2000}^{143}	30.6	32^{+8}_{-8}
H_0	67.18	$67.2^{+1.9}_{-1.8}$	$100\theta_{\text{D}}$	0.16101	$0.16095^{+0.00076}_{-0.00078}$	$f_{2000}^{143 \times 217}$	33.4	34^{+6}_{-6}
Ω_{Λ}	0.6835	$0.683^{+0.025}_{-0.026}$	z_{eq}	3398	3401^{+93}_{-94}	f_{2000}^{217}	107.8	$108.6^{+5.3}_{-5.3}$
Ω_{m}	0.3165	$0.317^{+0.026}_{-0.025}$	k_{eq}	0.010370	$0.01038^{+0.00028}_{-0.00029}$	χ^2_{lensing}	8.89	$9.69 (\nu: 0.5)$
$\Omega_{\text{m}} h^2$	0.14282	$0.1430^{+0.0039}_{-0.0039}$	$100\theta_{\text{eq}}$	0.8136	$0.813^{+0.018}_{-0.017}$	χ^2_{small}	395.90	$397.2 (\nu: 1.4)$
$\Omega_{\text{m}} h^3$	0.09595	$0.0960^{+0.0013}_{-0.0012}$	$100\theta_{\text{s,eq}}$	0.4497	$0.4494^{+0.0092}_{-0.0087}$	χ^2_{lowl}	23.1	$23.9 (\nu: 2.6)$
σ_8	0.8100	$0.810^{+0.016}_{-0.017}$	$H(0.15)$	72.51	$72.5^{+1.6}_{-1.6}$	χ^2_{plik}	759.3	$772.8 (\nu: 15.2)$
S_8	0.8320	$0.833^{+0.042}_{-0.043}$	$D_M(0.15)$	645.0	645^{+16}_{-16}	χ^2_{prior}	1.4	$7.3 (\nu: 6.7)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4557	$0.456^{+0.023}_{-0.024}$	$H(0.38)$	82.70	$82.7^{+1.2}_{-1.1}$	χ^2_{CMB}	1187.1	$1203.5 (\nu: 17.2)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6076	$0.608^{+0.019}_{-0.021}$	$D_M(0.38)$	1537.0	1537^{+32}_{-32}			

Best-fit $\chi^2_{\text{eff}} = 1188.53$; $\Delta\chi^2_{\text{eff}} = -0.03$; $\bar{\chi}^2_{\text{eff}} = 1210.83$; $\Delta\bar{\chi}^2_{\text{eff}} = 2.42$; $R - 1 = 0.00920$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.88 (Δ -0.02) small_100x143_offlike5_EE_Aplanck_B: 395.90 (Δ 0.04) commander_dx12_v3.2.29: 23.09 (Δ -0.15) plik_rd12_HM_v22_TT: 759.26 (Δ -0.06)

14.10 base_nrun_r_plikHM_TT_lowl_lowE_lensing_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02221	$0.02230^{+0.00062}_{-0.00056}$	$r_{\text{drag}} h$	99.62	$99.7^{+2.2}_{-2.2}$	$H(0.61)$	95.23	$95.32^{+0.68}_{-0.62}$
$\Omega_c h^2$	0.11914	$0.1191^{+0.0029}_{-0.0029}$	$\langle d^2 \rangle^{1/2}$	2.429	$2.424^{+0.061}_{-0.062}$	$D_M(0.61)$	2307.9	2305^{+29}_{-29}
$100\theta_{\text{MC}}$	1.04098	$1.0410^{+0.0010}_{-0.0011}$	z_{re}	7.73	$7.9^{+1.9}_{-2.0}$	$H(2.33)$	235.84	$235.9^{+1.9}_{-1.9}$
τ	0.0545	$0.056^{+0.021}_{-0.019}$	$10^9 A_s$	2.095	$2.107^{+0.086}_{-0.083}$	$D_M(2.33)$	5768.0	5764^{+32}_{-34}
$\ln(10^{10} A_s)$	3.0420	$3.048^{+0.040}_{-0.040}$	$10^9 A_s e^{-2\tau}$	1.8782	$1.882^{+0.028}_{-0.028}$	$f\sigma_8(0.15)$	0.4557	$0.455^{+0.016}_{-0.016}$
n_s	0.9667	$0.966^{+0.011}_{-0.011}$	D_{40}	1222	1232^{+58}_{-51}	$\sigma_8(0.15)$	0.7471	$0.747^{+0.014}_{-0.014}$
$dn_s/d \ln k$	-0.00099	$-0.006^{+0.021}_{-0.022}$	D_{220}	5714	5723^{+110}_{-100}	$f\sigma_8(0.38)$	0.4740	$0.474^{+0.013}_{-0.014}$
r	0.000	< 0.216	D_{810}	2536.3	2540^{+35}_{-35}	$\sigma_8(0.38)$	0.6623	$0.663^{+0.013}_{-0.012}$
y_{cal}	1.0004	$1.0008^{+0.0061}_{-0.0065}$	D_{1420}	815.6	815^{+13}_{-13}	$f\sigma_8(0.51)$	0.4726	$0.473^{+0.012}_{-0.012}$
A_{217}^{CIB}	50.1	48^{+20}_{-20}	D_{2000}	229.95	$229.6^{+4.8}_{-4.7}$	$\sigma_8(0.51)$	0.6198	$0.620^{+0.012}_{-0.012}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.14	—	$n_{s,0.002}$	0.970	$0.986^{+0.071}_{-0.065}$	$f\sigma_8(0.61)$	0.4677	$0.468^{+0.011}_{-0.011}$
A_{143}^{tSZ}	7.1	—	Y_{P}	0.245328	$0.24536^{+0.00025}_{-0.00026}$	$\sigma_8(0.61)$	0.5897	$0.590^{+0.012}_{-0.011}$
A_{100}^{PS}	256	265^{+70}_{-70}	$Y_{\text{P}}^{\text{BBN}}$	0.246655	$0.24669^{+0.00025}_{-0.00026}$	$f\sigma_8(2.33)$	0.2974	$0.2976^{+0.0059}_{-0.0059}$
A_{143}^{PS}	47.0	50^{+20}_{-20}	10^5D/H	2.617	$2.60^{+0.11}_{-0.11}$	$\sigma_8(2.33)$	0.3066	$0.3069^{+0.0064}_{-0.0063}$
$A_{143 \times 217}^{\text{PS}}$	42.2	43^{+20}_{-20}	Age/Gyr	13.809	$13.799^{+0.074}_{-0.079}$	$r_{0.002}$	0.000	< 0.236
A_{217}^{PS}	117.2	115^{+30}_{-30}	z_*	1090.06	$1089.93^{+0.82}_{-0.84}$	$r_{0.01}$	0.000	< 0.220
A^{kSZ}	0.0	—	r_*	144.78	$144.73^{+0.79}_{-0.77}$	$\ln(10^{10} A_{\text{t}})$	-6.05	$-0.3^{+2.2}_{-4.0}$
A_{100}^{dustTT}	8.96	$8.9^{+4.8}_{-4.9}$	$100\theta_*$	1.04117	$1.0412^{+0.0010}_{-0.0011}$	r_{10}	0.000	< 0.126
A_{143}^{dustTT}	10.87	$10.7^{+4.7}_{-4.6}$	$D_M(z_*)/\text{Gpc}$	13.905	$13.901^{+0.077}_{-0.076}$	$10^9 A_{\text{t}}$	0.000	< 0.461
$A_{143 \times 217}^{\text{dustTT}}$	19.2	$18.3^{+8.3}_{-8.5}$	z_{drag}	1059.47	$1059.7^{+1.3}_{-1.3}$	$10^9 A_{\text{t}} e^{-2\tau}$	0.000	< 0.408
A_{217}^{dustTT}	94.1	93^{+20}_{-20}	r_{drag}	147.50	$147.42^{+0.88}_{-0.87}$	f_{2000}^{143}	30.7	32^{+8}_{-8}
c_{100}	0.99962	$0.9996^{+0.0015}_{-0.0017}$	k_{D}	0.14031	$0.1405^{+0.0013}_{-0.0012}$	$f_{2000}^{143 \times 217}$	33.4	34^{+6}_{-6}
c_{217}	0.99827	$0.9983^{+0.0015}_{-0.0016}$	$100\theta_{\text{D}}$	0.16102	$0.16090^{+0.00075}_{-0.00075}$	f_{2000}^{217}	107.9	$108.4^{+5.2}_{-5.3}$
H_0	67.54	$67.6^{+1.3}_{-1.3}$	z_{eq}	3378	3378^{+67}_{-68}	χ_{lensing}^2	8.96	$9.49 (\nu: 0.3)$
Ω_{Λ}	0.6887	$0.690^{+0.017}_{-0.017}$	k_{eq}	0.010309	$0.01031^{+0.00021}_{-0.00021}$	χ_{small}^2	396.1	$397.5 (\nu: 1.7)$
Ω_{m}	0.3113	$0.310^{+0.017}_{-0.017}$	$100\theta_{\text{eq}}$	0.8173	$0.818^{+0.012}_{-0.012}$	χ_{lowl}^2	22.7	$23.5 (\nu: 2.3)$
$\Omega_{\text{m}} h^2$	0.14200	$0.1420^{+0.0028}_{-0.0028}$	$100\theta_{\text{s,eq}}$	0.4516	$0.4516^{+0.0065}_{-0.0063}$	χ_{plik}^2	759.8	$773.1 (\nu: 14.9)$
$\Omega_{\text{m}} h^3$	0.09590	$0.0961^{+0.0013}_{-0.0012}$	$H(0.15)$	72.81	$72.9^{+1.2}_{-1.1}$	$\chi_{6\text{DF}}^2$	0.031	$0.054 (\nu: 0.0)$
σ_8	0.8085	$0.809^{+0.015}_{-0.016}$	$D_M(0.15)$	641.9	641^{+11}_{-11}	χ_{MGS}^2	1.22	$1.32 (\nu: 0.1)$
S_8	0.8236	$0.823^{+0.031}_{-0.032}$	$H(0.38)$	82.91	$83.00^{+0.89}_{-0.85}$	χ_{DR12BAO}^2	4.41	$4.7 (\nu: 1.1)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4511	$0.451^{+0.017}_{-0.017}$	$D_M(0.38)$	1531.0	1529^{+23}_{-23}	χ_{prior}^2	1.6	$7.3 (\nu: 6.7)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6039	$0.604^{+0.016}_{-0.017}$	$H(0.51)$	89.62	$89.71^{+0.76}_{-0.71}$	χ_{CMB}^2	1187.5	$1203.5 (\nu: 16.4)$
$\sigma_8/h^{0.5}$	0.9838	$0.983^{+0.023}_{-0.024}$	$D_M(0.51)$	1983.3	1981^{+27}_{-27}	χ_{BAO}^2	5.66	$6.1 (\nu: 0.7)$

Best-fit $\chi_{\text{eff}}^2 = 1194.69$; $\Delta\chi_{\text{eff}}^2 = 0.01$; $\bar{\chi}_{\text{eff}}^2 = 1216.99$; $\Delta\bar{\chi}_{\text{eff}}^2 = 2.26$; $R - 1 = 0.01565$

χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.41 (Δ 0.04) CMB - smicadx12_Dec5_ft1_mv2_ndclpp_p.teb_consext8: 8.96 (Δ 0.08) small_100x143_offlike5_EE_Aplanck.L: 396.06 (Δ -0.03) commander_dx12_v3.2_29: 22.68 (Δ -0.28) plik_rd12_HM_v22_TT: 759.76 (Δ -0.04)

14.11 base_nrun_r_plikHM_TT_lowl_lowE_lensing_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02224^{+0.00063}_{-0.00059}$	$\sigma_8/h^{0.5}$	$0.989^{+0.026}_{-0.028}$	$H(0.51)$	$89.51^{+0.98}_{-0.89}$
$\Omega_{\mathrm{c}}h^2$	$0.1200^{+0.0039}_{-0.0040}$	$r_{\mathrm{drag}}h$	$99.0^{+3.2}_{-3.0}$	$D_{\mathrm{M}}(0.51)$	1989^{+35}_{-38}
$100\theta_{\mathrm{MC}}$	$1.0409^{+0.0011}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	$2.436^{+0.072}_{-0.072}$	$H(0.61)$	$95.17^{+0.82}_{-0.74}$
τ	$0.055^{+0.020}_{-0.014}$	z_{re}	< 9.53	$D_{\mathrm{M}}(0.61)$	2314^{+38}_{-41}
$\ln(10^{10}A_{\mathrm{s}})$	$3.046^{+0.040}_{-0.030}$	$10^9 A_{\mathrm{s}}$	$2.104^{+0.086}_{-0.062}$	$H(2.33)$	$236.4^{+2.4}_{-2.5}$
n_{s}	$0.964^{+0.013}_{-0.013}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.884^{+0.030}_{-0.030}$	$D_{\mathrm{M}}(2.33)$	5770^{+37}_{-39}
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	$-0.006^{+0.020}_{-0.022}$	D_{40}	1234^{+60}_{-51}	$f\sigma_8(0.15)$	$0.460^{+0.021}_{-0.022}$
r	< 0.207	D_{220}	5716^{+110}_{-100}	$\sigma_8(0.15)$	$0.749^{+0.014}_{-0.013}$
y_{cal}	$1.0006^{+0.0063}_{-0.0065}$	D_{810}	2539^{+34}_{-34}	$f\sigma_8(0.38)$	$0.477^{+0.016}_{-0.017}$
A_{217}^{CIB}	49^{+20}_{-20}	D_{1420}	814^{+13}_{-13}	$\sigma_8(0.38)$	$0.663^{+0.012}_{-0.010}$
$\xi^{\mathrm{tSZ}\times\mathrm{CIB}}$	—	D_{2000}	$229.3^{+4.9}_{-5.0}$	$f\sigma_8(0.51)$	$0.475^{+0.013}_{-0.015}$
A_{143}^{tSZ}	—	$n_{\mathrm{s},0.002}$	$0.984^{+0.070}_{-0.064}$	$\sigma_8(0.51)$	$0.620^{+0.012}_{-0.0094}$
A_{100}^{PS}	266^{+70}_{-70}	Y_{P}	$0.24534^{+0.00025}_{-0.00028}$	$f\sigma_8(0.61)$	$0.470^{+0.012}_{-0.013}$
A_{143}^{PS}	50^{+20}_{-20}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24666^{+0.00025}_{-0.00028}$	$\sigma_8(0.61)$	$0.590^{+0.011}_{-0.0089}$
$A_{143\times 217}^{\mathrm{PS}}$	43^{+20}_{-20}	$10^5\mathrm{D}/\mathrm{H}$	$2.61^{+0.12}_{-0.11}$	$f\sigma_8(2.33)$	$0.2974^{+0.0060}_{-0.0045}$
A_{217}^{PS}	114^{+30}_{-30}	$\mathrm{Age}/\mathrm{Gyr}$	$13.813^{+0.084}_{-0.089}$	$\sigma_8(2.33)$	$0.3064^{+0.0066}_{-0.0048}$
A^{kSZ}	—	z_*	$1090.09^{+0.95}_{-0.97}$	$r_{0.002}$	< 0.223
$A_{100}^{\mathrm{dust}TT}$	$9.0^{+4.7}_{-4.8}$	r_*	$144.54^{+0.99}_{-0.94}$	$r_{0.01}$	< 0.209
$A_{143}^{\mathrm{dust}TT}$	$10.8^{+4.7}_{-4.7}$	$100\theta_*$	$1.0410^{+0.0011}_{-0.0011}$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.4^{+2.2}_{-4.0}$
$A_{143\times 217}^{\mathrm{dust}TT}$	$18.3^{+8.5}_{-8.5}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.884^{+0.093}_{-0.089}$	r_{10}	< 0.119
$A_{217}^{\mathrm{dust}TT}$	93^{+20}_{-20}	z_{drag}	$1059.6^{+1.4}_{-1.3}$	$10^9 A_{\mathrm{t}}$	< 0.441
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	r_{drag}	$147.2^{+1.0}_{-1.0}$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.391
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	k_{D}	$0.1406^{+0.0013}_{-0.0013}$	f_{2000}^{143}	32^{+8}_{-8}
H_0	$67.2^{+1.9}_{-1.7}$	$100\theta_{\mathrm{D}}$	$0.16094^{+0.00077}_{-0.00078}$	$f_{2000}^{143\times 217}$	34^{+6}_{-6}
Ω_{Λ}	$0.684^{+0.024}_{-0.025}$	z_{eq}	3399^{+88}_{-93}	f_{2000}^{217}	$108.6^{+5.3}_{-5.4}$
Ω_{m}	$0.316^{+0.025}_{-0.024}$	k_{eq}	$0.01037^{+0.00027}_{-0.00028}$	$\chi_{\mathrm{lensing}}^2$	$9.67 (\nu: 0.4)$
$\Omega_{\mathrm{m}}h^2$	$0.1429^{+0.0037}_{-0.0039}$	$100\theta_{\mathrm{eq}}$	$0.814^{+0.018}_{-0.016}$	χ_{simall}^2	$397.1 (\nu: 1.4)$
$\Omega_{\mathrm{m}}h^3$	$0.0960^{+0.0013}_{-0.0012}$	$100\theta_{\mathrm{s,eq}}$	$0.4496^{+0.0091}_{-0.0083}$	χ_{lowl}^2	$23.8 (\nu: 2.6)$
σ_8	$0.811^{+0.016}_{-0.015}$	$H(0.15)$	$72.6^{+1.6}_{-1.5}$	χ_{plik}^2	$772.7 (\nu: 15.2)$
S_8	$0.832^{+0.041}_{-0.043}$	$D_{\mathrm{M}}(0.15)$	645^{+15}_{-16}	χ_{prior}^2	$7.3 (\nu: 6.7)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.456^{+0.023}_{-0.023}$	$H(0.38)$	$82.8^{+1.2}_{-1.1}$	χ_{CMB}^2	$1203.3 (\nu: 16.9)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.608^{+0.019}_{-0.021}$	$D_{\mathrm{M}}(0.38)$	1536^{+30}_{-32}		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1210.63; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.47; R - 1 = 0.00844$$

14.12 base_nrun_r_plikHM_TT_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}} h^2$	$0.02230^{+0.00062}_{-0.00055}$	$r_{\mathrm{drag}} h$	$99.7^{+2.2}_{-2.1}$	$H(0.61)$	$95.32^{+0.67}_{-0.62}$
$\Omega_{\mathrm{c}} h^2$	$0.1190^{+0.0028}_{-0.0029}$	$\langle d^2 \rangle^{1/2}$	$2.424^{+0.061}_{-0.062}$	$D_{\mathrm{M}}(0.61)$	2305^{+29}_{-30}
$100\theta_{\mathrm{MC}}$	$1.0410^{+0.0010}_{-0.0011}$	z_{re}	< 9.64	$H(2.33)$	$235.9^{+1.9}_{-1.9}$
τ	$0.057^{+0.019}_{-0.015}$	$10^9 A_{\mathrm{s}}$	$2.109^{+0.084}_{-0.067}$	$D_{\mathrm{M}}(2.33)$	5763^{+32}_{-34}
$\ln(10^{10} A_{\mathrm{s}})$	$3.049^{+0.039}_{-0.032}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.882^{+0.028}_{-0.028}$	$f\sigma_8(0.15)$	$0.455^{+0.016}_{-0.016}$
n_{s}	$0.966^{+0.011}_{-0.011}$	D_{40}	1232^{+59}_{-51}	$\sigma_8(0.15)$	$0.748^{+0.014}_{-0.013}$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	$-0.006^{+0.020}_{-0.022}$	D_{220}	5723^{+110}_{-100}	$f\sigma_8(0.38)$	$0.474^{+0.013}_{-0.014}$
r	< 0.220	D_{810}	2540^{+35}_{-35}	$\sigma_8(0.38)$	$0.663^{+0.012}_{-0.011}$
y_{cal}	$1.0008^{+0.0062}_{-0.0065}$	D_{1420}	815^{+13}_{-13}	$f\sigma_8(0.51)$	$0.473^{+0.012}_{-0.012}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{2000}	$229.6^{+4.8}_{-4.7}$	$\sigma_8(0.51)$	$0.621^{+0.012}_{-0.010}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s},0.002}$	$0.987^{+0.070}_{-0.065}$	$f\sigma_8(0.61)$	$0.468^{+0.010}_{-0.011}$
A_{143}^{tSZ}	—	Y_{P}	$0.24536^{+0.00025}_{-0.00025}$	$\sigma_8(0.61)$	$0.590^{+0.011}_{-0.0092}$
A_{100}^{PS}	265^{+70}_{-70}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24669^{+0.00025}_{-0.00026}$	$f\sigma_8(2.33)$	$0.2978^{+0.0058}_{-0.0046}$
A_{143}^{PS}	50^{+20}_{-20}	$10^5 \mathrm{D}/\mathrm{H}$	$2.60^{+0.11}_{-0.11}$	$\sigma_8(2.33)$	$0.3071^{+0.0062}_{-0.0049}$
$A_{143 \times 217}^{\mathrm{PS}}$	43^{+20}_{-20}	$\mathrm{Age}/\mathrm{Gyr}$	$13.798^{+0.074}_{-0.078}$	$r_{0.002}$	< 0.237
A_{217}^{PS}	115^{+30}_{-30}	z_{*}	$1089.93^{+0.81}_{-0.84}$	$r_{0.01}$	< 0.224
A^{kSZ}	—	r_{*}	$144.73^{+0.79}_{-0.77}$	$\ln(10^{10} A_{\mathrm{t}})$	$-0.3^{+2.2}_{-4.0}$
$A_{100}^{\mathrm{dustTT}}$	$8.9^{+4.8}_{-4.9}$	$100\theta_{*}$	$1.0412^{+0.0010}_{-0.0011}$	r_{10}	< 0.126
$A_{143}^{\mathrm{dustTT}}$	$10.7^{+4.8}_{-4.6}$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$13.901^{+0.077}_{-0.076}$	$10^9 A_{\mathrm{t}}$	< 0.462
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3^{+8.4}_{-8.6}$	z_{drag}	$1059.7^{+1.3}_{-1.3}$	$10^9 A_{\mathrm{t}} e^{-2\tau}$	< 0.415
$A_{217}^{\mathrm{dustTT}}$	93^{+20}_{-20}	r_{drag}	$147.43^{+0.88}_{-0.87}$	f_{2000}^{143}	32^{+8}_{-8}
c_{100}	$0.9996^{+0.0016}_{-0.0017}$	k_{D}	$0.1405^{+0.0012}_{-0.0012}$	$f_{2000}^{143 \times 217}$	34^{+6}_{-6}
c_{217}	$0.9983^{+0.0015}_{-0.0016}$	$100\theta_{\mathrm{D}}$	$0.16090^{+0.00076}_{-0.00075}$	f_{2000}^{217}	$108.4^{+5.2}_{-5.3}$
H_0	$67.7^{+1.3}_{-1.3}$	z_{eq}	3378^{+67}_{-68}	$\chi_{\mathrm{lensing}}^2$	$9.46 (\nu: 0.3)$
Ω_{Λ}	$0.690^{+0.017}_{-0.017}$	k_{eq}	$0.01031^{+0.00020}_{-0.00021}$	χ_{simall}^2	$397.4 (\nu: 1.8)$
Ω_{m}	$0.310^{+0.017}_{-0.017}$	$100\theta_{\mathrm{eq}}$	$0.818^{+0.012}_{-0.012}$	χ_{lowl}^2	$23.5 (\nu: 2.3)$
$\Omega_{\mathrm{m}} h^2$	$0.1420^{+0.0028}_{-0.0028}$	$100\theta_{\mathrm{s,eq}}$	$0.4517^{+0.0065}_{-0.0063}$	χ_{plik}^2	$773.0 (\nu: 14.9)$
$\Omega_{\mathrm{m}} h^3$	$0.0961^{+0.0013}_{-0.0012}$	$H(0.15)$	$72.9^{+1.2}_{-1.1}$	$\chi_{6\mathrm{DF}}^2$	$0.052 (\nu: 0.0)$
σ_8	$0.809^{+0.015}_{-0.015}$	$D_{\mathrm{M}}(0.15)$	641^{+11}_{-11}	χ_{MGS}^2	$1.33 (\nu: 0.1)$
S_8	$0.823^{+0.031}_{-0.032}$	$H(0.38)$	$83.01^{+0.89}_{-0.84}$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 (\nu: 1.0)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.451^{+0.017}_{-0.017}$	$D_{\mathrm{M}}(0.38)$	1529^{+22}_{-23}	χ_{prior}^2	$7.3 (\nu: 6.7)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.604^{+0.016}_{-0.016}$	$H(0.51)$	$89.71^{+0.76}_{-0.70}$	χ_{CMB}^2	$1203.4 (\nu: 16.3)$
$\sigma_8/h^{0.5}$	$0.984^{+0.023}_{-0.023}$	$D_{\mathrm{M}}(0.51)$	1981^{+26}_{-27}	χ_{BAO}^2	$6.1 (\nu: 0.7)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 1216.87; \Delta \bar{\chi}_{\mathrm{eff}}^2 = 2.29; R - 1 = 0.01475$$

14.13 base_nrun_r_plikHM_TTTEE_lowl_lowE_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022398	$0.02243^{+0.00040}_{-0.00038}$	σ_8	0.8121	$0.811^{+0.016}_{-0.015}$	$H(0.38)$	82.86	$82.93^{+0.89}_{-0.85}$
$\Omega_c h^2$	0.12015	$0.1199^{+0.0031}_{-0.0029}$	S_8	0.8333	$0.830^{+0.033}_{-0.032}$	$D_M(0.38)$	1533.9	1532^{+23}_{-24}
$100\theta_{MC}$	1.04094	$1.04093^{+0.00078}_{-0.00076}$	$\sigma_8 \Omega_m^{0.5}$	0.4564	$0.455^{+0.018}_{-0.017}$	$H(0.51)$	89.63	$89.69^{+0.72}_{-0.68}$
τ	0.0546	$0.056^{+0.022}_{-0.020}$	$\sigma_8 \Omega_m^{0.25}$	0.6088	$0.607^{+0.017}_{-0.016}$	$D_M(0.51)$	1986.3	1984^{+27}_{-28}
$\ln(10^{10} A_s)$	3.0464	$3.049^{+0.043}_{-0.039}$	$\sigma_8/h^{0.5}$	0.9897	$0.987^{+0.024}_{-0.023}$	$H(0.61)$	95.29	$95.33^{+0.60}_{-0.55}$
n_s	0.9654	$0.965^{+0.011}_{-0.011}$	$r_{\text{drag}} h$	98.99	$99.2^{+2.4}_{-2.3}$	$D_M(0.61)$	2310.7	2308^{+30}_{-30}
$dn_s/d \ln k$	-0.0025	$-0.008^{+0.019}_{-0.020}$	$\langle d^2 \rangle^{1/2}$	2.442	$2.431^{+0.061}_{-0.062}$	$H(2.33)$	236.69	$236.6^{+1.8}_{-1.7}$
r	0.001	< 0.215	z_{re}	7.71	$7.8^{+2.0}_{-2.1}$	$D_M(2.33)$	5762.6	5761^{+26}_{-28}
y_{cal}	1.0006	$1.0007^{+0.0064}_{-0.0064}$	$10^9 A_s$	2.104	$2.110^{+0.092}_{-0.080}$	$f\sigma_8(0.15)$	0.4606	$0.459^{+0.017}_{-0.016}$
A_{217}^{CIB}	47.4	48^{+20}_{-20}	$10^9 A_s e^{-2\tau}$	1.8862	$1.886^{+0.029}_{-0.028}$	$\sigma_8(0.15)$	0.7500	$0.749^{+0.014}_{-0.013}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.47	—	D_{40}	1225	1233^{+56}_{-49}	$f\sigma_8(0.38)$	0.4780	$0.477^{+0.014}_{-0.013}$
A_{143}^{tSZ}	7.1	—	D_{220}	5733	5729^{+100}_{-100}	$\sigma_8(0.38)$	0.6643	$0.664^{+0.013}_{-0.012}$
A_{100}^{PS}	251	264^{+70}_{-70}	D_{810}	2542.8	2542^{+35}_{-34}	$f\sigma_8(0.51)$	0.4761	$0.475^{+0.012}_{-0.012}$
A_{143}^{PS}	49.3	48^{+20}_{-20}	D_{1420}	818.1	816^{+13}_{-13}	$\sigma_8(0.51)$	0.6215	$0.621^{+0.013}_{-0.011}$
$A_{143 \times 217}^{\text{PS}}$	49.2	43^{+20}_{-20}	D_{2000}	231.06	$230.0^{+4.7}_{-4.6}$	$f\sigma_8(0.61)$	0.4708	$0.470^{+0.011}_{-0.011}$
A_{217}^{PS}	120.2	115^{+30}_{-30}	$n_{s,0.002}$	0.973	$0.992^{+0.062}_{-0.058}$	$\sigma_8(0.61)$	0.5912	$0.591^{+0.012}_{-0.011}$
A^{kSZ}	0.0	—	Y_{P}	0.245407	$0.24542^{+0.00015}_{-0.00016}$	$f\sigma_8(2.33)$	0.2979	$0.2977^{+0.0064}_{-0.0057}$
$A_{100}^{\text{dust}TT}$	8.87	$9.0^{+4.8}_{-4.8}$	$Y_{\text{P}}^{\text{BBN}}$	0.246733	$0.24674^{+0.00015}_{-0.00016}$	$\sigma_8(2.33)$	0.3070	$0.3068^{+0.0069}_{-0.0062}$
$A_{143}^{\text{dust}TT}$	11.05	$11.0^{+4.5}_{-4.6}$	$10^5 D/H$	2.580	$2.575^{+0.072}_{-0.071}$	$r_{0.002}$	0.001	< 0.229
$A_{143 \times 217}^{\text{dust}TT}$	19.9	$18.7^{+8.3}_{-8.6}$	Age/Gyr	13.795	$13.791^{+0.059}_{-0.062}$	$r_{0.01}$	0.001	< 0.217
$A_{217}^{\text{dust}TT}$	95.0	94^{+20}_{-20}	z_*	1089.90	$1089.84^{+0.67}_{-0.66}$	$\ln(10^{10} A_t)$	-4.27	$-0.2^{+2.0}_{-4.0}$
$A_{100}^{\text{dust}TE}$	0.114	$0.115^{+0.10}_{-0.097}$	r_*	144.37	$144.41^{+0.66}_{-0.68}$	r_{10}	0.000	< 0.122
$A_{100 \times 143}^{\text{dust}TE}$	0.135	$0.136^{+0.075}_{-0.076}$	$100\theta_*$	1.04111	$1.04111^{+0.00077}_{-0.00075}$	$10^9 A_t$	0.001	< 0.456
$A_{100 \times 217}^{\text{dust}TE}$	0.481	$0.48^{+0.22}_{-0.22}$	$D_M(z_*)/\text{Gpc}$	13.867	$13.871^{+0.062}_{-0.065}$	$10^9 A_t e^{-2\tau}$	0.001	< 0.405
$A_{143}^{\text{dust}TE}$	0.224	$0.23^{+0.14}_{-0.14}$	z_{drag}	1060.01	$1060.06^{+0.82}_{-0.82}$	f_{2000}^{143}	29.3	31^{+8}_{-8}
$A_{143 \times 217}^{\text{dust}TE}$	0.666	$0.66^{+0.20}_{-0.20}$	r_{drag}	147.02	$147.05^{+0.67}_{-0.70}$	$f_{2000}^{143 \times 217}$	32.4	33^{+5}_{-6}
$A_{217}^{\text{dust}TE}$	2.09	$2.08^{+0.70}_{-0.69}$	k_D	0.14096	$0.14095^{+0.00081}_{-0.00079}$	f_{2000}^{217}	106.9	$108.0^{+5.1}_{-5.2}$
c_{100}	0.99973	$0.9997^{+0.0016}_{-0.0015}$	$100\theta_D$	0.160717	$0.16068^{+0.00047}_{-0.00048}$	χ_{lensing}^2	8.96	$9.56 (\nu: 0.3)$
c_{217}	0.99820	$0.9982^{+0.0016}_{-0.0016}$	z_{eq}	3406	3401^{+69}_{-66}	χ_{small}^2	396.06	$397.4 (\nu: 1.7)$
H_0	67.33	$67.4^{+1.4}_{-1.4}$	k_{eq}	0.010397	$0.01038^{+0.00021}_{-0.00020}$	χ_{lowl}^2	22.66	$23.4 (\nu: 1.8)$
Ω_Λ	0.6841	$0.686^{+0.018}_{-0.019}$	$100\theta_{\text{eq}}$	0.8126	$0.814^{+0.013}_{-0.013}$	χ_{plik}^2	2345.1	$2360.6 (\nu: 17.6)$
Ω_m	0.3159	$0.314^{+0.019}_{-0.018}$	$100\theta_{s,\text{eq}}$	0.4490	$0.4495^{+0.0064}_{-0.0065}$	χ_{prior}^2	1.7	$11.6 (\nu: 10.5)$
$\Omega_m h^2$	0.14319	$0.1430^{+0.0029}_{-0.0028}$	$H(0.15)$	72.66	$72.8^{+1.2}_{-1.2}$	χ_{CMB}^2	2772.8	$2791.0 (\nu: 19.4)$
$\Omega_m h^3$	0.09641	$0.09642^{+0.00081}_{-0.00078}$	$D_M(0.15)$	643.6	643^{+12}_{-12}			

Best-fit $\chi_{\text{eff}}^2 = 2774.45$; $\Delta\chi_{\text{eff}}^2 = -0.18$; $\bar{\chi}_{\text{eff}}^2 = 2802.59$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.90$; $R - 1 = 0.00905$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consect8: 8.96 (Δ 0.09) small_100x143_offlike5_EE_Aplanck_B: 396.06 (Δ 0.01) commander_dx12_v3.2_29: 22.66 (Δ -0.59) plik_rd12_HM_v22b_TTTEE: 2345.10 (Δ 0.17)

14.14 base_nrun_r_plikHM_TTTEE_lowl_lowE_lensing_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022442	$0.02248^{+0.00037}_{-0.00037}$	S_8	0.8260	$0.824^{+0.028}_{-0.026}$	$H(0.51)$	89.77	$89.82^{+0.58}_{-0.56}$
$\Omega_c h^2$	0.11941	$0.1193^{+0.0025}_{-0.0023}$	$\sigma_8 \Omega_m^{0.5}$	0.4524	$0.451^{+0.015}_{-0.014}$	$D_M(0.51)$	1980.2	1978^{+22}_{-22}
$100\theta_{MC}$	1.04098	$1.04101^{+0.00074}_{-0.00072}$	$\sigma_8 \Omega_m^{0.25}$	0.6056	$0.605^{+0.015}_{-0.014}$	$H(0.61)$	95.390	$95.44^{+0.50}_{-0.48}$
τ	0.0569	$0.058^{+0.021}_{-0.018}$	$\sigma_8/h^{0.5}$	0.9857	$0.984^{+0.021}_{-0.021}$	$D_M(0.61)$	2304.2	2302^{+24}_{-24}
$\ln(10^{10} A_s)$	3.0493	$3.052^{+0.041}_{-0.037}$	$r_{\text{drag}} h$	99.54	$99.7^{+1.8}_{-1.9}$	$H(2.33)$	236.25	$236.2^{+1.5}_{-1.4}$
n_s	0.9664	$0.966^{+0.010}_{-0.010}$	$\langle d^2 \rangle^{1/2}$	2.433	$2.424^{+0.058}_{-0.060}$	$D_M(2.33)$	5758.5	5756^{+23}_{-24}
$dn_s/d \ln k$	-0.0037	$-0.008^{+0.019}_{-0.020}$	z_{re}	7.92	$8.0^{+2.0}_{-1.9}$	$f\sigma_8(0.15)$	0.4570	$0.456^{+0.014}_{-0.013}$
r	0.000	< 0.217	$10^9 A_s$	2.110	$2.115^{+0.089}_{-0.077}$	$\sigma_8(0.15)$	0.7491	$0.749^{+0.015}_{-0.013}$
y_{cal}	1.0007	$1.0008^{+0.0064}_{-0.0064}$	$10^9 A_s e^{-2\tau}$	1.8831	$1.884^{+0.028}_{-0.027}$	$f\sigma_8(0.38)$	0.4754	$0.475^{+0.012}_{-0.011}$
A_{217}^{CIB}	49.0	48^{+20}_{-20}	D_{40}	1220	1231^{+57}_{-49}	$\sigma_8(0.38)$	0.6640	$0.664^{+0.013}_{-0.012}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.19	—	D_{220}	5736	5733^{+100}_{-99}	$f\sigma_8(0.51)$	0.4740	$0.473^{+0.011}_{-0.010}$
A_{143}^{tSZ}	7.3	—	D_{810}	2541.5	2542^{+34}_{-34}	$\sigma_8(0.51)$	0.6214	$0.621^{+0.012}_{-0.011}$
A_{100}^{PS}	253	263^{+70}_{-70}	D_{1420}	817.6	817^{+13}_{-13}	$f\sigma_8(0.61)$	0.4690	$0.4684^{+0.0099}_{-0.0098}$
A_{143}^{PS}	45.1	48^{+20}_{-20}	D_{2000}	230.85	$230.3^{+4.6}_{-4.6}$	$\sigma_8(0.61)$	0.5913	$0.591^{+0.012}_{-0.010}$
$A_{143 \times 217}^{\text{PS}}$	41.9	42^{+20}_{-20}	$n_{s,0.002}$	0.978	$0.993^{+0.063}_{-0.059}$	$f\sigma_8(2.33)$	0.2981	$0.2981^{+0.0062}_{-0.0053}$
A_{217}^{PS}	117.4	114^{+30}_{-30}	Y_{P}	0.245423	$0.24543^{+0.00014}_{-0.00015}$	$\sigma_8(2.33)$	0.3074	$0.3074^{+0.0065}_{-0.0057}$
A^{kSZ}	0.0	—	$Y_{\text{P}}^{\text{BBN}}$	0.246750	$0.24676^{+0.00014}_{-0.00015}$	$r_{0.002}$	0.000	< 0.231
A_{100}^{dustTT}	8.93	$9.0^{+4.6}_{-4.9}$	10^5D/H	2.572	$2.567^{+0.069}_{-0.066}$	$r_{0.01}$	0.000	< 0.218
A_{143}^{dustTT}	11.01	$11.0^{+4.5}_{-4.6}$	Age/Gyr	13.786	$13.781^{+0.053}_{-0.053}$	$\ln(10^{10} A_t)$	-4.68	$-0.1^{+1.9}_{-4.0}$
$A_{143 \times 217}^{\text{dustTT}}$	19.4	$18.6^{+8.3}_{-8.4}$	z_*	1089.78	$1089.72^{+0.58}_{-0.56}$	r_{10}	0.000	< 0.122
A_{217}^{dustTT}	94.4	93^{+20}_{-20}	r_*	144.53	$144.54^{+0.55}_{-0.58}$	$10^9 A_t$	0.001	< 0.460
A_{100}^{dustTE}	0.114	$0.115^{+0.10}_{-0.098}$	$100\theta_*$	1.04115	$1.04118^{+0.00073}_{-0.00071}$	$10^9 A_t e^{-2\tau}$	0.001	< 0.409
$A_{100 \times 143}^{\text{dustTE}}$	0.136	$0.136^{+0.077}_{-0.075}$	$D_M(z_*)/\text{Gpc}$	13.882	$13.883^{+0.053}_{-0.057}$	f_{2000}^{143}	29.6	31^{+8}_{-8}
$A_{100 \times 217}^{\text{dustTE}}$	0.481	$0.48^{+0.21}_{-0.22}$	z_{drag}	1060.05	$1060.12^{+0.80}_{-0.80}$	$f_{2000}^{143 \times 217}$	32.5	33^{+5}_{-6}
A_{143}^{dustTE}	0.225	$0.23^{+0.14}_{-0.14}$	r_{drag}	147.17	$147.17^{+0.57}_{-0.63}$	f_{2000}^{217}	107.2	$107.9^{+5.0}_{-5.1}$
$A_{143 \times 217}^{\text{dustTE}}$	0.663	$0.66^{+0.21}_{-0.20}$	k_{D}	0.14084	$0.14086^{+0.00080}_{-0.00074}$	χ_{lensing}^2	8.84	$9.42 (\nu: 0.2)$
A_{217}^{dustTE}	2.07	$2.07^{+0.72}_{-0.68}$	$100\theta_{\text{D}}$	0.160687	$0.16065^{+0.00046}_{-0.00046}$	χ_{small}^2	396.5	$397.7 (\nu: 2.1)$
c_{100}	0.99971	$0.9997^{+0.0016}_{-0.0016}$	z_{eq}	3390	3387^{+56}_{-52}	χ_{lowl}^2	22.19	$23.2 (\nu: 1.8)$
c_{217}	0.99820	$0.9982^{+0.0016}_{-0.0016}$	k_{eq}	0.010346	$0.01034^{+0.00017}_{-0.00016}$	χ_{plik}^2	2345.4	$2360.6 (\nu: 17.5)$
H_0	67.64	$67.7^{+1.1}_{-1.1}$	$100\theta_{\text{eq}}$	0.8158	$0.8164^{+0.0099}_{-0.010}$	$\chi_{6\text{DF}}^2$	0.037	$0.049 (\nu: 0.0)$
Ω_{Λ}	0.6885	$0.690^{+0.014}_{-0.015}$	$100\theta_{s,\text{eq}}$	0.4506	$0.4509^{+0.0050}_{-0.0053}$	χ_{MGS}^2	1.16	$1.29 (\nu: 0.1)$
Ω_{m}	0.3115	$0.310^{+0.015}_{-0.014}$	$H(0.15)$	72.92	$73.01^{+0.94}_{-0.94}$	χ_{DR12BAO}^2	4.62	$4.7 (\nu: 0.8)$
$\Omega_{\text{m}} h^2$	0.14250	$0.1424^{+0.0023}_{-0.0022}$	$D_M(0.15)$	640.9	$640.1^{+9.4}_{-9.2}$	χ_{prior}^2	1.9	$11.7 (\nu: 10.4)$
$\Omega_{\text{m}} h^3$	0.09638	$0.09643^{+0.00079}_{-0.00079}$	$H(0.38)$	83.04	$83.11^{+0.71}_{-0.70}$	χ_{CMB}^2	2772.8	$2790.9 (\nu: 19.1)$
σ_8	0.8107	$0.810^{+0.016}_{-0.015}$	$D_M(0.38)$	1528.6	1527^{+19}_{-19}	χ_{BAO}^2	5.81	$6.1 (\nu: 0.5)$

Best-fit $\chi_{\text{eff}}^2 = 2780.54$; $\Delta\chi_{\text{eff}}^2 = -0.16$; $\bar{\chi}_{\text{eff}}^2 = 2808.64$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.79$; $R - 1 = 0.01143$
 χ_{eff}^2 : BAO - 6DF: 0.04 (Δ 0.01) MGS: 1.16 (Δ -0.06) DR12BAO: 4.62 (Δ 0.20) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.84 (Δ 0.11) small_100x143_offlike5_EE_Aplanck: 396.45 (Δ -0.07) commander_dx12_v3.2_29: 22.19 (Δ -0.71) plik_rd12_HM_v22b_TTTEE: 2345.36 (Δ 0.04)

14.15 base_nrun_r_plikHM_TTTEE_lowl_lowE_lensing_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02243^{+0.00039}_{-0.00038}$	σ_8	$0.811^{+0.016}_{-0.014}$	$H(0.38)$	$82.95^{+0.89}_{-0.85}$
$\Omega_c h^2$	$0.1199^{+0.0030}_{-0.0029}$	S_8	$0.830^{+0.033}_{-0.032}$	$D_M(0.38)$	1532^{+23}_{-24}
$100\theta_{MC}$	$1.04094^{+0.00078}_{-0.00077}$	$\sigma_8 \Omega_m^{0.5}$	$0.455^{+0.018}_{-0.017}$	$H(0.51)$	$89.70^{+0.71}_{-0.67}$
τ	$0.057^{+0.020}_{-0.015}$	$\sigma_8 \Omega_m^{0.25}$	$0.607^{+0.017}_{-0.016}$	$D_M(0.51)$	1984^{+27}_{-28}
$\ln(10^{10} A_s)$	$3.051^{+0.042}_{-0.031}$	$\sigma_8/h^{0.5}$	$0.988^{+0.024}_{-0.023}$	$H(0.61)$	$95.34^{+0.59}_{-0.55}$
n_s	$0.965^{+0.011}_{-0.011}$	$r_{\text{drag}} h$	$99.2^{+2.4}_{-2.3}$	$D_M(0.61)$	2308^{+29}_{-30}
$dn_s/d \ln k$	$-0.009^{+0.019}_{-0.020}$	$\langle d^2 \rangle^{1/2}$	$2.431^{+0.060}_{-0.062}$	$H(2.33)$	$236.5^{+1.8}_{-1.7}$
r	< 0.216	z_{re}	< 9.68	$D_M(2.33)$	5760^{+26}_{-27}
y_{cal}	$1.0007^{+0.0064}_{-0.0065}$	$10^9 A_s$	$2.113^{+0.090}_{-0.064}$	$f\sigma_8(0.15)$	$0.459^{+0.017}_{-0.016}$
A_{217}^{CIB}	48^{+20}_{-20}	$10^9 A_s e^{-2\tau}$	$1.886^{+0.029}_{-0.028}$	$\sigma_8(0.15)$	$0.749^{+0.014}_{-0.012}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{40}	1233^{+56}_{-49}	$f\sigma_8(0.38)$	$0.477^{+0.014}_{-0.013}$
A_{143}^{tSZ}	—	D_{220}	5729^{+100}_{-100}	$\sigma_8(0.38)$	$0.664^{+0.013}_{-0.010}$
A_{100}^{PS}	264^{+70}_{-70}	D_{810}	2542^{+35}_{-35}	$f\sigma_8(0.51)$	$0.475^{+0.012}_{-0.012}$
A_{143}^{PS}	48^{+20}_{-20}	D_{1420}	816^{+13}_{-13}	$\sigma_8(0.51)$	$0.621^{+0.012}_{-0.0096}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	D_{2000}	$230.0^{+4.7}_{-4.6}$	$f\sigma_8(0.61)$	$0.470^{+0.011}_{-0.010}$
A_{217}^{PS}	115^{+30}_{-30}	$n_{s,0.002}$	$0.992^{+0.062}_{-0.058}$	$\sigma_8(0.61)$	$0.591^{+0.012}_{-0.0091}$
A^{kSZ}	—	Y_P	$0.24542^{+0.00015}_{-0.00016}$	$f\sigma_8(2.33)$	$0.2979^{+0.0063}_{-0.0046}$
$A_{100}^{\text{dust}TT}$	$8.9^{+4.8}_{-4.8}$	Y_P^{BBN}	$0.24674^{+0.00015}_{-0.00016}$	$\sigma_8(2.33)$	$0.3070^{+0.0068}_{-0.0049}$
$A_{143}^{\text{dust}TT}$	$11.0^{+4.5}_{-4.6}$	$10^5 D/H$	$2.574^{+0.072}_{-0.071}$	$r_{0.002}$	< 0.230
$A_{143 \times 217}^{\text{dust}TT}$	$18.7^{+8.3}_{-8.7}$	Age/Gyr	$13.790^{+0.058}_{-0.061}$	$r_{0.01}$	< 0.218
$A_{217}^{\text{dust}TT}$	94^{+20}_{-20}	z_*	$1089.83^{+0.66}_{-0.65}$	$\ln(10^{10} A_t)$	$-0.2^{+2.0}_{-4.0}$
$A_{100}^{\text{dust}TE}$	$0.115^{+0.10}_{-0.097}$	r_*	$144.42^{+0.66}_{-0.67}$	r_{10}	< 0.122
$A_{100 \times 143}^{\text{dust}TE}$	$0.136^{+0.075}_{-0.076}$	$100\theta_*$	$1.04111^{+0.00077}_{-0.00076}$	$10^9 A_t$	< 0.457
$A_{100 \times 217}^{\text{dust}TE}$	$0.48^{+0.22}_{-0.22}$	$D_M(z_*)/\text{Gpc}$	$13.872^{+0.062}_{-0.064}$	$10^9 A_t e^{-2\tau}$	< 0.407
$A_{143}^{\text{dust}TE}$	$0.23^{+0.14}_{-0.14}$	z_{drag}	$1060.07^{+0.82}_{-0.79}$	f_{2000}^{143}	31^{+8}_{-8}
$A_{143 \times 217}^{\text{dust}TE}$	$0.66^{+0.20}_{-0.20}$	r_{drag}	$147.06^{+0.67}_{-0.69}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-6}
$A_{217}^{\text{dust}TE}$	$2.08^{+0.70}_{-0.69}$	k_D	$0.14095^{+0.00080}_{-0.00079}$	f_{2000}^{217}	$108.0^{+5.2}_{-5.2}$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.16068^{+0.00047}_{-0.00047}$	χ_{lensing}^2	$9.55 (\nu: 0.3)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	z_{eq}	3400^{+68}_{-65}	χ_{simall}^2	$397.4 (\nu: 1.8)$
H_0	$67.5^{+1.4}_{-1.4}$	k_{eq}	$0.01038^{+0.00021}_{-0.00020}$	χ_{lowl}^2	$23.3 (\nu: 1.8)$
Ω_Λ	$0.686^{+0.018}_{-0.019}$	$100\theta_{\text{eq}}$	$0.814^{+0.013}_{-0.013}$	χ_{plik}^2	$2360.5 (\nu: 17.5)$
Ω_m	$0.314^{+0.019}_{-0.018}$	$100\theta_{s,\text{eq}}$	$0.4496^{+0.0064}_{-0.0064}$	χ_{prior}^2	$11.6 (\nu: 10.5)$
$\Omega_m h^2$	$0.1429^{+0.0028}_{-0.0027}$	$H(0.15)$	$72.8^{+1.2}_{-1.2}$	χ_{CMB}^2	$2790.8 (\nu: 19.1)$
$\Omega_m h^3$	$0.09642^{+0.00081}_{-0.00078}$	$D_M(0.15)$	642^{+12}_{-12}		

$$\bar{\chi}_{\text{eff}}^2 = 2802.46; \Delta \bar{\chi}_{\text{eff}}^2 = 1.95; R - 1 = 0.01057$$

14.16 base_nrun_r_plikHM_TTTEE_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02248^{+0.00037}_{-0.00037}$	S_8	$0.824^{+0.028}_{-0.026}$	$H(0.51)$	$89.83^{+0.58}_{-0.56}$
$\Omega_c h^2$	$0.1192^{+0.0025}_{-0.0023}$	$\sigma_8 \Omega_m^{0.5}$	$0.451^{+0.015}_{-0.014}$	$D_M(0.51)$	1978^{+22}_{-22}
$100\theta_{MC}$	$1.04101^{+0.00074}_{-0.00072}$	$\sigma_8 \Omega_m^{0.25}$	$0.605^{+0.015}_{-0.014}$	$H(0.61)$	$95.44^{+0.50}_{-0.47}$
τ	$0.058^{+0.020}_{-0.016}$	$\sigma_8/h^{0.5}$	$0.985^{+0.021}_{-0.021}$	$D_M(0.61)$	2302^{+24}_{-24}
$\ln(10^{10} A_s)$	$3.052^{+0.041}_{-0.032}$	$r_{\text{drag}} h$	$99.7^{+1.8}_{-1.8}$	$H(2.33)$	$236.2^{+1.5}_{-1.4}$
n_s	$0.966^{+0.010}_{-0.010}$	$\langle d^2 \rangle^{1/2}$	$2.424^{+0.058}_{-0.060}$	$D_M(2.33)$	5756^{+23}_{-24}
$dn_s/d \ln k$	$-0.008^{+0.019}_{-0.020}$	z_{re}	< 9.77	$f\sigma_8(0.15)$	$0.456^{+0.014}_{-0.013}$
r	< 0.217	$10^9 A_s$	$2.117^{+0.088}_{-0.066}$	$\sigma_8(0.15)$	$0.749^{+0.014}_{-0.012}$
y_{cal}	$1.0008^{+0.0064}_{-0.0064}$	$10^9 A_s e^{-2\tau}$	$1.884^{+0.028}_{-0.027}$	$f\sigma_8(0.38)$	$0.475^{+0.012}_{-0.012}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{40}	1231^{+57}_{-49}	$\sigma_8(0.38)$	$0.664^{+0.013}_{-0.011}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{220}	5733^{+110}_{-99}	$f\sigma_8(0.51)$	$0.473^{+0.011}_{-0.011}$
A_{143}^{tSZ}	—	D_{810}	2542^{+34}_{-34}	$\sigma_8(0.51)$	$0.621^{+0.012}_{-0.0099}$
A_{100}^{PS}	263^{+70}_{-70}	D_{1420}	817^{+13}_{-13}	$f\sigma_8(0.61)$	$0.4685^{+0.0099}_{-0.0098}$
A_{143}^{PS}	48^{+20}_{-20}	D_{2000}	$230.3^{+4.6}_{-4.6}$	$\sigma_8(0.61)$	$0.591^{+0.012}_{-0.0094}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	$n_{s,0.002}$	$0.994^{+0.063}_{-0.060}$	$f\sigma_8(2.33)$	$0.2982^{+0.0061}_{-0.0047}$
A_{217}^{PS}	114^{+30}_{-30}	Y_P	$0.24543^{+0.00014}_{-0.00015}$	$\sigma_8(2.33)$	$0.3075^{+0.0064}_{-0.0050}$
A^{kSZ}	—	Y_P^{BBN}	$0.24676^{+0.00014}_{-0.00015}$	$r_{0.002}$	< 0.231
$A_{100}^{\text{dust}TT}$	$9.0^{+4.6}_{-4.8}$	10^5D/H	$2.566^{+0.069}_{-0.066}$	$r_{0.01}$	< 0.218
$A_{143}^{\text{dust}TT}$	$11.0^{+4.5}_{-4.6}$	Age/Gyr	$13.781^{+0.053}_{-0.054}$	$\ln(10^{10} A_t)$	$-0.1^{+1.9}_{-4.0}$
$A_{143 \times 217}^{\text{dust}TT}$	$18.6^{+8.3}_{-8.5}$	z_*	$1089.72^{+0.58}_{-0.56}$	r_{10}	< 0.122
$A_{217}^{\text{dust}TT}$	93^{+20}_{-20}	r_*	$144.55^{+0.55}_{-0.58}$	$10^9 A_t$	< 0.460
$A_{100}^{\text{dust}TE}$	$0.115^{+0.10}_{-0.098}$	$100\theta_*$	$1.04119^{+0.00073}_{-0.00071}$	$10^9 A_t e^{-2\tau}$	< 0.409
$A_{100 \times 143}^{\text{dust}TE}$	$0.136^{+0.077}_{-0.075}$	$D_M(z_*)/\text{Gpc}$	$13.883^{+0.053}_{-0.057}$	f_{2000}^{143}	31^{+8}_{-8}
$A_{100 \times 217}^{\text{dust}TE}$	$0.48^{+0.21}_{-0.22}$	z_{drag}	$1060.13^{+0.80}_{-0.81}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-6}
$A_{143}^{\text{dust}TE}$	$0.22^{+0.14}_{-0.14}$	r_{drag}	$147.17^{+0.58}_{-0.63}$	f_{2000}^{217}	$107.8^{+5.0}_{-5.1}$
$A_{143 \times 217}^{\text{dust}TE}$	$0.66^{+0.21}_{-0.20}$	k_D	$0.14086^{+0.00080}_{-0.00074}$	χ_{lensing}^2	$9.40 (\nu: 0.2)$
$A_{217}^{\text{dust}TE}$	$2.07^{+0.71}_{-0.68}$	$100\theta_D$	$0.16065^{+0.00046}_{-0.00046}$	χ_{simall}^2	$397.7 (\nu: 2.1)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	z_{eq}	3387^{+56}_{-52}	χ_{lowl}^2	$23.2 (\nu: 1.8)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	k_{eq}	$0.01034^{+0.00017}_{-0.00016}$	χ_{plik}^2	$2360.5 (\nu: 17.5)$
H_0	$67.7^{+1.1}_{-1.1}$	$100\theta_{\text{eq}}$	$0.8165^{+0.0099}_{-0.010}$	$\chi_{6\text{DF}}^2$	$0.048 (\nu: 0.0)$
Ω_Λ	$0.690^{+0.014}_{-0.015}$	$100\theta_{s,\text{eq}}$	$0.4510^{+0.0050}_{-0.0053}$	χ_{MGS}^2	$1.30 (\nu: 0.1)$
Ω_m	$0.310^{+0.015}_{-0.014}$	$H(0.15)$	$73.02^{+0.94}_{-0.93}$	χ_{DR12BAO}^2	$4.7 (\nu: 0.8)$
$\Omega_m h^2$	$0.1424^{+0.0023}_{-0.0022}$	$D_M(0.15)$	$640.1^{+9.3}_{-9.1}$	χ_{prior}^2	$11.7 (\nu: 10.3)$
$\Omega_m h^3$	$0.09644^{+0.00079}_{-0.00080}$	$H(0.38)$	$83.12^{+0.71}_{-0.69}$	χ_{CMB}^2	$2790.8 (\nu: 19.0)$
σ_8	$0.810^{+0.015}_{-0.014}$	$D_M(0.38)$	1527^{+19}_{-18}	χ_{BAO}^2	$6.1 (\nu: 0.5)$

$$\bar{\chi}_{\text{eff}}^2 = 2808.56; \Delta \bar{\chi}_{\text{eff}}^2 = 1.84; R - 1 = 0.01181$$

15 omegak

15.1 base_omegak_plikHM_TT_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02261	$0.02255^{+0.00070}_{-0.00068}$	$\sigma_8 \Omega_m^{0.5}$	0.553	$0.552^{+0.085}_{-0.086}$	$100\theta_{s,eq}$	0.4557	$0.455^{+0.013}_{-0.013}$
$\Omega_c h^2$	0.1171	$0.1173^{+0.0060}_{-0.0056}$	$\sigma_8 \Omega_m^{0.25}$	0.6506	$0.649^{+0.035}_{-0.044}$	$H(0.15)$	58.2	58^{+10}_{-10}
$100\theta_{MC}$	1.04130	$1.0413^{+0.0013}_{-0.0013}$	$\sigma_8/h^{0.5}$	1.063	$1.061^{+0.053}_{-0.069}$	$D_M(0.15)$	819	820^{+200}_{-100}
τ	0.0493	$0.048^{+0.021}_{-0.026}$	$r_{drag}h$	76.7	77^{+20}_{-20}	$H(0.38)$	69.6	70^{+10}_{-8}
Ω_K	-0.055	$-0.056^{+0.050}_{-0.079}$	$\langle d^2 \rangle^{1/2}$	2.678	$2.68^{+0.20}_{-0.22}$	$D_M(0.38)$	1902	1902^{+300}_{-300}
$\ln(10^{10} A_s)$	3.027	$3.026^{+0.045}_{-0.056}$	z_{re}	6.91	$6.8^{+2.1}_{-3.1}$	$H(0.51)$	77.1	77^{+10}_{-8}
n_s	0.9744	$0.972^{+0.017}_{-0.017}$	$10^9 A_s$	2.065	$2.061^{+0.095}_{-0.11}$	$D_M(0.51)$	2432	2431^{+400}_{-400}
y_{cal}	0.9999	$1.0000^{+0.0066}_{-0.0062}$	$10^9 A_s e^{-2\tau}$	1.8706	$1.871^{+0.036}_{-0.036}$	$H(0.61)$	83.2	83^{+9}_{-8}
A_{217}^{CIB}	42.4	45^{+20}_{-20}	D_{40}	1197.5	1203^{+44}_{-44}	$D_M(0.61)$	2805	2803^{+400}_{-400}
$\xi^{tSZ \times CIB}$	0.999	—	D_{220}	5740	5745^{+110}_{-110}	$H(2.33)$	227.3	$227.6^{+7.9}_{-7.4}$
A_{143}^{tSZ}	6.81	> 1.11	D_{810}	2531.7	2529^{+36}_{-35}	$D_M(2.33)$	6471	6463^{+580}_{-570}
A_{100}^{PS}	236	250^{+70}_{-70}	D_{1420}	815.7	814^{+13}_{-13}	$f\sigma_8(0.15)$	0.539	$0.537^{+0.055}_{-0.069}$
A_{143}^{PS}	48.6	42^{+20}_{-20}	D_{2000}	233.3	$232.3^{+5.3}_{-5.1}$	$\sigma_8(0.15)$	0.691	$0.690^{+0.054}_{-0.066}$
$A_{143 \times 217}^{PS}$	56.2	40^{+20}_{-20}	$n_{s,0.002}$	0.9744	$0.972^{+0.017}_{-0.017}$	$f\sigma_8(0.38)$	0.5139	$0.512^{+0.021}_{-0.033}$
A_{217}^{PS}	122.6	114^{+30}_{-30}	Y_P	0.245485	$0.24546^{+0.00031}_{-0.00029}$	$\sigma_8(0.38)$	0.595	$0.594^{+0.060}_{-0.069}$
A^{kSZ}	0.00	< 8.95	Y_P^{BBN}	0.246811	$0.24679^{+0.00031}_{-0.00029}$	$f\sigma_8(0.51)$	0.4928	$0.491^{+0.017}_{-0.020}$
A_{100}^{dustTT}	8.96	$9.0^{+4.7}_{-4.9}$	$10^5 D/H$	2.542	$2.55^{+0.13}_{-0.12}$	$\sigma_8(0.51)$	0.550	$0.550^{+0.062}_{-0.068}$
A_{143}^{dustTT}	10.62	$10.5^{+4.6}_{-4.7}$	Age/Gyr	15.64	$15.6^{+1.6}_{-1.5}$	$f\sigma_8(0.61)$	0.4753	$0.473^{+0.017}_{-0.023}$
$A_{143 \times 217}^{dustTT}$	19.8	$18.0^{+8.2}_{-8.3}$	z_*	1089.36	$1089.5^{+1.3}_{-1.2}$	$\sigma_8(0.61)$	0.519	$0.519^{+0.062}_{-0.067}$
A_{217}^{dustTT}	96.1	94^{+20}_{-20}	r_*	145.00	$145.0^{+1.2}_{-1.3}$	$f\sigma_8(2.33)$	0.2572	$0.257^{+0.035}_{-0.036}$
c_{100}	0.99971	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	1.04146	$1.0414^{+0.0013}_{-0.0013}$	$\sigma_8(2.33)$	0.2561	$0.257^{+0.042}_{-0.041}$
c_{217}	0.99815	$0.9982^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.922	$13.92^{+0.11}_{-0.12}$	f_{2000}^{143}	25.2	27^{+8}_{-8}
H_0	51.9	52^{+10}_{-10}	z_{drag}	1060.28	$1060.2^{+1.3}_{-1.4}$	$f_{2000}^{143 \times 217}$	29.1	30^{+6}_{-6}
Ω_Λ	0.535	$0.53^{+0.14}_{-0.19}$	r_{drag}	147.59	$147.6^{+1.2}_{-1.2}$	f_{2000}^{217}	103.8	$104.9^{+5.6}_{-5.5}$
Ω_m	0.520	$0.53^{+0.27}_{-0.18}$	k_D	0.14052	$0.1404^{+0.0013}_{-0.0013}$	χ_{simall}^2	395.52	$396.8 (\nu: 1.5)$
$\Omega_m h^2$	0.1404	$0.1405^{+0.0056}_{-0.0053}$	$100\theta_D$	0.16058	$0.16066^{+0.00079}_{-0.00074}$	χ_{lowl}^2	20.97	$21.39 (\nu: 0.2)$
$\Omega_m h^3$	0.0729	$0.073^{+0.018}_{-0.016}$	z_{eq}	3339	3342^{+130}_{-130}	χ_{plik}^2	752.3	$766.6 (\nu: 14.8)$
σ_8	0.766	$0.765^{+0.047}_{-0.057}$	k_{eq}	0.010191	$0.01020^{+0.00041}_{-0.00039}$	χ_{prior}^2	1.0	$7.1 (\nu: 6.3)$
S_8	1.009	$1.01^{+0.15}_{-0.16}$	$100\theta_{eq}$	0.8257	$0.825^{+0.026}_{-0.025}$	χ_{CMB}^2	1168.8	$1184.8 (\nu: 16.3)$

Best-fit $\chi_{eff}^2 = 1169.83$; $\Delta\chi_{eff}^2 = -9.74$; $\bar{\chi}_{eff}^2 = 1191.91$; $\Delta\bar{\chi}_{eff}^2 = -7.67$; $R - 1 = 0.01634$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.52 (Δ -0.35) commander_dx12.v3.2.29: 20.97 (Δ -2.63) plik_rd12_HM.v22.TT: 752.34 (Δ -6.41)

15.2 base_omegak_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}} h^2$	$0.02255^{+0.00069}_{-0.00066}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.549^{+0.083}_{-0.085}$	$100\theta_{\mathrm{s,eq}}$	$0.456^{+0.013}_{-0.013}$
$\Omega_{\mathrm{c}} h^2$	$0.1173^{+0.0062}_{-0.0056}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.650^{+0.034}_{-0.044}$	$H(0.15)$	59^{+10}_{-10}
$100\theta_{\mathrm{MC}}$	$1.0413^{+0.0013}_{-0.0013}$	$\sigma_8/h^{0.5}$	$1.062^{+0.053}_{-0.068}$	$D_{\mathrm{M}}(0.15)$	811^{+200}_{-100}
τ	$0.053^{+0.016}_{-0.010}$	$r_{\mathrm{drag}} h$	78^{+20}_{-20}	$H(0.38)$	70^{+10}_{-9}
Ω_K	$-0.053^{+0.048}_{-0.076}$	$\langle d^2 \rangle^{1/2}$	$2.68^{+0.20}_{-0.22}$	$D_{\mathrm{M}}(0.38)$	1885^{+300}_{-300}
$\ln(10^{10} A_{\mathrm{s}})$	$3.035^{+0.040}_{-0.025}$	z_{re}	< 8.87	$H(0.51)$	78^{+10}_{-8}
n_{s}	$0.972^{+0.017}_{-0.016}$	$10^9 A_{\mathrm{s}}$	$2.080^{+0.085}_{-0.052}$	$D_{\mathrm{M}}(0.51)$	2411^{+400}_{-400}
y_{cal}	$1.0001^{+0.0063}_{-0.0063}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.871^{+0.036}_{-0.036}$	$H(0.61)$	84^{+9}_{-8}
A_{217}^{CIB}	45^{+20}_{-20}	D_{40}	1204^{+44}_{-44}	$D_{\mathrm{M}}(0.61)$	2781^{+400}_{-400}
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{220}	5744^{+110}_{-110}	$H(2.33)$	$227.8^{+7.8}_{-7.4}$
A_{143}^{tSZ}	$5.6^{+4.4}_{-4.5}$	D_{810}	2529^{+35}_{-36}	$D_{\mathrm{M}}(2.33)$	6435^{+590}_{-570}
A_{100}^{PS}	250^{+70}_{-70}	D_{1420}	814^{+13}_{-13}	$f\sigma_8(0.15)$	$0.536^{+0.054}_{-0.069}$
A_{143}^{PS}	42^{+20}_{-20}	D_{2000}	$232.4^{+5.2}_{-5.4}$	$\sigma_8(0.15)$	$0.696^{+0.050}_{-0.061}$
$A_{143 \times 217}^{\mathrm{PS}}$	40^{+20}_{-20}	$n_{\mathrm{s},0.002}$	$0.972^{+0.017}_{-0.016}$	$f\sigma_8(0.38)$	$0.513^{+0.021}_{-0.033}$
A_{217}^{PS}	114^{+30}_{-30}	Y_{P}	$0.24546^{+0.00030}_{-0.00028}$	$\sigma_8(0.38)$	$0.600^{+0.057}_{-0.066}$
A^{kSZ}	< 8.91	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24679^{+0.00030}_{-0.00028}$	$f\sigma_8(0.51)$	$0.493^{+0.016}_{-0.019}$
$A_{100}^{\mathrm{dust}TT}$	$9.0^{+4.6}_{-4.8}$	$10^5 \mathrm{D}/\mathrm{H}$	$2.55^{+0.12}_{-0.12}$	$\sigma_8(0.51)$	$0.555^{+0.058}_{-0.066}$
$A_{143}^{\mathrm{dust}TT}$	$10.5^{+4.5}_{-4.8}$	$\mathrm{Age}/\mathrm{Gyr}$	$15.5^{+1.6}_{-1.5}$	$f\sigma_8(0.61)$	$0.476^{+0.016}_{-0.018}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.0^{+8.2}_{-8.4}$	z_*	$1089.5^{+1.3}_{-1.2}$	$\sigma_8(0.61)$	$0.524^{+0.058}_{-0.065}$
$A_{217}^{\mathrm{dust}TT}$	94^{+20}_{-20}	r_*	$145.0^{+1.2}_{-1.3}$	$f\sigma_8(2.33)$	$0.260^{+0.033}_{-0.036}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	$1.0414^{+0.0012}_{-0.0013}$	$\sigma_8(2.33)$	$0.260^{+0.041}_{-0.040}$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.92^{+0.11}_{-0.12}$	f_{2000}^{143}	27^{+8}_{-8}
H_0	53^{+10}_{-10}	z_{drag}	$1060.2^{+1.3}_{-1.3}$	$f_{2000}^{143 \times 217}$	30^{+6}_{-6}
Ω_{Λ}	$0.54^{+0.13}_{-0.17}$	r_{drag}	$147.6^{+1.2}_{-1.3}$	f_{2000}^{217}	$104.9^{+5.5}_{-5.6}$
Ω_{m}	$0.51^{+0.25}_{-0.18}$	k_{D}	$0.1404^{+0.0013}_{-0.0014}$	χ_{simall}^2	$396.4 (\nu: 0.9)$
$\Omega_{\mathrm{m}} h^2$	$0.1405^{+0.0058}_{-0.0053}$	$100\theta_{\mathrm{D}}$	$0.16066^{+0.00074}_{-0.00068}$	χ_{lowl}^2	$21.39 (\nu: 0.3)$
$\Omega_{\mathrm{m}} h^3$	$0.074^{+0.018}_{-0.016}$	z_{eq}	3341^{+140}_{-130}	χ_{plik}^2	$766.6 (\nu: 15.0)$
σ_8	$0.770^{+0.043}_{-0.052}$	k_{eq}	$0.01020^{+0.00042}_{-0.00038}$	χ_{prior}^2	$7.1 (\nu: 6.3)$
S_8	$1.00^{+0.15}_{-0.16}$	$100\theta_{\mathrm{eq}}$	$0.825^{+0.025}_{-0.026}$	χ_{CMB}^2	$1184.4 (\nu: 16.1)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 1191.43; \Delta \bar{\chi}_{\mathrm{eff}}^2 = -7.88; R - 1 = 0.01578$$

15.3 base_omegak_plikHM_TTTEE_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022632	$0.02260^{+0.00045}_{-0.00043}$	$\Omega_m h^2$	0.14120	$0.1413^{+0.0038}_{-0.0036}$	k_{eq}	0.010251	$0.01026^{+0.00028}_{-0.00026}$
$\Omega_c h^2$	0.11792	$0.1181^{+0.0040}_{-0.0039}$	$\Omega_m h^3$	0.0764	$0.077^{+0.015}_{-0.013}$	$100\theta_{\text{eq}}$	0.8221	$0.821^{+0.017}_{-0.017}$
$100\theta_{\text{MC}}$	1.04119	$1.04116^{+0.00085}_{-0.00082}$	σ_8	0.7750	$0.774^{+0.038}_{-0.043}$	$100\theta_{\text{s,eq}}$	0.4538	$0.4534^{+0.0087}_{-0.0087}$
τ	0.0495	$0.049^{+0.022}_{-0.024}$	S_8	0.983	$0.98^{+0.12}_{-0.12}$	$H(0.15)$	60.2	60^{+9}_{-8}
Ω_K	-0.0438	$-0.044^{+0.037}_{-0.051}$	$\sigma_8 \Omega_m^{0.5}$	0.538	$0.537^{+0.067}_{-0.068}$	$D_{\text{M}}(0.15)$	789	788^{+100}_{-100}
$\ln(10^{10} A_s)$	3.0304	$3.028^{+0.044}_{-0.050}$	$\sigma_8 \Omega_m^{0.25}$	0.6460	$0.645^{+0.028}_{-0.033}$	$H(0.38)$	71.5	72^{+9}_{-7}
n_s	0.9724	$0.971^{+0.012}_{-0.013}$	$\sigma_8/h^{0.5}$	1.0538	$1.051^{+0.045}_{-0.054}$	$D_{\text{M}}(0.38)$	1841	1838^{+300}_{-200}
y_{cal}	1.0001	$0.9999^{+0.0065}_{-0.0066}$	$r_{\text{drag}} h$	79.7	80^{+10}_{-10}	$H(0.51)$	78.8	$79.1^{+8.1}_{-6.6}$
A_{217}^{CIB}	42.1	45^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.646	$2.64^{+0.16}_{-0.17}$	$D_{\text{M}}(0.51)$	2358	2355^{+300}_{-300}
$\xi^{\text{tSZ} \times \text{CIB}}$	1.00	—	z_{re}	6.96	$6.9^{+2.2}_{-2.8}$	$H(0.61)$	84.9	$85.2^{+7.8}_{-6.3}$
A_{143}^{tSZ}	6.82	> 1.43	$10^9 A_s$	2.071	$2.066^{+0.093}_{-0.10}$	$D_{\text{M}}(0.61)$	2723	2719^{+300}_{-300}
A_{100}^{PS}	238	248^{+70}_{-70}	$10^9 A_s e^{-2\tau}$	1.8754	$1.875^{+0.033}_{-0.031}$	$H(2.33)$	228.9	$229.2^{+6.3}_{-5.5}$
A_{143}^{PS}	48.5	41^{+20}_{-20}	D_{40}	1204.9	1208^{+39}_{-37}	$D_{\text{M}}(2.33)$	6357	6346^{+440}_{-460}
$A_{143 \times 217}^{\text{PS}}$	56.4	41^{+20}_{-20}	D_{220}	5748	5748^{+100}_{-99}	$f\sigma_8(0.15)$	0.529	$0.527^{+0.047}_{-0.055}$
A_{217}^{PS}	123.6	115^{+20}_{-30}	D_{810}	2535.4	2532^{+36}_{-35}	$\sigma_8(0.15)$	0.7017	$0.701^{+0.044}_{-0.049}$
A^{kSZ}	0.00	< 8.54	D_{1420}	817.0	815^{+12}_{-12}	$f\sigma_8(0.38)$	0.5110	$0.509^{+0.018}_{-0.027}$
A_{100}^{dustTT}	8.77	$8.9^{+4.7}_{-4.6}$	D_{2000}	233.33	$232.5^{+4.2}_{-4.2}$	$\sigma_8(0.38)$	0.607	$0.607^{+0.050}_{-0.053}$
A_{143}^{dustTT}	10.68	$10.6^{+4.6}_{-4.6}$	$n_{\text{s},0.002}$	0.9724	$0.971^{+0.012}_{-0.013}$	$f\sigma_8(0.51)$	0.4928	$0.491^{+0.013}_{-0.015}$
$A_{143 \times 217}^{\text{dustTT}}$	19.7	$18.1^{+8.2}_{-8.4}$	Y_{P}	0.245491	$0.24548^{+0.00020}_{-0.00017}$	$\sigma_8(0.51)$	0.562	$0.562^{+0.051}_{-0.053}$
A_{217}^{dustTT}	95.6	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246818	$0.24681^{+0.00020}_{-0.00017}$	$f\sigma_8(0.61)$	0.4771	$0.476^{+0.012}_{-0.015}$
A_{100}^{dustTE}	0.114	$0.114^{+0.10}_{-0.095}$	$10^5 D/H$	2.539	$2.545^{+0.079}_{-0.081}$	$\sigma_8(0.61)$	0.531	$0.531^{+0.051}_{-0.052}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.134^{+0.076}_{-0.075}$	Age/Gyr	15.33	$15.3^{+1.2}_{-1.2}$	$f\sigma_8(2.33)$	0.2638	$0.264^{+0.028}_{-0.029}$
$A_{100 \times 217}^{\text{dustTE}}$	0.481	$0.48^{+0.22}_{-0.22}$	z_*	1089.41	$1089.47^{+0.80}_{-0.80}$	$\sigma_8(2.33)$	0.2639	$0.264^{+0.035}_{-0.033}$
A_{143}^{dustTE}	0.223	$0.22^{+0.14}_{-0.14}$	r_*	144.77	$144.75^{+0.83}_{-0.84}$	f_{2000}^{143}	25.1	26^{+8}_{-7}
$A_{143 \times 217}^{\text{dustTE}}$	0.661	$0.66^{+0.21}_{-0.21}$	$100\theta_*$	1.04134	$1.04132^{+0.00083}_{-0.00081}$	$f_{2000}^{143 \times 217}$	29.2	30^{+5}_{-5}
A_{217}^{dustTE}	2.05	$2.06^{+0.69}_{-0.67}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.902	$13.901^{+0.075}_{-0.078}$	f_{2000}^{217}	103.94	$104.7^{+5.0}_{-5.0}$
c_{100}	0.99977	$0.9997^{+0.0015}_{-0.0016}$	z_{drag}	1060.39	$1060.33^{+0.87}_{-0.81}$	χ_{small}^2	395.55	$396.7 (\nu: 1.2)$
c_{217}	0.99808	$0.9981^{+0.0016}_{-0.0016}$	r_{drag}	147.35	$147.35^{+0.78}_{-0.79}$	χ_{lowl}^2	21.16	$21.51 (\nu: 0.2)$
H_0	54.1	54^{+10}_{-9}	k_{D}	0.14079	$0.14077^{+0.00080}_{-0.00078}$	χ_{plik}^2	2336.5	$2353.2 (\nu: 16.0)$
Ω_{Λ}	0.561	$0.56^{+0.11}_{-0.13}$	$100\theta_{\text{D}}$	0.160509	$0.16055^{+0.00046}_{-0.00048}$	χ_{prior}^2	1.3	$11.2 (\nu: 9.6)$
Ω_{m}	0.483	$0.48^{+0.18}_{-0.14}$	z_{eq}	3359	3362^{+90}_{-86}	χ_{CMB}^2	2753.2	$2771.4 (\nu: 17.5)$

Best-fit $\chi_{\text{eff}}^2 = 2754.51$; $\Delta\chi_{\text{eff}}^2 = -11.26$; $\bar{\chi}_{\text{eff}}^2 = 2782.60$; $\Delta\bar{\chi}_{\text{eff}}^2 = -9.17$; $R - 1 = 0.01257$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.55 (Δ -0.50) commander_dx12_v3_2_29: 21.16 (Δ -2.09) plik_rd12_HM_v22b_TTTEE: 2336.53 (Δ -8.12)

15.4 base_omegak_plikHM_TTTEE_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02260^{+0.00045}_{-0.00043}$	$\Omega_{\mathrm{m}}h^2$	$0.1413^{+0.0037}_{-0.0035}$	k_{eq}	$0.01026^{+0.00027}_{-0.00026}$
$\Omega_{\mathrm{c}}h^2$	$0.1181^{+0.0040}_{-0.0038}$	$\Omega_{\mathrm{m}}h^3$	$0.078^{+0.015}_{-0.013}$	$100\theta_{\mathrm{eq}}$	$0.822^{+0.017}_{-0.017}$
$100\theta_{\mathrm{MC}}$	$1.04116^{+0.00085}_{-0.00084}$	σ_8	$0.779^{+0.034}_{-0.035}$	$100\theta_{\mathrm{s,eq}}$	$0.4535^{+0.0085}_{-0.0086}$
τ	$0.0528^{+0.017}_{-0.0093}$	S_8	$0.97^{+0.12}_{-0.12}$	$H(0.15)$	61^{+9}_{-8}
Ω_K	$-0.041^{+0.035}_{-0.048}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.534^{+0.066}_{-0.066}$	$D_{\mathrm{M}}(0.15)$	779^{+100}_{-100}
$\ln(10^{10}A_{\mathrm{s}})$	$3.037^{+0.038}_{-0.026}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.645^{+0.029}_{-0.033}$	$H(0.38)$	72^{+8}_{-7}
n_{s}	$0.971^{+0.012}_{-0.012}$	$\sigma_8/h^{0.5}$	$1.051^{+0.046}_{-0.054}$	$D_{\mathrm{M}}(0.38)$	1819^{+200}_{-200}
y_{cal}	$0.99996^{+0.0065}_{-0.0066}$	$r_{\mathrm{drag}}h$	81^{+10}_{-10}	$H(0.51)$	$79.6^{+7.9}_{-6.5}$
A_{217}^{CIB}	45^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	$2.64^{+0.16}_{-0.16}$	$D_{\mathrm{M}}(0.51)$	2332^{+300}_{-300}
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	z_{re}	< 8.92	$H(0.61)$	$85.6^{+7.6}_{-6.2}$
A_{143}^{tSZ}	> 1.42	$10^9 A_{\mathrm{s}}$	$2.083^{+0.081}_{-0.053}$	$D_{\mathrm{M}}(0.61)$	2694^{+300}_{-300}
A_{100}^{PS}	248^{+70}_{-70}	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.874^{+0.033}_{-0.031}$	$H(2.33)$	$229.5^{+6.3}_{-5.4}$
A_{143}^{PS}	41^{+20}_{-20}	D_{40}	1209^{+39}_{-37}	$D_{\mathrm{M}}(2.33)$	6314^{+430}_{-450}
$A_{143 \times 217}^{\mathrm{PS}}$	41^{+20}_{-20}	D_{220}	5748^{+100}_{-100}	$f\sigma_8(0.15)$	$0.525^{+0.047}_{-0.055}$
A_{217}^{PS}	116^{+30}_{-30}	D_{810}	2532^{+37}_{-35}	$\sigma_8(0.15)$	$0.707^{+0.041}_{-0.042}$
A^{kSZ}	< 8.60	D_{1420}	815^{+12}_{-12}	$f\sigma_8(0.38)$	$0.509^{+0.019}_{-0.027}$
$A_{100}^{\mathrm{dustTT}}$	$8.9^{+4.8}_{-4.6}$	D_{2000}	$232.6^{+4.1}_{-4.2}$	$\sigma_8(0.38)$	$0.612^{+0.046}_{-0.047}$
$A_{143}^{\mathrm{dustTT}}$	$10.6^{+4.6}_{-4.5}$	$n_{\mathrm{s},0.002}$	$0.971^{+0.012}_{-0.012}$	$f\sigma_8(0.51)$	$0.492^{+0.013}_{-0.016}$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.1^{+8.3}_{-8.3}$	Y_{P}	$0.24548^{+0.00019}_{-0.00017}$	$\sigma_8(0.51)$	$0.567^{+0.047}_{-0.047}$
$A_{217}^{\mathrm{dustTT}}$	94^{+20}_{-20}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24681^{+0.00019}_{-0.00017}$	$f\sigma_8(0.61)$	$0.477^{+0.012}_{-0.011}$
$A_{100}^{\mathrm{dustTE}}$	$0.113^{+0.099}_{-0.094}$	$10^5 \mathrm{D}/\mathrm{H}$	$2.544^{+0.079}_{-0.080}$	$\sigma_8(0.61)$	$0.536^{+0.047}_{-0.047}$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.134^{+0.077}_{-0.074}$	Age/Gyr	$15.2^{+1.2}_{-1.2}$	$f\sigma_8(2.33)$	$0.267^{+0.026}_{-0.026}$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.48^{+0.22}_{-0.22}$	z_*	$1089.46^{+0.80}_{-0.79}$	$\sigma_8(2.33)$	$0.268^{+0.033}_{-0.030}$
$A_{143}^{\mathrm{dustTE}}$	$0.22^{+0.14}_{-0.14}$	r_*	$144.76^{+0.81}_{-0.83}$	f_{2000}^{143}	26^{+8}_{-7}
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.66^{+0.21}_{-0.20}$	$100\theta_*$	$1.04132^{+0.00083}_{-0.00082}$	$f_{2000}^{143 \times 217}$	30^{+5}_{-5}
$A_{217}^{\mathrm{dustTE}}$	$2.06^{+0.69}_{-0.67}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.901^{+0.074}_{-0.076}$	f_{2000}^{217}	$104.7^{+4.9}_{-5.1}$
c_{100}	$0.9997^{+0.0015}_{-0.0016}$	z_{drag}	$1060.33^{+0.86}_{-0.82}$	χ_{simall}^2	$396.3 (\nu: 0.9)$
c_{217}	$0.9981^{+0.0016}_{-0.0016}$	r_{drag}	$147.35^{+0.78}_{-0.79}$	χ_{lowl}^2	$21.53 (\nu: 0.2)$
H_0	55^{+10}_{-8}	k_{D}	$0.14077^{+0.00080}_{-0.00077}$	χ_{plik}^2	$2353.2 (\nu: 16.0)$
Ω_{Λ}	$0.569^{+0.099}_{-0.12}$	$100\theta_{\mathrm{D}}$	$0.16055^{+0.00047}_{-0.00048}$	χ_{prior}^2	$11.2 (\nu: 9.7)$
Ω_{m}	$0.47^{+0.17}_{-0.13}$	z_{eq}	3361^{+88}_{-85}	χ_{CMB}^2	$2771.0 (\nu: 17.1)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 2782.22; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -9.31; R - 1 = 0.01621$$

15.5 base_omegak_plikHM_TT_lowl_lowE_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02218	$0.02216^{+0.00060}_{-0.00057}$	$\sigma_8/h^{0.5}$	0.9841	$0.984^{+0.034}_{-0.031}$	$D_M(0.38)$	1524.4	1525^{+36}_{-35}
$\Omega_c h^2$	0.1199	$0.1198^{+0.0056}_{-0.0053}$	$r_{\text{drag}} h$	99.95	$99.9^{+2.7}_{-2.5}$	$H(0.51)$	89.99	$89.9^{+1.8}_{-1.7}$
$100\theta_{\text{MC}}$	1.04090	$1.0409^{+0.0012}_{-0.0012}$	$\langle d^2 \rangle^{1/2}$	2.431	$2.431^{+0.078}_{-0.075}$	$D_M(0.51)$	1974.9	1976^{+44}_{-43}
τ	0.0527	$0.053^{+0.021}_{-0.020}$	z_{re}	7.56	$7.6^{+2.0}_{-2.2}$	$H(0.61)$	95.61	$95.6^{+1.9}_{-1.8}$
Ω_K	0.0012	$0.0012^{+0.0065}_{-0.0065}$	$10^9 A_s$	2.091	$2.091^{+0.096}_{-0.087}$	$D_M(0.61)$	2298.2	2299^{+50}_{-50}
$\ln(10^{10} A_s)$	3.0401	$3.040^{+0.045}_{-0.042}$	$10^9 A_s e^{-2\tau}$	1.8815	$1.881^{+0.036}_{-0.035}$	$H(2.33)$	236.58	$236.5^{+4.6}_{-4.5}$
n_s	0.9651	$0.965^{+0.015}_{-0.015}$	D_{40}	1228.2	1229^{+41}_{-40}	$D_M(2.33)$	5748	5751^{+96}_{-97}
y_{cal}	1.0006	$1.0006^{+0.0065}_{-0.0063}$	D_{220}	5714	5717^{+100}_{-100}	$f\sigma_8(0.15)$	0.4559	$0.456^{+0.022}_{-0.021}$
A_{217}^{CIB}	49.5	48^{+20}_{-20}	D_{810}	2538.1	2537^{+35}_{-35}	$\sigma_8(0.15)$	0.7492	$0.749^{+0.025}_{-0.023}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.19	—	D_{1420}	815.8	815^{+13}_{-13}	$f\sigma_8(0.38)$	0.4745	$0.474^{+0.019}_{-0.018}$
A_{143}^{tSZ}	7.1	—	D_{2000}	230.09	$229.7^{+4.8}_{-4.6}$	$\sigma_8(0.38)$	0.6643	$0.664^{+0.022}_{-0.020}$
A_{100}^{PS}	256	263^{+70}_{-70}	$n_{s,0.002}$	0.9651	$0.965^{+0.015}_{-0.015}$	$f\sigma_8(0.51)$	0.4733	$0.473^{+0.018}_{-0.017}$
A_{143}^{PS}	48.0	49^{+20}_{-20}	Y_{P}	0.245317	$0.24530^{+0.00023}_{-0.00027}$	$\sigma_8(0.51)$	0.6217	$0.621^{+0.020}_{-0.019}$
$A_{143 \times 217}^{\text{PS}}$	43.7	44^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246644	$0.24663^{+0.00024}_{-0.00027}$	$f\sigma_8(0.61)$	0.4684	$0.468^{+0.017}_{-0.016}$
A_{217}^{PS}	118.1	115^{+30}_{-30}	10^5D/H	2.622	$2.63^{+0.11}_{-0.11}$	$\sigma_8(0.61)$	0.5916	$0.591^{+0.019}_{-0.018}$
A^{kSZ}	0.0	—	Age/Gyr	13.757	$13.76^{+0.25}_{-0.25}$	$f\sigma_8(2.33)$	0.2983	$0.2982^{+0.0096}_{-0.0088}$
A_{100}^{dustTT}	8.90	$9.0^{+4.7}_{-4.8}$	z_*	1090.15	$1090.2^{+1.1}_{-1.1}$	$\sigma_8(2.33)$	0.3078	$0.308^{+0.011}_{-0.0098}$
A_{143}^{dustTT}	10.77	$10.7^{+4.6}_{-4.5}$	r_*	144.61	$144.6^{+1.2}_{-1.3}$	f_{2000}^{143}	30.7	31^{+8}_{-8}
$A_{143 \times 217}^{\text{dustTT}}$	19.3	$18.3^{+8.2}_{-8.7}$	$100\theta_*$	1.04110	$1.0411^{+0.0012}_{-0.0012}$	$f_{2000}^{143 \times 217}$	33.4	33^{+5}_{-5}
A_{217}^{dustTT}	94.5	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.890	$13.89^{+0.11}_{-0.12}$	f_{2000}^{217}	107.87	$108.1^{+5.0}_{-4.8}$
c_{100}	0.99965	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	1059.47	$1059.4^{+1.2}_{-1.2}$	χ_{small}^2	395.85	$397.0 (\nu: 1.4)$
c_{217}	0.99827	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	147.34	$147.4^{+1.2}_{-1.3}$	χ_{lowl}^2	23.34	$23.6 (\nu: 1.1)$
H_0	67.84	$67.8^{+1.8}_{-1.7}$	k_{D}	0.14046	$0.1404^{+0.0013}_{-0.0013}$	χ_{plik}^2	759.6	$772.4 (\nu: 14.7)$
Ω_Λ	0.6887	$0.689^{+0.019}_{-0.020}$	$100\theta_{\text{D}}$	0.16102	$0.16106^{+0.00069}_{-0.00069}$	$\chi_{6\text{DF}}^2$	0.011	$0.056 (\nu: 0.0)$
Ω_{m}	0.3101	$0.310^{+0.019}_{-0.018}$	z_{eq}	3395	3392^{+130}_{-120}	χ_{MGS}^2	1.41	$1.48 (\nu: 0.2)$
$\Omega_{\text{m}} h^2$	0.1427	$0.1426^{+0.0053}_{-0.0050}$	k_{eq}	0.010361	$0.01035^{+0.00039}_{-0.00037}$	χ_{DR12BAO}^2	3.66	$4.6 (\nu: 1.7)$
$\Omega_{\text{m}} h^3$	0.09681	$0.0967^{+0.0047}_{-0.0044}$	$100\theta_{\text{eq}}$	0.8141	$0.815^{+0.023}_{-0.023}$	χ_{prior}^2	1.5	$7.3 (\nu: 6.9)$
σ_8	0.8106	$0.810^{+0.028}_{-0.025}$	$100\theta_{\text{s,eq}}$	0.4499	$0.450^{+0.012}_{-0.012}$	χ_{BAO}^2	5.08	$6.1 (\nu: 1.3)$
S_8	0.8241	$0.824^{+0.043}_{-0.041}$	$H(0.15)$	73.13	$73.1^{+1.7}_{-1.7}$	χ_{CMB}^2	1178.8	$1192.9 (\nu: 15.0)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4514	$0.451^{+0.024}_{-0.022}$	$D_M(0.15)$	639.1	639^{+16}_{-16}			
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6049	$0.605^{+0.025}_{-0.023}$	$H(0.38)$	83.26	$83.2^{+1.8}_{-1.7}$			

Best-fit $\chi_{\text{eff}}^2 = 1185.37$; $\Delta\chi_{\text{eff}}^2 = -0.38$; $\bar{\chi}_{\text{eff}}^2 = 1206.26$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.24$; $R - 1 = 0.01197$

χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.01) MGS: 1.41 (Δ 0.13) DR12BAO: 3.66 (Δ -0.52) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.85 (Δ -0.04) commander_dx12_v3_2_29: 23.34 (Δ 0.52) plik_rd12_HM_v22_TT: 759.63 (Δ -0.47)

15.6 base_omegak_plikHM_TT_lowl_lowE_BAO_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02221	$0.02217^{+0.00061}_{-0.00057}$	$\sigma_8/h^{0.5}$	0.9849	$0.986^{+0.025}_{-0.025}$	$D_M(0.38)$	1525.9	1526^{+35}_{-35}
$\Omega_c h^2$	0.11978	$0.1198^{+0.0049}_{-0.0048}$	$r_{\text{drag}} h$	99.84	$99.8^{+2.6}_{-2.4}$	$H(0.51)$	89.92	$89.9^{+1.9}_{-1.7}$
$100\theta_{\text{MC}}$	1.04088	$1.0409^{+0.0012}_{-0.0012}$	$\langle d^2 \rangle^{1/2}$	2.435	$2.436^{+0.058}_{-0.057}$	$D_M(0.51)$	1976.7	1977^{+44}_{-46}
τ	0.0539	$0.054^{+0.020}_{-0.019}$	z_{re}	7.68	$7.7^{+1.9}_{-2.0}$	$H(0.61)$	95.54	$95.5^{+1.9}_{-1.7}$
Ω_K	0.0010	$0.0011^{+0.0065}_{-0.0064}$	$10^9 A_s$	2.095	$2.097^{+0.080}_{-0.075}$	$D_M(0.61)$	2300	2301^{+50}_{-52}
$\ln(10^{10} A_s)$	3.0422	$3.043^{+0.038}_{-0.036}$	$10^9 A_s e^{-2\tau}$	1.8811	$1.882^{+0.033}_{-0.032}$	$H(2.33)$	236.49	$236.5^{+4.2}_{-4.3}$
n_s	0.9649	$0.964^{+0.014}_{-0.014}$	D_{40}	1229.1	1231^{+38}_{-37}	$D_M(2.33)$	5752	5752^{+93}_{-99}
y_{cal}	1.0004	$1.0007^{+0.0067}_{-0.0063}$	D_{220}	5718	5721^{+100}_{-100}	$f\sigma_8(0.15)$	0.4564	$0.457^{+0.017}_{-0.017}$
A_{217}^{CIB}	49.4	48^{+20}_{-20}	D_{810}	2537.5	2538^{+34}_{-34}	$\sigma_8(0.15)$	0.7493	$0.750^{+0.020}_{-0.019}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.12	—	D_{1420}	815.6	815^{+13}_{-13}	$f\sigma_8(0.38)$	0.4749	$0.475^{+0.015}_{-0.014}$
A_{143}^{tSZ}	7.1	—	D_{2000}	230.07	$229.8^{+4.7}_{-4.7}$	$\sigma_8(0.38)$	0.6643	$0.665^{+0.018}_{-0.017}$
A_{100}^{PS}	257	263^{+70}_{-70}	$n_{\text{s},0.002}$	0.9649	$0.964^{+0.014}_{-0.014}$	$f\sigma_8(0.51)$	0.4736	$0.474^{+0.013}_{-0.013}$
A_{143}^{PS}	46.7	49^{+20}_{-20}	Y_{P}	0.245329	$0.24531^{+0.00024}_{-0.00027}$	$\sigma_8(0.51)$	0.6217	$0.622^{+0.017}_{-0.016}$
$A_{143 \times 217}^{\text{PS}}$	41.4	44^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246656	$0.24663^{+0.00024}_{-0.00027}$	$f\sigma_8(0.61)$	0.4687	$0.469^{+0.013}_{-0.013}$
A_{217}^{PS}	117.7	115^{+30}_{-30}	$10^5 D/H$	2.616	$2.62^{+0.11}_{-0.11}$	$\sigma_8(0.61)$	0.5916	$0.592^{+0.016}_{-0.016}$
A^{kSZ}	0.0	—	Age/Gyr	13.766	$13.77^{+0.24}_{-0.26}$	$f\sigma_8(2.33)$	0.2983	$0.2985^{+0.0083}_{-0.0079}$
A_{100}^{dustTT}	8.8	$8.9^{+5.1}_{-4.9}$	z_*	1090.11	$1090.2^{+1.0}_{-1.1}$	$\sigma_8(2.33)$	0.3077	$0.3079^{+0.0094}_{-0.0088}$
A_{143}^{dustTT}	10.84	$10.7^{+4.8}_{-4.6}$	r_*	144.61	$144.6^{+1.1}_{-1.1}$	f_{2000}^{143}	30.6	31^{+8}_{-8}
$A_{143 \times 217}^{\text{dustTT}}$	19.3	$18.3^{+8.2}_{-8.8}$	$100\theta_*$	1.04107	$1.0411^{+0.0012}_{-0.0012}$	$f_{2000}^{143 \times 217}$	33.2	33^{+5}_{-5}
A_{217}^{dustTT}	94.7	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.891	$13.893^{+0.098}_{-0.10}$	f_{2000}^{217}	107.8	$108.1^{+5.1}_{-4.9}$
c_{100}	0.99966	$0.9996^{+0.0016}_{-0.0015}$	z_{drag}	1059.55	$1059.4^{+1.2}_{-1.2}$	χ_{lensing}^2	8.88	$9.34 (\nu: 0.3)$
c_{217}	0.99825	$0.9982^{+0.0016}_{-0.0017}$	r_{drag}	147.33	$147.4^{+1.1}_{-1.1}$	χ_{small}^2	396	$295 (\nu: 13816.6)$
H_0	67.77	$67.7^{+1.8}_{-1.7}$	k_{D}	0.14049	$0.1404^{+0.0012}_{-0.0012}$	χ_{lowl}^2	23	$125 (\nu: 13829.3)$
Ω_{Λ}	0.6884	$0.688^{+0.017}_{-0.017}$	$100\theta_{\text{D}}$	0.16098	$0.16104^{+0.00070}_{-0.00071}$	χ_{plik}^2	759.4	$771.7 (\nu: 13.5)$
Ω_{m}	0.3106	$0.311^{+0.017}_{-0.017}$	z_{eq}	3393	3393^{+110}_{-110}	$\chi_{6\text{DF}}^2$	0.02	$0.43 (\nu: 0.2)$
$\Omega_{\text{m}} h^2$	0.14264	$0.1426^{+0.0047}_{-0.0045}$	k_{eq}	0.010356	$0.01036^{+0.00034}_{-0.00033}$	χ_{MGS}^2	1.34	$1.04 (\nu: 0.3)$
$\Omega_{\text{m}} h^3$	0.09666	$0.0966^{+0.0047}_{-0.0042}$	$100\theta_{\text{eq}}$	0.8144	$0.814^{+0.021}_{-0.021}$	χ_{DR12BAO}^2	3.85	$4.7 (\nu: 1.8)$
σ_8	0.8108	$0.811^{+0.022}_{-0.021}$	$100\theta_{\text{s,eq}}$	0.4501	$0.450^{+0.011}_{-0.011}$	χ_{prior}^2	1.4	$7.3 (\nu: 6.8)$
S_8	0.8249	$0.826^{+0.033}_{-0.033}$	$H(0.15)$	73.06	$73.0^{+1.7}_{-1.7}$	χ_{CMB}^2	1187.7	$1201.7 (\nu: 15.2)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4518	$0.452^{+0.018}_{-0.018}$	$D_M(0.15)$	639.7	640^{+16}_{-15}	χ_{BAO}^2	5.21	$6.1 (\nu: 1.3)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6052	$0.606^{+0.019}_{-0.019}$	$H(0.38)$	83.19	$83.2^{+1.8}_{-1.7}$			

Best-fit $\chi_{\text{eff}}^2 = 1194.36$; $\Delta\chi_{\text{eff}}^2 = -0.33$; $\bar{\chi}_{\text{eff}}^2 = 1215.14$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.41$; $R - 1 = 0.01348$

χ_{eff}^2 : BAO - 6DF: 0.02 (Δ -0.01) MGS: 1.34 (Δ 0.13) DR12BAO: 3.85 (Δ -0.52) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.88 (Δ 0.00) small_100x143_offlike5_EE_Aplanck396.03 (Δ -0.07) commander_dx12_v3.2_29: 23.43 (Δ 0.47) plik_rd12_HM_v22.TT: 759.40 (Δ -0.40)

15.7 base_omegak_plikHM_TT_lowl_lowE_BAO_post_lensing_Pantheon18

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02218^{+0.00060}_{-0.00056}$	$\sigma_8/h^{0.5}$	$0.985^{+0.025}_{-0.025}$	$D_M(0.38)$	1525^{+35}_{-35}
$\Omega_c h^2$	$0.1197^{+0.0049}_{-0.0047}$	$r_{\text{drag}} h$	$99.96^{+2.5}_{-2.3}$	$H(0.51)$	$89.9^{+1.9}_{-1.7}$
$100\theta_{\text{MC}}$	$1.0409^{+0.0012}_{-0.0012}$	$\langle d^2 \rangle^{1/2}$	$2.435^{+0.058}_{-0.057}$	$D_M(0.51)$	1976^{+44}_{-44}
τ	$0.054^{+0.019}_{-0.019}$	z_{re}	$7.7^{+1.9}_{-2.0}$	$H(0.61)$	$95.6^{+1.9}_{-1.8}$
Ω_K	$0.0011^{+0.0065}_{-0.0064}$	$10^9 A_s$	$2.098^{+0.081}_{-0.076}$	$D_M(0.61)$	2299^{+49}_{-51}
$\ln(10^{10} A_s)$	$3.043^{+0.038}_{-0.037}$	$10^9 A_s e^{-2\tau}$	$1.882^{+0.032}_{-0.031}$	$H(2.33)$	$236.4^{+4.3}_{-4.2}$
n_s	$0.965^{+0.014}_{-0.014}$	D_{40}	1230^{+38}_{-37}	$D_M(2.33)$	5751^{+94}_{-99}
y_{cal}	$1.0008^{+0.0067}_{-0.0063}$	D_{220}	5722^{+100}_{-100}	$f\sigma_8(0.15)$	$0.456^{+0.016}_{-0.017}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2538^{+34}_{-34}	$\sigma_8(0.15)$	$0.750^{+0.020}_{-0.019}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	816^{+13}_{-13}	$f\sigma_8(0.38)$	$0.475^{+0.014}_{-0.014}$
A_{143}^{tSZ}	—	D_{2000}	$229.9^{+4.6}_{-4.6}$	$\sigma_8(0.38)$	$0.665^{+0.018}_{-0.017}$
A_{100}^{PS}	263^{+70}_{-70}	$n_{s,0.002}$	$0.965^{+0.014}_{-0.014}$	$f\sigma_8(0.51)$	$0.473^{+0.013}_{-0.013}$
A_{143}^{PS}	49^{+20}_{-20}	Y_{P}	$0.24531^{+0.00024}_{-0.00027}$	$\sigma_8(0.51)$	$0.622^{+0.017}_{-0.016}$
$A_{143 \times 217}^{\text{PS}}$	44^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24664^{+0.00024}_{-0.00027}$	$f\sigma_8(0.61)$	$0.469^{+0.013}_{-0.013}$
A_{217}^{PS}	115^{+30}_{-30}	$10^5 \text{D}/\text{H}$	$2.62^{+0.11}_{-0.11}$	$\sigma_8(0.61)$	$0.592^{+0.016}_{-0.016}$
A^{kSZ}	—	Age/Gyr	$13.77^{+0.24}_{-0.25}$	$f\sigma_8(2.33)$	$0.2985^{+0.0083}_{-0.0078}$
A_{100}^{dustTT}	$8.9^{+5.1}_{-4.9}$	z_*	$1090.1^{+1.0}_{-1.0}$	$\sigma_8(2.33)$	$0.3080^{+0.0094}_{-0.0089}$
A_{143}^{dustTT}	$10.7^{+4.9}_{-4.6}$	r_*	$144.7^{+1.1}_{-1.1}$	f_{2000}^{143}	31^{+8}_{-8}
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.2}_{-8.8}$	$100\theta_*$	$1.0411^{+0.0012}_{-0.0012}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
A_{217}^{dustTT}	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	$13.895^{+0.096}_{-0.10}$	f_{2000}^{217}	$108.1^{+5.2}_{-4.9}$
c_{100}	$0.9996^{+0.0016}_{-0.0015}$	z_{drag}	$1059.5^{+1.2}_{-1.2}$	χ_{lensing}^2	$9.34 (\nu: 0.3)$
c_{217}	$0.9982^{+0.0015}_{-0.0016}$	r_{drag}	$147.4^{+1.1}_{-1.1}$	χ_{simall}^2	$294 (\nu: 13920.3)$
H_0	$67.8^{+1.7}_{-1.7}$	k_{D}	$0.1404^{+0.0012}_{-0.0012}$	χ_{lowl}^2	$127 (\nu: 13931.4)$
Ω_{Λ}	$0.689^{+0.016}_{-0.017}$	$100\theta_{\text{D}}$	$0.16103^{+0.00070}_{-0.00071}$	χ_{plik}^2	$771.8 (\nu: 13.6)$
Ω_{m}	$0.310^{+0.016}_{-0.016}$	z_{eq}	3390^{+110}_{-110}	χ_{JLA}^2	$1035.08 (\nu: 0.0)$
$\Omega_{\text{m}} h^2$	$0.1425^{+0.0047}_{-0.0045}$	k_{eq}	$0.01035^{+0.00034}_{-0.00033}$	$\chi_{6\text{DF}}^2$	$0.45 (\nu: 0.3)$
$\Omega_{\text{m}} h^3$	$0.0966^{+0.0047}_{-0.0043}$	$100\theta_{\text{eq}}$	$0.815^{+0.021}_{-0.021}$	χ_{MGS}^2	$1.08 (\nu: 0.3)$
σ_8	$0.811^{+0.022}_{-0.021}$	$100\theta_{\text{s,eq}}$	$0.450^{+0.011}_{-0.011}$	χ_{DR12BAO}^2	$4.5 (\nu: 1.5)$
S_8	$0.824^{+0.032}_{-0.032}$	$H(0.15)$	$73.1^{+1.7}_{-1.7}$	χ_{prior}^2	$7.3 (\nu: 6.8)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.451^{+0.017}_{-0.018}$	$D_M(0.15)$	639^{+16}_{-15}	χ_{CMB}^2	$1201.7 (\nu: 15.1)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.605^{+0.019}_{-0.018}$	$H(0.38)$	$83.2^{+1.8}_{-1.7}$	χ_{BAO}^2	$6.0 (\nu: 1.1)$

$$\bar{\chi}_{\text{eff}}^2 = 2250.15; \Delta \bar{\chi}_{\text{eff}}^2 = 0.37; R - 1 = 0.01337$$

15.8 base_omegak_plikHM_TT_lowl_lowE_BAO_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}} h^2$	$0.02217^{+0.00060}_{-0.00058}$	$\sigma_8/h^{0.5}$	$0.985^{+0.033}_{-0.031}$	$D_{\mathrm{M}}(0.38)$	1525^{+36}_{-35}
$\Omega_{\mathrm{c}} h^2$	$0.1197^{+0.0056}_{-0.0053}$	$r_{\mathrm{drag}} h$	$99.9^{+2.7}_{-2.5}$	$H(0.51)$	$89.9^{+1.8}_{-1.7}$
$100\theta_{\mathrm{MC}}$	$1.0409^{+0.0012}_{-0.0012}$	$\langle d^2 \rangle^{1/2}$	$2.434^{+0.076}_{-0.072}$	$D_{\mathrm{M}}(0.51)$	1976^{+44}_{-43}
τ	$0.054^{+0.019}_{-0.013}$	z_{re}	< 9.46	$H(0.61)$	$95.6^{+1.9}_{-1.8}$
Ω_K	$0.0011^{+0.0065}_{-0.0064}$	$10^9 A_{\mathrm{s}}$	$2.097^{+0.092}_{-0.064}$	$D_{\mathrm{M}}(0.61)$	2300^{+50}_{-49}
$\ln(10^{10} A_{\mathrm{s}})$	$3.043^{+0.043}_{-0.031}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.881^{+0.036}_{-0.035}$	$H(2.33)$	$236.4^{+4.7}_{-4.4}$
n_{s}	$0.965^{+0.015}_{-0.015}$	D_{40}	1229^{+42}_{-40}	$D_{\mathrm{M}}(2.33)$	5751^{+95}_{-98}
y_{cal}	$1.0006^{+0.0066}_{-0.0064}$	D_{220}	5717^{+100}_{-100}	$f\sigma_8(0.15)$	$0.456^{+0.022}_{-0.021}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2537^{+35}_{-35}	$\sigma_8(0.15)$	$0.750^{+0.025}_{-0.022}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	815^{+13}_{-13}	$f\sigma_8(0.38)$	$0.475^{+0.019}_{-0.018}$
A_{143}^{tSZ}	—	D_{2000}	$229.8^{+4.8}_{-4.5}$	$\sigma_8(0.38)$	$0.665^{+0.021}_{-0.019}$
A_{100}^{PS}	263^{+70}_{-70}	$n_{\mathrm{s},0.002}$	$0.965^{+0.015}_{-0.015}$	$f\sigma_8(0.51)$	$0.474^{+0.018}_{-0.017}$
A_{143}^{PS}	49^{+20}_{-20}	Y_{P}	$0.24531^{+0.00024}_{-0.00027}$	$\sigma_8(0.51)$	$0.622^{+0.020}_{-0.018}$
$A_{143 \times 217}^{\mathrm{PS}}$	44^{+20}_{-20}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24663^{+0.00024}_{-0.00027}$	$f\sigma_8(0.61)$	$0.469^{+0.017}_{-0.016}$
A_{217}^{PS}	115^{+30}_{-30}	$10^5 \mathrm{D}/\mathrm{H}$	$2.63^{+0.11}_{-0.11}$	$\sigma_8(0.61)$	$0.592^{+0.019}_{-0.017}$
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.77^{+0.25}_{-0.25}$	$f\sigma_8(2.33)$	$0.2985^{+0.0094}_{-0.0084}$
$A_{100}^{\mathrm{dust}TT}$	$9.0^{+4.8}_{-4.9}$	z_*	$1090.2^{+1.1}_{-1.1}$	$\sigma_8(2.33)$	$0.308^{+0.010}_{-0.0094}$
$A_{143}^{\mathrm{dust}TT}$	$10.7^{+4.6}_{-4.5}$	r_*	$144.7^{+1.2}_{-1.3}$	f_{2000}^{143}	31^{+8}_{-8}
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3^{+8.2}_{-8.7}$	$100\theta_*$	$1.0411^{+0.0012}_{-0.0012}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
$A_{217}^{\mathrm{dust}TT}$	93^{+20}_{-20}	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.90^{+0.11}_{-0.12}$	f_{2000}^{217}	$108.1^{+5.0}_{-4.8}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	$1059.4^{+1.2}_{-1.2}$	χ_{simall}^2	$396.9 (\nu: 1.4)$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	$147.4^{+1.2}_{-1.3}$	χ_{lowl}^2	$23.6 (\nu: 1.1)$
H_0	$67.8^{+1.8}_{-1.7}$	k_{D}	$0.1404^{+0.0013}_{-0.0013}$	χ_{plik}^2	$772.2 (\nu: 14.6)$
Ω_{Λ}	$0.689^{+0.019}_{-0.020}$	$100\theta_{\mathrm{D}}$	$0.16105^{+0.00070}_{-0.00069}$	$\chi_{6\mathrm{DF}}^2$	$0.057 (\nu: 0.0)$
Ω_{m}	$0.310^{+0.019}_{-0.018}$	z_{eq}	3391^{+130}_{-120}	χ_{MGS}^2	$1.48 (\nu: 0.2)$
$\Omega_{\mathrm{m}} h^2$	$0.1425^{+0.0054}_{-0.0050}$	k_{eq}	$0.01035^{+0.00039}_{-0.00037}$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 (\nu: 1.7)$
$\Omega_{\mathrm{m}} h^3$	$0.0967^{+0.0047}_{-0.0043}$	$100\theta_{\mathrm{eq}}$	$0.815^{+0.023}_{-0.023}$	χ_{prior}^2	$7.3 (\nu: 6.9)$
σ_8	$0.811^{+0.027}_{-0.025}$	$100\theta_{\mathrm{s,eq}}$	$0.450^{+0.012}_{-0.012}$	χ_{BAO}^2	$6.1 (\nu: 1.3)$
S_8	$0.825^{+0.043}_{-0.041}$	$H(0.15)$	$73.1^{+1.7}_{-1.7}$	χ_{CMB}^2	$1192.6 (\nu: 14.7)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.452^{+0.023}_{-0.023}$	$D_{\mathrm{M}}(0.15)$	639^{+16}_{-16}		
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.605^{+0.025}_{-0.023}$	$H(0.38)$	$83.2^{+1.8}_{-1.7}$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1206.04$; $\Delta \bar{\chi}_{\mathrm{eff}}^2 = 0.28$; $R - 1 = 0.01397$

15.9 base_omegak_plikHM_TT_lowl_lowE_BAO_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02217^{+0.00061}_{-0.00058}$	$\sigma_8/h^{0.5}$	$0.986^{+0.025}_{-0.024}$	$D_M(0.38)$	1526^{+35}_{-35}
$\Omega_c h^2$	$0.1197^{+0.0049}_{-0.0047}$	$r_{\text{drag}} h$	$99.9^{+2.6}_{-2.4}$	$H(0.51)$	$89.9^{+1.8}_{-1.7}$
$100\theta_{\text{MC}}$	$1.0409^{+0.0012}_{-0.0012}$	$\langle d^2 \rangle^{1/2}$	$2.438^{+0.057}_{-0.056}$	$D_M(0.51)$	1977^{+44}_{-44}
τ	$0.055^{+0.018}_{-0.014}$	z_{re}	< 9.42	$H(0.61)$	$95.5^{+1.9}_{-1.7}$
Ω_K	$0.00099^{+0.0064}_{-0.0064}$	$10^9 A_s$	$2.100^{+0.078}_{-0.059}$	$D_M(0.61)$	2301^{+50}_{-51}
$\ln(10^{10} A_s)$	$3.045^{+0.036}_{-0.028}$	$10^9 A_s e^{-2\tau}$	$1.882^{+0.031}_{-0.031}$	$H(2.33)$	$236.4^{+4.2}_{-4.3}$
n_s	$0.965^{+0.014}_{-0.014}$	D_{40}	1230^{+38}_{-37}	$D_M(2.33)$	5753^{+92}_{-100}
y_{cal}	$1.0007^{+0.0068}_{-0.0063}$	D_{220}	5721^{+100}_{-100}	$f\sigma_8(0.15)$	$0.457^{+0.017}_{-0.017}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2537^{+34}_{-34}	$\sigma_8(0.15)$	$0.750^{+0.020}_{-0.019}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	815^{+13}_{-13}	$f\sigma_8(0.38)$	$0.475^{+0.015}_{-0.015}$
A_{143}^{tSZ}	—	D_{2000}	$229.9^{+4.7}_{-4.6}$	$\sigma_8(0.38)$	$0.665^{+0.018}_{-0.017}$
A_{100}^{PS}	263^{+70}_{-70}	$n_{s,0.002}$	$0.965^{+0.014}_{-0.014}$	$f\sigma_8(0.51)$	$0.474^{+0.013}_{-0.013}$
A_{143}^{PS}	49^{+20}_{-20}	Y_{P}	$0.24531^{+0.00024}_{-0.00027}$	$\sigma_8(0.51)$	$0.622^{+0.017}_{-0.016}$
$A_{143 \times 217}^{\text{PS}}$	44^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24664^{+0.00024}_{-0.00028}$	$f\sigma_8(0.61)$	$0.469^{+0.013}_{-0.013}$
A_{217}^{PS}	115^{+30}_{-30}	$10^5 \text{D}/\text{H}$	$2.62^{+0.11}_{-0.11}$	$\sigma_8(0.61)$	$0.592^{+0.016}_{-0.016}$
A^{kSZ}	—	Age/Gyr	$13.77^{+0.24}_{-0.25}$	$f\sigma_8(2.33)$	$0.2986^{+0.0081}_{-0.0077}$
A_{100}^{dustTT}	$8.9^{+5.1}_{-4.9}$	z_*	$1090.2^{+1.0}_{-1.0}$	$\sigma_8(2.33)$	$0.3081^{+0.0093}_{-0.0089}$
A_{143}^{dustTT}	$10.7^{+4.8}_{-4.6}$	r_*	$144.6^{+1.1}_{-1.1}$	f_{2000}^{143}	31^{+8}_{-8}
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.1}_{-8.8}$	$100\theta_*$	$1.0411^{+0.0012}_{-0.0012}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
A_{217}^{dustTT}	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	$13.894^{+0.097}_{-0.10}$	f_{2000}^{217}	$108.1^{+5.1}_{-4.9}$
c_{100}	$0.9996^{+0.0016}_{-0.0015}$	z_{drag}	$1059.5^{+1.2}_{-1.2}$	χ_{lensing}^2	$9.29 (\nu: 0.2)$
c_{217}	$0.9983^{+0.0015}_{-0.0016}$	r_{drag}	$147.4^{+1.1}_{-1.1}$	χ_{simall}^2	$296 (\nu: 13777.7)$
H_0	$67.8^{+1.8}_{-1.7}$	k_{D}	$0.1404^{+0.0012}_{-0.0012}$	χ_{lowl}^2	$125 (\nu: 13788.8)$
Ω_Λ	$0.688^{+0.017}_{-0.017}$	$100\theta_{\text{D}}$	$0.16104^{+0.00071}_{-0.00071}$	χ_{plik}^2	$771.6 (\nu: 13.5)$
Ω_{m}	$0.311^{+0.017}_{-0.016}$	z_{eq}	3391^{+110}_{-110}	$\chi_{6\text{DF}}^2$	$0.43 (\nu: 0.2)$
$\Omega_{\text{m}} h^2$	$0.1426^{+0.0047}_{-0.0045}$	k_{eq}	$0.01035^{+0.00034}_{-0.00033}$	χ_{MGS}^2	$1.04 (\nu: 0.3)$
$\Omega_{\text{m}} h^3$	$0.0966^{+0.0047}_{-0.0042}$	$100\theta_{\text{eq}}$	$0.815^{+0.021}_{-0.021}$	χ_{DR12BAO}^2	$4.7 (\nu: 1.8)$
σ_8	$0.812^{+0.022}_{-0.021}$	$100\theta_{\text{s,eq}}$	$0.450^{+0.011}_{-0.011}$	χ_{prior}^2	$7.3 (\nu: 6.8)$
S_8	$0.826^{+0.033}_{-0.033}$	$H(0.15)$	$73.0^{+1.7}_{-1.7}$	χ_{CMB}^2	$1201.5 (\nu: 14.8)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.452^{+0.018}_{-0.018}$	$D_M(0.15)$	640^{+16}_{-16}	χ_{BAO}^2	$6.2 (\nu: 1.3)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.606^{+0.019}_{-0.019}$	$H(0.38)$	$83.2^{+1.8}_{-1.7}$		

$$\bar{\chi}_{\text{eff}}^2 = 1214.95; \Delta \bar{\chi}_{\text{eff}}^2 = 0.38; R - 1 = 0.01494$$

15.10 base_omegak_plikHM_TT_lowl_lowE_BAO_post_lensing_Pantheon18_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02219^{+0.00060}_{-0.00057}$	$\sigma_8/h^{0.5}$	$0.985^{+0.024}_{-0.024}$	$D_M(0.38)$	1525^{+36}_{-35}
$\Omega_c h^2$	$0.1196^{+0.0048}_{-0.0047}$	$r_{\text{drag}} h$	$99.97^{+2.5}_{-2.4}$	$H(0.51)$	$89.9^{+1.9}_{-1.7}$
$100\theta_{\text{MC}}$	$1.0409^{+0.0012}_{-0.0012}$	$\langle d^2 \rangle^{1/2}$	$2.436^{+0.057}_{-0.054}$	$D_M(0.51)$	1976^{+44}_{-44}
τ	$0.055^{+0.018}_{-0.014}$	z_{re}	< 9.43	$H(0.61)$	$95.5^{+1.9}_{-1.7}$
Ω_K	$0.00099^{+0.0065}_{-0.0063}$	$10^9 A_s$	$2.101^{+0.080}_{-0.060}$	$D_M(0.61)$	2300^{+50}_{-51}
$\ln(10^{10} A_s)$	$3.045^{+0.037}_{-0.029}$	$10^9 A_s e^{-2\tau}$	$1.881^{+0.032}_{-0.031}$	$H(2.33)$	$236.3^{+4.2}_{-4.2}$
n_s	$0.965^{+0.014}_{-0.014}$	D_{40}	1230^{+38}_{-37}	$D_M(2.33)$	5752^{+93}_{-99}
y_{cal}	$1.0008^{+0.0067}_{-0.0064}$	D_{220}	5722^{+100}_{-98}	$f\sigma_8(0.15)$	$0.456^{+0.016}_{-0.016}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2537^{+34}_{-34}	$\sigma_8(0.15)$	$0.750^{+0.020}_{-0.019}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	816^{+13}_{-13}	$f\sigma_8(0.38)$	$0.475^{+0.014}_{-0.014}$
A_{143}^{tSZ}	—	D_{2000}	$229.9^{+4.6}_{-4.6}$	$\sigma_8(0.38)$	$0.665^{+0.018}_{-0.017}$
A_{100}^{PS}	263^{+70}_{-70}	$n_{s,0.002}$	$0.965^{+0.014}_{-0.014}$	$f\sigma_8(0.51)$	$0.474^{+0.013}_{-0.013}$
A_{143}^{PS}	49^{+20}_{-20}	Y_{P}	$0.24532^{+0.00023}_{-0.00027}$	$\sigma_8(0.51)$	$0.622^{+0.017}_{-0.016}$
$A_{143 \times 217}^{\text{PS}}$	44^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24664^{+0.00024}_{-0.00027}$	$f\sigma_8(0.61)$	$0.469^{+0.013}_{-0.012}$
A_{217}^{PS}	115^{+30}_{-30}	10^5D/H	$2.62^{+0.11}_{-0.11}$	$\sigma_8(0.61)$	$0.592^{+0.016}_{-0.016}$
A^{kSZ}	—	Age/Gyr	$13.77^{+0.24}_{-0.26}$	$f\sigma_8(2.33)$	$0.2987^{+0.0082}_{-0.0076}$
A_{100}^{dustTT}	$8.9^{+5.1}_{-4.9}$	z_*	$1090.1^{+1.0}_{-1.0}$	$\sigma_8(2.33)$	$0.3082^{+0.0093}_{-0.0090}$
A_{143}^{dustTT}	$10.7^{+4.8}_{-4.6}$	r_*	$144.7^{+1.1}_{-1.1}$	f_{2000}^{143}	31^{+8}_{-8}
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.2}_{-8.8}$	$100\theta_*$	$1.0411^{+0.0012}_{-0.0012}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
A_{217}^{dustTT}	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	$13.897^{+0.096}_{-0.10}$	f_{2000}^{217}	$108.0^{+5.1}_{-4.9}$
c_{100}	$0.9996^{+0.0016}_{-0.0015}$	z_{drag}	$1059.5^{+1.2}_{-1.2}$	χ_{lensing}^2	$9.29 (\nu: 0.2)$
c_{217}	$0.9982^{+0.0015}_{-0.0016}$	r_{drag}	$147.4^{+1.1}_{-1.1}$	χ_{simall}^2	$294 (\nu: 13886.3)$
H_0	$67.8^{+1.7}_{-1.7}$	k_{D}	$0.1404^{+0.0012}_{-0.0012}$	χ_{lowl}^2	$126 (\nu: 13895.9)$
Ω_{Λ}	$0.689^{+0.016}_{-0.016}$	$100\theta_{\text{D}}$	$0.16103^{+0.00071}_{-0.00070}$	χ_{plik}^2	$771.7 (\nu: 13.6)$
Ω_{m}	$0.310^{+0.016}_{-0.016}$	z_{eq}	3388^{+110}_{-100}	χ_{JLA}^2	$1035.07 (\nu: 0.0)$
$\Omega_{\text{m}} h^2$	$0.1424^{+0.0046}_{-0.0044}$	k_{eq}	$0.01034^{+0.00033}_{-0.00032}$	$\chi_{6\text{DF}}^2$	$0.45 (\nu: 0.3)$
$\Omega_{\text{m}} h^3$	$0.0966^{+0.0047}_{-0.0042}$	$100\theta_{\text{eq}}$	$0.815^{+0.020}_{-0.020}$	χ_{MGS}^2	$1.08 (\nu: 0.3)$
σ_8	$0.811^{+0.022}_{-0.021}$	$100\theta_{\text{s,eq}}$	$0.451^{+0.010}_{-0.010}$	χ_{DR12BAO}^2	$4.5 (\nu: 1.5)$
S_8	$0.824^{+0.032}_{-0.032}$	$H(0.15)$	$73.1^{+1.7}_{-1.7}$	χ_{prior}^2	$7.3 (\nu: 6.8)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.452^{+0.018}_{-0.018}$	$D_M(0.15)$	639^{+16}_{-16}	χ_{CMB}^2	$1201.5 (\nu: 14.8)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.605^{+0.019}_{-0.018}$	$H(0.38)$	$83.2^{+1.8}_{-1.7}$	χ_{BAO}^2	$6.0 (\nu: 1.1)$

$$\bar{\chi}_{\text{eff}}^2 = 2249.97; \Delta \bar{\chi}_{\text{eff}}^2 = 0.34; R - 1 = 0.01495$$

15.11 base_omegak_plikHM_TTTEEE_lowl_lowE_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022396	$0.02239^{+0.00041}_{-0.00040}$	σ_8	0.8109	$0.811^{+0.022}_{-0.022}$	$D_M(0.15)$	638.9	639^{+15}_{-16}
$\Omega_c h^2$	0.11972	$0.1197^{+0.0036}_{-0.0036}$	S_8	0.8242	$0.824^{+0.035}_{-0.032}$	$H(0.38)$	83.28	$83.3^{+1.7}_{-1.5}$
$100\theta_{MC}$	1.04095	$1.04095^{+0.00078}_{-0.00081}$	$\sigma_8 \Omega_m^{0.5}$	0.4515	$0.451^{+0.019}_{-0.018}$	$D_M(0.38)$	1523.9	1524^{+34}_{-35}
τ	0.0544	$0.055^{+0.021}_{-0.020}$	$\sigma_8 \Omega_m^{0.25}$	0.6051	$0.605^{+0.019}_{-0.019}$	$H(0.51)$	90.00	$90.0^{+1.7}_{-1.5}$
Ω_K	0.0008	$0.0008^{+0.0053}_{-0.0049}$	$\sigma_8/h^{0.5}$	0.9843	$0.984^{+0.028}_{-0.026}$	$D_M(0.51)$	1974.3	1974^{+41}_{-44}
$\ln(10^{10} A_s)$	3.0441	$3.044^{+0.043}_{-0.043}$	$r_{drag} h$	99.86	$99.9^{+2.7}_{-2.5}$	$H(0.61)$	95.63	$95.6^{+1.7}_{-1.5}$
n_s	0.9664	$0.966^{+0.012}_{-0.011}$	$\langle d^2 \rangle^{1/2}$	2.434	$2.434^{+0.067}_{-0.065}$	$D_M(0.61)$	2297.5	2297^{+46}_{-49}
y_{cal}	1.0006	$1.0006^{+0.0063}_{-0.0065}$	z_{re}	7.69	$7.7^{+2.0}_{-2.1}$	$H(2.33)$	236.59	$236.6^{+3.1}_{-3.1}$
A_{217}^{CIB}	47.4	47^{+20}_{-20}	$10^9 A_s$	2.099	$2.100^{+0.092}_{-0.089}$	$D_M(2.33)$	5746	5746^{+81}_{-87}
$\xi^{tSZ \times CIB}$	0.43	—	$10^9 A_s e^{-2\tau}$	1.8827	$1.882^{+0.031}_{-0.030}$	$f\sigma_8(0.15)$	0.4561	$0.456^{+0.018}_{-0.017}$
A_{143}^{tSZ}	7.2	—	D_{40}	1228.1	1229^{+34}_{-35}	$\sigma_8(0.15)$	0.7495	$0.750^{+0.020}_{-0.020}$
A_{100}^{PS}	251	259^{+70}_{-70}	D_{220}	5733	5734^{+100}_{-100}	$f\sigma_8(0.38)$	0.4747	$0.475^{+0.015}_{-0.015}$
A_{143}^{PS}	48.1	46^{+20}_{-20}	D_{810}	2541.2	2539^{+36}_{-34}	$\sigma_8(0.38)$	0.6646	$0.665^{+0.018}_{-0.018}$
$A_{143 \times 217}^{PS}$	47.6	42^{+20}_{-20}	D_{1420}	818.2	817^{+12}_{-12}	$f\sigma_8(0.51)$	0.4735	$0.473^{+0.014}_{-0.014}$
A_{217}^{PS}	119.5	115^{+30}_{-30}	D_{2000}	231.28	$230.9^{+4.2}_{-4.0}$	$\sigma_8(0.51)$	0.6220	$0.622^{+0.017}_{-0.017}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9664	$0.966^{+0.012}_{-0.011}$	$f\sigma_8(0.61)$	0.4686	$0.469^{+0.013}_{-0.013}$
A_{100}^{dustTT}	8.79	$8.9^{+4.8}_{-4.7}$	Y_P	0.245406	$0.24540^{+0.00015}_{-0.00016}$	$\sigma_8(0.61)$	0.5919	$0.592^{+0.016}_{-0.016}$
A_{143}^{dustTT}	11.01	$10.9^{+4.7}_{-4.6}$	Y_P^{BBN}	0.246732	$0.24673^{+0.00015}_{-0.00017}$	$f\sigma_8(2.33)$	0.2985	$0.2985^{+0.0082}_{-0.0083}$
$A_{143 \times 217}^{dustTT}$	19.8	$18.6^{+8.5}_{-8.6}$	$10^5 D/H$	2.581	$2.583^{+0.075}_{-0.073}$	$\sigma_8(2.33)$	0.3079	$0.3080^{+0.0093}_{-0.0093}$
A_{217}^{dustTT}	94.9	94^{+20}_{-20}	Age/Gyr	13.755	$13.75^{+0.21}_{-0.22}$	f_{2000}^{143}	29.1	30^{+7}_{-7}
A_{100}^{dustTE}	0.114	$0.115^{+0.10}_{-0.095}$	z_*	1089.86	$1089.88^{+0.73}_{-0.72}$	$f_{2000}^{143 \times 217}$	32.10	32^{+5}_{-5}
$A_{100 \times 143}^{dustTE}$	0.135	$0.135^{+0.076}_{-0.078}$	r_*	144.48	$144.50^{+0.81}_{-0.80}$	f_{2000}^{217}	106.68	$107.0^{+4.8}_{-4.7}$
$A_{100 \times 217}^{dustTE}$	0.482	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	1.04113	$1.04113^{+0.00076}_{-0.00081}$	χ_{small}^2	396.06	$397.2 (\nu: 1.8)$
A_{143}^{dustTE}	0.225	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.878	$13.879^{+0.077}_{-0.074}$	χ_{lowl}^2	23.21	$23.4 (\nu: 0.6)$
$A_{143 \times 217}^{dustTE}$	0.666	$0.67^{+0.21}_{-0.20}$	z_{drag}	1059.97	$1059.95^{+0.82}_{-0.78}$	χ_{plik}^2	2345.1	$2360.2 (\nu: 17.0)$
A_{217}^{dustTE}	2.08	$2.08^{+0.69}_{-0.68}$	r_{drag}	147.14	$147.15^{+0.80}_{-0.78}$	χ_{6DF}^2	0.016	$0.057 (\nu: 0.0)$
c_{100}	0.99969	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14084	$0.14081^{+0.00082}_{-0.00083}$	χ_{MGS}^2	1.34	$1.44 (\nu: 0.2)$
c_{217}	0.99817	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	0.160736	$0.16075^{+0.00046}_{-0.00045}$	$\chi_{DR12BAO}^2$	3.92	$4.7 (\nu: 1.9)$
H_0	67.87	$67.9^{+1.8}_{-1.7}$	z_{eq}	3396	3396^{+81}_{-82}	χ_{prior}^2	1.7	$11.6 (\nu: 10.2)$
Ω_Λ	0.6893	$0.689^{+0.016}_{-0.017}$	k_{eq}	0.010365	$0.01036^{+0.00025}_{-0.00025}$	χ_{BAO}^2	5.28	$6.2 (\nu: 1.4)$
Ω_m	0.3099	$0.310^{+0.018}_{-0.017}$	$100\theta_{eq}$	0.8145	$0.815^{+0.016}_{-0.015}$	χ_{CMB}^2	2764.4	$2780.7 (\nu: 17.0)$
$\Omega_m h^2$	0.14276	$0.1427^{+0.0034}_{-0.0034}$	$100\theta_{s,eq}$	0.4500	$0.4501^{+0.0081}_{-0.0078}$			
$\Omega_m h^3$	0.09689	$0.0969^{+0.0038}_{-0.0034}$	$H(0.15)$	73.15	$73.2^{+1.8}_{-1.6}$			

Best-fit $\chi_{eff}^2 = 2771.38$; $\Delta\chi_{eff}^2 = -0.53$; $\bar{\chi}_{eff}^2 = 2798.58$; $\Delta\bar{\chi}_{eff}^2 = 0.67$; $R - 1 = 0.01668$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ -0.01) MGS: 1.34 (Δ 0.13) DR12BAO: 3.92 (Δ -0.50) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.06 (Δ -0.14) commander_dx12_v3_2_29: 23.21 (Δ 0.34) plik_rd12_HM_v22b_TTTEEE: 2345.09 (Δ -0.42)

15.12 base_omegak_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022412	$0.02239^{+0.00040}_{-0.00040}$	σ_8	0.8118	$0.812^{+0.019}_{-0.018}$	$D_M(0.15)$	638.8	639^{+15}_{-15}
$\Omega_c h^2$	0.11970	$0.1197^{+0.0035}_{-0.0033}$	S_8	0.8250	$0.825^{+0.028}_{-0.026}$	$H(0.38)$	83.28	$83.3^{+1.6}_{-1.5}$
$100\theta_{MC}$	1.04099	$1.04095^{+0.00077}_{-0.00085}$	$\sigma_8 \Omega_m^{0.5}$	0.4519	$0.452^{+0.015}_{-0.014}$	$D_M(0.38)$	1523.8	1524^{+33}_{-33}
τ	0.0556	$0.056^{+0.019}_{-0.019}$	$\sigma_8 \Omega_m^{0.25}$	0.6057	$0.606^{+0.016}_{-0.015}$	$H(0.51)$	90.00	$90.0^{+1.6}_{-1.6}$
Ω_K	0.0007	$0.0007^{+0.0052}_{-0.0049}$	$\sigma_8/h^{0.5}$	0.9854	$0.985^{+0.022}_{-0.021}$	$D_M(0.51)$	1974.2	1975^{+40}_{-41}
$\ln(10^{10} A_s)$	3.0462	$3.046^{+0.037}_{-0.036}$	$r_{\text{drag}} h$	99.86	$99.9^{+2.5}_{-2.4}$	$H(0.61)$	95.63	$95.6^{+1.6}_{-1.5}$
n_s	0.9669	$0.966^{+0.012}_{-0.011}$	$\langle d^2 \rangle^{1/2}$	2.435	$2.437^{+0.054}_{-0.052}$	$D_M(0.61)$	2297.4	2298^{+46}_{-46}
y_{cal}	1.0005	$1.0007^{+0.0061}_{-0.0063}$	z_{re}	7.80	$7.8^{+1.8}_{-2.0}$	$H(2.33)$	236.58	$236.6^{+3.1}_{-2.8}$
A_{217}^{CIB}	46.8	47^{+20}_{-20}	$10^9 A_s$	2.104	$2.104^{+0.080}_{-0.074}$	$D_M(2.33)$	5746	5747^{+81}_{-82}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.47	—	$10^9 A_s e^{-2\tau}$	1.8821	$1.882^{+0.030}_{-0.029}$	$f\sigma_8(0.15)$	0.4565	$0.456^{+0.014}_{-0.014}$
A_{143}^{tSZ}	7.2	—	D_{40}	1226.9	1230^{+32}_{-32}	$\sigma_8(0.15)$	0.7503	$0.750^{+0.018}_{-0.017}$
A_{100}^{PS}	249	259^{+70}_{-70}	D_{220}	5730	5737^{+97}_{-98}	$f\sigma_8(0.38)$	0.4752	$0.475^{+0.012}_{-0.012}$
A_{143}^{PS}	47.7	46^{+20}_{-20}	D_{810}	2540.9	2540^{+34}_{-32}	$\sigma_8(0.38)$	0.6653	$0.665^{+0.016}_{-0.016}$
$A_{143 \times 217}^{\text{PS}}$	48.3	42^{+20}_{-20}	D_{1420}	818.4	818^{+12}_{-12}	$f\sigma_8(0.51)$	0.4740	$0.474^{+0.011}_{-0.011}$
A_{217}^{PS}	120.2	115^{+30}_{-30}	D_{2000}	231.41	$231.0^{+4.1}_{-4.0}$	$\sigma_8(0.51)$	0.6227	$0.622^{+0.016}_{-0.015}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9669	$0.966^{+0.012}_{-0.011}$	$f\sigma_8(0.61)$	0.4692	$0.469^{+0.011}_{-0.010}$
A_{100}^{dustTT}	8.83	$8.9^{+4.6}_{-4.6}$	Y_{P}	0.245412	$0.24540^{+0.00015}_{-0.00016}$	$\sigma_8(0.61)$	0.5926	$0.592^{+0.015}_{-0.015}$
A_{143}^{dustTT}	11.00	$10.9^{+4.7}_{-4.8}$	$Y_{\text{P}}^{\text{BBN}}$	0.246738	$0.24673^{+0.00015}_{-0.00017}$	$f\sigma_8(2.33)$	0.2988	$0.2987^{+0.0076}_{-0.0077}$
$A_{143 \times 217}^{\text{dustTT}}$	19.8	$18.6^{+8.5}_{-8.5}$	$10^5 D/H$	2.578	$2.582^{+0.075}_{-0.071}$	$\sigma_8(2.33)$	0.3082	$0.3081^{+0.0087}_{-0.0088}$
A_{217}^{dustTT}	95.1	94^{+20}_{-20}	Age/Gyr	13.755	$13.76^{+0.21}_{-0.21}$	f_{2000}^{143}	28.6	30^{+7}_{-7}
A_{100}^{dustTE}	0.114	$0.114^{+0.10}_{-0.094}$	z_*	1089.84	$1089.86^{+0.73}_{-0.71}$	$f_{2000}^{143 \times 217}$	31.86	32^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	0.133	$0.135^{+0.075}_{-0.077}$	r_*	144.48	$144.50^{+0.76}_{-0.77}$	f_{2000}^{217}	106.50	$107.0^{+4.9}_{-4.7}$
$A_{100 \times 217}^{\text{dustTE}}$	0.480	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	1.04116	$1.04113^{+0.00077}_{-0.00084}$	χ_{lensing}^2	8.79	9.13 (ν : 0.2)
A_{143}^{dustTE}	0.223	$0.22^{+0.15}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.877	$13.879^{+0.071}_{-0.072}$	χ_{simall}^2	396	291 (ν : 14169.0)
$A_{143 \times 217}^{\text{dustTE}}$	0.665	$0.66^{+0.20}_{-0.21}$	z_{drag}	1060.01	$1059.97^{+0.80}_{-0.80}$	χ_{lowl}^2	23	129 (ν : 14165.2)
A_{217}^{dustTE}	2.09	$2.08^{+0.67}_{-0.69}$	r_{drag}	147.13	$147.15^{+0.76}_{-0.76}$	χ_{plik}^2	2345.0	2359.8 (ν : 16.8)
c_{100}	0.99971	$0.9997^{+0.0016}_{-0.0016}$	k_{D}	0.14086	$0.14082^{+0.00079}_{-0.00080}$	$\chi_{6\text{DF}}^2$	0.02	0.44 (ν : 0.2)
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0015}$	$100\theta_{\text{D}}$	0.160720	$0.16074^{+0.00047}_{-0.00045}$	χ_{MGS}^2	1.34	1.03 (ν : 0.3)
H_0	67.87	$67.9^{+1.7}_{-1.6}$	z_{eq}	3396	3395^{+78}_{-75}	χ_{DR12BAO}^2	3.93	4.7 (ν : 1.8)
Ω_Λ	0.6894	$0.689^{+0.014}_{-0.015}$	k_{eq}	0.010365	$0.01036^{+0.00024}_{-0.00023}$	χ_{prior}^2	1.7	11.5 (ν : 9.9)
Ω_{m}	0.3099	$0.310^{+0.016}_{-0.016}$	$100\theta_{\text{eq}}$	0.8146	$0.815^{+0.014}_{-0.015}$	χ_{CMB}^2	2773.2	2789.5 (ν : 17.6)
$\Omega_{\text{m}} h^2$	0.14275	$0.1427^{+0.0033}_{-0.0031}$	$100\theta_{\text{s,eq}}$	0.4500	$0.4501^{+0.0073}_{-0.0074}$	χ_{BAO}^2	5.29	6.2 (ν : 1.3)
$\Omega_{\text{m}} h^3$	0.09689	$0.0969^{+0.0038}_{-0.0035}$	$H(0.15)$	73.16	$73.1^{+1.6}_{-1.6}$			

Best-fit $\chi_{\text{eff}}^2 = 2780.16$; $\Delta\chi_{\text{eff}}^2 = -0.54$; $\bar{\chi}_{\text{eff}}^2 = 2807.21$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.36$; $R - 1 = 0.02276$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ -0.01) MGS: 1.34 (Δ 0.13) DR12BAO: 3.93 (Δ -0.49) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb.consext8: 8.79 (Δ 0.06) simall_100x143_offlike5_EE_Aplanck
396.28 (Δ -0.24) commander_dx12_v3.2_29: 23.14 (Δ 0.24) plik_rd12_HM_v22b.TTTEEE: 2344.96 (Δ -0.36)

15.13 base_omegak_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022420	$0.02240^{+0.00039}_{-0.00040}$	σ_8	0.8117	$0.812^{+0.019}_{-0.018}$	$D_M(0.15)$	638.2	638^{+15}_{-15}
$\Omega_c h^2$	0.11956	$0.1196^{+0.0035}_{-0.0033}$	S_8	0.8238	$0.824^{+0.027}_{-0.026}$	$H(0.38)$	83.32	$83.3^{+1.6}_{-1.5}$
$100\theta_{MC}$	1.04097	$1.04096^{+0.00077}_{-0.00085}$	$\sigma_8 \Omega_m^{0.5}$	0.4512	$0.451^{+0.015}_{-0.014}$	$D_M(0.38)$	1522.7	1523^{+32}_{-33}
τ	0.0559	$0.056^{+0.019}_{-0.018}$	$\sigma_8 \Omega_m^{0.25}$	0.6052	$0.605^{+0.016}_{-0.015}$	$H(0.51)$	90.04	$90.0^{+1.6}_{-1.5}$
Ω_K	0.0008	$0.0008^{+0.0052}_{-0.0049}$	$\sigma_8/h^{0.5}$	0.9848	$0.985^{+0.022}_{-0.021}$	$D_M(0.51)$	1972.9	1973^{+40}_{-41}
$\ln(10^{10} A_s)$	3.0470	$3.047^{+0.037}_{-0.036}$	$r_{drag} h$	99.98	$99.97^{+2.4}_{-2.3}$	$H(0.61)$	95.66	$95.7^{+1.6}_{-1.5}$
n_s	0.9672	$0.966^{+0.012}_{-0.011}$	$\langle d^2 \rangle^{1/2}$	2.434	$2.436^{+0.052}_{-0.051}$	$D_M(0.61)$	2296.0	2296^{+45}_{-45}
y_{cal}	1.0008	$1.0007^{+0.0061}_{-0.0063}$	z_{re}	7.83	$7.8^{+1.8}_{-2.0}$	$H(2.33)$	236.51	$236.5^{+3.1}_{-2.8}$
A_{217}^{CIB}	46.4	47^{+20}_{-20}	$10^9 A_s$	2.105	$2.105^{+0.079}_{-0.074}$	$D_M(2.33)$	5745	5745^{+79}_{-81}
$\xi^{tSZ \times CIB}$	0.61	—	$10^9 A_s e^{-2\tau}$	1.8825	$1.882^{+0.030}_{-0.028}$	$f\sigma_8(0.15)$	0.4559	$0.456^{+0.014}_{-0.013}$
A_{143}^{tSZ}	7.1	—	D_{40}	1227.0	1229^{+32}_{-32}	$\sigma_8(0.15)$	0.7503	$0.750^{+0.018}_{-0.017}$
A_{100}^{PS}	249	259^{+70}_{-70}	D_{220}	5734	5738^{+99}_{-98}	$f\sigma_8(0.38)$	0.4748	$0.475^{+0.012}_{-0.012}$
A_{143}^{PS}	49.9	46^{+20}_{-20}	D_{810}	2542.2	2540^{+34}_{-32}	$\sigma_8(0.38)$	0.6654	$0.665^{+0.016}_{-0.016}$
$A_{143 \times 217}^{PS}$	51.9	42^{+20}_{-20}	D_{1420}	818.9	818^{+12}_{-12}	$f\sigma_8(0.51)$	0.4737	$0.474^{+0.011}_{-0.011}$
A_{217}^{PS}	121.2	115^{+30}_{-30}	D_{2000}	231.57	$231.1^{+4.1}_{-4.0}$	$\sigma_8(0.51)$	0.6228	$0.623^{+0.016}_{-0.015}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9672	$0.966^{+0.012}_{-0.011}$	$f\sigma_8(0.61)$	0.4689	$0.469^{+0.011}_{-0.010}$
A_{100}^{dustTT}	8.84	$8.9^{+4.6}_{-4.6}$	Y_P	0.245415	$0.24541^{+0.00015}_{-0.00016}$	$\sigma_8(0.61)$	0.5927	$0.593^{+0.015}_{-0.015}$
A_{143}^{dustTT}	11.07	$10.9^{+4.7}_{-4.8}$	Y_P^{BBN}	0.246742	$0.24673^{+0.00015}_{-0.00016}$	$f\sigma_8(2.33)$	0.2989	$0.2988^{+0.0075}_{-0.0074}$
$A_{143 \times 217}^{dustTT}$	20.1	$18.6^{+8.5}_{-8.5}$	$10^5 D/H$	2.576	$2.580^{+0.075}_{-0.070}$	$\sigma_8(2.33)$	0.3084	$0.3083^{+0.0086}_{-0.0086}$
A_{217}^{dustTT}	95.4	94^{+20}_{-20}	Age/Gyr	13.752	$13.75^{+0.20}_{-0.21}$	f_{2000}^{143}	28.6	29^{+7}_{-7}
A_{100}^{dustTE}	0.114	$0.114^{+0.10}_{-0.094}$	z_*	1089.82	$1089.85^{+0.73}_{-0.72}$	$f_{2000}^{143 \times 217}$	31.97	32^{+5}_{-5}
$A_{100 \times 143}^{dustTE}$	0.134	$0.135^{+0.075}_{-0.077}$	r_*	144.51	$144.51^{+0.75}_{-0.77}$	f_{2000}^{217}	106.52	$107.0^{+4.9}_{-4.7}$
$A_{100 \times 217}^{dustTE}$	0.482	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	1.04115	$1.04114^{+0.00077}_{-0.00084}$	$\chi_{lensing}^2$	8.77	9.13 (ν : 0.2)
A_{143}^{dustTE}	0.226	$0.22^{+0.15}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.879	$13.880^{+0.072}_{-0.072}$	χ_{small}^2	396	291 (ν : 14174.2)
$A_{143 \times 217}^{dustTE}$	0.668	$0.66^{+0.20}_{-0.21}$	z_{drag}	1060.01	$1059.98^{+0.79}_{-0.81}$	χ_{lowl}^2	23	129 (ν : 14170.3)
A_{217}^{dustTE}	2.09	$2.08^{+0.67}_{-0.69}$	r_{drag}	147.15	$147.16^{+0.75}_{-0.76}$	χ_{plik}^2	2345.1	2359.9 (ν : 17.0)
c_{100}	0.99972	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14084	$0.14081^{+0.00078}_{-0.00080}$	χ_{JLA}^2	1034.96	1035.03 (ν : 0.0)
c_{217}	0.99819	$0.9982^{+0.0016}_{-0.0015}$	$100\theta_D$	0.160711	$0.16074^{+0.00046}_{-0.00046}$	χ_{6DF}^2	0.01	0.46 (ν : 0.3)
H_0	67.94	$67.9^{+1.7}_{-1.6}$	z_{eq}	3393	3393^{+78}_{-73}	χ_{MGS}^2	1.41	1.07 (ν : 0.3)
Ω_Λ	0.6902	$0.690^{+0.014}_{-0.015}$	k_{eq}	0.010356	$0.01036^{+0.00024}_{-0.00022}$	$\chi_{DR12BAO}^2$	3.79	4.5 (ν : 1.4)
Ω_m	0.3090	$0.309^{+0.016}_{-0.015}$	$100\theta_{eq}$	0.8151	$0.815^{+0.014}_{-0.015}$	χ_{prior}^2	1.7	11.5 (ν : 9.9)
$\Omega_m h^2$	0.14263	$0.1426^{+0.0033}_{-0.0031}$	$100\theta_{s,eq}$	0.4503	$0.4503^{+0.0073}_{-0.0074}$	χ_{CMB}^2	2773.3	2789.6 (ν : 17.6)
$\Omega_m h^3$	0.09690	$0.0969^{+0.0037}_{-0.0034}$	$H(0.15)$	73.22	$73.2^{+1.7}_{-1.5}$	χ_{BAO}^2	5.20	6.1 (ν : 1.0)

Best-fit $\chi_{eff}^2 = 3815.13$; $\Delta\chi_{eff}^2 = -0.54$; $\bar{\chi}_{eff}^2 = 3842.20$; $\Delta\bar{\chi}_{eff}^2 = 0.34$; $R - 1 = 0.02228$

χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.01) MGS: 1.41 (Δ 0.13) DR12BAO: 3.79 (Δ -0.46) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb.consext8: 8.77 (Δ 0.05) small_100x143_offlike5_EE_Aplanck 396.34 (Δ -0.18) commander_dx12_v3.2_29: 23.10 (Δ 0.21) plik_rd12_HM_v22b.TTTEEE: 2345.08 (Δ -0.18) SN - JLA Pantheon18: 1034.96 (Δ -0.02)

15.14 base_omegak_plikHM_TTTEEE_lowl_lowE_BAO_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02239^{+0.00040}_{-0.00040}$	σ_8	$0.812^{+0.021}_{-0.020}$	$D_M(0.15)$	639^{+15}_{-16}
$\Omega_c h^2$	$0.1197^{+0.0036}_{-0.0036}$	S_8	$0.825^{+0.034}_{-0.032}$	$H(0.38)$	$83.3^{+1.7}_{-1.6}$
$100\theta_{MC}$	$1.04095^{+0.00077}_{-0.00081}$	$\sigma_8 \Omega_m^{0.5}$	$0.452^{+0.019}_{-0.017}$	$D_M(0.38)$	1524^{+34}_{-36}
τ	$0.056^{+0.019}_{-0.014}$	$\sigma_8 \Omega_m^{0.25}$	$0.605^{+0.019}_{-0.017}$	$H(0.51)$	$90.0^{+1.7}_{-1.5}$
Ω_K	$0.0008^{+0.0053}_{-0.0049}$	$\sigma_8/h^{0.5}$	$0.985^{+0.028}_{-0.024}$	$D_M(0.51)$	1974^{+41}_{-44}
$\ln(10^{10} A_s)$	$3.046^{+0.041}_{-0.031}$	$r_{\text{drag}} h$	$99.9^{+2.7}_{-2.5}$	$H(0.61)$	$95.6^{+1.7}_{-1.5}$
n_s	$0.966^{+0.012}_{-0.011}$	$\langle d^2 \rangle^{1/2}$	$2.436^{+0.065}_{-0.058}$	$D_M(0.61)$	2297^{+46}_{-49}
y_{cal}	$1.0006^{+0.0063}_{-0.0065}$	z_{re}	< 9.56	$H(2.33)$	$236.6^{+3.2}_{-3.0}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.104^{+0.089}_{-0.064}$	$D_M(2.33)$	5746^{+81}_{-87}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.882^{+0.031}_{-0.030}$	$f\sigma_8(0.15)$	$0.456^{+0.018}_{-0.016}$
A_{143}^{tSZ}	—	D_{40}	1229^{+34}_{-34}	$\sigma_8(0.15)$	$0.750^{+0.020}_{-0.018}$
A_{100}^{PS}	259^{+70}_{-70}	D_{220}	5734^{+100}_{-100}	$f\sigma_8(0.38)$	$0.475^{+0.015}_{-0.014}$
A_{143}^{PS}	46^{+20}_{-20}	D_{810}	2539^{+35}_{-34}	$\sigma_8(0.38)$	$0.665^{+0.017}_{-0.016}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	817^{+12}_{-12}	$f\sigma_8(0.51)$	$0.474^{+0.014}_{-0.013}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$230.9^{+4.1}_{-4.0}$	$\sigma_8(0.51)$	$0.623^{+0.016}_{-0.015}$
A^{kSZ}	—	$n_{s,0.002}$	$0.966^{+0.012}_{-0.011}$	$f\sigma_8(0.61)$	$0.469^{+0.013}_{-0.012}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.7}$	Y_P	$0.24540^{+0.00015}_{-0.00017}$	$\sigma_8(0.61)$	$0.593^{+0.016}_{-0.014}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.6}$	Y_P^{BBN}	$0.24673^{+0.00015}_{-0.00017}$	$f\sigma_8(2.33)$	$0.2988^{+0.0080}_{-0.0072}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.5}_{-8.5}$	$10^5 D/H$	$2.583^{+0.075}_{-0.072}$	$\sigma_8(2.33)$	$0.3083^{+0.0090}_{-0.0083}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.75^{+0.21}_{-0.22}$	f_{2000}^{143}	29^{+7}_{-7}
A_{100}^{dustTE}	$0.115^{+0.10}_{-0.095}$	z_*	$1089.87^{+0.72}_{-0.72}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.076}_{-0.077}$	r_*	$144.50^{+0.81}_{-0.80}$	f_{2000}^{217}	$107.0^{+4.7}_{-4.7}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	$1.04113^{+0.00075}_{-0.00081}$	χ_{simall}^2	$397.1 (\nu: 1.9)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.879^{+0.077}_{-0.074}$	χ_{lowl}^2	$23.4 (\nu: 0.6)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.67^{+0.21}_{-0.21}$	z_{drag}	$1059.95^{+0.78}_{-0.78}$	χ_{plik}^2	$2360.0 (\nu: 16.6)$
A_{217}^{dustTE}	$2.08^{+0.69}_{-0.68}$	r_{drag}	$147.16^{+0.80}_{-0.78}$	$\chi_{6\text{DF}}^2$	$0.057 (\nu: 0.0)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_D	$0.14081^{+0.00082}_{-0.00083}$	χ_{MGS}^2	$1.45 (\nu: 0.2)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.16075^{+0.00046}_{-0.00045}$	χ_{DR12BAO}^2	$4.7 (\nu: 1.8)$
H_0	$67.9^{+1.9}_{-1.7}$	z_{eq}	3395^{+82}_{-81}	χ_{prior}^2	$11.6 (\nu: 10.1)$
Ω_Λ	$0.689^{+0.016}_{-0.016}$	k_{eq}	$0.01036^{+0.00025}_{-0.00025}$	χ_{BAO}^2	$6.2 (\nu: 1.4)$
Ω_m	$0.310^{+0.018}_{-0.017}$	$100\theta_{\text{eq}}$	$0.815^{+0.016}_{-0.015}$	χ_{CMB}^2	$2780.5 (\nu: 16.5)$
$\Omega_m h^2$	$0.1427^{+0.0034}_{-0.0034}$	$100\theta_{s,\text{eq}}$	$0.4501^{+0.0080}_{-0.0078}$		
$\Omega_m h^3$	$0.0969^{+0.0038}_{-0.0034}$	$H(0.15)$	$73.2^{+1.8}_{-1.6}$		

$$\bar{\chi}_{\text{eff}}^2 = 2798.34; \Delta\bar{\chi}_{\text{eff}}^2 = 0.62; R - 1 = 0.01378$$

15.15 base_omegak_plikHM_TTTEE_lowl_lowE_BAO_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02240^{+0.00040}_{-0.00040}$	σ_8	$0.812^{+0.019}_{-0.017}$	$D_{\mathrm{M}}(0.15)$	639^{+15}_{-15}
$\Omega_{\mathrm{c}}h^2$	$0.1197^{+0.0035}_{-0.0033}$	S_8	$0.825^{+0.028}_{-0.026}$	$H(0.38)$	$83.3^{+1.6}_{-1.5}$
$100\theta_{\mathrm{MC}}$	$1.04096^{+0.00076}_{-0.00086}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.452^{+0.015}_{-0.014}$	$D_{\mathrm{M}}(0.38)$	1524^{+33}_{-33}
τ	$0.056^{+0.018}_{-0.014}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.606^{+0.016}_{-0.015}$	$H(0.51)$	$90.0^{+1.6}_{-1.5}$
Ω_K	$0.0007^{+0.0052}_{-0.0050}$	$\sigma_8/h^{0.5}$	$0.986^{+0.022}_{-0.020}$	$D_{\mathrm{M}}(0.51)$	1974^{+41}_{-41}
$\ln(10^{10}A_{\mathrm{s}})$	$3.047^{+0.036}_{-0.029}$	$r_{\mathrm{drag}}h$	$99.9^{+2.5}_{-2.3}$	$H(0.61)$	$95.6^{+1.6}_{-1.5}$
n_{s}	$0.966^{+0.012}_{-0.010}$	$\langle d^2 \rangle^{1/2}$	$2.438^{+0.053}_{-0.051}$	$D_{\mathrm{M}}(0.61)$	2298^{+46}_{-46}
y_{cal}	$1.0007^{+0.0061}_{-0.0063}$	z_{re}	< 9.44	$H(2.33)$	$236.5^{+3.2}_{-2.8}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_{\mathrm{s}}$	$2.106^{+0.078}_{-0.061}$	$D_{\mathrm{M}}(2.33)$	5747^{+81}_{-82}
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.882^{+0.029}_{-0.028}$	$f\sigma_8(0.15)$	$0.457^{+0.014}_{-0.014}$
A_{143}^{tSZ}	—	D_{40}	1229^{+32}_{-32}	$\sigma_8(0.15)$	$0.750^{+0.018}_{-0.016}$
A_{100}^{PS}	259^{+70}_{-70}	D_{220}	5737^{+97}_{-97}	$f\sigma_8(0.38)$	$0.475^{+0.012}_{-0.012}$
A_{143}^{PS}	46^{+20}_{-20}	D_{810}	2540^{+33}_{-32}	$\sigma_8(0.38)$	$0.665^{+0.016}_{-0.015}$
$A_{143 \times 217}^{\mathrm{PS}}$	42^{+20}_{-20}	D_{1420}	818^{+12}_{-12}	$f\sigma_8(0.51)$	$0.474^{+0.011}_{-0.011}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$231.0^{+4.2}_{-4.0}$	$\sigma_8(0.51)$	$0.623^{+0.015}_{-0.014}$
A^{kSZ}	—	$n_{\mathrm{s},0.002}$	$0.966^{+0.012}_{-0.010}$	$f\sigma_8(0.61)$	$0.469^{+0.011}_{-0.010}$
$A_{100}^{\mathrm{dust}TT}$	$8.9^{+4.6}_{-4.6}$	Y_{P}	$0.24540^{+0.00015}_{-0.00016}$	$\sigma_8(0.61)$	$0.593^{+0.015}_{-0.014}$
$A_{143}^{\mathrm{dust}TT}$	$10.9^{+4.6}_{-4.7}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24673^{+0.00015}_{-0.00017}$	$f\sigma_8(2.33)$	$0.2989^{+0.0075}_{-0.0070}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.5^{+8.5}_{-8.5}$	$10^5 \mathrm{D}/\mathrm{H}$	$2.581^{+0.075}_{-0.071}$	$\sigma_8(2.33)$	$0.3083^{+0.0086}_{-0.0080}$
$A_{217}^{\mathrm{dust}TT}$	94^{+20}_{-20}	$\mathrm{Age}/\mathrm{Gyr}$	$13.76^{+0.21}_{-0.21}$	f_{2000}^{143}	29^{+7}_{-7}
$A_{100}^{\mathrm{dust}TE}$	$0.114^{+0.10}_{-0.094}$	z_*	$1089.86^{+0.72}_{-0.71}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.135^{+0.075}_{-0.077}$	r_*	$144.50^{+0.76}_{-0.77}$	f_{2000}^{217}	$107.0^{+4.9}_{-4.7}$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	$1.04114^{+0.00075}_{-0.00085}$	$\chi_{\mathrm{lensing}}^2$	$9.11 (\nu: 0.1)$
$A_{143}^{\mathrm{dust}TE}$	$0.22^{+0.15}_{-0.14}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.879^{+0.071}_{-0.072}$	χ_{simall}^2	$291 (\nu: 14235.6)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.66^{+0.20}_{-0.21}$	z_{drag}	$1059.97^{+0.80}_{-0.80}$	χ_{lowl}^2	$130 (\nu: 14232.1)$
$A_{217}^{\mathrm{dust}TE}$	$2.08^{+0.67}_{-0.69}$	r_{drag}	$147.16^{+0.76}_{-0.76}$	χ_{plik}^2	$2359.7 (\nu: 16.6)$
c_{100}	$0.9997^{+0.0016}_{-0.0015}$	k_{D}	$0.14082^{+0.00081}_{-0.00080}$	$\chi_{6\mathrm{DF}}^2$	$0.45 (\nu: 0.2)$
c_{217}	$0.9982^{+0.0016}_{-0.0015}$	$100\theta_{\mathrm{D}}$	$0.16074^{+0.00047}_{-0.00045}$	χ_{MGS}^2	$1.03 (\nu: 0.3)$
H_0	$67.9^{+1.7}_{-1.6}$	z_{eq}	3395^{+78}_{-74}	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 (\nu: 1.7)$
Ω_{Λ}	$0.689^{+0.014}_{-0.015}$	k_{eq}	$0.01036^{+0.00024}_{-0.00023}$	χ_{prior}^2	$11.5 (\nu: 9.8)$
Ω_{m}	$0.310^{+0.016}_{-0.016}$	$100\theta_{\mathrm{eq}}$	$0.815^{+0.014}_{-0.014}$	χ_{CMB}^2	$2789.4 (\nu: 17.2)$
$\Omega_{\mathrm{m}}h^2$	$0.1427^{+0.0033}_{-0.0031}$	$100\theta_{\mathrm{s,eq}}$	$0.4502^{+0.0073}_{-0.0073}$	χ_{BAO}^2	$6.2 (\nu: 1.2)$
$\Omega_{\mathrm{m}}h^3$	$0.0969^{+0.0038}_{-0.0035}$	$H(0.15)$	$73.2^{+1.6}_{-1.6}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2807.05; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.33; R - 1 = 0.02354$$

15.16 base_omegak_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_Pantheon18_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02240^{+0.00039}_{-0.00040}$	σ_8	$0.812^{+0.019}_{-0.017}$	$D_M(0.15)$	638^{+14}_{-15}
$\Omega_c h^2$	$0.1196^{+0.0035}_{-0.0032}$	S_8	$0.824^{+0.027}_{-0.026}$	$H(0.38)$	$83.3^{+1.6}_{-1.5}$
$100\theta_{MC}$	$1.04096^{+0.00076}_{-0.00086}$	$\sigma_8 \Omega_m^{0.5}$	$0.451^{+0.015}_{-0.014}$	$D_M(0.38)$	1523^{+32}_{-33}
τ	$0.056^{+0.018}_{-0.015}$	$\sigma_8 \Omega_m^{0.25}$	$0.605^{+0.015}_{-0.015}$	$H(0.51)$	$90.0^{+1.6}_{-1.5}$
Ω_K	$0.0008^{+0.0053}_{-0.0049}$	$\sigma_8/h^{0.5}$	$0.985^{+0.022}_{-0.020}$	$D_M(0.51)$	1973^{+40}_{-41}
$\ln(10^{10} A_s)$	$3.048^{+0.036}_{-0.029}$	$r_{\text{drag}} h$	$99.99^{+2.4}_{-2.3}$	$H(0.61)$	$95.7^{+1.6}_{-1.5}$
n_s	$0.966^{+0.012}_{-0.011}$	$\langle d^2 \rangle^{1/2}$	$2.436^{+0.052}_{-0.050}$	$D_M(0.61)$	2296^{+45}_{-45}
y_{cal}	$1.0007^{+0.0061}_{-0.0063}$	z_{re}	< 9.45	$H(2.33)$	$236.5^{+3.2}_{-2.8}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.107^{+0.077}_{-0.061}$	$D_M(2.33)$	5745^{+80}_{-81}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.882^{+0.029}_{-0.028}$	$f\sigma_8(0.15)$	$0.456^{+0.014}_{-0.013}$
A_{143}^{tSZ}	—	D_{40}	1229^{+32}_{-32}	$\sigma_8(0.15)$	$0.750^{+0.018}_{-0.016}$
A_{100}^{PS}	259^{+70}_{-70}	D_{220}	5738^{+96}_{-98}	$f\sigma_8(0.38)$	$0.475^{+0.012}_{-0.011}$
A_{143}^{PS}	46^{+20}_{-20}	D_{810}	2540^{+33}_{-32}	$\sigma_8(0.38)$	$0.666^{+0.016}_{-0.015}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	818^{+12}_{-12}	$f\sigma_8(0.51)$	$0.474^{+0.011}_{-0.011}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$231.1^{+4.1}_{-4.0}$	$\sigma_8(0.51)$	$0.623^{+0.015}_{-0.014}$
A^{kSZ}	—	$n_{s,0.002}$	$0.966^{+0.012}_{-0.011}$	$f\sigma_8(0.61)$	$0.469^{+0.011}_{-0.010}$
A_{100}^{dustTT}	$8.9^{+4.6}_{-4.6}$	Y_P	$0.24541^{+0.00015}_{-0.00016}$	$\sigma_8(0.61)$	$0.593^{+0.015}_{-0.014}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.7}$	Y_P^{BBN}	$0.24673^{+0.00015}_{-0.00016}$	$f\sigma_8(2.33)$	$0.2990^{+0.0074}_{-0.0071}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.5^{+8.5}_{-8.5}$	10^5D/H	$2.580^{+0.075}_{-0.070}$	$\sigma_8(2.33)$	$0.3085^{+0.0085}_{-0.0080}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.75^{+0.20}_{-0.21}$	f_{2000}^{143}	29^{+7}_{-7}
A_{100}^{dustTE}	$0.114^{+0.10}_{-0.094}$	z_*	$1089.84^{+0.73}_{-0.71}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.075}_{-0.077}$	r_*	$144.52^{+0.76}_{-0.77}$	f_{2000}^{217}	$106.9^{+4.9}_{-4.7}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	$1.04114^{+0.00076}_{-0.00084}$	χ_{lensing}^2	$9.10 (\nu: 0.1)$
A_{143}^{dustTE}	$0.22^{+0.15}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.881^{+0.072}_{-0.072}$	χ_{simall}^2	$291 (\nu: 14237.3)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	z_{drag}	$1059.98^{+0.79}_{-0.81}$	χ_{lowl}^2	$130 (\nu: 14233.8)$
A_{217}^{dustTE}	$2.08^{+0.67}_{-0.69}$	r_{drag}	$147.17^{+0.75}_{-0.76}$	χ_{plik}^2	$2359.8 (\nu: 16.8)$
c_{100}	$0.9997^{+0.0016}_{-0.0015}$	k_D	$0.14081^{+0.00081}_{-0.00080}$	χ_{JLA}^2	$1035.03 (\nu: 0.0)$
c_{217}	$0.9982^{+0.0016}_{-0.0015}$	$100\theta_D$	$0.16074^{+0.00046}_{-0.00044}$	$\chi_{6\text{DF}}^2$	$0.46 (\nu: 0.3)$
H_0	$67.9^{+1.7}_{-1.6}$	z_{eq}	3393^{+78}_{-75}	χ_{MGS}^2	$1.07 (\nu: 0.3)$
Ω_Λ	$0.690^{+0.014}_{-0.014}$	k_{eq}	$0.01036^{+0.00024}_{-0.00023}$	χ_{DR12BAO}^2	$4.5 (\nu: 1.4)$
Ω_m	$0.309^{+0.015}_{-0.015}$	$100\theta_{\text{eq}}$	$0.815^{+0.014}_{-0.014}$	χ_{prior}^2	$11.5 (\nu: 9.9)$
$\Omega_m h^2$	$0.1426^{+0.0033}_{-0.0031}$	$100\theta_{s,\text{eq}}$	$0.4503^{+0.0072}_{-0.0074}$	χ_{CMB}^2	$2789.5 (\nu: 17.3)$
$\Omega_m h^3$	$0.0969^{+0.0037}_{-0.0034}$	$H(0.15)$	$73.2^{+1.7}_{-1.5}$	χ_{BAO}^2	$6.0 (\nu: 1.0)$

$$\bar{\chi}_{\text{eff}}^2 = 3842.05; \Delta \bar{\chi}_{\text{eff}}^2 = 0.31; R - 1 = 0.02292$$

15.17 base_omegak_plikHM_TT_lowl_lowE.lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02232	$0.02232^{+0.00064}_{-0.00063}$	$\sigma_8 \Omega_m^{0.25}$	0.6101	$0.610^{+0.019}_{-0.019}$	$D_M(0.15)$	676	682^{+65}_{-61}
$\Omega_c h^2$	0.1181	$0.1178^{+0.0057}_{-0.0055}$	$\sigma_8/h^{0.5}$	0.9955	$0.996^{+0.028}_{-0.028}$	$H(0.38)$	79.7	$79.2^{+5.9}_{-5.4}$
$100\theta_{MC}$	1.04107	$1.0411^{+0.0013}_{-0.0013}$	$r_{drag}h$	94.5	$93.6^{+9.1}_{-8.6}$	$D_M(0.38)$	1604	1618^{+140}_{-130}
τ	0.0510	$0.049^{+0.021}_{-0.025}$	$\langle d^2 \rangle^{1/2}$	2.469	$2.473^{+0.075}_{-0.077}$	$H(0.51)$	86.5	$86.0^{+5.8}_{-5.2}$
Ω_K	-0.0092	$-0.011^{+0.018}_{-0.022}$	z_{re}	7.29	$7.1^{+2.1}_{-2.9}$	$D_M(0.51)$	2073	2091^{+170}_{-160}
$\ln(10^{10} A_s)$	3.0316	$3.027^{+0.043}_{-0.050}$	$10^9 A_s$	2.073	$2.065^{+0.090}_{-0.10}$	$H(0.61)$	92.2	$91.8^{+5.7}_{-5.2}$
n_s	0.9696	$0.969^{+0.016}_{-0.016}$	$10^9 A_s e^{-2\tau}$	1.8719	$1.870^{+0.036}_{-0.035}$	$D_M(0.61)$	2409	2428^{+190}_{-180}
y_{cal}	1.0001	$0.99998^{+0.0063}_{-0.0064}$	D_{40}	1213.4	1213^{+44}_{-43}	$H(2.33)$	233.3	$232.8^{+6.7}_{-6.4}$
A_{217}^{CIB}	48.0	47^{+20}_{-20}	D_{220}	5718	5723^{+100}_{-110}	$D_M(2.33)$	5924	5953^{+300}_{-300}
$\xi^{tSZ \times CIB}$	0.40	—	D_{810}	2533.1	2531^{+34}_{-36}	$f\sigma_8(0.15)$	0.4700	$0.471^{+0.026}_{-0.026}$
A_{143}^{tSZ}	7.01	$5.2^{+4.4}_{-4.7}$	D_{1420}	815.3	814^{+13}_{-14}	$\sigma_8(0.15)$	0.7325	$0.729^{+0.035}_{-0.037}$
A_{100}^{PS}	252	261^{+70}_{-70}	D_{2000}	230.62	$230.3^{+4.7}_{-4.8}$	$f\sigma_8(0.38)$	0.4812	$0.481^{+0.016}_{-0.016}$
A_{143}^{PS}	48.5	47^{+20}_{-20}	$n_{s,0.002}$	0.9696	$0.969^{+0.016}_{-0.016}$	$\sigma_8(0.38)$	0.6457	$0.642^{+0.036}_{-0.038}$
$A_{143 \times 217}^{PS}$	47.1	42^{+20}_{-20}	Y_P	0.245374	$0.24537^{+0.00026}_{-0.00029}$	$f\sigma_8(0.51)$	0.4762	$0.476^{+0.013}_{-0.013}$
A_{217}^{PS}	118.8	114^{+30}_{-30}	Y_P^{BBN}	0.246701	$0.24670^{+0.00026}_{-0.00029}$	$\sigma_8(0.51)$	0.6028	$0.599^{+0.036}_{-0.038}$
A^{kSZ}	0.2	—	$10^5 D/H$	2.595	$2.60^{+0.12}_{-0.12}$	$f\sigma_8(0.61)$	0.4688	$0.468^{+0.012}_{-0.012}$
A_{100}^{dustTT}	8.97	$9.0^{+4.7}_{-4.7}$	Age/Gyr	14.20	$14.28^{+0.77}_{-0.75}$	$\sigma_8(0.61)$	0.5726	$0.569^{+0.036}_{-0.037}$
A_{143}^{dustTT}	10.93	$10.7^{+4.6}_{-4.6}$	z_*	1089.82	$1089.8^{+1.2}_{-1.1}$	$f\sigma_8(2.33)$	0.2878	$0.286^{+0.019}_{-0.020}$
$A_{143 \times 217}^{dustTT}$	19.5	$18.3^{+8.4}_{-8.6}$	r_*	144.97	$145.0^{+1.2}_{-1.2}$	$\sigma_8(2.33)$	0.2942	$0.292^{+0.024}_{-0.024}$
A_{217}^{dustTT}	94.6	93^{+20}_{-20}	$100\theta_*$	1.04126	$1.0413^{+0.0012}_{-0.0013}$	f_{2000}^{143}	29.6	30^{+8}_{-8}
c_{100}	0.99963	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/Gpc$	13.923	$13.93^{+0.11}_{-0.12}$	$f_{2000}^{143 \times 217}$	32.5	33^{+5}_{-5}
c_{217}	0.99822	$0.9982^{+0.0016}_{-0.0016}$	z_{drag}	1059.67	$1059.7^{+1.3}_{-1.2}$	f_{2000}^{217}	107.0	$107.2^{+5.3}_{-5.3}$
H_0	64.0	$63.4^{+6.5}_{-6.0}$	r_{drag}	147.67	$147.7^{+1.2}_{-1.2}$	$\chi^2_{lensing}$	9.4	$10.4 (\nu: 2.3)$
Ω_Λ	0.6645	$0.660^{+0.042}_{-0.050}$	k_D	0.14022	$0.1402^{+0.0013}_{-0.0012}$	χ^2_{small}	395.67	$396.7 (\nu: 1.1)$
Ω_m	0.345	$0.352^{+0.069}_{-0.058}$	$100\theta_D$	0.16092	$0.16093^{+0.00070}_{-0.00070}$	χ^2_{lowl}	21.81	$22.0 (\nu: 0.7)$
$\Omega_m h^2$	0.1410	$0.1408^{+0.0053}_{-0.0051}$	z_{eq}	3355	3349^{+130}_{-120}	χ^2_{plik}	757.9	$770.7 (\nu: 15.1)$
$\Omega_m h^3$	0.0902	$0.089^{+0.011}_{-0.010}$	k_{eq}	0.010239	$0.01022^{+0.00039}_{-0.00037}$	χ^2_{prior}	1.4	$7.3 (\nu: 6.8)$
σ_8	0.7962	$0.792^{+0.033}_{-0.035}$	$100\theta_{eq}$	0.8219	$0.823^{+0.025}_{-0.024}$	χ^2_{CMB}	1184.8	$1199.8 (\nu: 15.9)$
S_8	0.853	$0.857^{+0.057}_{-0.055}$	$100\theta_{s,eq}$	0.4539	$0.454^{+0.013}_{-0.012}$			
$\sigma_8 \Omega_m^{0.5}$	0.4675	$0.470^{+0.031}_{-0.030}$	$H(0.15)$	69.4	$68.8^{+6.3}_{-5.7}$			

Best-fit $\chi^2_{eff} = 1186.22$; $\Delta\chi^2_{eff} = -2.35$; $\bar{\chi}^2_{eff} = 1207.14$; $\Delta\bar{\chi}^2_{eff} = -1.28$; $R - 1 = 0.01227$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 9.44 (Δ 0.54) small_100x143_offlike5_EE_Aplanck.B: 395.67 (Δ -0.19) commander_dx12_v3.2.29: 21.81 (Δ -1.43) plik_rd12_HM_v22_TT: 757.86 (Δ -1.46)

15.18 base_omegak_plikHM_TT_lowl_lowE_lensing_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}} h^2$	$0.02233^{+0.00064}_{-0.00061}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.610^{+0.019}_{-0.019}$	$D_{\mathrm{M}}(0.15)$	679^{+60}_{-58}
$\Omega_{\mathrm{c}} h^2$	$0.1177^{+0.0057}_{-0.0055}$	$\sigma_8 / h^{0.5}$	$0.996^{+0.028}_{-0.028}$	$H(0.38)$	$79.5^{+5.8}_{-5.1}$
$100\theta_{\mathrm{MC}}$	$1.0411^{+0.0013}_{-0.0013}$	$r_{\mathrm{drag}} h$	$94.2^{+8.8}_{-7.9}$	$D_{\mathrm{M}}(0.38)$	1610^{+130}_{-130}
τ	$0.053^{+0.017}_{-0.010}$	$\langle d^2 \rangle^{1/2}$	$2.473^{+0.073}_{-0.076}$	$H(0.51)$	$86.3^{+5.6}_{-5.0}$
Ω_K	$-0.010^{+0.017}_{-0.021}$	z_{re}	< 9.06	$D_{\mathrm{M}}(0.51)$	2081^{+160}_{-160}
$\ln(10^{10} A_{\mathrm{s}})$	$3.033^{+0.039}_{-0.026}$	$10^9 A_{\mathrm{s}}$	$2.077^{+0.081}_{-0.054}$	$H(0.61)$	$92.0^{+5.5}_{-4.9}$
n_{s}	$0.970^{+0.016}_{-0.016}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.870^{+0.035}_{-0.034}$	$D_{\mathrm{M}}(0.61)$	2417^{+180}_{-180}
y_{cal}	$0.99997^{+0.0062}_{-0.0065}$	D_{40}	1213^{+44}_{-43}	$H(2.33)$	$232.9^{+6.7}_{-6.4}$
A_{217}^{CIB}	47^{+20}_{-20}	D_{220}	5723^{+100}_{-100}	$D_{\mathrm{M}}(2.33)$	5938^{+280}_{-290}
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	2530^{+33}_{-35}	$f\sigma_8(0.15)$	$0.470^{+0.025}_{-0.026}$
A_{143}^{tSZ}	$5.2^{+4.4}_{-4.7}$	D_{1420}	814^{+13}_{-14}	$\sigma_8(0.15)$	$0.731^{+0.033}_{-0.031}$
A_{100}^{PS}	260^{+70}_{-70}	D_{2000}	$230.3^{+4.7}_{-4.8}$	$f\sigma_8(0.38)$	$0.481^{+0.016}_{-0.016}$
A_{143}^{PS}	47^{+20}_{-20}	$n_{\mathrm{s},0.002}$	$0.970^{+0.016}_{-0.016}$	$\sigma_8(0.38)$	$0.645^{+0.034}_{-0.032}$
$A_{143 \times 217}^{\mathrm{PS}}$	42^{+20}_{-20}	Y_{P}	$0.24538^{+0.00026}_{-0.00028}$	$f\sigma_8(0.51)$	$0.476^{+0.013}_{-0.013}$
A_{217}^{PS}	114^{+30}_{-30}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24670^{+0.00026}_{-0.00028}$	$\sigma_8(0.51)$	$0.602^{+0.034}_{-0.032}$
A^{kSZ}	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.59^{+0.12}_{-0.12}$	$f\sigma_8(0.61)$	$0.468^{+0.012}_{-0.012}$
$A_{100}^{\mathrm{dust}TT}$	$9.0^{+4.7}_{-4.7}$	$\mathrm{Age}/\mathrm{Gyr}$	$14.24^{+0.73}_{-0.73}$	$\sigma_8(0.61)$	$0.571^{+0.034}_{-0.032}$
$A_{143}^{\mathrm{dust}TT}$	$10.7^{+4.6}_{-4.6}$	z_*	$1089.8^{+1.2}_{-1.1}$	$f\sigma_8(2.33)$	$0.287^{+0.018}_{-0.017}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3^{+8.6}_{-8.6}$	r_*	$145.1^{+1.2}_{-1.2}$	$\sigma_8(2.33)$	$0.294^{+0.023}_{-0.021}$
$A_{217}^{\mathrm{dust}TT}$	93^{+20}_{-20}	$100\theta_*$	$1.0413^{+0.0012}_{-0.0013}$	f_{2000}^{143}	30^{+8}_{-8}
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.93^{+0.11}_{-0.11}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	z_{drag}	$1059.7^{+1.2}_{-1.2}$	f_{2000}^{217}	$107.1^{+5.2}_{-5.3}$
H_0	$63.8^{+6.2}_{-5.6}$	r_{drag}	$147.7^{+1.1}_{-1.2}$	$\chi_{\mathrm{lensing}}^2$	$10.4 (\nu: 2.3)$
Ω_{Λ}	$0.663^{+0.040}_{-0.044}$	k_{D}	$0.1402^{+0.0013}_{-0.0012}$	χ_{simall}^2	$396.4 (\nu: 0.7)$
Ω_{m}	$0.347^{+0.061}_{-0.055}$	$100\theta_{\mathrm{D}}$	$0.16092^{+0.00068}_{-0.00070}$	χ_{lowl}^2	$22.1 (\nu: 0.7)$
$\Omega_{\mathrm{m}} h^2$	$0.1407^{+0.0053}_{-0.0051}$	z_{eq}	3347^{+130}_{-120}	χ_{plik}^2	$770.6 (\nu: 15.1)$
$\Omega_{\mathrm{m}} h^3$	$0.0897^{+0.011}_{-0.0099}$	k_{eq}	$0.01022^{+0.00039}_{-0.00037}$	χ_{prior}^2	$7.3 (\nu: 6.8)$
σ_8	$0.795^{+0.031}_{-0.030}$	$100\theta_{\mathrm{eq}}$	$0.823^{+0.025}_{-0.024}$	χ_{CMB}^2	$1199.4 (\nu: 15.4)$
S_8	$0.855^{+0.054}_{-0.053}$	$100\theta_{\mathrm{s,eq}}$	$0.455^{+0.013}_{-0.012}$		
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.468^{+0.030}_{-0.029}$	$H(0.15)$	$69.2^{+6.0}_{-5.4}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1206.71; \Delta \bar{\chi}_{\mathrm{eff}}^2 = -1.45; R - 1 = 0.01427$$

15.19 base_omegak_plikHM_TTTEEE_lowl_lowE_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022509	$0.02249^{+0.00040}_{-0.00039}$	$\Omega_m h^3$	0.0906	$0.0900^{+0.0096}_{-0.0093}$	$100\theta_{s,eq}$	0.4528	$0.4527^{+0.0086}_{-0.0084}$
$\Omega_c h^2$	0.11839	$0.1185^{+0.0039}_{-0.0038}$	σ_8	0.7974	$0.795^{+0.028}_{-0.032}$	$H(0.15)$	69.5	$69.0^{+5.7}_{-5.4}$
$100\theta_{MC}$	1.04106	$1.04107^{+0.00083}_{-0.00092}$	S_8	0.855	$0.860^{+0.053}_{-0.054}$	$D_M(0.15)$	675	680^{+62}_{-56}
τ	0.0515	$0.050^{+0.021}_{-0.025}$	$\sigma_8 \Omega_m^{0.5}$	0.4685	$0.471^{+0.029}_{-0.029}$	$H(0.38)$	79.8	$79.4^{+5.3}_{-5.1}$
Ω_K	-0.0092	$-0.011^{+0.015}_{-0.019}$	$\sigma_8 \Omega_m^{0.25}$	0.6112	$0.612^{+0.017}_{-0.017}$	$D_M(0.38)$	1602	1614^{+130}_{-120}
$\ln(10^{10} A_s)$	3.0336	$3.030^{+0.044}_{-0.052}$	$\sigma_8/h^{0.5}$	0.9965	$0.998^{+0.025}_{-0.027}$	$H(0.51)$	86.7	$86.3^{+5.1}_{-4.9}$
n_s	0.9699	$0.969^{+0.012}_{-0.012}$	$r_{drag} h$	94.4	$93.7^{+8.6}_{-8.1}$	$D_M(0.51)$	2071	2084^{+160}_{-150}
y_{cal}	1.0000	$0.99998^{+0.0062}_{-0.0065}$	$\langle d^2 \rangle^{1/2}$	2.472	$2.478^{+0.069}_{-0.073}$	$H(0.61)$	92.38	$92.0^{+5.0}_{-4.8}$
A_{217}^{CIB}	46.8	46^{+20}_{-20}	z_{re}	7.30	$7.1^{+2.1}_{-3.0}$	$D_M(0.61)$	2406	2420^{+180}_{-170}
$\xi^{tSZ \times CIB}$	0.52	—	$10^9 A_s$	2.077	$2.070^{+0.094}_{-0.11}$	$H(2.33)$	233.70	$233.6^{+5.0}_{-4.9}$
A_{143}^{tSZ}	7.25	> 1.03	$10^9 A_s e^{-2\tau}$	1.8741	$1.874^{+0.031}_{-0.031}$	$D_M(2.33)$	5915	5935^{+270}_{-260}
A_{100}^{PS}	247	257^{+70}_{-70}	D_{40}	1214.6	1216^{+38}_{-37}	$f\sigma_8(0.15)$	0.4710	$0.473^{+0.025}_{-0.026}$
A_{143}^{PS}	47.2	44^{+20}_{-20}	D_{220}	5731	5735^{+97}_{-100}	$\sigma_8(0.15)$	0.7335	$0.731^{+0.030}_{-0.034}$
$A_{143 \times 217}^{PS}$	48.3	41^{+20}_{-20}	D_{810}	2535.3	2534^{+34}_{-35}	$f\sigma_8(0.38)$	0.4821	$0.483^{+0.014}_{-0.016}$
A_{217}^{PS}	119.1	114^{+30}_{-30}	D_{1420}	817.2	816^{+12}_{-12}	$\sigma_8(0.38)$	0.6466	$0.644^{+0.032}_{-0.036}$
A^{kSZ}	0.0	—	D_{2000}	231.60	$231.2^{+4.0}_{-3.9}$	$f\sigma_8(0.51)$	0.4770	$0.477^{+0.011}_{-0.011}$
A_{100}^{dustTT}	8.94	$9.0^{+4.7}_{-4.5}$	$n_{s,0.002}$	0.9699	$0.969^{+0.012}_{-0.012}$	$\sigma_8(0.51)$	0.6035	$0.601^{+0.032}_{-0.036}$
A_{143}^{dustTT}	11.10	$10.9^{+4.7}_{-4.4}$	Y_P	0.245448	$0.24544^{+0.00016}_{-0.00016}$	$f\sigma_8(0.61)$	0.4696	$0.469^{+0.011}_{-0.011}$
$A_{143 \times 217}^{dustTT}$	20.0	$18.6^{+8.5}_{-8.4}$	Y_P^{BBN}	0.246774	$0.24676^{+0.00016}_{-0.00016}$	$\sigma_8(0.61)$	0.5733	$0.571^{+0.032}_{-0.035}$
A_{217}^{dustTT}	95.1	94^{+20}_{-20}	$10^5 D/H$	2.560	$2.565^{+0.073}_{-0.072}$	$f\sigma_8(2.33)$	0.2881	$0.287^{+0.017}_{-0.019}$
A_{100}^{dustTE}	0.114	$0.113^{+0.098}_{-0.094}$	Age/Gyr	14.18	$14.23^{+0.71}_{-0.66}$	$\sigma_8(2.33)$	0.2946	$0.293^{+0.022}_{-0.023}$
$A_{100 \times 143}^{dustTE}$	0.135	$0.134^{+0.077}_{-0.077}$	z_*	1089.61	$1089.64^{+0.77}_{-0.74}$	f_{2000}^{143}	28.1	29^{+7}_{-7}
$A_{100 \times 217}^{dustTE}$	0.480	$0.48^{+0.22}_{-0.22}$	r_*	144.74	$144.73^{+0.84}_{-0.82}$	$f_{2000}^{143 \times 217}$	31.35	32^{+5}_{-5}
A_{143}^{dustTE}	0.224	$0.22^{+0.13}_{-0.14}$	$100\theta_*$	1.04123	$1.04124^{+0.00082}_{-0.00090}$	f_{2000}^{217}	105.88	$106.3^{+4.7}_{-4.6}$
$A_{143 \times 217}^{dustTE}$	0.660	$0.66^{+0.21}_{-0.21}$	$D_M(z_*)/\text{Gpc}$	13.901	$13.900^{+0.076}_{-0.076}$	$\chi^2_{lensing}$	9.8	$10.9 (\nu: 2.8)$
A_{217}^{dustTE}	2.07	$2.07^{+0.70}_{-0.72}$	z_{drag}	1060.12	$1060.10^{+0.79}_{-0.74}$	χ^2_{small}	395.65	$396.7 (\nu: 1.1)$
c_{100}	0.99970	$0.9997^{+0.0015}_{-0.0015}$	r_{drag}	147.36	$147.36^{+0.80}_{-0.79}$	χ^2_{lowl}	21.84	$22.15 (\nu: 0.5)$
c_{217}	0.99817	$0.9982^{+0.0016}_{-0.0016}$	k_D	0.14069	$0.14067^{+0.00079}_{-0.00084}$	χ^2_{plik}	2342.4	$2357.5 (\nu: 17.3)$
H_0	64.0	$63.6^{+6.0}_{-5.7}$	$100\theta_D$	0.160641	$0.16067^{+0.00044}_{-0.00044}$	χ^2_{prior}	1.8	$11.5 (\nu: 9.9)$
Ω_Λ	0.6639	$0.659^{+0.042}_{-0.049}$	z_{eq}	3367	3369^{+86}_{-86}	χ^2_{CMB}	2769.7	$2787.2 (\nu: 17.4)$
Ω_m	0.345	$0.352^{+0.067}_{-0.057}$	k_{eq}	0.010277	$0.01028^{+0.00026}_{-0.00026}$			
$\Omega_m h^2$	0.14155	$0.1416^{+0.0036}_{-0.0036}$	$100\theta_{eq}$	0.8201	$0.820^{+0.017}_{-0.016}$			

Best-fit $\chi^2_{eff} = 2771.41$; $\Delta\chi^2_{eff} = -3.23$; $\bar{\chi}^2_{eff} = 2798.70$; $\Delta\bar{\chi}^2_{eff} = -1.99$; $R - 1 = 0.02587$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb_consext8: 9.79 (Δ 0.92) small_100x143_offlike5_EE_Aplanck.B: 395.65 (Δ -0.40) commander_dx12.v3.2.29: 21.84 (Δ -1.41) plik_rd12_HM_v22b_TTTEEE: 2342.38 (Δ -2.55)

15.20 base_omegak_plikHM_TTTEE_lowl_lowE_lensing_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02249^{+0.00040}_{-0.00039}$	$\Omega_m h^3$	$0.0906^{+0.0095}_{-0.0084}$	$100\theta_{s,eq}$	$0.4527^{+0.0085}_{-0.0084}$
$\Omega_c h^2$	$0.1185^{+0.0039}_{-0.0038}$	σ_8	$0.798^{+0.026}_{-0.024}$	$H(0.15)$	$69.4^{+5.5}_{-4.7}$
$100\theta_{MC}$	$1.04107^{+0.00083}_{-0.00093}$	S_8	$0.858^{+0.051}_{-0.052}$	$D_M(0.15)$	676^{+52}_{-53}
τ	$0.053^{+0.017}_{-0.010}$	$\sigma_8 \Omega_m^{0.5}$	$0.470^{+0.028}_{-0.029}$	$H(0.38)$	$79.8^{+5.1}_{-4.5}$
Ω_K	$-0.0096^{+0.015}_{-0.017}$	$\sigma_8 \Omega_m^{0.25}$	$0.612^{+0.017}_{-0.017}$	$D_M(0.38)$	1605^{+110}_{-120}
$\ln(10^{10} A_s)$	$3.036^{+0.040}_{-0.025}$	$\sigma_8/h^{0.5}$	$0.998^{+0.025}_{-0.026}$	$H(0.51)$	$86.6^{+5.0}_{-4.4}$
n_s	$0.969^{+0.012}_{-0.012}$	$r_{drag} h$	$94.2^{+8.3}_{-7.2}$	$D_M(0.51)$	2074^{+140}_{-140}
y_{cal}	$0.99997^{+0.0063}_{-0.0065}$	$\langle d^2 \rangle^{1/2}$	$2.478^{+0.069}_{-0.071}$	$H(0.61)$	$92.3^{+4.9}_{-4.3}$
A_{217}^{CIB}	46^{+20}_{-20}	z_{re}	< 9.08	$D_M(0.61)$	2409^{+150}_{-160}
$\xi^{tSZ \times CIB}$	—	$10^9 A_s$	$2.083^{+0.085}_{-0.052}$	$H(2.33)$	$233.7^{+4.9}_{-4.8}$
A_{143}^{tSZ}	> 1.05	$10^9 A_s e^{-2\tau}$	$1.874^{+0.032}_{-0.031}$	$D_M(2.33)$	5919^{+240}_{-250}
A_{100}^{PS}	257^{+70}_{-70}	D_{40}	1217^{+38}_{-38}	$f\sigma_8(0.15)$	$0.472^{+0.024}_{-0.025}$
A_{143}^{PS}	44^{+20}_{-20}	D_{220}	5734^{+97}_{-100}	$\sigma_8(0.15)$	$0.734^{+0.028}_{-0.026}$
$A_{143 \times 217}^{PS}$	41^{+20}_{-20}	D_{810}	2533^{+35}_{-35}	$f\sigma_8(0.38)$	$0.483^{+0.014}_{-0.016}$
A_{217}^{PS}	114^{+30}_{-30}	D_{1420}	816^{+13}_{-12}	$\sigma_8(0.38)$	$0.647^{+0.029}_{-0.027}$
A^{kSZ}	—	D_{2000}	$231.2^{+4.0}_{-3.9}$	$f\sigma_8(0.51)$	$0.478^{+0.011}_{-0.011}$
A_{100}^{dustTT}	$9.0^{+4.8}_{-4.6}$	$n_{s,0.002}$	$0.969^{+0.012}_{-0.012}$	$\sigma_8(0.51)$	$0.604^{+0.030}_{-0.027}$
A_{143}^{dustTT}	$10.9^{+4.7}_{-4.4}$	Y_P	$0.24544^{+0.00016}_{-0.00016}$	$f\sigma_8(0.61)$	$0.470^{+0.010}_{-0.0092}$
$A_{143 \times 217}^{dustTT}$	$18.6^{+8.4}_{-8.5}$	Y_P^{BBN}	$0.24677^{+0.00016}_{-0.00016}$	$\sigma_8(0.61)$	$0.574^{+0.030}_{-0.027}$
A_{217}^{dustTT}	94^{+20}_{-20}	$10^5 D/H$	$2.564^{+0.074}_{-0.073}$	$f\sigma_8(2.33)$	$0.288^{+0.016}_{-0.015}$
A_{100}^{dustTE}	$0.113^{+0.098}_{-0.094}$	Age/Gyr	$14.19^{+0.62}_{-0.63}$	$\sigma_8(2.33)$	$0.295^{+0.020}_{-0.018}$
$A_{100 \times 143}^{dustTE}$	$0.134^{+0.076}_{-0.076}$	z_*	$1089.64^{+0.77}_{-0.75}$	f_{2000}^{143}	29^{+7}_{-7}
$A_{100 \times 217}^{dustTE}$	$0.48^{+0.22}_{-0.22}$	r_*	$144.74^{+0.83}_{-0.82}$	$f_{2000}^{143 \times 217}$	31^{+5}_{-5}
A_{143}^{dustTE}	$0.22^{+0.13}_{-0.14}$	$100\theta_*$	$1.04124^{+0.00081}_{-0.00091}$	f_{2000}^{217}	$106.3^{+4.7}_{-4.6}$
$A_{143 \times 217}^{dustTE}$	$0.66^{+0.21}_{-0.21}$	$D_M(z_*)/\text{Gpc}$	$13.901^{+0.076}_{-0.076}$	$\chi_{lensing}^2$	$10.8 (\nu: 2.8)$
A_{217}^{dustTE}	$2.07^{+0.68}_{-0.71}$	z_{drag}	$1060.10^{+0.78}_{-0.74}$	χ_{simall}^2	$396.4 (\nu: 0.7)$
c_{100}	$0.9997^{+0.0015}_{-0.0015}$	r_{drag}	$147.37^{+0.80}_{-0.79}$	χ_{lowl}^2	$22.2 (\nu: 0.5)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	k_D	$0.14067^{+0.00080}_{-0.00083}$	χ_{plik}^2	$2357.4 (\nu: 17.5)$
H_0	$64.0^{+5.8}_{-5.0}$	$100\theta_D$	$0.16067^{+0.00044}_{-0.00044}$	χ_{prior}^2	$11.5 (\nu: 9.9)$
Ω_Λ	$0.662^{+0.040}_{-0.042}$	z_{eq}	3368^{+87}_{-85}	χ_{CMB}^2	$2786.8 (\nu: 17.0)$
Ω_m	$0.347^{+0.057}_{-0.053}$	k_{eq}	$0.01028^{+0.00026}_{-0.00026}$		
$\Omega_m h^2$	$0.1416^{+0.0036}_{-0.0035}$	$100\theta_{eq}$	$0.820^{+0.017}_{-0.017}$		

$$\bar{\chi}_{\text{eff}}^2 = 2798.28; \Delta\bar{\chi}_{\text{eff}}^2 = -2.23; R - 1 = 0.02761$$

16 r

16.1 base_r_plikHM_TT_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02213	$0.02213^{+0.00058}_{-0.00055}$	$\sigma_8/h^{0.5}$	0.9947	$0.990^{+0.041}_{-0.042}$	$D_M(0.38)$	1542.1	1540^{+41}_{-40}
$\Omega_c h^2$	0.1206	$0.1203^{+0.0054}_{-0.0052}$	$r_{\text{drag}} h$	98.45	$98.7^{+4.1}_{-4.1}$	$H(0.51)$	89.32	$89.4^{+1.2}_{-1.1}$
$100\theta_{\text{MC}}$	1.04078	$1.0408^{+0.0012}_{-0.0012}$	$\langle d^2 \rangle^{1/2}$	2.456	$2.446^{+0.099}_{-0.096}$	$D_M(0.51)$	1996.3	1994^{+48}_{-47}
τ	0.0535	$0.052^{+0.022}_{-0.021}$	z_{re}	7.66	$7.5^{+2.1}_{-2.4}$	$H(0.61)$	95.01	$95.05^{+0.95}_{-0.87}$
$\ln(10^{10} A_s)$	3.0436	$3.039^{+0.044}_{-0.044}$	$10^9 A_s$	2.098	$2.089^{+0.094}_{-0.090}$	$D_M(0.61)$	2322	2319^{+51}_{-51}
n_s	0.9637	$0.964^{+0.014}_{-0.014}$	$10^9 A_s e^{-2\tau}$	1.8853	$1.883^{+0.036}_{-0.035}$	$H(2.33)$	236.73	$236.5^{+3.3}_{-3.2}$
r	0.000	< 0.149	D_{40}	1231.7	1244^{+50}_{-43}	$D_M(2.33)$	5777.4	5776^{+41}_{-43}
y_{cal}	1.0005	$1.0005^{+0.0065}_{-0.0064}$	D_{220}	5711	5711^{+110}_{-100}	$f\sigma_8(0.15)$	0.4644	$0.462^{+0.031}_{-0.031}$
A_{217}^{CIB}	49.0	48^{+20}_{-20}	D_{810}	2538.4	2537^{+36}_{-35}	$\sigma_8(0.15)$	0.7508	$0.748^{+0.020}_{-0.020}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.28	—	D_{1420}	815.6	815^{+13}_{-13}	$f\sigma_8(0.38)$	0.4808	$0.478^{+0.024}_{-0.025}$
A_{143}^{tSZ}	7.0	—	D_{2000}	230.00	$229.7^{+4.6}_{-4.6}$	$\sigma_8(0.38)$	0.6645	$0.663^{+0.016}_{-0.016}$
A_{100}^{PS}	255	263^{+70}_{-70}	$n_{s,0.002}$	0.9637	$0.964^{+0.014}_{-0.014}$	$f\sigma_8(0.51)$	0.4783	$0.476^{+0.021}_{-0.021}$
A_{143}^{PS}	49.3	49^{+20}_{-20}	Y_{P}	0.245295	$0.24529^{+0.00023}_{-0.00026}$	$\sigma_8(0.51)$	0.6215	$0.620^{+0.015}_{-0.015}$
$A_{143 \times 217}^{\text{PS}}$	46.2	44^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246621	$0.24662^{+0.00023}_{-0.00026}$	$f\sigma_8(0.61)$	0.4726	$0.470^{+0.019}_{-0.019}$
A_{217}^{PS}	119.2	115^{+30}_{-30}	$10^5 \text{D}/\text{H}$	2.632	$2.63^{+0.11}_{-0.11}$	$\sigma_8(0.61)$	0.5911	$0.589^{+0.014}_{-0.014}$
A^{kSZ}	0.0	—	Age/Gyr	13.829	$13.826^{+0.092}_{-0.094}$	$f\sigma_8(2.33)$	0.2977	$0.2969^{+0.0069}_{-0.0068}$
A_{100}^{dustTT}	8.91	$8.9^{+4.7}_{-4.7}$	z_*	1090.29	$1090.3^{+1.0}_{-1.0}$	$\sigma_8(2.33)$	0.3065	$0.3058^{+0.0073}_{-0.0070}$
A_{143}^{dustTT}	10.76	$10.7^{+4.6}_{-4.6}$	r_*	144.45	$144.5^{+1.2}_{-1.2}$	$r_{0.002}$	0.000	< 0.143
$A_{143 \times 217}^{\text{dustTT}}$	19.3	$18.3^{+8.4}_{-8.6}$	$100\theta_*$	1.04098	$1.0410^{+0.0012}_{-0.0012}$	$r_{0.01}$	0.000	< 0.146
A_{217}^{dustTT}	94.4	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.877	$13.88^{+0.11}_{-0.11}$	$\ln(10^{10} A_t)$	-6.27	$-0.7^{+2.2}_{-4.1}$
c_{100}	0.99965	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	1059.40	$1059.4^{+1.2}_{-1.1}$	r_{10}	0.0000	< 0.0742
c_{217}	0.99828	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	147.20	$147.3^{+1.2}_{-1.2}$	$10^9 A_t$	0.000	< 0.312
H_0	66.88	$67.0^{+2.4}_{-2.4}$	k_{D}	0.14057	$0.1405^{+0.0013}_{-0.0013}$	$10^9 A_t e^{-2\tau}$	0.000	< 0.280
Ω_{Λ}	0.6794	$0.681^{+0.031}_{-0.035}$	$100\theta_{\text{D}}$	0.16106	$0.16108^{+0.00067}_{-0.00067}$	f_{2000}^{143}	30.5	31^{+7}_{-8}
Ω_{m}	0.3206	$0.319^{+0.035}_{-0.031}$	z_{eq}	3412	3404^{+120}_{-120}	$f_{2000}^{143 \times 217}$	33.3	33^{+5}_{-5}
$\Omega_{\text{m}} h^2$	0.1434	$0.1431^{+0.0051}_{-0.0050}$	k_{eq}	0.010413	$0.01039^{+0.00037}_{-0.00036}$	f_{2000}^{217}	107.8	$108.0^{+5.0}_{-5.0}$
$\Omega_{\text{m}} h^3$	0.09592	$0.0959^{+0.0012}_{-0.0011}$	$100\theta_{\text{eq}}$	0.8108	$0.812^{+0.023}_{-0.022}$	χ_{simall}^2	396.03	$397.1 (\nu: 1.4)$
σ_8	0.8135	$0.811^{+0.023}_{-0.024}$	$100\theta_{\text{s,eq}}$	0.4483	$0.449^{+0.012}_{-0.011}$	χ_{lowl}^2	23.61	$25.0 (\nu: 1.6)$
S_8	0.841	$0.836^{+0.063}_{-0.060}$	$H(0.15)$	72.26	$72.4^{+2.0}_{-2.0}$	χ_{plik}^2	758.6	$771.7 (\nu: 14.6)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4606	$0.458^{+0.034}_{-0.033}$	$D_M(0.15)$	647.5	647^{+21}_{-20}	χ_{prior}^2	1.4	$7.3 (\nu: 6.9)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6121	$0.609^{+0.030}_{-0.030}$	$H(0.38)$	82.52	$82.6^{+1.5}_{-1.4}$	χ_{CMB}^2	1178.2	$1193.7 (\nu: 16.0)$

Best-fit $\chi_{\text{eff}}^2 = 1179.62$; $\Delta\chi_{\text{eff}}^2 = 0.04$; $\bar{\chi}_{\text{eff}}^2 = 1201.03$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.45$; $R - 1 = 0.00654$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.03 (Δ 0.15) commander_dx12_v3.2.29: 23.61 (Δ 0.01) plik_rd12_HM_v22_TT: 758.60 (Δ -0.15)

16.2 base_r_plikHM_TT_lowl_lowE_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02225	$0.02222^{+0.00051}_{-0.00049}$	$\langle d^2 \rangle^{1/2}$	2.424	$2.423^{+0.071}_{-0.068}$	$D_M(0.61)$	2305.8	2305^{+31}_{-31}
$\Omega_c h^2$	0.11896	$0.1188^{+0.0032}_{-0.0031}$	z_{re}	7.58	$7.6^{+2.1}_{-2.4}$	$H(2.33)$	235.76	$235.6^{+2.0}_{-2.0}$
$100\theta_{\text{MC}}$	1.04096	$1.0410^{+0.0010}_{-0.0011}$	$10^9 A_s$	2.087	$2.088^{+0.093}_{-0.091}$	$D_M(2.33)$	5766.0	5766^{+31}_{-31}
τ	0.0532	$0.053^{+0.022}_{-0.022}$	$10^9 A_s e^{-2\tau}$	1.8761	$1.877^{+0.031}_{-0.030}$	$f\sigma_8(0.15)$	0.4539	$0.453^{+0.020}_{-0.019}$
$\ln(10^{10} A_s)$	3.0383	$3.038^{+0.044}_{-0.044}$	D_{40}	1222.0	1238^{+49}_{-39}	$\sigma_8(0.15)$	0.7455	$0.745^{+0.019}_{-0.018}$
n_s	0.9675	$0.967^{+0.011}_{-0.011}$	D_{220}	5714	5717^{+110}_{-100}	$f\sigma_8(0.38)$	0.4725	$0.472^{+0.017}_{-0.016}$
r	0.000	< 0.154	D_{810}	2535.0	2536^{+37}_{-35}	$\sigma_8(0.38)$	0.6610	$0.661^{+0.016}_{-0.015}$
y_{cal}	1.0001	$1.0006^{+0.0070}_{-0.0064}$	D_{1420}	815.9	816^{+13}_{-13}	$f\sigma_8(0.51)$	0.4712	$0.471^{+0.015}_{-0.015}$
A_{217}^{CIB}	48.9	48^{+20}_{-20}	D_{2000}	230.18	$230.1^{+4.6}_{-4.4}$	$\sigma_8(0.51)$	0.6186	$0.619^{+0.015}_{-0.014}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.28	—	$n_{\text{s},0.002}$	0.9675	$0.967^{+0.011}_{-0.011}$	$f\sigma_8(0.61)$	0.4664	$0.466^{+0.014}_{-0.014}$
A_{143}^{tSZ}	7.1	—	Y_{P}	0.245345	$0.24533^{+0.00020}_{-0.00023}$	$\sigma_8(0.61)$	0.5887	$0.589^{+0.014}_{-0.013}$
A_{100}^{PS}	254	262^{+70}_{-70}	$Y_{\text{P}}^{\text{BBN}}$	0.246671	$0.24666^{+0.00020}_{-0.00023}$	$f\sigma_8(2.33)$	0.2969	$0.2969^{+0.0069}_{-0.0067}$
A_{143}^{PS}	48.1	48^{+20}_{-20}	10^5D/H	2.609	$2.615^{+0.095}_{-0.093}$	$\sigma_8(2.33)$	0.3061	$0.3062^{+0.0072}_{-0.0068}$
$A_{143 \times 217}^{\text{PS}}$	45.5	43^{+20}_{-20}	Age/Gyr	13.804	$13.806^{+0.071}_{-0.070}$	$r_{0.002}$	0.000	< 0.150
A_{217}^{PS}	118.4	115^{+30}_{-30}	z_*	1089.99	$1090.02^{+0.76}_{-0.73}$	$r_{0.01}$	0.000	< 0.152
A^{kSZ}	0.0	—	r_*	144.79	$144.85^{+0.81}_{-0.82}$	$\ln(10^{10} A_{\text{t}})$	-5.91	$-0.6^{+2.2}_{-3.9}$
A_{100}^{dustTT}	8.92	$8.9^{+4.7}_{-4.8}$	$100\theta_*$	1.04116	$1.0412^{+0.0010}_{-0.0011}$	r_{10}	0.0001	< 0.0773
A_{143}^{dustTT}	10.83	$10.7^{+4.4}_{-4.5}$	$D_M(z_*)/\text{Gpc}$	13.907	$13.912^{+0.081}_{-0.079}$	$10^9 A_{\text{t}}$	0.000	< 0.323
$A_{143 \times 217}^{\text{dustTT}}$	19.4	$18.3^{+8.5}_{-9.0}$	z_{drag}	1059.59	$1059.5^{+1.1}_{-1.1}$	$10^9 A_{\text{t}} e^{-2\tau}$	0.000	< 0.289
A_{217}^{dustTT}	94.5	94^{+20}_{-20}	r_{drag}	147.50	$147.57^{+0.89}_{-0.88}$	f_{2000}^{143}	30.1	31^{+7}_{-7}
c_{100}	0.99964	$0.9996^{+0.0016}_{-0.0016}$	k_{D}	0.14034	$0.1402^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33.0	33^{+5}_{-5}
c_{217}	0.99827	$0.9983^{+0.0016}_{-0.0016}$	$100\theta_{\text{D}}$	0.16097	$0.16103^{+0.00066}_{-0.00065}$	f_{2000}^{217}	107.41	$107.8^{+5.0}_{-4.9}$
H_0	67.63	$67.7^{+1.4}_{-1.4}$	z_{eq}	3374	3371^{+75}_{-73}	χ_{small}^2	395.88	$397.2 (\nu: 1.6)$
Ω_{Λ}	0.6899	$0.690^{+0.018}_{-0.019}$	k_{eq}	0.010299	$0.01029^{+0.00023}_{-0.00022}$	χ_{lowl}^2	22.78	$24.3 (\nu: 1.2)$
Ω_{m}	0.3101	$0.310^{+0.019}_{-0.018}$	$100\theta_{\text{eq}}$	0.8180	$0.819^{+0.014}_{-0.014}$	χ_{plik}^2	760.2	$772.4 (\nu: 15.0)$
$\Omega_{\text{m}} h^2$	0.14185	$0.1417^{+0.0031}_{-0.0030}$	$100\theta_{\text{s,eq}}$	0.4519	$0.4523^{+0.0071}_{-0.0070}$	$\chi_{6\text{DF}}^2$	0.022	$0.053 (\nu: 0.0)$
$\Omega_{\text{m}} h^3$	0.09593	$0.0959^{+0.0012}_{-0.0012}$	$H(0.15)$	72.89	$72.9^{+1.2}_{-1.2}$	χ_{MGS}^2	1.28	$1.41 (\nu: 0.1)$
σ_8	0.8066	$0.806^{+0.021}_{-0.020}$	$D_M(0.15)$	641.1	641^{+12}_{-12}	χ_{DR12BAO}^2	4.21	$4.6 (\nu: 1.2)$
S_8	0.8202	$0.819^{+0.040}_{-0.037}$	$H(0.38)$	82.97	$82.99^{+0.91}_{-0.89}$	χ_{prior}^2	1.4	$7.4 (\nu: 7.0)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4492	$0.449^{+0.022}_{-0.020}$	$D_M(0.38)$	1529.4	1529^{+24}_{-24}	χ_{BAO}^2	5.51	$6.1 (\nu: 0.8)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6020	$0.601^{+0.021}_{-0.020}$	$H(0.51)$	89.67	$89.68^{+0.74}_{-0.73}$	χ_{CMB}^2	1178.8	$1193.8 (\nu: 16.2)$
$\sigma_8/h^{0.5}$	0.9809	$0.980^{+0.030}_{-0.029}$	$D_M(0.51)$	1981.4	1981^{+29}_{-28}			
$r_{\text{drag}} h$	99.76	$99.9^{+2.4}_{-2.4}$	$H(0.61)$	95.28	$95.28^{+0.63}_{-0.62}$			

Best-fit $\chi_{\text{eff}}^2 = 1185.79$; $\Delta\chi_{\text{eff}}^2 = 0.05$; $\bar{\chi}_{\text{eff}}^2 = 1207.29$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.27$; $R - 1 = 0.01115$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ 0.00) MGS: 1.28 (Δ 0.00) DR12BAO: 4.21 (Δ 0.03) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.88 (Δ -0.01) commander_dx12_v3_2_29: 22.79 (Δ -0.04) plik_rd12_HM_v22_TT: 760.17 (Δ 0.07)

16.3 base_r_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02213^{+0.00058}_{-0.00055}$	$\sigma_8/h^{0.5}$	$0.991^{+0.041}_{-0.041}$	$D_M(0.38)$	1539^{+41}_{-40}
$\Omega_c h^2$	$0.1202^{+0.0054}_{-0.0052}$	$r_{\text{drag}} h$	$98.8^{+4.0}_{-4.1}$	$H(0.51)$	$89.4^{+1.2}_{-1.1}$
$100\theta_{\text{MC}}$	$1.0408^{+0.0012}_{-0.0012}$	$\langle d^2 \rangle^{1/2}$	$2.449^{+0.097}_{-0.095}$	$D_M(0.51)$	1993^{+47}_{-47}
τ	$0.054^{+0.019}_{-0.012}$	z_{re}	< 9.43	$H(0.61)$	$95.07^{+0.95}_{-0.86}$
$\ln(10^{10} A_s)$	$3.042^{+0.042}_{-0.029}$	$10^9 A_s$	$2.096^{+0.089}_{-0.061}$	$D_M(0.61)$	2318^{+51}_{-50}
n_s	$0.964^{+0.014}_{-0.014}$	$10^9 A_s e^{-2\tau}$	$1.883^{+0.036}_{-0.035}$	$H(2.33)$	$236.5^{+3.2}_{-3.1}$
r	< 0.150	D_{40}	1244^{+50}_{-43}	$D_M(2.33)$	5775^{+41}_{-43}
y_{cal}	$1.0005^{+0.0065}_{-0.0064}$	D_{220}	5711^{+110}_{-100}	$f\sigma_8(0.15)$	$0.462^{+0.031}_{-0.030}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2536^{+36}_{-35}	$\sigma_8(0.15)$	$0.749^{+0.019}_{-0.018}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	815^{+13}_{-13}	$f\sigma_8(0.38)$	$0.479^{+0.024}_{-0.024}$
A_{143}^{tSZ}	—	D_{2000}	$229.8^{+4.6}_{-4.6}$	$\sigma_8(0.38)$	$0.664^{+0.015}_{-0.013}$
A_{100}^{PS}	262^{+70}_{-70}	$n_{\text{s},0.002}$	$0.964^{+0.014}_{-0.014}$	$f\sigma_8(0.51)$	$0.477^{+0.021}_{-0.021}$
A_{143}^{PS}	49^{+20}_{-20}	Y_{P}	$0.24529^{+0.00023}_{-0.00026}$	$\sigma_8(0.51)$	$0.621^{+0.014}_{-0.011}$
$A_{143 \times 217}^{\text{PS}}$	44^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24662^{+0.00023}_{-0.00026}$	$f\sigma_8(0.61)$	$0.471^{+0.018}_{-0.019}$
A_{217}^{PS}	115^{+30}_{-30}	$10^5 \text{D}/\text{H}$	$2.63^{+0.11}_{-0.11}$	$\sigma_8(0.61)$	$0.590^{+0.013}_{-0.010}$
A^{kSZ}	—	Age/Gyr	$13.825^{+0.092}_{-0.095}$	$f\sigma_8(2.33)$	$0.2974^{+0.0065}_{-0.0047}$
$A_{100}^{\text{dust}TT}$	$8.9^{+4.7}_{-4.7}$	z_*	$1090.2^{+1.0}_{-1.0}$	$\sigma_8(2.33)$	$0.3064^{+0.0069}_{-0.0048}$
$A_{143}^{\text{dust}TT}$	$10.7^{+4.6}_{-4.6}$	r_*	$144.6^{+1.2}_{-1.2}$	$r_{0.002}$	< 0.144
$A_{143 \times 217}^{\text{dust}TT}$	$18.3^{+8.5}_{-8.6}$	$100\theta_*$	$1.0410^{+0.0011}_{-0.0012}$	$r_{0.01}$	< 0.147
$A_{217}^{\text{dust}TT}$	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	$13.89^{+0.11}_{-0.11}$	$\ln(10^{10} A_t)$	$-0.7^{+2.2}_{-4.1}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	$1059.4^{+1.2}_{-1.1}$	r_{10}	< 0.0744
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	$147.3^{+1.2}_{-1.2}$	$10^9 A_t$	< 0.314
H_0	$67.1^{+2.4}_{-2.3}$	k_{D}	$0.1405^{+0.0013}_{-0.0013}$	$10^9 A_t e^{-2\tau}$	< 0.282
Ω_Λ	$0.682^{+0.031}_{-0.035}$	$100\theta_{\text{D}}$	$0.16107^{+0.00068}_{-0.00066}$	f_{2000}^{143}	31^{+7}_{-8}
Ω_{m}	$0.318^{+0.035}_{-0.031}$	z_{eq}	3402^{+120}_{-120}	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
$\Omega_{\text{m}} h^2$	$0.1430^{+0.0051}_{-0.0049}$	k_{eq}	$0.01038^{+0.00037}_{-0.00036}$	f_{2000}^{217}	$108.0^{+5.0}_{-5.0}$
$\Omega_{\text{m}} h^3$	$0.0959^{+0.0012}_{-0.0011}$	$100\theta_{\text{eq}}$	$0.813^{+0.023}_{-0.022}$	χ_{simall}^2	$397.0 (\nu: 1.4)$
σ_8	$0.812^{+0.023}_{-0.022}$	$100\theta_{\text{s,eq}}$	$0.449^{+0.012}_{-0.011}$	χ_{lowl}^2	$25.0 (\nu: 1.6)$
S_8	$0.836^{+0.063}_{-0.060}$	$H(0.15)$	$72.4^{+2.0}_{-2.0}$	χ_{plik}^2	$771.5 (\nu: 14.4)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.458^{+0.034}_{-0.033}$	$D_M(0.15)$	646^{+20}_{-20}	χ_{prior}^2	$7.3 (\nu: 6.9)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.610^{+0.030}_{-0.029}$	$H(0.38)$	$82.6^{+1.5}_{-1.4}$	χ_{CMB}^2	$1193.4 (\nu: 15.6)$

$$\bar{\chi}_{\text{eff}}^2 = 1200.73; \Delta \bar{\chi}_{\text{eff}}^2 = 1.41; R - 1 = 0.00675$$

16.4 base_r_plikHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}} h^2$	$0.02222^{+0.00051}_{-0.00049}$	$\langle d^2 \rangle^{1/2}$	$2.426^{+0.069}_{-0.064}$	$D_{\mathrm{M}}(0.61)$	2305^{+31}_{-30}
$\Omega_{\mathrm{c}} h^2$	$0.1188^{+0.0032}_{-0.0031}$	z_{re}	< 9.50	$H(2.33)$	$235.6^{+2.1}_{-2.0}$
$100\theta_{\mathrm{MC}}$	$1.0410^{+0.0010}_{-0.0011}$	$10^9 A_{\mathrm{s}}$	$2.093^{+0.089}_{-0.060}$	$D_{\mathrm{M}}(2.33)$	5766^{+31}_{-31}
τ	$0.055^{+0.019}_{-0.013}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.877^{+0.031}_{-0.030}$	$f\sigma_8(0.15)$	$0.454^{+0.020}_{-0.019}$
$\ln(10^{10} A_{\mathrm{s}})$	$3.041^{+0.042}_{-0.029}$	D_{40}	1238^{+49}_{-39}	$\sigma_8(0.15)$	$0.746^{+0.018}_{-0.014}$
n_{s}	$0.967^{+0.011}_{-0.011}$	D_{220}	5717^{+110}_{-100}	$f\sigma_8(0.38)$	$0.473^{+0.017}_{-0.016}$
r	< 0.156	D_{810}	2536^{+37}_{-35}	$\sigma_8(0.38)$	$0.662^{+0.015}_{-0.011}$
y_{cal}	$1.0006^{+0.0070}_{-0.0063}$	D_{1420}	816^{+13}_{-13}	$f\sigma_8(0.51)$	$0.471^{+0.015}_{-0.014}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{2000}	$230.1^{+4.5}_{-4.4}$	$\sigma_8(0.51)$	$0.619^{+0.014}_{-0.010}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s},0.002}$	$0.967^{+0.011}_{-0.011}$	$f\sigma_8(0.61)$	$0.467^{+0.014}_{-0.013}$
A_{143}^{tSZ}	—	Y_{P}	$0.24533^{+0.00020}_{-0.00023}$	$\sigma_8(0.61)$	$0.589^{+0.013}_{-0.0098}$
A_{100}^{PS}	261^{+70}_{-70}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24666^{+0.00020}_{-0.00023}$	$f\sigma_8(2.33)$	$0.2973^{+0.0066}_{-0.0048}$
A_{143}^{PS}	48^{+20}_{-20}	$10^5 \mathrm{D}/\mathrm{H}$	$2.615^{+0.095}_{-0.094}$	$\sigma_8(2.33)$	$0.3066^{+0.0068}_{-0.0049}$
$A_{143 \times 217}^{\mathrm{PS}}$	43^{+20}_{-20}	Age/Gyr	$13.805^{+0.072}_{-0.070}$	$r_{0.002}$	< 0.151
A_{217}^{PS}	115^{+30}_{-30}	z_*	$1090.01^{+0.77}_{-0.74}$	$r_{0.01}$	< 0.153
A^{kSZ}	—	r_*	$144.86^{+0.82}_{-0.82}$	$\ln(10^{10} A_{\mathrm{t}})$	$-0.6^{+2.1}_{-3.9}$
$A_{100}^{\mathrm{dustTT}}$	$8.9^{+4.7}_{-4.8}$	$100\theta_*$	$1.0412^{+0.0010}_{-0.0011}$	r_{10}	< 0.0778
$A_{143}^{\mathrm{dustTT}}$	$10.7^{+4.4}_{-4.5}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.912^{+0.081}_{-0.079}$	$10^9 A_{\mathrm{t}}$	< 0.324
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3^{+8.4}_{-9.0}$	z_{drag}	$1059.5^{+1.1}_{-1.1}$	$10^9 A_{\mathrm{t}} e^{-2\tau}$	< 0.290
$A_{217}^{\mathrm{dustTT}}$	94^{+20}_{-20}	r_{drag}	$147.58^{+0.88}_{-0.88}$	f_{2000}^{143}	31^{+8}_{-8}
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	k_{D}	$0.1402^{+0.0011}_{-0.0012}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
c_{217}	$0.9983^{+0.0016}_{-0.0017}$	$100\theta_{\mathrm{D}}$	$0.16102^{+0.00066}_{-0.00065}$	f_{2000}^{217}	$107.8^{+5.0}_{-4.9}$
H_0	$67.7^{+1.4}_{-1.4}$	z_{eq}	3370^{+75}_{-72}	χ_{simall}^2	$397.1 (\nu: 1.6)$
Ω_{Λ}	$0.691^{+0.018}_{-0.019}$	k_{eq}	$0.01029^{+0.00023}_{-0.00022}$	χ_{lowl}^2	$24.3 (\nu: 1.2)$
Ω_{m}	$0.309^{+0.019}_{-0.018}$	$100\theta_{\mathrm{eq}}$	$0.819^{+0.014}_{-0.014}$	χ_{plik}^2	$772.2 (\nu: 14.7)$
$\Omega_{\mathrm{m}} h^2$	$0.1417^{+0.0031}_{-0.0030}$	$100\theta_{\mathrm{s,eq}}$	$0.4523^{+0.0071}_{-0.0070}$	$\chi_{6\mathrm{DF}}^2$	$0.053 (\nu: 0.0)$
$\Omega_{\mathrm{m}} h^3$	$0.0959^{+0.0012}_{-0.0012}$	$H(0.15)$	$72.9^{+1.2}_{-1.2}$	χ_{MGS}^2	$1.42 (\nu: 0.1)$
σ_8	$0.807^{+0.020}_{-0.016}$	$D_{\mathrm{M}}(0.15)$	641^{+12}_{-12}	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 (\nu: 1.2)$
S_8	$0.820^{+0.039}_{-0.037}$	$H(0.38)$	$83.00^{+0.91}_{-0.89}$	χ_{prior}^2	$7.4 (\nu: 7.0)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.449^{+0.021}_{-0.020}$	$D_{\mathrm{M}}(0.38)$	1529^{+24}_{-24}	χ_{BAO}^2	$6.1 (\nu: 0.8)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.602^{+0.021}_{-0.019}$	$H(0.51)$	$89.69^{+0.74}_{-0.73}$	χ_{CMB}^2	$1193.6 (\nu: 15.8)$
$\sigma_8/h^{0.5}$	$0.982^{+0.030}_{-0.027}$	$D_{\mathrm{M}}(0.51)$	1981^{+28}_{-28}		
$r_{\mathrm{drag}} h$	$99.9^{+2.4}_{-2.4}$	$H(0.61)$	$95.28^{+0.63}_{-0.62}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1207.00; \Delta \bar{\chi}_{\mathrm{eff}}^2 = 1.24; R - 1 = 0.01158$$

16.5 base_r_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022376	$0.02236^{+0.00038}_{-0.00038}$	σ_8	0.8119	$0.811^{+0.020}_{-0.019}$	$D_M(0.15)$	643.6	644^{+14}_{-13}
$\Omega_c h^2$	0.12007	$0.1200^{+0.0036}_{-0.0035}$	S_8	0.8328	$0.832^{+0.042}_{-0.041}$	$H(0.38)$	82.85	$82.85^{+0.99}_{-0.94}$
$100\theta_{MC}$	1.04090	$1.04091^{+0.00080}_{-0.00079}$	$\sigma_8 \Omega_m^{0.5}$	0.4562	$0.456^{+0.023}_{-0.023}$	$D_M(0.38)$	1533.9	1534^{+27}_{-27}
τ	0.0543	$0.054^{+0.022}_{-0.020}$	$\sigma_8 \Omega_m^{0.25}$	0.6086	$0.608^{+0.021}_{-0.021}$	$H(0.51)$	89.62	$89.61^{+0.77}_{-0.74}$
$\ln(10^{10} A_s)$	3.0449	$3.043^{+0.043}_{-0.041}$	$\sigma_8/h^{0.5}$	0.9895	$0.989^{+0.030}_{-0.030}$	$D_M(0.51)$	1986.4	1986^{+31}_{-31}
n_s	0.9661	$0.966^{+0.011}_{-0.011}$	$r_{drag} h$	99.02	$99.0^{+2.7}_{-2.7}$	$H(0.61)$	95.27	$95.27^{+0.62}_{-0.60}$
r	0.000	< 0.155	$\langle d^2 \rangle^{1/2}$	2.445	$2.443^{+0.074}_{-0.072}$	$D_M(0.61)$	2310.9	2311^{+33}_{-34}
y_{cal}	1.0006	$1.0007^{+0.0062}_{-0.0062}$	z_{re}	7.68	$7.6^{+2.1}_{-2.1}$	$H(2.33)$	236.61	$236.6^{+2.1}_{-2.1}$
A_{217}^{CIB}	46.5	47^{+20}_{-20}	$10^9 A_s$	2.101	$2.098^{+0.092}_{-0.084}$	$D_M(2.33)$	5763.7	5764^{+28}_{-28}
$\xi^{tSZ \times CIB}$	0.55	—	$10^9 A_s e^{-2\tau}$	1.8845	$1.883^{+0.031}_{-0.029}$	$f\sigma_8(0.15)$	0.4604	$0.460^{+0.021}_{-0.021}$
A_{143}^{tSZ}	7.14	$5.5^{+4.5}_{-4.6}$	D_{40}	1229.2	1244^{+50}_{-36}	$\sigma_8(0.15)$	0.7499	$0.749^{+0.017}_{-0.017}$
A_{100}^{PS}	248	258^{+70}_{-70}	D_{220}	5731	5730^{+99}_{-96}	$f\sigma_8(0.38)$	0.4779	$0.477^{+0.017}_{-0.017}$
A_{143}^{PS}	49.3	46^{+20}_{-20}	D_{810}	2541.7	2540^{+34}_{-33}	$\sigma_8(0.38)$	0.6643	$0.664^{+0.015}_{-0.014}$
$A_{143 \times 217}^{PS}$	50.7	42^{+20}_{-20}	D_{1420}	818.5	818^{+12}_{-12}	$f\sigma_8(0.51)$	0.4760	$0.475^{+0.015}_{-0.015}$
A_{217}^{PS}	121.1	115^{+30}_{-30}	D_{2000}	231.34	$231.1^{+4.0}_{-3.9}$	$\sigma_8(0.51)$	0.6215	$0.621^{+0.014}_{-0.013}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9661	$0.966^{+0.011}_{-0.011}$	$f\sigma_8(0.61)$	0.4707	$0.470^{+0.014}_{-0.014}$
A_{100}^{dustTT}	8.86	$8.9^{+4.8}_{-4.7}$	Y_P	0.245398	$0.24539^{+0.00014}_{-0.00016}$	$\sigma_8(0.61)$	0.5912	$0.591^{+0.013}_{-0.012}$
A_{143}^{dustTT}	10.99	$10.9^{+4.5}_{-4.5}$	Y_P^{BBN}	0.246725	$0.24672^{+0.00014}_{-0.00016}$	$f\sigma_8(2.33)$	0.2979	$0.2977^{+0.0067}_{-0.0062}$
$A_{143 \times 217}^{dustTT}$	20.0	$18.6^{+8.3}_{-8.7}$	$10^5 D/H$	2.584	$2.588^{+0.073}_{-0.068}$	$\sigma_8(2.33)$	0.3070	$0.3067^{+0.0071}_{-0.0066}$
A_{217}^{dustTT}	95.3	94^{+20}_{-20}	Age/Gyr	13.797	$13.799^{+0.063}_{-0.062}$	$r_{0.002}$	0.000	< 0.149
A_{100}^{dustTE}	0.115	$0.115^{+0.098}_{-0.096}$	z_*	1089.92	$1089.93^{+0.72}_{-0.69}$	$r_{0.01}$	0.000	< 0.152
$A_{100 \times 143}^{dustTE}$	0.135	$0.135^{+0.076}_{-0.076}$	r_*	144.41	$144.43^{+0.80}_{-0.78}$	$\ln(10^{10} A_t)$	-6.12	$-0.6^{+2.1}_{-4.0}$
$A_{100 \times 217}^{dustTE}$	0.484	$0.48^{+0.21}_{-0.22}$	$100\theta_*$	1.04109	$1.04109^{+0.00079}_{-0.00078}$	r_{10}	0.0000	< 0.0770
A_{143}^{dustTE}	0.225	$0.23^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.871	$13.873^{+0.074}_{-0.072}$	$10^9 A_t$	0.000	< 0.324
$A_{143 \times 217}^{dustTE}$	0.667	$0.67^{+0.21}_{-0.20}$	z_{drag}	1059.97	$1059.92^{+0.74}_{-0.78}$	$10^9 A_t e^{-2\tau}$	0.000	< 0.291
A_{217}^{dustTE}	2.09	$2.08^{+0.69}_{-0.69}$	r_{drag}	147.07	$147.10^{+0.78}_{-0.77}$	f_{2000}^{143}	28.7	29^{+7}_{-7}
c_{100}	0.99974	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14090	$0.14086^{+0.00083}_{-0.00083}$	$f_{2000}^{143 \times 217}$	31.98	32^{+5}_{-5}
c_{217}	0.99817	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	0.160745	$0.16077^{+0.00045}_{-0.00043}$	f_{2000}^{217}	106.60	$106.9^{+4.6}_{-4.6}$
H_0	67.33	$67.3^{+1.6}_{-1.6}$	z_{eq}	3404	3403^{+81}_{-80}	χ_{small}^2	396.05	$397.2 (\nu: 1.7)$
Ω_Λ	0.6844	$0.684^{+0.021}_{-0.023}$	k_{eq}	0.010389	$0.01039^{+0.00025}_{-0.00024}$	χ_{lowl}^2	23.24	$24.8 (\nu: 1.3)$
Ω_m	0.3156	$0.316^{+0.023}_{-0.021}$	$100\theta_{eq}$	0.8130	$0.813^{+0.015}_{-0.015}$	χ_{plik}^2	2344.9	$2359.6 (\nu: 16.8)$
$\Omega_m h^2$	0.14309	$0.1430^{+0.0034}_{-0.0033}$	$100\theta_{s,eq}$	0.4492	$0.4494^{+0.0078}_{-0.0077}$	χ_{prior}^2	1.6	$11.6 (\nu: 10.2)$
$\Omega_m h^3$	0.09634	$0.09631^{+0.00076}_{-0.00075}$	$H(0.15)$	72.66	$72.7^{+1.3}_{-1.3}$	χ_{CMB}^2	2764.1	$2781.6 (\nu: 18.0)$

Best-fit $\chi_{eff}^2 = 2765.76$; $\Delta\chi_{eff}^2 = -0.01$; $\bar{\chi}_{eff}^2 = 2793.18$; $\Delta\bar{\chi}_{eff}^2 = 1.41$; $R - 1 = 0.00988$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.05 (Δ 0.00) commander_dx12_v3.2.29: 23.24 (Δ -0.01) plik_rd12_HM_v22b_TTTEEE: 2344.85 (Δ 0.20)

16.6 base_r_plikHM_TTTEEE_lowl_lowE_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022440	$0.02241^{+0.00035}_{-0.00035}$	$\sigma_8 \Omega_m^{0.5}$	0.4518	$0.451^{+0.018}_{-0.018}$	$D_M(0.51)$	1979.1	1979^{+23}_{-23}
$\Omega_c h^2$	0.11926	$0.1192^{+0.0026}_{-0.0026}$	$\sigma_8 \Omega_m^{0.25}$	0.6051	$0.604^{+0.018}_{-0.017}$	$H(0.61)$	95.406	$95.39^{+0.49}_{-0.48}$
$100\theta_{MC}$	1.04099	$1.04100^{+0.00075}_{-0.00075}$	$\sigma_8/h^{0.5}$	0.9852	$0.983^{+0.027}_{-0.025}$	$D_M(0.61)$	2303.0	2303^{+25}_{-25}
τ	0.0565	$0.055^{+0.022}_{-0.020}$	$r_{drag}h$	99.66	$99.7^{+2.0}_{-2.0}$	$H(2.33)$	236.15	$236.1^{+1.6}_{-1.6}$
$\ln(10^{10} A_s)$	3.0472	$3.044^{+0.044}_{-0.041}$	$\langle d^2 \rangle^{1/2}$	2.435	$2.431^{+0.064}_{-0.062}$	$D_M(2.33)$	5757.9	5759^{+23}_{-23}
n_s	0.9680	$0.9677^{+0.0094}_{-0.0098}$	z_{re}	7.88	$7.7^{+2.1}_{-2.1}$	$f\sigma_8(0.15)$	0.4564	$0.456^{+0.017}_{-0.017}$
r	0.000	< 0.156	$10^9 A_s$	2.106	$2.099^{+0.094}_{-0.084}$	$\sigma_8(0.15)$	0.7491	$0.748^{+0.017}_{-0.016}$
y_{cal}	1.0005	$1.0008^{+0.0062}_{-0.0062}$	$10^9 A_s e^{-2\tau}$	1.8806	$1.880^{+0.028}_{-0.029}$	$f\sigma_8(0.38)$	0.4750	$0.474^{+0.015}_{-0.014}$
A_{217}^{CIB}	46.1	47^{+20}_{-20}	D_{40}	1225.2	1241^{+49}_{-34}	$\sigma_8(0.38)$	0.6642	$0.663^{+0.015}_{-0.014}$
$\xi^{tSZ \times CIB}$	0.63	—	D_{220}	5734	5733^{+100}_{-93}	$f\sigma_8(0.51)$	0.4737	$0.473^{+0.013}_{-0.013}$
A_{143}^{tSZ}	7.12	$5.5^{+4.5}_{-4.6}$	D_{810}	2540.4	2540^{+33}_{-33}	$\sigma_8(0.51)$	0.6216	$0.620^{+0.014}_{-0.013}$
A_{100}^{PS}	249	258^{+70}_{-70}	D_{1420}	818.8	818^{+12}_{-11}	$f\sigma_8(0.61)$	0.4688	$0.468^{+0.013}_{-0.012}$
A_{143}^{PS}	49.9	45^{+20}_{-20}	D_{2000}	231.53	$231.3^{+3.9}_{-3.9}$	$\sigma_8(0.61)$	0.5915	$0.590^{+0.013}_{-0.012}$
$A_{143 \times 217}^{PS}$	52.3	42^{+20}_{-20}	$n_{s,0.002}$	0.9680	$0.9677^{+0.0094}_{-0.0098}$	$f\sigma_8(2.33)$	0.2983	$0.2977^{+0.0069}_{-0.0060}$
A_{217}^{PS}	121.3	115^{+20}_{-30}	Y_P	0.245422	$0.24541^{+0.00013}_{-0.00014}$	$\sigma_8(2.33)$	0.3075	$0.3070^{+0.0073}_{-0.0063}$
A^{kSZ}	0.0	—	Y_P^{BBN}	0.246749	$0.24674^{+0.00013}_{-0.00014}$	$r_{0.002}$	0.000	< 0.150
A_{100}^{dustTT}	8.83	$8.9^{+4.8}_{-4.7}$	$10^5 D/H$	2.573	$2.578^{+0.067}_{-0.063}$	$r_{0.01}$	0.000	< 0.154
A_{143}^{dustTT}	11.02	$10.9^{+4.4}_{-4.7}$	Age/Gyr	13.785	$13.787^{+0.052}_{-0.051}$	$\ln(10^{10} A_t)$	-6.22	$-0.5^{+2.0}_{-4.1}$
$A_{143 \times 217}^{dustTT}$	20.1	$18.6^{+8.3}_{-9.0}$	z_*	1089.77	$1089.80^{+0.57}_{-0.57}$	r_{10}	0.0000	< 0.0778
A_{217}^{dustTT}	95.4	94^{+20}_{-20}	r_*	144.57	$144.60^{+0.61}_{-0.61}$	$10^9 A_t$	0.000	< 0.328
A_{100}^{dustTE}	0.115	$0.115^{+0.096}_{-0.097}$	$100\theta_*$	1.04118	$1.04118^{+0.00074}_{-0.00075}$	$10^9 A_t e^{-2\tau}$	0.000	< 0.293
$A_{100 \times 143}^{dustTE}$	0.135	$0.136^{+0.075}_{-0.077}$	$D_M(z_*)/\text{Gpc}$	13.885	$13.888^{+0.059}_{-0.058}$	f_{2000}^{143}	28.5	29^{+7}_{-7}
$A_{100 \times 217}^{dustTE}$	0.480	$0.48^{+0.21}_{-0.21}$	z_{drag}	1060.05	$1059.98^{+0.75}_{-0.74}$	$f_{2000}^{143 \times 217}$	31.78	32^{+5}_{-5}
A_{143}^{dustTE}	0.224	$0.23^{+0.14}_{-0.13}$	r_{drag}	147.21	$147.25^{+0.64}_{-0.63}$	f_{2000}^{217}	106.28	$106.8^{+4.5}_{-4.4}$
$A_{143 \times 217}^{dustTE}$	0.662	$0.66^{+0.21}_{-0.21}$	k_D	0.14079	$0.14073^{+0.00075}_{-0.00075}$	χ_{small}^2	396	1323 (ν : 479840.6)
A_{217}^{dustTE}	2.08	$2.08^{+0.69}_{-0.68}$	$100\theta_D$	0.160698	$0.16074^{+0.00045}_{-0.00042}$	χ_{lowl}^2	22.92	24.5 (ν : 1.2)
c_{100}	0.99973	$0.9997^{+0.0016}_{-0.0016}$	z_{eq}	3386	3385^{+59}_{-59}	χ_{plik}^2	2345	1435 (ν : 479779.1)
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0015}$	k_{eq}	0.010335	$0.01033^{+0.00018}_{-0.00018}$	χ_{6DF}^2	0.029	0.052 (ν : 0.0)
H_0	67.70	$67.7^{+1.1}_{-1.1}$	$100\theta_{eq}$	0.8164	$0.817^{+0.011}_{-0.011}$	χ_{MGS}^2	1.22	1.29 (ν : 0.1)
Ω_Λ	0.6894	$0.689^{+0.015}_{-0.016}$	$100\theta_{s,eq}$	0.4510	$0.4511^{+0.0058}_{-0.0056}$	$\chi_{DR12BAO}^2$	4.42	4.8 (ν : 0.9)
Ω_m	0.3106	$0.311^{+0.016}_{-0.015}$	$H(0.15)$	72.97	$72.97^{+0.99}_{-0.98}$	χ_{prior}^2	1.6	11.5 (ν : 10.2)
$\Omega_m h^2$	0.14234	$0.1423^{+0.0025}_{-0.0025}$	$D_M(0.15)$	640.5	$640.5^{+9.9}_{-9.7}$	χ_{BAO}^2	5.67	6.1 (ν : 0.6)
$\Omega_m h^3$	0.09636	$0.09631^{+0.00077}_{-0.00075}$	$H(0.38)$	83.08	$83.07^{+0.74}_{-0.72}$	χ_{CMB}^2	2764.7	2781.6 (ν : 17.4)
σ_8	0.8106	$0.809^{+0.019}_{-0.017}$	$D_M(0.38)$	1527.7	1528^{+20}_{-20}			
S_8	0.8248	$0.823^{+0.033}_{-0.032}$	$H(0.51)$	89.79	$89.78^{+0.61}_{-0.58}$			

Best-fit $\chi_{eff}^2 = 2771.96$; $\Delta\chi_{eff}^2 = 0.05$; $\bar{\chi}_{eff}^2 = 2799.17$; $\Delta\bar{\chi}_{eff}^2 = 1.27$; $R - 1 = 0.01744$
 χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.42 (Δ 0.00) CMB - small_100x143.offlike5_EE_Aplanck.B: 396.48 (Δ 0.28) commander_dx12_v3_2.29: 22.92 (Δ 0.05) plik_rd12_HM_v22b_TTTEEE: 2345.31 (Δ -0.19)

16.7 base_r_plikHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02236^{+0.00038}_{-0.00039}$	σ_8	$0.812^{+0.019}_{-0.017}$	$D_M(0.15)$	643^{+13}_{-13}
$\Omega_c h^2$	$0.1200^{+0.0035}_{-0.0035}$	S_8	$0.832^{+0.042}_{-0.041}$	$H(0.38)$	$82.86^{+0.98}_{-0.94}$
$100\theta_{MC}$	$1.04091^{+0.00080}_{-0.00078}$	$\sigma_8 \Omega_m^{0.5}$	$0.456^{+0.023}_{-0.023}$	$D_M(0.38)$	1534^{+26}_{-26}
τ	$0.055^{+0.019}_{-0.013}$	$\sigma_8 \Omega_m^{0.25}$	$0.608^{+0.021}_{-0.021}$	$H(0.51)$	$89.62^{+0.77}_{-0.74}$
$\ln(10^{10} A_s)$	$3.046^{+0.042}_{-0.029}$	$\sigma_8/h^{0.5}$	$0.989^{+0.030}_{-0.030}$	$D_M(0.51)$	1986^{+31}_{-31}
n_s	$0.966^{+0.011}_{-0.011}$	$r_{\text{drag}} h$	$99.1^{+2.7}_{-2.7}$	$H(0.61)$	$95.27^{+0.61}_{-0.59}$
r	< 0.155	$\langle d^2 \rangle^{1/2}$	$2.445^{+0.073}_{-0.068}$	$D_M(0.61)$	2311^{+33}_{-33}
y_{cal}	$1.0007^{+0.0062}_{-0.0061}$	z_{re}	< 9.53	$H(2.33)$	$236.5^{+2.1}_{-2.1}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.102^{+0.089}_{-0.061}$	$D_M(2.33)$	5764^{+28}_{-28}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.883^{+0.031}_{-0.030}$	$f\sigma_8(0.15)$	$0.460^{+0.021}_{-0.021}$
A_{143}^{tSZ}	$5.5^{+4.5}_{-4.6}$	D_{40}	1244^{+50}_{-36}	$\sigma_8(0.15)$	$0.750^{+0.017}_{-0.014}$
A_{100}^{PS}	258^{+70}_{-70}	D_{220}	5730^{+99}_{-96}	$f\sigma_8(0.38)$	$0.478^{+0.017}_{-0.017}$
A_{143}^{PS}	46^{+20}_{-20}	D_{810}	2540^{+35}_{-33}	$\sigma_8(0.38)$	$0.664^{+0.015}_{-0.011}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	818^{+12}_{-12}	$f\sigma_8(0.51)$	$0.476^{+0.015}_{-0.015}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$231.1^{+4.0}_{-3.9}$	$\sigma_8(0.51)$	$0.621^{+0.013}_{-0.010}$
A^{kSZ}	—	$n_{s,0.002}$	$0.966^{+0.011}_{-0.011}$	$f\sigma_8(0.61)$	$0.471^{+0.014}_{-0.014}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.7}$	Y_P	$0.24539^{+0.00014}_{-0.00016}$	$\sigma_8(0.61)$	$0.591^{+0.013}_{-0.0094}$
A_{143}^{dustTT}	$10.9^{+4.5}_{-4.5}$	Y_P^{BBN}	$0.24672^{+0.00014}_{-0.00016}$	$f\sigma_8(2.33)$	$0.2980^{+0.0065}_{-0.0046}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.3}_{-8.7}$	$10^5 D/H$	$2.587^{+0.073}_{-0.068}$	$\sigma_8(2.33)$	$0.3070^{+0.0069}_{-0.0046}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.798^{+0.062}_{-0.061}$	$r_{0.002}$	< 0.149
A_{100}^{dustTE}	$0.115^{+0.098}_{-0.095}$	z_*	$1089.93^{+0.72}_{-0.69}$	$r_{0.01}$	< 0.152
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.076}_{-0.076}$	r_*	$144.44^{+0.80}_{-0.76}$	$\ln(10^{10} A_t)$	$-0.6^{+2.1}_{-4.0}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.21}_{-0.22}$	$100\theta_*$	$1.04110^{+0.00079}_{-0.00077}$	r_{10}	< 0.0770
A_{143}^{dustTE}	$0.23^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.874^{+0.074}_{-0.071}$	$10^9 A_t$	< 0.326
$A_{143 \times 217}^{\text{dustTE}}$	$0.67^{+0.21}_{-0.20}$	z_{drag}	$1059.92^{+0.77}_{-0.79}$	$10^9 A_t e^{-2\tau}$	< 0.291
A_{217}^{dustTE}	$2.08^{+0.70}_{-0.69}$	r_{drag}	$147.10^{+0.78}_{-0.76}$	f_{2000}^{143}	29^{+7}_{-7}
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_D	$0.14085^{+0.00083}_{-0.00083}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.16077^{+0.00045}_{-0.00043}$	f_{2000}^{217}	$106.9^{+4.6}_{-4.6}$
H_0	$67.4^{+1.5}_{-1.5}$	z_{eq}	3402^{+80}_{-80}	χ_{simall}^2	$397.2 (\nu: 1.8)$
Ω_Λ	$0.685^{+0.021}_{-0.022}$	k_{eq}	$0.01038^{+0.00024}_{-0.00024}$	χ_{lowl}^2	$24.8 (\nu: 1.3)$
Ω_m	$0.315^{+0.022}_{-0.021}$	$100\theta_{\text{eq}}$	$0.813^{+0.015}_{-0.015}$	χ_{plik}^2	$2359.4 (\nu: 16.6)$
$\Omega_m h^2$	$0.1430^{+0.0033}_{-0.0033}$	$100\theta_{s,\text{eq}}$	$0.4494^{+0.0078}_{-0.0075}$	χ_{prior}^2	$11.5 (\nu: 10.2)$
$\Omega_m h^3$	$0.09631^{+0.00076}_{-0.00074}$	$H(0.15)$	$72.7^{+1.3}_{-1.3}$	χ_{CMB}^2	$2781.4 (\nu: 17.7)$

$$\bar{\chi}_{\text{eff}}^2 = 2792.94; \Delta \bar{\chi}_{\text{eff}}^2 = 1.40; R - 1 = 0.01114$$

16.8 base_r_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02242^{+0.00035}_{-0.00035}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.451^{+0.018}_{-0.017}$	$D_{\mathrm{M}}(0.51)$	1979^{+23}_{-23}
$\Omega_{\mathrm{c}}h^2$	$0.1192^{+0.0026}_{-0.0026}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.604^{+0.018}_{-0.017}$	$H(0.61)$	$95.40^{+0.48}_{-0.48}$
$100\theta_{\mathrm{MC}}$	$1.04101^{+0.00076}_{-0.00076}$	$\sigma_8/h^{0.5}$	$0.984^{+0.026}_{-0.024}$	$D_{\mathrm{M}}(0.61)$	2303^{+25}_{-25}
τ	$0.056^{+0.020}_{-0.014}$	$r_{\mathrm{drag}}h$	$99.7^{+2.0}_{-2.0}$	$H(2.33)$	$236.1^{+1.6}_{-1.6}$
$\ln(10^{10}A_{\mathrm{s}})$	$3.046^{+0.043}_{-0.030}$	$\langle d^2 \rangle^{1/2}$	$2.433^{+0.063}_{-0.058}$	$D_{\mathrm{M}}(2.33)$	5759^{+23}_{-23}
n_{s}	$0.9678^{+0.0092}_{-0.0098}$	z_{re}	< 9.59	$f\sigma_8(0.15)$	$0.456^{+0.017}_{-0.016}$
r	< 0.157	$10^9 A_{\mathrm{s}}$	$2.103^{+0.092}_{-0.062}$	$\sigma_8(0.15)$	$0.748^{+0.016}_{-0.013}$
y_{cal}	$1.0008^{+0.0062}_{-0.0060}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.880^{+0.029}_{-0.028}$	$f\sigma_8(0.38)$	$0.474^{+0.014}_{-0.014}$
A_{217}^{CIB}	47^{+20}_{-20}	D_{40}	1241^{+49}_{-34}	$\sigma_8(0.38)$	$0.664^{+0.014}_{-0.011}$
$\xi^{\mathrm{tSZ}\times\mathrm{CIB}}$	—	D_{220}	5733^{+99}_{-92}	$f\sigma_8(0.51)$	$0.473^{+0.013}_{-0.012}$
A_{143}^{tSZ}	$5.5^{+4.5}_{-4.6}$	D_{810}	2540^{+34}_{-33}	$\sigma_8(0.51)$	$0.621^{+0.013}_{-0.010}$
A_{100}^{PS}	258^{+70}_{-70}	D_{1420}	818^{+12}_{-11}	$f\sigma_8(0.61)$	$0.468^{+0.012}_{-0.011}$
A_{143}^{PS}	45^{+20}_{-20}	D_{2000}	$231.3^{+3.9}_{-3.8}$	$\sigma_8(0.61)$	$0.591^{+0.013}_{-0.0096}$
$A_{143\times 217}^{\mathrm{PS}}$	42^{+20}_{-20}	$n_{\mathrm{s},0.002}$	$0.9678^{+0.0092}_{-0.0098}$	$f\sigma_8(2.33)$	$0.2980^{+0.0066}_{-0.0047}$
A_{217}^{PS}	115^{+30}_{-30}	Y_{P}	$0.24541^{+0.00013}_{-0.00014}$	$\sigma_8(2.33)$	$0.3073^{+0.0064}_{-0.0051}$
A^{kSZ}	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24674^{+0.00013}_{-0.00014}$	$r_{0.002}$	< 0.152
$A_{100}^{\mathrm{dust}TT}$	$8.9^{+4.8}_{-4.7}$	$10^5\mathrm{D}/\mathrm{H}$	$2.577^{+0.066}_{-0.062}$	$r_{0.01}$	< 0.154
$A_{143}^{\mathrm{dust}TT}$	$10.9^{+4.4}_{-4.7}$	$\mathrm{Age}/\mathrm{Gyr}$	$13.787^{+0.052}_{-0.052}$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.5^{+2.1}_{-4.1}$
$A_{143\times 217}^{\mathrm{dust}TT}$	$18.6^{+8.3}_{-9.0}$	z_{*}	$1089.79^{+0.57}_{-0.57}$	r_{10}	< 0.0780
$A_{217}^{\mathrm{dust}TT}$	94^{+20}_{-20}	r_{*}	$144.60^{+0.61}_{-0.61}$	$10^9 A_{\mathrm{t}}$	< 0.328
$A_{100}^{\mathrm{dust}TE}$	$0.116^{+0.096}_{-0.095}$	$100\theta_{*}$	$1.04119^{+0.00074}_{-0.00075}$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.297
$A_{100\times 143}^{\mathrm{dust}TE}$	$0.136^{+0.074}_{-0.077}$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$13.888^{+0.059}_{-0.058}$	f_{2000}^{143}	29^{+7}_{-7}
$A_{100\times 217}^{\mathrm{dust}TE}$	$0.48^{+0.21}_{-0.21}$	z_{drag}	$1059.99^{+0.75}_{-0.74}$	$f_{2000}^{143\times 217}$	32^{+5}_{-5}
$A_{143}^{\mathrm{dust}TE}$	$0.23^{+0.14}_{-0.14}$	r_{drag}	$147.25^{+0.64}_{-0.63}$	f_{2000}^{217}	$106.8^{+4.5}_{-4.4}$
$A_{143\times 217}^{\mathrm{dust}TE}$	$0.66^{+0.21}_{-0.20}$	k_{D}	$0.14073^{+0.00075}_{-0.00075}$	χ_{simall}^2	$1323 (\nu: 479776.2)$
$A_{217}^{\mathrm{dust}TE}$	$2.08^{+0.69}_{-0.68}$	$100\theta_{\mathrm{D}}$	$0.16073^{+0.00044}_{-0.00042}$	χ_{lowl}^2	$24.5 (\nu: 1.2)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	z_{eq}	3384^{+59}_{-60}	χ_{plik}^2	$1434 (\nu: 479709.9)$
c_{217}	$0.9982^{+0.0016}_{-0.0015}$	k_{eq}	$0.01033^{+0.00018}_{-0.00018}$	$\chi_{6\mathrm{DF}}^2$	$0.051 (\nu: 0.0)$
H_0	$67.7^{+1.1}_{-1.1}$	$100\theta_{\mathrm{eq}}$	$0.817^{+0.011}_{-0.011}$	χ_{MGS}^2	$1.30 (\nu: 0.1)$
Ω_{Λ}	$0.690^{+0.015}_{-0.016}$	$100\theta_{\mathrm{s,eq}}$	$0.4512^{+0.0058}_{-0.0057}$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 (\nu: 0.9)$
Ω_{m}	$0.310^{+0.016}_{-0.015}$	$H(0.15)$	$72.98^{+0.99}_{-0.98}$	χ_{prior}^2	$11.5 (\nu: 10.2)$
$\Omega_{\mathrm{m}}h^2$	$0.1423^{+0.0025}_{-0.0025}$	$D_{\mathrm{M}}(0.15)$	$640.4^{+9.9}_{-9.6}$	χ_{BAO}^2	$6.1 (\nu: 0.6)$
$\Omega_{\mathrm{m}}h^3$	$0.09631^{+0.00076}_{-0.00074}$	$H(0.38)$	$83.07^{+0.74}_{-0.72}$	χ_{CMB}^2	$2781.4 (\nu: 17.2)$
σ_8	$0.810^{+0.018}_{-0.015}$	$D_{\mathrm{M}}(0.38)$	1528^{+20}_{-19}		
S_8	$0.824^{+0.033}_{-0.031}$	$H(0.51)$	$89.78^{+0.60}_{-0.58}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2798.95; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.23; R - 1 = 0.02065$$

16.9 base_r_plikHM_TT_lowl_lowE_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02218	$0.02214^{+0.00057}_{-0.00053}$	$r_{\text{drag}} h$	98.82	$98.9^{+3.3}_{-3.0}$	$D_M(0.51)$	1991.6	1992^{+36}_{-39}
$\Omega_c h^2$	0.12018	$0.1200^{+0.0039}_{-0.0041}$	$\langle d^2 \rangle^{1/2}$	2.445	$2.444^{+0.061}_{-0.064}$	$H(0.61)$	95.10	$95.08^{+0.83}_{-0.72}$
$100\theta_{\text{MC}}$	1.04085	$1.0408^{+0.0012}_{-0.0012}$	z_{re}	7.55	$7.5^{+2.0}_{-2.2}$	$D_M(0.61)$	2316.8	2317^{+38}_{-42}
τ	0.0526	$0.053^{+0.021}_{-0.021}$	$10^9 A_s$	2.092	$2.091^{+0.084}_{-0.079}$	$H(2.33)$	236.48	$236.4^{+2.4}_{-2.5}$
$\ln(10^{10} A_s)$	3.0408	$3.040^{+0.040}_{-0.039}$	$10^9 A_s e^{-2\tau}$	1.8834	$1.882^{+0.030}_{-0.030}$	$D_M(2.33)$	5773.2	5775^{+35}_{-39}
n_s	0.9647	$0.964^{+0.013}_{-0.012}$	D_{40}	1229.4	1244^{+48}_{-37}	$f\sigma_8(0.15)$	0.4611	$0.460^{+0.020}_{-0.021}$
r	0.000	< 0.151	D_{220}	5715	5714^{+110}_{-110}	$\sigma_8(0.15)$	0.7488	$0.748^{+0.014}_{-0.014}$
y_{cal}	1.0005	$1.0006^{+0.0065}_{-0.0064}$	D_{810}	2538.4	2537^{+36}_{-35}	$f\sigma_8(0.38)$	0.4781	$0.477^{+0.015}_{-0.017}$
A_{217}^{CIB}	48.7	48^{+20}_{-20}	D_{1420}	816.1	815^{+14}_{-13}	$\sigma_8(0.38)$	0.6631	$0.663^{+0.013}_{-0.012}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.34	—	D_{2000}	230.18	$229.8^{+4.9}_{-4.6}$	$f\sigma_8(0.51)$	0.4760	$0.475^{+0.013}_{-0.014}$
A_{143}^{tSZ}	7.0	—	$n_{s,0.002}$	0.9647	$0.964^{+0.013}_{-0.012}$	$\sigma_8(0.51)$	0.6203	$0.620^{+0.012}_{-0.012}$
A_{100}^{PS}	254	263^{+70}_{-70}	Y_P	0.245316	$0.24530^{+0.00022}_{-0.00025}$	$f\sigma_8(0.61)$	0.4705	$0.470^{+0.012}_{-0.013}$
A_{143}^{PS}	49.5	49^{+20}_{-20}	Y_P^{BBN}	0.246643	$0.24662^{+0.00023}_{-0.00026}$	$\sigma_8(0.61)$	0.5901	$0.590^{+0.011}_{-0.011}$
$A_{143 \times 217}^{\text{PS}}$	47.3	44^{+20}_{-20}	$10^5 D/H$	2.622	$2.63^{+0.10}_{-0.11}$	$f\sigma_8(2.33)$	0.2973	$0.2970^{+0.0062}_{-0.0059}$
A_{217}^{PS}	119.3	115^{+30}_{-30}	Age/Gyr	13.820	$13.824^{+0.080}_{-0.088}$	$\sigma_8(2.33)$	0.3062	$0.3060^{+0.0069}_{-0.0065}$
A^{kSZ}	0.0	—	z_*	1090.18	$1090.22^{+0.90}_{-0.94}$	$r_{0.002}$	0.000	< 0.144
A_{100}^{dustTT}	8.88	$8.9^{+4.7}_{-4.7}$	r_*	144.53	$144.60^{+0.97}_{-0.94}$	$r_{0.01}$	0.000	< 0.147
A_{143}^{dustTT}	10.79	$10.7^{+4.5}_{-4.5}$	$100\theta_*$	1.04106	$1.0410^{+0.0012}_{-0.0011}$	$\ln(10^{10} A_t)$	-5.72	$-0.7^{+2.2}_{-4.0}$
$A_{143 \times 217}^{\text{dustTT}}$	19.5	$18.3^{+8.3}_{-8.5}$	$D_M(z_*)/\text{Gpc}$	13.883	$13.890^{+0.090}_{-0.088}$	r_{10}	0.0001	< 0.0743
A_{217}^{dustTT}	94.7	93^{+20}_{-20}	z_{drag}	1059.51	$1059.4^{+1.2}_{-1.2}$	$10^9 A_t$	0.000	< 0.316
c_{100}	0.99965	$0.9996^{+0.0016}_{-0.0016}$	r_{drag}	147.26	$147.34^{+0.99}_{-0.98}$	$10^9 A_t e^{-2\tau}$	0.000	< 0.283
c_{217}	0.99827	$0.9983^{+0.0016}_{-0.0016}$	k_D	0.14054	$0.1404^{+0.0012}_{-0.0012}$	f_{2000}^{143}	30.2	31^{+7}_{-8}
H_0	67.11	$67.1^{+1.9}_{-1.8}$	$100\theta_D$	0.16101	$0.16106^{+0.00068}_{-0.00070}$	$f_{2000}^{143 \times 217}$	33.2	33^{+5}_{-5}
Ω_Λ	0.6825	$0.683^{+0.026}_{-0.025}$	z_{eq}	3402	3398^{+90}_{-94}	f_{2000}^{217}	107.60	$108.1^{+4.8}_{-5.0}$
Ω_m	0.3175	$0.317^{+0.025}_{-0.026}$	k_{eq}	0.010383	$0.01037^{+0.00027}_{-0.00029}$	χ^2_{lensing}	8.90	$9.46 (\nu: 0.4)$
$\Omega_m h^2$	0.14300	$0.1428^{+0.0038}_{-0.0039}$	$100\theta_{\text{eq}}$	0.8128	$0.813^{+0.018}_{-0.016}$	χ^2_{small}	395.87	$397.1 (\nu: 1.2)$
$\Omega_m h^3$	0.09597	$0.0959^{+0.0012}_{-0.0011}$	$100\theta_{s,\text{eq}}$	0.4492	$0.4496^{+0.0093}_{-0.0084}$	χ^2_{lowl}	23.37	$24.9 (\nu: 1.3)$
σ_8	0.8110	$0.810^{+0.016}_{-0.016}$	$H(0.15)$	72.45	$72.5^{+1.7}_{-1.5}$	χ^2_{plik}	759.0	$771.2 (\nu: 13.6)$
S_8	0.8344	$0.833^{+0.040}_{-0.042}$	$D_M(0.15)$	645.6	646^{+15}_{-16}	χ^2_{prior}	1.4	$7.3 (\nu: 6.7)$
$\sigma_8 \Omega_m^{0.5}$	0.4570	$0.456^{+0.022}_{-0.023}$	$H(0.38)$	82.66	$82.7^{+1.2}_{-1.1}$	χ^2_{CMB}	1187.2	$1202.6 (\nu: 16.1)$
$\sigma_8 \Omega_m^{0.25}$	0.6088	$0.608^{+0.019}_{-0.020}$	$D_M(0.38)$	1538.2	1538^{+31}_{-33}			
$\sigma_8/h^{0.5}$	0.9900	$0.989^{+0.026}_{-0.027}$	$H(0.51)$	89.44	$89.4^{+1.0}_{-0.87}$			

Best-fit $\chi^2_{\text{eff}} = 1188.55$; $\Delta\chi^2_{\text{eff}} = -0.02$; $\bar{\chi}^2_{\text{eff}} = 1209.87$; $\Delta\bar{\chi}^2_{\text{eff}} = 1.46$; $R - 1 = 0.00994$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.90 (Δ -0.00) small_100x143_offlike5_EE_Aplanck_B: 395.87 (Δ 0.01) commander_dx12.v3.2.29: 23.37 (Δ 0.14) plik_rd12_HM.v22.TT: 759.04 (Δ -0.28)

16.10 base_r_plikHM_TT_lowl_lowE_lensing_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02225	$0.02221^{+0.00053}_{-0.00049}$	$\langle d^2 \rangle^{1/2}$	2.434	$2.433^{+0.055}_{-0.055}$	$D_M(0.61)$	2306.8	2307^{+28}_{-29}
$\Omega_c h^2$	0.11914	$0.1190^{+0.0028}_{-0.0028}$	z_{re}	7.75	$7.8^{+1.8}_{-2.0}$	$H(2.33)$	235.88	$235.8^{+1.8}_{-1.8}$
$100\theta_{\text{MC}}$	1.04096	$1.0410^{+0.0011}_{-0.0011}$	$10^9 A_s$	2.099	$2.097^{+0.082}_{-0.077}$	$D_M(2.33)$	5766.1	5768^{+30}_{-32}
τ	0.0549	$0.055^{+0.019}_{-0.019}$	$10^9 A_s e^{-2\tau}$	1.8808	$1.879^{+0.029}_{-0.028}$	$f\sigma_8(0.15)$	0.4560	$0.456^{+0.016}_{-0.016}$
$\ln(10^{10} A_s)$	3.0440	$3.043^{+0.038}_{-0.037}$	D_{40}	1226.7	1241^{+48}_{-37}	$\sigma_8(0.15)$	0.7479	$0.747^{+0.015}_{-0.014}$
n_s	0.9669	$0.967^{+0.011}_{-0.010}$	D_{220}	5728	5722^{+100}_{-110}	$f\sigma_8(0.38)$	0.4744	$0.474^{+0.013}_{-0.013}$
r	0.000	< 0.159	D_{810}	2540.0	2537^{+36}_{-35}	$\sigma_8(0.38)$	0.6630	$0.663^{+0.013}_{-0.012}$
y_{cal}	1.0009	$1.0008^{+0.0064}_{-0.0064}$	D_{1420}	817.3	816^{+13}_{-13}	$f\sigma_8(0.51)$	0.4731	$0.473^{+0.012}_{-0.012}$
A_{217}^{CIB}	48.1	48^{+20}_{-20}	D_{2000}	230.62	$230.2^{+4.7}_{-4.5}$	$\sigma_8(0.51)$	0.6205	$0.620^{+0.012}_{-0.012}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.42	—	$n_{\text{s},0.002}$	0.9669	$0.967^{+0.011}_{-0.010}$	$f\sigma_8(0.61)$	0.4681	$0.468^{+0.011}_{-0.011}$
A_{143}^{tSZ}	7.0	—	Y_{P}	0.245348	$0.24533^{+0.00021}_{-0.00023}$	$\sigma_8(0.61)$	0.5904	$0.590^{+0.012}_{-0.011}$
A_{100}^{PS}	254	262^{+70}_{-70}	$Y_{\text{P}}^{\text{BBN}}$	0.246674	$0.24665^{+0.00021}_{-0.00023}$	$f\sigma_8(2.33)$	0.2977	$0.2976^{+0.0060}_{-0.0058}$
A_{143}^{PS}	50.6	48^{+20}_{-20}	10^5D/H	2.608	$2.617^{+0.095}_{-0.097}$	$\sigma_8(2.33)$	0.3069	$0.3068^{+0.0064}_{-0.0063}$
$A_{143 \times 217}^{\text{PS}}$	49.2	43^{+20}_{-20}	Age/Gyr	13.805	$13.808^{+0.069}_{-0.074}$	$r_{0.002}$	0.000	< 0.154
A_{217}^{PS}	120.3	115^{+20}_{-30}	z_*	1089.99	$1090.04^{+0.74}_{-0.77}$	$r_{0.01}$	0.000	< 0.156
A^{kSZ}	0.0	—	r_*	144.74	$144.80^{+0.74}_{-0.73}$	$\ln(10^{10} A_{\text{t}})$	-6.92	$-0.6^{+2.2}_{-4.0}$
A_{100}^{dustTT}	8.89	$8.9^{+4.9}_{-4.6}$	$100\theta_*$	1.04116	$1.0412^{+0.0011}_{-0.0011}$	r_{10}	0.0000	< 0.0796
A_{143}^{dustTT}	10.83	$10.7^{+4.6}_{-4.5}$	$D_M(z_*)/\text{Gpc}$	13.902	$13.908^{+0.072}_{-0.073}$	$10^9 A_{\text{t}}$	0.000	< 0.333
$A_{143 \times 217}^{\text{dustTT}}$	19.6	$18.3^{+8.3}_{-8.3}$	z_{drag}	1059.59	$1059.5^{+1.2}_{-1.2}$	$10^9 A_{\text{t}} e^{-2\tau}$	0.000	< 0.297
A_{217}^{dustTT}	94.9	94^{+20}_{-20}	r_{drag}	147.45	$147.53^{+0.82}_{-0.82}$	f_{2000}^{143}	30.1	31^{+7}_{-8}
c_{100}	0.99967	$0.9996^{+0.0016}_{-0.0016}$	k_{D}	0.14040	$0.1403^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33.0	33^{+5}_{-5}
c_{217}	0.99823	$0.9983^{+0.0017}_{-0.0016}$	$100\theta_{\text{D}}$	0.16095	$0.16103^{+0.00067}_{-0.00068}$	f_{2000}^{217}	107.50	$107.9^{+4.9}_{-4.9}$
H_0	67.57	$67.6^{+1.3}_{-1.3}$	z_{eq}	3379	3376^{+65}_{-64}	χ_{lensing}^2	8.81	$9.32 (\nu: 0.3)$
Ω_{Λ}	0.6889	$0.689^{+0.017}_{-0.017}$	k_{eq}	0.010312	$0.01030^{+0.00020}_{-0.00020}$	χ_{small}^2	396.18	$397.3 (\nu: 1.5)$
Ω_{m}	0.3111	$0.311^{+0.017}_{-0.017}$	$100\theta_{\text{eq}}$	0.8172	$0.818^{+0.012}_{-0.012}$	χ_{lowl}^2	23.01	$24.5 (\nu: 1.1)$
$\Omega_{\text{m}} h^2$	0.14203	$0.1419^{+0.0027}_{-0.0027}$	$100\theta_{\text{s,eq}}$	0.4515	$0.4518^{+0.0063}_{-0.0061}$	χ_{plik}^2	759.7	$771.5 (\nu: 13.5)$
$\Omega_{\text{m}} h^3$	0.09598	$0.0959^{+0.0012}_{-0.0012}$	$H(0.15)$	72.85	$72.8^{+1.1}_{-1.1}$	$\chi_{6\text{DF}}^2$	0.030	$0.055 (\nu: 0.0)$
σ_8	0.8093	$0.809^{+0.016}_{-0.016}$	$D_M(0.15)$	641.6	642^{+11}_{-11}	χ_{MGS}^2	1.22	$1.30 (\nu: 0.1)$
S_8	0.8241	$0.823^{+0.031}_{-0.031}$	$H(0.38)$	82.95	$82.94^{+0.87}_{-0.82}$	χ_{DR12BAO}^2	4.40	$4.8 (\nu: 1.1)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4514	$0.451^{+0.017}_{-0.017}$	$D_M(0.38)$	1530.3	1530^{+22}_{-23}	χ_{prior}^2	1.3	$7.3 (\nu: 6.6)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6044	$0.604^{+0.016}_{-0.016}$	$H(0.51)$	89.65	$89.64^{+0.72}_{-0.69}$	χ_{CMB}^2	1187.7	$1202.6 (\nu: 15.7)$
$\sigma_8/h^{0.5}$	0.9845	$0.984^{+0.023}_{-0.023}$	$D_M(0.51)$	1982.4	1983^{+26}_{-27}	χ_{BAO}^2	5.64	$6.1 (\nu: 0.7)$
$r_{\text{drag}} h$	99.64	$99.7^{+2.2}_{-2.1}$	$H(0.61)$	95.27	$95.25^{+0.62}_{-0.59}$			

Best-fit $\chi_{\text{eff}}^2 = 1194.73$; $\Delta\chi_{\text{eff}}^2 = 0.04$; $\bar{\chi}_{\text{eff}}^2 = 1215.99$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.26$; $R - 1 = 0.01776$

χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.40 (Δ 0.02) CMB - smicadx12_Dec5_ft1_mv2_ndclpp_p.teb_consext8: 8.81 (Δ -0.07) small_100x143_offlike5_EE_Aplanck: 396.18 (Δ 0.08) commander_dx12_v3_2.29: 23.01 (Δ 0.05) plik_rd12_HM_v22_TT: 759.74 (Δ -0.06)

16.11 base_r_plikHM_TT_lowl_lowE_lensing_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02215^{+0.00057}_{-0.00053}$	$r_{\text{drag}} h$	$99.0^{+3.3}_{-2.8}$	$D_{\text{M}}(0.51)$	1991^{+34}_{-39}
$\Omega_c h^2$	$0.1199^{+0.0037}_{-0.0041}$	$\langle d^2 \rangle^{1/2}$	$2.445^{+0.061}_{-0.064}$	$H(0.61)$	$95.10^{+0.83}_{-0.70}$
$100\theta_{\text{MC}}$	$1.0408^{+0.0012}_{-0.0011}$	z_{re}	< 9.33	$D_{\text{M}}(0.61)$	2316^{+36}_{-41}
τ	$0.054^{+0.018}_{-0.013}$	$10^9 A_{\text{s}}$	$2.096^{+0.080}_{-0.056}$	$H(2.33)$	$236.3^{+2.3}_{-2.5}$
$\ln(10^{10} A_{\text{s}})$	$3.043^{+0.038}_{-0.027}$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.881^{+0.030}_{-0.029}$	$D_{\text{M}}(2.33)$	5774^{+35}_{-39}
n_{s}	$0.965^{+0.013}_{-0.012}$	D_{40}	1243^{+49}_{-37}	$f\sigma_8(0.15)$	$0.460^{+0.020}_{-0.021}$
r	< 0.152	D_{220}	5714^{+110}_{-110}	$\sigma_8(0.15)$	$0.749^{+0.014}_{-0.012}$
y_{cal}	$1.0006^{+0.0065}_{-0.0064}$	D_{810}	2536^{+36}_{-35}	$f\sigma_8(0.38)$	$0.477^{+0.015}_{-0.017}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{1420}	815^{+14}_{-13}	$\sigma_8(0.38)$	$0.663^{+0.012}_{-0.010}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{2000}	$229.8^{+4.9}_{-4.6}$	$f\sigma_8(0.51)$	$0.476^{+0.013}_{-0.014}$
A_{143}^{tSZ}	—	$n_{\text{s},0.002}$	$0.965^{+0.013}_{-0.012}$	$\sigma_8(0.51)$	$0.620^{+0.011}_{-0.0092}$
A_{100}^{PS}	263^{+70}_{-70}	Y_{P}	$0.24530^{+0.00022}_{-0.00025}$	$f\sigma_8(0.61)$	$0.470^{+0.011}_{-0.012}$
A_{143}^{PS}	49^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24663^{+0.00022}_{-0.00025}$	$\sigma_8(0.61)$	$0.590^{+0.011}_{-0.0086}$
$A_{143 \times 217}^{\text{PS}}$	44^{+20}_{-20}	$10^5 \text{D}/\text{H}$	$2.63^{+0.10}_{-0.10}$	$f\sigma_8(2.33)$	$0.2974^{+0.0058}_{-0.0044}$
A_{217}^{PS}	115^{+30}_{-30}	Age/Gyr	$13.822^{+0.080}_{-0.088}$	$\sigma_8(2.33)$	$0.3064^{+0.0065}_{-0.0048}$
A^{kSZ}	—	z_*	$1090.19^{+0.86}_{-0.92}$	$r_{0.002}$	< 0.145
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.7}$	r_*	$144.62^{+0.96}_{-0.89}$	$r_{0.01}$	< 0.148
A_{143}^{dustTT}	$10.7^{+4.5}_{-4.5}$	$100\theta_*$	$1.0410^{+0.0011}_{-0.0011}$	$\ln(10^{10} A_{\text{t}})$	$-0.7^{+2.2}_{-4.0}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.3}_{-8.5}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.892^{+0.088}_{-0.085}$	r_{10}	< 0.0749
A_{217}^{dustTT}	93^{+20}_{-20}	z_{drag}	$1059.4^{+1.2}_{-1.2}$	$10^9 A_{\text{t}}$	< 0.319
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	r_{drag}	$147.36^{+0.99}_{-0.95}$	$10^9 A_{\text{t}} e^{-2\tau}$	< 0.285
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	k_{D}	$0.1404^{+0.0012}_{-0.0012}$	f_{2000}^{143}	31^{+7}_{-7}
H_0	$67.2^{+1.9}_{-1.6}$	$100\theta_{\text{D}}$	$0.16106^{+0.00068}_{-0.00069}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
Ω_{Λ}	$0.684^{+0.025}_{-0.023}$	z_{eq}	3395^{+86}_{-92}	f_{2000}^{217}	$108.0^{+4.8}_{-5.0}$
Ω_{m}	$0.316^{+0.023}_{-0.025}$	k_{eq}	$0.01036^{+0.00026}_{-0.00028}$	χ_{lensing}^2	$9.43 (\nu: 0.4)$
$\Omega_{\text{m}} h^2$	$0.1427^{+0.0036}_{-0.0039}$	$100\theta_{\text{eq}}$	$0.814^{+0.018}_{-0.016}$	χ_{simall}^2	$397.0 (\nu: 1.2)$
$\Omega_{\text{m}} h^3$	$0.0959^{+0.0012}_{-0.0011}$	$100\theta_{\text{s,eq}}$	$0.4499^{+0.0091}_{-0.0081}$	χ_{lowl}^2	$24.9 (\nu: 1.3)$
σ_8	$0.811^{+0.015}_{-0.015}$	$H(0.15)$	$72.5^{+1.7}_{-1.4}$	χ_{plik}^2	$771.1 (\nu: 13.6)$
S_8	$0.833^{+0.040}_{-0.042}$	$D_{\text{M}}(0.15)$	645^{+14}_{-16}	χ_{prior}^2	$7.3 (\nu: 6.7)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.456^{+0.022}_{-0.023}$	$H(0.38)$	$82.7^{+1.2}_{-1.0}$	χ_{CMB}^2	$1202.4 (\nu: 15.8)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.608^{+0.019}_{-0.020}$	$D_{\text{M}}(0.38)$	1537^{+29}_{-33}		
$\sigma_8/h^{0.5}$	$0.989^{+0.025}_{-0.027}$	$H(0.51)$	$89.5^{+1.0}_{-0.84}$		

$\bar{\chi}_{\text{eff}}^2 = 1209.64$; $\Delta \bar{\chi}_{\text{eff}}^2 = 1.48$; $R - 1 = 0.01135$

16.12 base_r_plikHM_TT_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}} h^2$	$0.02221^{+0.00053}_{-0.00049}$	$\langle d^2 \rangle^{1/2}$	$2.434^{+0.055}_{-0.054}$	$D_{\mathrm{M}}(0.61)$	2307^{+28}_{-29}
$\Omega_{\mathrm{c}} h^2$	$0.1190^{+0.0028}_{-0.0028}$	z_{re}	< 9.42	$H(2.33)$	$235.8^{+1.8}_{-1.8}$
$100\theta_{\mathrm{MC}}$	$1.0410^{+0.0011}_{-0.0011}$	$10^9 A_{\mathrm{s}}$	$2.100^{+0.079}_{-0.059}$	$D_{\mathrm{M}}(2.33)$	5767^{+30}_{-32}
τ	$0.056^{+0.017}_{-0.014}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.879^{+0.029}_{-0.028}$	$f\sigma_8(0.15)$	$0.456^{+0.016}_{-0.016}$
$\ln(10^{10} A_{\mathrm{s}})$	$3.045^{+0.037}_{-0.029}$	D_{40}	1241^{+48}_{-37}	$\sigma_8(0.15)$	$0.748^{+0.014}_{-0.012}$
n_{s}	$0.967^{+0.011}_{-0.010}$	D_{220}	5722^{+110}_{-110}	$f\sigma_8(0.38)$	$0.474^{+0.013}_{-0.013}$
r	< 0.159	D_{810}	2537^{+36}_{-36}	$\sigma_8(0.38)$	$0.663^{+0.013}_{-0.010}$
y_{cal}	$1.0008^{+0.0064}_{-0.0064}$	D_{1420}	816^{+13}_{-13}	$f\sigma_8(0.51)$	$0.473^{+0.012}_{-0.011}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{2000}	$230.2^{+4.7}_{-4.5}$	$\sigma_8(0.51)$	$0.621^{+0.012}_{-0.0096}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s},0.002}$	$0.967^{+0.011}_{-0.010}$	$f\sigma_8(0.61)$	$0.468^{+0.011}_{-0.010}$
A_{143}^{tSZ}	—	Y_{P}	$0.24533^{+0.00021}_{-0.00023}$	$\sigma_8(0.61)$	$0.590^{+0.011}_{-0.0091}$
A_{100}^{PS}	262^{+70}_{-70}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00021}_{-0.00023}$	$f\sigma_8(2.33)$	$0.2978^{+0.0059}_{-0.0046}$
A_{143}^{PS}	48^{+20}_{-20}	$10^5 \mathrm{D}/\mathrm{H}$	$2.616^{+0.096}_{-0.097}$	$\sigma_8(2.33)$	$0.3070^{+0.0063}_{-0.0049}$
$A_{143 \times 217}^{\mathrm{PS}}$	43^{+20}_{-20}	Age/Gyr	$13.807^{+0.069}_{-0.073}$	$r_{0.002}$	< 0.154
A_{217}^{PS}	115^{+20}_{-30}	z_{*}	$1090.04^{+0.74}_{-0.76}$	$r_{0.01}$	< 0.156
A^{kSZ}	—	r_{*}	$144.81^{+0.74}_{-0.73}$	$\ln(10^{10} A_{\mathrm{t}})$	$-0.6^{+2.2}_{-4.0}$
$A_{100}^{\mathrm{dust}TT}$	$8.9^{+5.0}_{-4.6}$	$100\theta_{*}$	$1.0412^{+0.0011}_{-0.0011}$	r_{10}	< 0.0797
$A_{143}^{\mathrm{dust}TT}$	$10.7^{+4.5}_{-4.5}$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$13.908^{+0.072}_{-0.073}$	$10^9 A_{\mathrm{t}}$	< 0.333
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3^{+8.3}_{-8.5}$	z_{drag}	$1059.5^{+1.2}_{-1.1}$	$10^9 A_{\mathrm{t}} e^{-2\tau}$	< 0.297
$A_{217}^{\mathrm{dust}TT}$	94^{+20}_{-20}	r_{drag}	$147.53^{+0.82}_{-0.82}$	f_{2000}^{143}	31^{+7}_{-8}
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	k_{D}	$0.1403^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
c_{217}	$0.9983^{+0.0017}_{-0.0016}$	$100\theta_{\mathrm{D}}$	$0.16102^{+0.00067}_{-0.00068}$	f_{2000}^{217}	$107.9^{+4.8}_{-4.9}$
H_0	$67.6^{+1.3}_{-1.2}$	z_{eq}	3375^{+64}_{-64}	$\chi_{\mathrm{lensing}}^2$	$9.28 (\nu: 0.3)$
Ω_{Λ}	$0.689^{+0.016}_{-0.017}$	k_{eq}	$0.01030^{+0.00020}_{-0.00020}$	χ_{simall}^2	$397.2 (\nu: 1.5)$
Ω_{m}	$0.311^{+0.017}_{-0.016}$	$100\theta_{\mathrm{eq}}$	$0.818^{+0.012}_{-0.012}$	χ_{lowl}^2	$24.5 (\nu: 1.1)$
$\Omega_{\mathrm{m}} h^2$	$0.1419^{+0.0027}_{-0.0027}$	$100\theta_{\mathrm{s,eq}}$	$0.4519^{+0.0063}_{-0.0061}$	χ_{plik}^2	$771.4 (\nu: 13.6)$
$\Omega_{\mathrm{m}} h^3$	$0.0959^{+0.0012}_{-0.0012}$	$H(0.15)$	$72.9^{+1.1}_{-1.1}$	$\chi_{6\mathrm{DF}}^2$	$0.053 (\nu: 0.0)$
σ_8	$0.809^{+0.016}_{-0.014}$	$D_{\mathrm{M}}(0.15)$	641^{+11}_{-11}	χ_{MGS}^2	$1.32 (\nu: 0.1)$
S_8	$0.823^{+0.031}_{-0.030}$	$H(0.38)$	$82.95^{+0.87}_{-0.81}$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 (\nu: 1.0)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.451^{+0.017}_{-0.017}$	$D_{\mathrm{M}}(0.38)$	1530^{+22}_{-22}	χ_{prior}^2	$7.3 (\nu: 6.6)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.604^{+0.016}_{-0.016}$	$H(0.51)$	$89.65^{+0.72}_{-0.68}$	χ_{CMB}^2	$1202.5 (\nu: 15.6)$
$\sigma_8/h^{0.5}$	$0.984^{+0.023}_{-0.022}$	$D_{\mathrm{M}}(0.51)$	1982^{+26}_{-26}	χ_{BAO}^2	$6.1 (\nu: 0.7)$
$r_{\mathrm{drag}} h$	$99.7^{+2.2}_{-2.1}$	$H(0.61)$	$95.25^{+0.62}_{-0.59}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1215.85; \Delta \bar{\chi}_{\mathrm{eff}}^2 = 1.27; R - 1 = 0.01875$$

16.13 base_r_plikHM_TTTEEE_lowl_lowE_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022391	$0.02237^{+0.00037}_{-0.00037}$	S_8	0.8320	$0.830^{+0.033}_{-0.033}$	$D_M(0.38)$	1533.2	1533^{+24}_{-24}
$\Omega_c h^2$	0.12002	$0.1199^{+0.0031}_{-0.0031}$	$\sigma_8 \Omega_m^{0.5}$	0.4557	$0.455^{+0.018}_{-0.018}$	$H(0.51)$	89.64	$89.64^{+0.71}_{-0.68}$
$100\theta_{MC}$	1.04093	$1.04092^{+0.00078}_{-0.00078}$	$\sigma_8 \Omega_m^{0.25}$	0.6082	$0.607^{+0.016}_{-0.017}$	$D_M(0.51)$	1985.6	1985^{+28}_{-28}
τ	0.0543	$0.054^{+0.020}_{-0.020}$	$\sigma_8/h^{0.5}$	0.9889	$0.988^{+0.023}_{-0.023}$	$H(0.61)$	95.29	$95.29^{+0.57}_{-0.55}$
$\ln(10^{10} A_s)$	3.0445	$3.044^{+0.040}_{-0.039}$	$r_{drag} h$	99.08	$99.2^{+2.4}_{-2.4}$	$D_M(0.61)$	2310.0	2310^{+30}_{-30}
n_s	0.9663	$0.966^{+0.011}_{-0.010}$	$\langle d^2 \rangle^{1/2}$	2.443	$2.442^{+0.055}_{-0.056}$	$H(2.33)$	236.59	$236.5^{+1.9}_{-1.9}$
r	0.000	< 0.153	z_{re}	7.68	$7.7^{+1.9}_{-2.1}$	$D_M(2.33)$	5762.7	5763^{+26}_{-26}
y_{cal}	1.0004	$1.0006^{+0.0064}_{-0.0061}$	$10^9 A_s$	2.100	$2.099^{+0.084}_{-0.080}$	$f\sigma_8(0.15)$	0.4600	$0.459^{+0.017}_{-0.017}$
A_{217}^{CIB}	45.8	47^{+20}_{-20}	$10^9 A_s e^{-2\tau}$	1.8836	$1.883^{+0.030}_{-0.027}$	$\sigma_8(0.15)$	0.7496	$0.749^{+0.014}_{-0.014}$
$\xi^{tSZ \times CIB}$	0.65	—	D_{40}	1228.3	1243^{+47}_{-35}	$f\sigma_8(0.38)$	0.4775	$0.477^{+0.013}_{-0.014}$
A_{143}^{tSZ}	7.08	$5.5^{+4.4}_{-4.6}$	D_{220}	5729	5730^{+100}_{-98}	$\sigma_8(0.38)$	0.6641	$0.664^{+0.013}_{-0.012}$
A_{100}^{PS}	248	258^{+70}_{-70}	D_{810}	2540.9	2539^{+35}_{-33}	$f\sigma_8(0.51)$	0.4757	$0.475^{+0.012}_{-0.012}$
A_{143}^{PS}	50.6	46^{+20}_{-20}	D_{1420}	818.4	818^{+12}_{-12}	$\sigma_8(0.51)$	0.6213	$0.621^{+0.012}_{-0.012}$
$A_{143 \times 217}^{PS}$	53.1	43^{+20}_{-20}	D_{2000}	231.35	$231.0^{+4.0}_{-4.0}$	$f\sigma_8(0.61)$	0.4704	$0.470^{+0.011}_{-0.011}$
A_{217}^{PS}	122.1	115^{+30}_{-30}	$n_{s,0.002}$	0.9663	$0.966^{+0.011}_{-0.010}$	$\sigma_8(0.61)$	0.5911	$0.591^{+0.012}_{-0.011}$
A^{kSZ}	0.0	—	Y_P	0.245404	$0.24539^{+0.00014}_{-0.00015}$	$f\sigma_8(2.33)$	0.2979	$0.2977^{+0.0060}_{-0.0058}$
A_{100}^{dustTT}	8.81	$8.9^{+4.7}_{-4.7}$	Y_P^{BBN}	0.246730	$0.24672^{+0.00014}_{-0.00015}$	$\sigma_8(2.33)$	0.3069	$0.3068^{+0.0065}_{-0.0063}$
A_{143}^{dustTT}	11.02	$10.8^{+4.7}_{-4.6}$	$10^5 D/H$	2.582	$2.586^{+0.069}_{-0.067}$	$r_{0.002}$	0.000	< 0.146
$A_{143 \times 217}^{dustTT}$	20.2	$18.6^{+8.4}_{-8.5}$	Age/Gyr	13.795	$13.797^{+0.058}_{-0.059}$	$r_{0.01}$	0.000	< 0.149
A_{217}^{dustTT}	95.6	94^{+20}_{-20}	z_*	1089.89	$1089.91^{+0.66}_{-0.64}$	$\ln(10^{10} A_t)$	-4.62	$-0.6^{+2.2}_{-4.2}$
A_{100}^{dustTE}	0.115	$0.115^{+0.098}_{-0.097}$	r_*	144.41	$144.46^{+0.69}_{-0.69}$	r_{10}	0.0002	< 0.0756
$A_{100 \times 143}^{dustTE}$	0.135	$0.135^{+0.076}_{-0.077}$	$100\theta_*$	1.04111	$1.04110^{+0.00077}_{-0.00076}$	$10^9 A_t$	0.001	< 0.321
$A_{100 \times 217}^{dustTE}$	0.482	$0.48^{+0.22}_{-0.22}$	$D_M(z_*)/\text{Gpc}$	13.871	$13.876^{+0.065}_{-0.065}$	$10^9 A_t e^{-2\tau}$	0.001	< 0.286
A_{143}^{dustTE}	0.226	$0.23^{+0.14}_{-0.14}$	z_{drag}	1059.97	$1059.93^{+0.77}_{-0.76}$	f_{2000}^{143}	28.6	29^{+7}_{-7}
$A_{143 \times 217}^{dustTE}$	0.667	$0.67^{+0.21}_{-0.21}$	r_{drag}	147.07	$147.12^{+0.69}_{-0.69}$	$f_{2000}^{143 \times 217}$	31.92	32^{+5}_{-5}
A_{217}^{dustTE}	2.09	$2.09^{+0.69}_{-0.71}$	k_D	0.14091	$0.14084^{+0.00076}_{-0.00078}$	f_{2000}^{217}	106.44	$106.9^{+4.6}_{-4.5}$
c_{100}	0.99973	$0.9997^{+0.0016}_{-0.0015}$	$100\theta_D$	0.160730	$0.16076^{+0.00044}_{-0.00043}$	$\chi^2_{lensing}$	8.84	$9.25 (\nu: 0.2)$
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0016}$	z_{eq}	3403	3400^{+70}_{-70}	χ^2_{small}	396.05	$397.2 (\nu: 1.6)$
H_0	67.37	$67.4^{+1.4}_{-1.4}$	k_{eq}	0.010387	$0.01038^{+0.00021}_{-0.00021}$	χ^2_{lowl}	23.21	$24.7 (\nu: 1.2)$
Ω_Λ	0.6848	$0.685^{+0.019}_{-0.020}$	$100\theta_{eq}$	0.8132	$0.814^{+0.013}_{-0.013}$	χ^2_{plik}	2345.0	$2359.2 (\nu: 16.0)$
Ω_m	0.3152	$0.315^{+0.020}_{-0.019}$	$100\theta_{s,eq}$	0.4493	$0.4496^{+0.0069}_{-0.0066}$	χ^2_{prior}	1.5	$11.6 (\nu: 10.3)$
$\Omega_m h^2$	0.14305	$0.1429^{+0.0029}_{-0.0029}$	$H(0.15)$	72.69	$72.7^{+1.2}_{-1.2}$	χ^2_{CMB}	2773.1	$2790.4 (\nu: 18.1)$
$\Omega_m h^3$	0.09637	$0.09631^{+0.00074}_{-0.00073}$	$D_M(0.15)$	643.3	643^{+12}_{-12}			
σ_8	0.8117	$0.811^{+0.016}_{-0.016}$	$H(0.38)$	82.88	$82.89^{+0.89}_{-0.86}$			

Best-fit $\chi^2_{eff} = 2774.63$; $\Delta\chi^2_{eff} = 0.00$; $\bar{\chi}^2_{eff} = 2801.95$; $\Delta\bar{\chi}^2_{eff} = 1.26$; $R - 1 = 0.00682$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.84 (Δ -0.03) small_100x143_offlike5_EE_Aplanck_B: 396.05 (Δ 0.00) commander_dx12_v3.2_29: 23.20 (Δ -0.05) plik_rd12_HM_v22b_TTTEEE: 2344.99 (Δ 0.06)

16.14 base_r_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022447	$0.02242^{+0.00035}_{-0.00034}$	$\sigma_8 \Omega_m^{0.5}$	0.4521	$0.451^{+0.015}_{-0.015}$	$D_M(0.51)$	1979.0	1979^{+22}_{-22}
$\Omega_c h^2$	0.11929	$0.1192^{+0.0024}_{-0.0024}$	$\sigma_8 \Omega_m^{0.25}$	0.6056	$0.605^{+0.015}_{-0.015}$	$H(0.61)$	95.413	$95.40^{+0.48}_{-0.46}$
$100\theta_{MC}$	1.04101	$1.04101^{+0.00074}_{-0.00072}$	$\sigma_8/h^{0.5}$	0.9859	$0.985^{+0.021}_{-0.022}$	$D_M(0.61)$	2303.0	2303^{+24}_{-24}
τ	0.0566	$0.056^{+0.020}_{-0.019}$	$r_{\text{drag}} h$	99.65	$99.7^{+1.9}_{-1.9}$	$H(2.33)$	236.18	$236.1^{+1.5}_{-1.5}$
$\ln(10^{10} A_s)$	3.0484	$3.046^{+0.039}_{-0.037}$	$\langle d^2 \rangle^{1/2}$	2.437	$2.435^{+0.053}_{-0.053}$	$D_M(2.33)$	5757.5	5759^{+22}_{-23}
n_s	0.9680	$0.9675^{+0.0096}_{-0.0097}$	z_{re}	7.89	$7.8^{+1.9}_{-2.0}$	$f\sigma_8(0.15)$	0.4568	$0.456^{+0.014}_{-0.014}$
r	0.000	< 0.161	$10^9 A_s$	2.108	$2.104^{+0.082}_{-0.077}$	$\sigma_8(0.15)$	0.7496	$0.749^{+0.015}_{-0.014}$
y_{cal}	1.0008	$1.0008^{+0.0065}_{-0.0063}$	$10^9 A_s e^{-2\tau}$	1.8825	$1.880^{+0.028}_{-0.026}$	$f\sigma_8(0.38)$	0.4753	$0.475^{+0.012}_{-0.012}$
A_{217}^{CIB}	45.7	46^{+20}_{-20}	D_{40}	1226.5	1241^{+50}_{-35}	$\sigma_8(0.38)$	0.6646	$0.664^{+0.013}_{-0.012}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.67	—	D_{220}	5739	5735^{+100}_{-94}	$f\sigma_8(0.51)$	0.4740	$0.473^{+0.011}_{-0.011}$
A_{143}^{tSZ}	7.06	> 1.08	D_{810}	2542.8	2540^{+35}_{-34}	$\sigma_8(0.51)$	0.6220	$0.621^{+0.012}_{-0.011}$
A_{100}^{PS}	248	258^{+70}_{-70}	D_{1420}	819.6	818^{+12}_{-12}	$f\sigma_8(0.61)$	0.4691	$0.468^{+0.010}_{-0.010}$
A_{143}^{PS}	50.2	45^{+20}_{-20}	D_{2000}	231.78	$231.3^{+3.9}_{-4.0}$	$\sigma_8(0.61)$	0.5919	$0.591^{+0.012}_{-0.011}$
$A_{143 \times 217}^{\text{PS}}$	52.9	42^{+20}_{-20}	$n_{s,0.002}$	0.9680	$0.9675^{+0.0096}_{-0.0097}$	$f\sigma_8(2.33)$	0.2985	$0.2981^{+0.0060}_{-0.0057}$
A_{217}^{PS}	122.0	115^{+30}_{-30}	Y_{P}	0.245425	$0.24541^{+0.00013}_{-0.00014}$	$\sigma_8(2.33)$	0.3077	$0.3073^{+0.0063}_{-0.0059}$
A^{kSZ}	0.0	—	$Y_{\text{P}}^{\text{BBN}}$	0.246752	$0.24674^{+0.00013}_{-0.00014}$	$r_{0.002}$	0.000	< 0.156
A_{100}^{dustTT}	8.82	$8.9^{+4.6}_{-4.8}$	$10^5 D/H$	2.571	$2.577^{+0.065}_{-0.062}$	$r_{0.01}$	0.000	< 0.160
A_{143}^{dustTT}	11.04	$10.8^{+4.8}_{-4.5}$	Age/Gyr	13.784	$13.787^{+0.051}_{-0.051}$	$\ln(10^{10} A_t)$	-7.83	$-0.6^{+2.1}_{-4.1}$
$A_{143 \times 217}^{\text{dustTT}}$	20.2	$18.6^{+8.3}_{-8.5}$	z_*	1089.76	$1089.79^{+0.55}_{-0.53}$	r_{10}	0.0000	< 0.0809
A_{217}^{dustTT}	95.8	94^{+20}_{-20}	r_*	144.56	$144.59^{+0.57}_{-0.57}$	$10^9 A_t$	0.000	< 0.338
A_{100}^{dustTE}	0.114	$0.114^{+0.096}_{-0.10}$	$100\theta_*$	1.04119	$1.04119^{+0.00074}_{-0.00071}$	$10^9 A_t e^{-2\tau}$	0.000	< 0.301
$A_{100 \times 143}^{\text{dustTE}}$	0.134	$0.135^{+0.075}_{-0.077}$	$D_M(z_*)/\text{Gpc}$	13.884	$13.887^{+0.055}_{-0.055}$	f_{2000}^{143}	28.3	29^{+7}_{-7}
$A_{100 \times 217}^{\text{dustTE}}$	0.478	$0.48^{+0.23}_{-0.22}$	z_{drag}	1060.05	$1059.99^{+0.74}_{-0.74}$	$f_{2000}^{143 \times 217}$	31.68	32^{+5}_{-5}
A_{143}^{dustTE}	0.223	$0.23^{+0.14}_{-0.14}$	r_{drag}	147.20	$147.24^{+0.60}_{-0.59}$	f_{2000}^{217}	106.33	$106.8^{+4.5}_{-4.4}$
$A_{143 \times 217}^{\text{dustTE}}$	0.665	$0.67^{+0.22}_{-0.21}$	k_D	0.14082	$0.14075^{+0.00071}_{-0.00071}$	χ^2_{lensing}	8.72	$9.14 (\nu: 0.2)$
A_{217}^{dustTE}	2.08	$2.08^{+0.70}_{-0.70}$	$100\theta_D$	0.160689	$0.16073^{+0.00044}_{-0.00044}$	χ^2_{small}	396	$1296 (\nu: 477802.7)$
c_{100}	0.99975	$0.9997^{+0.0017}_{-0.0016}$	z_{eq}	3387	3385^{+55}_{-55}	χ^2_{lowl}	22.95	$24.5 (\nu: 1.1)$
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0015}$	k_{eq}	0.010337	$0.01033^{+0.00017}_{-0.00017}$	χ^2_{plik}	2345	$1461 (\nu: 477551.6)$
H_0	67.70	$67.7^{+1.1}_{-1.1}$	$100\theta_{\text{eq}}$	0.8163	$0.817^{+0.011}_{-0.010}$	$\chi^2_{6\text{DF}}$	0.029	$0.050 (\nu: 0.0)$
Ω_Λ	0.6893	$0.689^{+0.015}_{-0.015}$	$100\theta_{s,\text{eq}}$	0.4509	$0.4511^{+0.0054}_{-0.0052}$	χ^2_{MGS}	1.22	$1.28 (\nu: 0.1)$
Ω_m	0.3107	$0.311^{+0.015}_{-0.015}$	$H(0.15)$	72.97	$72.97^{+0.95}_{-0.93}$	χ^2_{DR12BAO}	4.43	$4.8 (\nu: 0.8)$
$\Omega_m h^2$	0.14238	$0.1423^{+0.0023}_{-0.0023}$	$D_M(0.15)$	640.4	$640.5^{+9.3}_{-9.2}$	χ^2_{prior}	1.6	$11.6 (\nu: 10.6)$
$\Omega_m h^3$	0.09639	$0.09632^{+0.00074}_{-0.00075}$	$H(0.38)$	83.08	$83.07^{+0.70}_{-0.68}$	χ^2_{CMB}	2773.4	$2790.4 (\nu: 17.4)$
σ_8	0.8112	$0.810^{+0.016}_{-0.015}$	$D_M(0.38)$	1527.6	1528^{+19}_{-19}	χ^2_{BAO}	5.68	$6.1 (\nu: 0.5)$
S_8	0.8255	$0.824^{+0.027}_{-0.028}$	$H(0.51)$	89.80	$89.78^{+0.57}_{-0.55}$			

Best-fit $\chi^2_{\text{eff}} = 2780.69$; $\Delta\chi^2_{\text{eff}} = -0.00$; $\bar{\chi}^2_{\text{eff}} = 2808.06$; $\Delta\bar{\chi}^2_{\text{eff}} = 1.22$; $R - 1 = 0.01525$
 χ^2_{eff} : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.43 (Δ 0.01) CMB - smicadx12_Dec5_ft1_mv2_ndclpp_p.teb_consext8: 8.72 (Δ -0.01) small_100x143_offlike5_EE_Aplanck: 396.49 (Δ -0.03) commander_dx12_v3.2_29: 22.95 (Δ 0.05) plik_rd12_HM_v22b.TTTEEE: 2345.28 (Δ -0.03)

16.15 base_r_plikHM_TTTEEE_lowl_lowE_lensing_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02238^{+0.00037}_{-0.00037}$	S_8	$0.831^{+0.033}_{-0.033}$	$D_{\mathrm{M}}(0.38)$	1532^{+23}_{-23}
$\Omega_{\mathrm{c}}h^2$	$0.1198^{+0.0030}_{-0.0031}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.455^{+0.018}_{-0.018}$	$H(0.51)$	$89.65^{+0.70}_{-0.66}$
$100\theta_{\mathrm{MC}}$	$1.04093^{+0.00077}_{-0.00076}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.608^{+0.016}_{-0.016}$	$D_{\mathrm{M}}(0.51)$	1985^{+27}_{-28}
τ	$0.055^{+0.018}_{-0.013}$	$\sigma_8/h^{0.5}$	$0.988^{+0.023}_{-0.023}$	$H(0.61)$	$95.30^{+0.57}_{-0.54}$
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.038}_{-0.028}$	$r_{\mathrm{drag}}h$	$99.2^{+2.4}_{-2.3}$	$D_{\mathrm{M}}(0.61)$	2309^{+29}_{-30}
n_{s}	$0.966^{+0.011}_{-0.010}$	$\langle d^2 \rangle^{1/2}$	$2.443^{+0.054}_{-0.054}$	$H(2.33)$	$236.5^{+1.8}_{-1.8}$
r	< 0.153	z_{re}	< 9.43	$D_{\mathrm{M}}(2.33)$	5763^{+25}_{-26}
y_{cal}	$1.0006^{+0.0063}_{-0.0060}$	$10^9 A_{\mathrm{s}}$	$2.102^{+0.082}_{-0.058}$	$f\sigma_8(0.15)$	$0.459^{+0.017}_{-0.017}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.882^{+0.029}_{-0.026}$	$\sigma_8(0.15)$	$0.749^{+0.014}_{-0.012}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{40}	1243^{+48}_{-35}	$f\sigma_8(0.38)$	$0.477^{+0.013}_{-0.013}$
A_{143}^{tSZ}	$5.5^{+4.4}_{-4.5}$	D_{220}	5730^{+100}_{-97}	$\sigma_8(0.38)$	$0.664^{+0.012}_{-0.010}$
A_{100}^{PS}	258^{+70}_{-70}	D_{810}	2539^{+35}_{-33}	$f\sigma_8(0.51)$	$0.475^{+0.012}_{-0.012}$
A_{143}^{PS}	46^{+20}_{-20}	D_{1420}	818^{+12}_{-12}	$\sigma_8(0.51)$	$0.621^{+0.012}_{-0.0091}$
$A_{143 \times 217}^{\mathrm{PS}}$	43^{+20}_{-20}	D_{2000}	$231.0^{+4.0}_{-4.0}$	$f\sigma_8(0.61)$	$0.470^{+0.011}_{-0.011}$
A_{217}^{PS}	115^{+30}_{-30}	$n_{\mathrm{s},0.002}$	$0.966^{+0.011}_{-0.010}$	$\sigma_8(0.61)$	$0.591^{+0.011}_{-0.0086}$
A^{kSZ}	—	Y_{P}	$0.24540^{+0.00014}_{-0.00015}$	$f\sigma_8(2.33)$	$0.2979^{+0.0058}_{-0.0043}$
$A_{100}^{\mathrm{dust}TT}$	$8.9^{+4.7}_{-4.7}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24672^{+0.00014}_{-0.00015}$	$\sigma_8(2.33)$	$0.3071^{+0.0063}_{-0.0046}$
$A_{143}^{\mathrm{dust}TT}$	$10.8^{+4.7}_{-4.6}$	$10^5 \mathrm{D}/\mathrm{H}$	$2.585^{+0.069}_{-0.067}$	$r_{0.002}$	< 0.147
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.6^{+8.4}_{-8.5}$	$\mathrm{Age}/\mathrm{Gyr}$	$13.796^{+0.057}_{-0.058}$	$r_{0.01}$	< 0.150
$A_{217}^{\mathrm{dust}TT}$	94^{+20}_{-20}	z_*	$1089.90^{+0.64}_{-0.63}$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.6^{+2.2}_{-4.2}$
$A_{100}^{\mathrm{dust}TE}$	$0.115^{+0.098}_{-0.097}$	r_*	$144.47^{+0.69}_{-0.67}$	r_{10}	< 0.0759
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.135^{+0.076}_{-0.077}$	$100\theta_*$	$1.04111^{+0.00076}_{-0.00075}$	$10^9 A_{\mathrm{t}}$	< 0.322
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.48^{+0.22}_{-0.22}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.877^{+0.064}_{-0.062}$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.288
$A_{143}^{\mathrm{dust}TE}$	$0.23^{+0.14}_{-0.14}$	z_{drag}	$1059.94^{+0.76}_{-0.77}$	f_{2000}^{143}	29^{+7}_{-7}
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.67^{+0.21}_{-0.21}$	r_{drag}	$147.13^{+0.69}_{-0.67}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{217}^{\mathrm{dust}TE}$	$2.09^{+0.68}_{-0.72}$	k_{D}	$0.14083^{+0.00076}_{-0.00077}$	f_{2000}^{217}	$106.9^{+4.6}_{-4.5}$
c_{100}	$0.9997^{+0.0016}_{-0.0015}$	$100\theta_{\mathrm{D}}$	$0.16076^{+0.00044}_{-0.00043}$	$\chi_{\mathrm{lensing}}^2$	$9.22 (\nu: 0.2)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	z_{eq}	3398^{+68}_{-69}	χ_{simall}^2	$397.2 (\nu: 1.6)$
H_0	$67.4^{+1.4}_{-1.4}$	k_{eq}	$0.01037^{+0.00021}_{-0.00021}$	χ_{lowl}^2	$24.7 (\nu: 1.2)$
Ω_{Λ}	$0.686^{+0.019}_{-0.019}$	$100\theta_{\mathrm{eq}}$	$0.814^{+0.013}_{-0.013}$	χ_{plik}^2	$2359.1 (\nu: 15.8)$
Ω_{m}	$0.314^{+0.019}_{-0.019}$	$100\theta_{\mathrm{s,eq}}$	$0.4498^{+0.0069}_{-0.0065}$	χ_{prior}^2	$11.5 (\nu: 10.2)$
$\Omega_{\mathrm{m}}h^2$	$0.1428^{+0.0028}_{-0.0029}$	$H(0.15)$	$72.7^{+1.2}_{-1.2}$	χ_{CMB}^2	$2790.2 (\nu: 17.6)$
$\Omega_{\mathrm{m}}h^3$	$0.09631^{+0.00073}_{-0.00073}$	$D_{\mathrm{M}}(0.15)$	643^{+12}_{-12}		
σ_8	$0.811^{+0.015}_{-0.014}$	$H(0.38)$	$82.90^{+0.88}_{-0.84}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2801.72; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.22; R - 1 = 0.00705$$

16.16 base_r_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02242^{+0.00035}_{-0.00034}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.452^{+0.015}_{-0.015}$	$D_{\mathrm{M}}(0.51)$	1979^{+22}_{-22}
$\Omega_{\mathrm{c}}h^2$	$0.1192^{+0.0024}_{-0.0024}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.605^{+0.014}_{-0.014}$	$H(0.61)$	$95.40^{+0.47}_{-0.45}$
$100\theta_{\mathrm{MC}}$	$1.04101^{+0.00074}_{-0.00072}$	$\sigma_8/h^{0.5}$	$0.985^{+0.021}_{-0.021}$	$D_{\mathrm{M}}(0.61)$	2303^{+23}_{-23}
τ	$0.057^{+0.019}_{-0.015}$	$r_{\mathrm{drag}}h$	$99.7^{+1.9}_{-1.8}$	$H(2.33)$	$236.1^{+1.5}_{-1.5}$
$\ln(10^{10}A_{\mathrm{s}})$	$3.047^{+0.038}_{-0.029}$	$\langle d^2 \rangle^{1/2}$	$2.436^{+0.052}_{-0.048}$	$D_{\mathrm{M}}(2.33)$	5759^{+22}_{-23}
n_{s}	$0.9676^{+0.0095}_{-0.0096}$	z_{re}	< 9.56	$f\sigma_8(0.15)$	$0.456^{+0.014}_{-0.014}$
r	< 0.162	$10^9 A_{\mathrm{s}}$	$2.106^{+0.081}_{-0.061}$	$\sigma_8(0.15)$	$0.749^{+0.014}_{-0.012}$
y_{cal}	$1.0008^{+0.0064}_{-0.0061}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.880^{+0.028}_{-0.025}$	$f\sigma_8(0.38)$	$0.475^{+0.012}_{-0.012}$
A_{217}^{CIB}	46^{+20}_{-20}	D_{40}	1241^{+50}_{-34}	$\sigma_8(0.38)$	$0.664^{+0.013}_{-0.010}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{220}	5734^{+110}_{-93}	$f\sigma_8(0.51)$	$0.474^{+0.011}_{-0.011}$
A_{143}^{tSZ}	> 1.08	D_{810}	2540^{+35}_{-33}	$\sigma_8(0.51)$	$0.621^{+0.012}_{-0.0094}$
A_{100}^{PS}	258^{+70}_{-70}	D_{1420}	818^{+12}_{-12}	$f\sigma_8(0.61)$	$0.4686^{+0.0098}_{-0.0096}$
A_{143}^{PS}	45^{+20}_{-20}	D_{2000}	$231.3^{+3.8}_{-4.0}$	$\sigma_8(0.61)$	$0.591^{+0.011}_{-0.0089}$
$A_{143 \times 217}^{\mathrm{PS}}$	42^{+20}_{-20}	$n_{\mathrm{s},0.002}$	$0.9676^{+0.0095}_{-0.0096}$	$f\sigma_8(2.33)$	$0.2982^{+0.0058}_{-0.0045}$
A_{217}^{PS}	115^{+30}_{-30}	Y_{P}	$0.24541^{+0.00013}_{-0.00014}$	$\sigma_8(2.33)$	$0.3075^{+0.0061}_{-0.0049}$
A^{kSZ}	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24674^{+0.00013}_{-0.00014}$	$r_{0.002}$	< 0.158
$A_{100}^{\mathrm{dust}TT}$	$8.9^{+4.6}_{-4.8}$	$10^5 \mathrm{D}/\mathrm{H}$	$2.577^{+0.065}_{-0.062}$	$r_{0.01}$	< 0.161
$A_{143}^{\mathrm{dust}TT}$	$10.8^{+4.7}_{-4.6}$	$\mathrm{Age}/\mathrm{Gyr}$	$13.787^{+0.051}_{-0.051}$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.6^{+2.1}_{-4.1}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.6^{+8.3}_{-8.5}$	z_{*}	$1089.79^{+0.55}_{-0.53}$	r_{10}	< 0.0815
$A_{217}^{\mathrm{dust}TT}$	94^{+20}_{-20}	r_{*}	$144.60^{+0.57}_{-0.56}$	$10^9 A_{\mathrm{t}}$	< 0.342
$A_{100}^{\mathrm{dust}TE}$	$0.114^{+0.096}_{-0.10}$	$100\theta_{*}$	$1.04119^{+0.00073}_{-0.00071}$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.306
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.135^{+0.076}_{-0.078}$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$13.888^{+0.055}_{-0.054}$	f_{2000}^{143}	29^{+7}_{-7}
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.48^{+0.23}_{-0.22}$	z_{drag}	$1059.99^{+0.74}_{-0.75}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{143}^{\mathrm{dust}TE}$	$0.23^{+0.14}_{-0.13}$	r_{drag}	$147.25^{+0.60}_{-0.59}$	f_{2000}^{217}	$106.8^{+4.6}_{-4.4}$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.67^{+0.22}_{-0.20}$	k_{D}	$0.14074^{+0.00070}_{-0.00072}$	$\chi_{\mathrm{lensing}}^2$	$9.12 (\nu: 0.1)$
$A_{217}^{\mathrm{dust}TE}$	$2.08^{+0.69}_{-0.70}$	$100\theta_{\mathrm{D}}$	$0.16073^{+0.00044}_{-0.00044}$	χ_{simall}^2	$1291 (\nu: 477329.0)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	z_{eq}	3385^{+54}_{-55}	χ_{lowl}^2	$24.5 (\nu: 1.1)$
c_{217}	$0.9982^{+0.0016}_{-0.0015}$	k_{eq}	$0.01033^{+0.00017}_{-0.00017}$	χ_{plik}^2	$1466 (\nu: 477098.3)$
H_0	$67.7^{+1.1}_{-1.1}$	$100\theta_{\mathrm{eq}}$	$0.817^{+0.010}_{-0.010}$	$\chi_{6\mathrm{DF}}^2$	$0.049 (\nu: 0.0)$
Ω_{Λ}	$0.690^{+0.014}_{-0.015}$	$100\theta_{\mathrm{s,eq}}$	$0.4511^{+0.0054}_{-0.0052}$	χ_{MGS}^2	$1.29 (\nu: 0.1)$
Ω_{m}	$0.310^{+0.015}_{-0.014}$	$H(0.15)$	$72.97^{+0.94}_{-0.92}$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 (\nu: 0.8)$
$\Omega_{\mathrm{m}}h^2$	$0.1423^{+0.0023}_{-0.0023}$	$D_{\mathrm{M}}(0.15)$	$640.5^{+9.2}_{-9.2}$	χ_{prior}^2	$11.6 (\nu: 10.5)$
$\Omega_{\mathrm{m}}h^3$	$0.09632^{+0.00073}_{-0.00075}$	$H(0.38)$	$83.07^{+0.70}_{-0.68}$	χ_{CMB}^2	$2790.2 (\nu: 17.2)$
σ_8	$0.810^{+0.016}_{-0.013}$	$D_{\mathrm{M}}(0.38)$	1528^{+18}_{-19}	χ_{BAO}^2	$6.05 (\nu: 0.5)$
S_8	$0.824^{+0.027}_{-0.027}$	$H(0.51)$	$89.78^{+0.57}_{-0.55}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2807.89; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.17; R - 1 = 0.01530$$

17 w

17.1 base_w_plikHM_TT_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02222	$0.02215^{+0.00057}_{-0.00057}$	$\sigma_8 \Omega_m^{0.5}$	0.4077	$0.431^{+0.055}_{-0.041}$	$100\theta_{s,eq}$	0.4490	$0.449^{+0.012}_{-0.011}$
$\Omega_c h^2$	0.1203	$0.1205^{+0.0053}_{-0.0052}$	$\sigma_8 \Omega_m^{0.25}$	0.663	$0.643^{+0.049}_{-0.060}$	$H(0.15)$	88.7	$81.8^{+8.3}_{-14}$
$100\theta_{MC}$	1.04088	$1.0408^{+0.0012}_{-0.0012}$	$\sigma_8/h^{0.5}$	1.077	$1.045^{+0.071}_{-0.096}$	$D_M(0.15)$	481	547^{+200}_{-70}
τ	0.0523	$0.052^{+0.021}_{-0.023}$	$r_{drag}h$	147.1	125^{+20}_{-40}	$H(0.38)$	84.31	$84.0^{+2.5}_{-3.8}$
w_0	-1.97	$-1.56^{+0.79}_{-0.53}$	$\langle d^2 \rangle^{1/2}$	2.528	$2.50^{+0.11}_{-0.13}$	$D_M(0.38)$	1288	1386^{+200}_{-100}
$\ln(10^{10} A_s)$	3.0403	$3.039^{+0.044}_{-0.047}$	z_{re}	7.44	$7.4^{+2.1}_{-2.6}$	$H(0.51)$	86.62	$88.1^{+2.2}_{-3.0}$
n_s	0.9647	$0.963^{+0.015}_{-0.015}$	$10^9 A_s$	2.091	$2.088^{+0.093}_{-0.096}$	$D_M(0.51)$	1745	1840^{+300}_{-100}
y_{cal}	1.0003	$1.0004^{+0.0062}_{-0.0061}$	$10^9 A_s e^{-2\tau}$	1.8835	$1.884^{+0.035}_{-0.033}$	$H(0.61)$	90.06	$92.4^{+3.3}_{-3.3}$
A_{217}^{CIB}	48.3	48^{+20}_{-20}	D_{40}	1225.0	1230^{+40}_{-38}	$D_M(0.61)$	2085	2172^{+200}_{-100}
$\xi^{tSZ \times CIB}$	0.38	—	D_{220}	5717	5716^{+110}_{-100}	$H(2.33)$	230.5	$232.3^{+9.9}_{-4.6}$
A_{143}^{tSZ}	7.0	—	D_{810}	2537.0	2535^{+35}_{-33}	$D_M(2.33)$	5738	5750^{+83}_{-51}
A_{100}^{PS}	253	263^{+70}_{-70}	D_{1420}	815.4	814^{+13}_{-13}	$f\sigma_8(0.15)$	0.511	$0.491^{+0.057}_{-0.052}$
A_{143}^{PS}	49.1	49^{+20}_{-20}	D_{2000}	230.40	$229.7^{+4.7}_{-4.6}$	$\sigma_8(0.15)$	1.015	$0.90^{+0.15}_{-0.22}$
$A_{143 \times 217}^{PS}$	47.5	43^{+20}_{-20}	$n_{s,0.002}$	0.9647	$0.963^{+0.015}_{-0.015}$	$f\sigma_8(0.38)$	0.648	$0.57^{+0.11}_{-0.13}$
A_{217}^{PS}	119.3	115^{+30}_{-30}	Y_P	0.245335	$0.24530^{+0.00022}_{-0.00027}$	$\sigma_8(0.38)$	0.908	$0.80^{+0.13}_{-0.20}$
A^{kSZ}	0.0	—	Y_P^{BBN}	0.246661	$0.24663^{+0.00022}_{-0.00027}$	$f\sigma_8(0.51)$	0.680	$0.59^{+0.12}_{-0.16}$
A_{100}^{dustTT}	8.88	$8.9^{+4.8}_{-4.7}$	$10^5 D/H$	2.614	$2.63^{+0.11}_{-0.10}$	$\sigma_8(0.51)$	0.849	$0.75^{+0.12}_{-0.19}$
A_{143}^{dustTT}	10.76	$10.7^{+4.6}_{-4.6}$	Age/Gyr	13.451	$13.59^{+0.41}_{-0.21}$	$f\sigma_8(0.61)$	0.685	$0.59^{+0.12}_{-0.17}$
$A_{143 \times 217}^{dustTT}$	19.3	$18.2^{+8.3}_{-8.6}$	z_*	1090.13	$1090.2^{+1.1}_{-1.0}$	$\sigma_8(0.61)$	0.805	$0.71^{+0.11}_{-0.18}$
A_{217}^{dustTT}	94.5	93^{+20}_{-20}	r_*	144.48	$144.5^{+1.2}_{-1.2}$	$f\sigma_8(2.33)$	0.401	$0.357^{+0.052}_{-0.088}$
c_{100}	0.99965	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	1.04108	$1.0410^{+0.0012}_{-0.0012}$	$\sigma_8(2.33)$	0.401	$0.360^{+0.049}_{-0.079}$
c_{217}	0.99823	$0.9982^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.878	$13.88^{+0.12}_{-0.11}$	f_{2000}^{143}	29.7	31^{+8}_{-7}
H_0	99.9	> 60.9	z_{drag}	1059.63	$1059.5^{+1.2}_{-1.2}$	$f_{2000}^{143 \times 217}$	32.7	33^{+5}_{-5}
Ω_Λ	0.857	$0.792^{+0.071}_{-0.18}$	r_{drag}	147.19	$147.2^{+1.3}_{-1.2}$	f_{2000}^{217}	107.21	$107.9^{+5.0}_{-4.9}$
Ω_m	0.143	$0.208^{+0.18}_{-0.071}$	k_D	0.14065	$0.1406^{+0.0014}_{-0.0013}$	χ_{simall}^2	395.73	$396.8 (\nu: 1.2)$
$\Omega_m h^2$	0.1431	$0.1433^{+0.0051}_{-0.0051}$	$100\theta_D$	0.16095	$0.16104^{+0.00069}_{-0.00067}$	χ_{lowl}^2	22.64	$23.2 (\nu: 0.7)$
$\Omega_m h^3$	0.1430	$0.122^{+0.025}_{-0.035}$	z_{eq}	3405	3408^{+120}_{-120}	χ_{plik}^2	756.6	$770.0 (\nu: 14.7)$
σ_8	1.077	$0.96^{+0.15}_{-0.22}$	k_{eq}	0.010392	$0.01040^{+0.00037}_{-0.00037}$	χ_{prior}^2	1.3	$7.2 (\nu: 6.6)$
S_8	0.744	$0.787^{+0.10}_{-0.074}$	$100\theta_{eq}$	0.8124	$0.812^{+0.023}_{-0.022}$	χ_{CMB}^2	1175.0	$1190.0 (\nu: 16.0)$

Best-fit $\chi_{eff}^2 = 1176.30$; $\Delta\chi_{eff}^2 = -3.28$; $\bar{\chi}_{eff}^2 = 1197.21$; $\Delta\bar{\chi}_{eff}^2 = -2.37$; $R - 1 = 0.00888$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.73 (Δ -0.14) commander_dx12.v3.2.29: 22.64 (Δ -0.96) plik_rd12_HM.v22.TT: 756.63 (Δ -2.12)

17.2 base_w_plikHM_TT_lowl_lowE_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02227	$0.02221^{+0.00055}_{-0.00054}$	$\sigma_8 \Omega_m^{0.25}$	0.6517	$0.635^{+0.033}_{-0.042}$	$D_M(0.15)$	479	543^{+100}_{-70}
$\Omega_c h^2$	0.11880	$0.1193^{+0.0044}_{-0.0040}$	$\sigma_8/h^{0.5}$	1.062	$1.034^{+0.050}_{-0.070}$	$H(0.38)$	84.97	$84.4^{+2.1}_{-3.8}$
$100\theta_{MC}$	1.04098	$1.0409^{+0.0011}_{-0.0012}$	$r_{drag}h$	147.4	126^{+20}_{-40}	$D_M(0.38)$	1280	1378^{+200}_{-100}
τ	0.0519	$0.051^{+0.020}_{-0.022}$	$\langle d^2 \rangle^{1/2}$	2.500	$2.482^{+0.072}_{-0.083}$	$H(0.51)$	87.18	$88.5^{+1.7}_{-2.4}$
w_0	-1.93	$-1.54^{+0.72}_{-0.48}$	z_{re}	7.37	$7.3^{+1.9}_{-2.5}$	$D_M(0.51)$	1734	1829^{+200}_{-100}
$\ln(10^{10} A_s)$	3.0353	$3.034^{+0.038}_{-0.042}$	$10^9 A_s$	2.081	$2.079^{+0.081}_{-0.086}$	$H(0.61)$	90.51	$92.7^{+3.0}_{-2.9}$
n_s	0.9676	$0.965^{+0.013}_{-0.013}$	$10^9 A_s e^{-2\tau}$	1.8757	$1.878^{+0.029}_{-0.027}$	$D_M(0.61)$	2072	2161^{+240}_{-120}
y_{cal}	1.0000	$1.0002^{+0.0062}_{-0.0062}$	D_{40}	1217.1	1223^{+37}_{-32}	$H(2.33)$	229.5	$232^{+10}_{-3.9}$
A_{217}^{CIB}	48.5	48^{+20}_{-20}	D_{220}	5718	5718^{+110}_{-100}	$D_M(2.33)$	5729	5743^{+81}_{-47}
$\xi^{tSZ \times CIB}$	0.32	—	D_{810}	2533.5	2533^{+35}_{-34}	$f\sigma_8(0.15)$	0.4978	$0.482^{+0.037}_{-0.035}$
A_{143}^{tSZ}	7.0	—	D_{1420}	815.1	814^{+14}_{-13}	$\sigma_8(0.15)$	1.001	$0.89^{+0.13}_{-0.19}$
A_{100}^{PS}	253	263^{+70}_{-70}	D_{2000}	230.24	$229.7^{+4.9}_{-4.6}$	$f\sigma_8(0.38)$	0.632	$0.564^{+0.088}_{-0.11}$
A_{143}^{PS}	48.2	48^{+20}_{-20}	$n_{s,0.002}$	0.9676	$0.965^{+0.013}_{-0.013}$	$\sigma_8(0.38)$	0.898	$0.80^{+0.12}_{-0.18}$
$A_{143 \times 217}^{PS}$	46.0	43^{+20}_{-20}	Y_P	0.245357	$0.24533^{+0.00021}_{-0.00026}$	$f\sigma_8(0.51)$	0.664	$0.58^{+0.11}_{-0.14}$
A_{217}^{PS}	118.6	115^{+30}_{-30}	Y_P^{BBN}	0.246683	$0.24665^{+0.00021}_{-0.00026}$	$\sigma_8(0.51)$	0.839	$0.75^{+0.11}_{-0.17}$
A^{kSZ}	0.0	—	$10^5 D/H$	2.604	$2.62^{+0.11}_{-0.10}$	$f\sigma_8(0.61)$	0.671	$0.58^{+0.11}_{-0.15}$
A_{100}^{dustTT}	8.97	$9.0^{+4.8}_{-4.8}$	Age/Gyr	13.437	$13.58^{+0.39}_{-0.21}$	$\sigma_8(0.61)$	0.797	$0.71^{+0.10}_{-0.16}$
A_{143}^{dustTT}	10.84	$10.7^{+4.7}_{-4.5}$	z_*	1089.93	$1090.07^{+0.93}_{-0.90}$	$f\sigma_8(2.33)$	0.397	$0.356^{+0.048}_{-0.080}$
$A_{143 \times 217}^{dustTT}$	19.4	$18.3^{+8.2}_{-8.4}$	r_*	144.82	$144.73^{+0.95}_{-1.0}$	$\sigma_8(2.33)$	0.398	$0.359^{+0.045}_{-0.071}$
A_{217}^{dustTT}	94.5	93^{+20}_{-20}	$100\theta_*$	1.04117	$1.0411^{+0.0011}_{-0.0011}$	f_{2000}^{143}	29.8	31^{+8}_{-8}
c_{100}	0.99967	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.909	$13.901^{+0.087}_{-0.093}$	$f_{2000}^{143 \times 217}$	32.7	33^{+5}_{-5}
c_{217}	0.99825	$0.9983^{+0.0017}_{-0.0016}$	z_{drag}	1059.63	$1059.5^{+1.1}_{-1.1}$	f_{2000}^{217}	107.17	$107.8^{+4.9}_{-4.8}$
H_0	99.9	> 62.2	r_{drag}	147.52	$147.45^{+0.99}_{-1.0}$	$\chi_{lensing}^2$	8.41	9.0 (ν : 0.7)
Ω_Λ	0.858	$0.796^{+0.069}_{-0.17}$	k_D	0.14034	$0.1404^{+0.0012}_{-0.0012}$	χ_{small}^2	395.65	396.6 (ν : 0.9)
Ω_m	0.142	$0.204^{+0.17}_{-0.069}$	$100\theta_D$	0.16094	$0.16101^{+0.00066}_{-0.00064}$	χ_{lowl}^2	22.16	22.74 (ν : 0.4)
$\Omega_m h^2$	0.14172	$0.1422^{+0.0041}_{-0.0038}$	z_{eq}	3371	3382^{+99}_{-91}	χ_{plik}^2	757.7	770.3 (ν : 13.9)
$\Omega_m h^3$	0.1416	$0.121^{+0.023}_{-0.033}$	k_{eq}	0.010289	$0.01032^{+0.00030}_{-0.00028}$	χ_{prior}^2	1.3	7.3 (ν : 6.8)
σ_8	1.062	$0.95^{+0.13}_{-0.19}$	$100\theta_{eq}$	0.8187	$0.816^{+0.017}_{-0.018}$	χ_{CMB}^2	1183.9	1198.7 (ν : 15.7)
S_8	0.730	$0.774^{+0.095}_{-0.068}$	$100\theta_{s,eq}$	0.4523	$0.4512^{+0.0090}_{-0.0095}$			
$\sigma_8 \Omega_m^{0.5}$	0.4000	$0.424^{+0.052}_{-0.037}$	$H(0.15)$	89.2	$82.3^{+8.3}_{-13}$			

Best-fit $\chi_{eff}^2 = 1185.20$; $\Delta\chi_{eff}^2 = -3.37$; $\bar{\chi}_{eff}^2 = 1205.98$; $\Delta\bar{\chi}_{eff}^2 = -2.44$; $R - 1 = 0.01136$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.41 (Δ -0.49) small_100x143_offlike5_EE_Aplanck_B: 395.65 (Δ -0.21) commander_dx12_v3_2_29: 22.16 (Δ -1.07) plik_rd12_HM_v22_TT: 757.66 (Δ -1.66)

17.3 base_w_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02216^{+0.00057}_{-0.00057}$	$\sigma_8 \Omega_m^{0.5}$	$0.431^{+0.055}_{-0.040}$	$100\theta_{s,eq}$	$0.449^{+0.012}_{-0.011}$
$\Omega_c h^2$	$0.1204^{+0.0053}_{-0.0052}$	$\sigma_8 \Omega_m^{0.25}$	$0.644^{+0.049}_{-0.059}$	$H(0.15)$	$81.8^{+8.3}_{-14}$
$100\theta_{MC}$	$1.0408^{+0.0012}_{-0.0012}$	$\sigma_8/h^{0.5}$	$1.046^{+0.071}_{-0.093}$	$D_M(0.15)$	546^{+200}_{-70}
τ	$0.053^{+0.018}_{-0.012}$	$r_{drag}h$	125^{+20}_{-40}	$H(0.38)$	$84.0^{+2.5}_{-3.8}$
w_0	$-1.56^{+0.79}_{-0.53}$	$\langle d^2 \rangle^{1/2}$	$2.51^{+0.11}_{-0.13}$	$D_M(0.38)$	1385^{+200}_{-100}
$\ln(10^{10} A_s)$	$3.043^{+0.041}_{-0.028}$	z_{re}	< 9.28	$H(0.51)$	$88.1^{+2.2}_{-3.0}$
n_s	$0.963^{+0.015}_{-0.014}$	$10^9 A_s$	$2.096^{+0.087}_{-0.059}$	$D_M(0.51)$	1839^{+300}_{-100}
y_{cal}	$1.0004^{+0.0063}_{-0.0061}$	$10^9 A_s e^{-2\tau}$	$1.883^{+0.034}_{-0.033}$	$H(0.61)$	$92.4^{+3.3}_{-3.3}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{40}	1230^{+41}_{-38}	$D_M(0.61)$	2171^{+300}_{-100}
$\xi^{tSZ \times CIB}$	—	D_{220}	5716^{+110}_{-100}	$H(2.33)$	$232^{+10}_{-4.6}$
A_{143}^{tSZ}	—	D_{810}	2535^{+35}_{-33}	$D_M(2.33)$	5750^{+84}_{-51}
A_{100}^{PS}	262^{+70}_{-70}	D_{1420}	814^{+13}_{-12}	$f\sigma_8(0.15)$	$0.492^{+0.057}_{-0.051}$
A_{143}^{PS}	49^{+20}_{-20}	D_{2000}	$229.8^{+4.7}_{-4.5}$	$\sigma_8(0.15)$	$0.90^{+0.15}_{-0.22}$
$A_{143 \times 217}^{PS}$	43^{+20}_{-20}	$n_{s,0.002}$	$0.963^{+0.015}_{-0.014}$	$f\sigma_8(0.38)$	$0.57^{+0.11}_{-0.13}$
A_{217}^{PS}	115^{+30}_{-30}	Y_P	$0.24530^{+0.00022}_{-0.00027}$	$\sigma_8(0.38)$	$0.80^{+0.13}_{-0.20}$
A^{kSZ}	—	Y_P^{BBN}	$0.24663^{+0.00022}_{-0.00027}$	$f\sigma_8(0.51)$	$0.59^{+0.12}_{-0.16}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.7}$	$10^5 D/H$	$2.63^{+0.11}_{-0.10}$	$\sigma_8(0.51)$	$0.75^{+0.12}_{-0.19}$
A_{143}^{dustTT}	$10.7^{+4.5}_{-4.6}$	Age/Gyr	$13.59^{+0.41}_{-0.21}$	$f\sigma_8(0.61)$	$0.59^{+0.12}_{-0.17}$
$A_{143 \times 217}^{dustTT}$	$18.2^{+8.3}_{-8.7}$	z_*	$1090.2^{+1.1}_{-1.0}$	$\sigma_8(0.61)$	$0.71^{+0.11}_{-0.18}$
A_{217}^{dustTT}	93^{+20}_{-20}	r_*	$144.5^{+1.2}_{-1.2}$	$f\sigma_8(2.33)$	$0.358^{+0.052}_{-0.088}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$100\theta_*$	$1.0410^{+0.0011}_{-0.0012}$	$\sigma_8(2.33)$	$0.361^{+0.049}_{-0.078}$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	$13.88^{+0.11}_{-0.11}$	f_{2000}^{143}	31^{+8}_{-7}
H_0	> 60.9	z_{drag}	$1059.5^{+1.2}_{-1.2}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
Ω_Λ	$0.792^{+0.071}_{-0.18}$	r_{drag}	$147.2^{+1.3}_{-1.2}$	f_{2000}^{217}	$107.9^{+4.9}_{-4.9}$
Ω_m	$0.208^{+0.18}_{-0.071}$	k_D	$0.1406^{+0.0013}_{-0.0013}$	χ_{simall}^2	$396.6 (\nu: 1.1)$
$\Omega_m h^2$	$0.1432^{+0.0050}_{-0.0050}$	$100\theta_D$	$0.16103^{+0.00069}_{-0.00067}$	χ_{lowl}^2	$23.2 (\nu: 0.7)$
$\Omega_m h^3$	$0.122^{+0.024}_{-0.035}$	z_{eq}	3406^{+120}_{-120}	χ_{plik}^2	$769.8 (\nu: 14.6)$
σ_8	$0.96^{+0.15}_{-0.22}$	k_{eq}	$0.01040^{+0.00037}_{-0.00037}$	χ_{prior}^2	$7.2 (\nu: 6.6)$
S_8	$0.787^{+0.10}_{-0.073}$	$100\theta_{eq}$	$0.812^{+0.023}_{-0.022}$	χ_{CMB}^2	$1189.7 (\nu: 15.5)$

$\bar{\chi}_{eff}^2 = 1196.88$; $\Delta\bar{\chi}_{eff}^2 = -2.44$; $R - 1 = 0.00979$

17.4 base_w_plikHM_TT_lowl_lowE_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}} h^2$	$0.02222^{+0.00056}_{-0.00053}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.635^{+0.033}_{-0.042}$	$D_{\mathrm{M}}(0.15)$	544^{+100}_{-70}
$\Omega_{\mathrm{c}} h^2$	$0.1191^{+0.0042}_{-0.0038}$	$\sigma_8 / h^{0.5}$	$1.034^{+0.050}_{-0.069}$	$H(0.38)$	$84.5^{+2.1}_{-3.9}$
$100\theta_{\mathrm{MC}}$	$1.0409^{+0.0011}_{-0.0012}$	$r_{\mathrm{drag}} h$	126^{+20}_{-40}	$D_{\mathrm{M}}(0.38)$	1378^{+200}_{-100}
τ	$0.053^{+0.017}_{-0.011}$	$\langle d^2 \rangle^{1/2}$	$2.483^{+0.072}_{-0.083}$	$H(0.51)$	$88.6^{+1.7}_{-2.3}$
w_0	$-1.53^{+0.71}_{-0.48}$	z_{re}	< 9.03	$D_{\mathrm{M}}(0.51)$	1830^{+200}_{-100}
$\ln(10^{10} A_{\mathrm{s}})$	$3.038^{+0.036}_{-0.025}$	$10^9 A_{\mathrm{s}}$	$2.087^{+0.076}_{-0.052}$	$H(0.61)$	$92.8^{+2.9}_{-2.9}$
n_{s}	$0.966^{+0.013}_{-0.013}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.877^{+0.029}_{-0.027}$	$D_{\mathrm{M}}(0.61)$	2161^{+240}_{-120}
y_{cal}	$1.0002^{+0.0062}_{-0.0062}$	D_{40}	1223^{+37}_{-32}	$H(2.33)$	$231^{+10}_{-3.9}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{220}	5718^{+110}_{-100}	$D_{\mathrm{M}}(2.33)$	5742^{+82}_{-47}
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	2533^{+35}_{-34}	$f\sigma_8(0.15)$	$0.481^{+0.037}_{-0.035}$
A_{143}^{tSZ}	—	D_{1420}	814^{+14}_{-13}	$\sigma_8(0.15)$	$0.89^{+0.13}_{-0.19}$
A_{100}^{PS}	262^{+70}_{-80}	D_{2000}	$229.8^{+4.9}_{-4.5}$	$f\sigma_8(0.38)$	$0.563^{+0.089}_{-0.11}$
A_{143}^{PS}	48^{+20}_{-20}	$n_{\mathrm{s},0.002}$	$0.966^{+0.013}_{-0.013}$	$\sigma_8(0.38)$	$0.80^{+0.12}_{-0.18}$
$A_{143 \times 217}^{\mathrm{PS}}$	43^{+20}_{-20}	Y_{P}	$0.24533^{+0.00022}_{-0.00025}$	$f\sigma_8(0.51)$	$0.58^{+0.11}_{-0.14}$
A_{217}^{PS}	115^{+30}_{-30}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24666^{+0.00022}_{-0.00025}$	$\sigma_8(0.51)$	$0.75^{+0.11}_{-0.17}$
A^{kSZ}	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.61^{+0.10}_{-0.10}$	$f\sigma_8(0.61)$	$0.58^{+0.11}_{-0.15}$
$A_{100}^{\mathrm{dustTT}}$	$8.9^{+4.9}_{-4.7}$	$\mathrm{Age}/\mathrm{Gyr}$	$13.58^{+0.39}_{-0.21}$	$\sigma_8(0.61)$	$0.71^{+0.10}_{-0.16}$
$A_{143}^{\mathrm{dustTT}}$	$10.7^{+4.7}_{-4.5}$	z_*	$1090.04^{+0.91}_{-0.89}$	$f\sigma_8(2.33)$	$0.356^{+0.048}_{-0.080}$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3^{+8.2}_{-8.5}$	r_*	$144.77^{+0.94}_{-0.97}$	$\sigma_8(2.33)$	$0.359^{+0.045}_{-0.072}$
$A_{217}^{\mathrm{dustTT}}$	93^{+20}_{-20}	$100\theta_*$	$1.0411^{+0.0011}_{-0.0011}$	f_{2000}^{143}	31^{+8}_{-8}
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.905^{+0.085}_{-0.091}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
c_{217}	$0.9983^{+0.0017}_{-0.0017}$	z_{drag}	$1059.5^{+1.2}_{-1.2}$	f_{2000}^{217}	$107.8^{+4.9}_{-4.8}$
H_0	> 62.1	r_{drag}	$147.49^{+0.96}_{-1.0}$	$\chi_{\mathrm{lensing}}^2$	$9.1 (\nu: 0.7)$
Ω_{Λ}	$0.795^{+0.070}_{-0.17}$	k_{D}	$0.1403^{+0.0012}_{-0.0011}$	χ_{simall}^2	$396.4 (\nu: 0.7)$
Ω_{m}	$0.205^{+0.17}_{-0.070}$	$100\theta_{\mathrm{D}}$	$0.16100^{+0.00065}_{-0.00064}$	χ_{lowl}^2	$22.70 (\nu: 0.4)$
$\Omega_{\mathrm{m}} h^2$	$0.1420^{+0.0040}_{-0.0037}$	z_{eq}	3378^{+96}_{-88}	χ_{plik}^2	$770.2 (\nu: 14.2)$
$\Omega_{\mathrm{m}} h^3$	$0.121^{+0.023}_{-0.032}$	k_{eq}	$0.01031^{+0.00029}_{-0.00027}$	χ_{prior}^2	$7.3 (\nu: 6.8)$
σ_8	$0.95^{+0.13}_{-0.19}$	$100\theta_{\mathrm{eq}}$	$0.817^{+0.017}_{-0.018}$	χ_{CMB}^2	$1198.3 (\nu: 15.3)$
S_8	$0.774^{+0.10}_{-0.065}$	$100\theta_{\mathrm{s,eq}}$	$0.4516^{+0.0088}_{-0.0091}$		
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.424^{+0.055}_{-0.036}$	$H(0.15)$	$82.2^{+8.3}_{-14}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1205.67; \Delta \bar{\chi}_{\mathrm{eff}}^2 = -2.49; R - 1 = 0.01511$$

17.5 base_w_plikHM_TTTEE_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022434	$0.02239^{+0.00040}_{-0.00037}$	$\Omega_m h^2$	0.14291	$0.1430^{+0.0033}_{-0.0031}$	k_{eq}	0.010376	$0.01038^{+0.00024}_{-0.00023}$
$\Omega_c h^2$	0.11983	$0.1199^{+0.0035}_{-0.0033}$	$\Omega_m h^3$	0.1427	$0.124^{+0.021}_{-0.033}$	$100\theta_{\text{eq}}$	0.8140	$0.814^{+0.014}_{-0.015}$
$100\theta_{\text{MC}}$	1.04097	$1.04094^{+0.00082}_{-0.00080}$	σ_8	1.072	$0.97^{+0.13}_{-0.20}$	$100\theta_{\text{s,eq}}$	0.4497	$0.4495^{+0.0073}_{-0.0076}$
τ	0.0540	$0.054^{+0.021}_{-0.021}$	S_8	0.741	$0.777^{+0.084}_{-0.059}$	$H(0.15)$	89.0	$82.9^{+7.2}_{-13}$
w_0	-1.95	$-1.58^{+0.72}_{-0.45}$	$\sigma_8 \Omega_m^{0.5}$	0.4058	$0.426^{+0.046}_{-0.032}$	$D_{\text{M}}(0.15)$	480	537^{+100}_{-60}
$\ln(10^{10} A_s)$	3.0435	$3.043^{+0.043}_{-0.043}$	$\sigma_8 \Omega_m^{0.25}$	0.6596	$0.643^{+0.035}_{-0.052}$	$H(0.38)$	84.72	$84.5^{+1.7}_{-3.0}$
n_s	0.9667	$0.965^{+0.011}_{-0.011}$	$\sigma_8/h^{0.5}$	1.073	$1.045^{+0.053}_{-0.083}$	$D_{\text{M}}(0.38)$	1284	1368^{+200}_{-100}
y_{cal}	1.0003	$1.0005^{+0.0065}_{-0.0064}$	$r_{\text{drag}} h$	146.9	127^{+20}_{-30}	$H(0.51)$	87.01	$88.4^{+1.8}_{-2.3}$
A_{217}^{CIB}	45.5	46^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.522	$2.501^{+0.083}_{-0.11}$	$D_{\text{M}}(0.51)$	1739	1820^{+200}_{-100}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.67	—	z_{re}	7.57	$7.6^{+2.0}_{-2.2}$	$H(0.61)$	90.41	$92.5^{+3.1}_{-2.8}$
A_{143}^{tSZ}	7.02	$5.5^{+4.5}_{-4.6}$	$10^9 A_s$	2.098	$2.098^{+0.091}_{-0.088}$	$D_{\text{M}}(0.61)$	2077	2151^{+210}_{-100}
A_{100}^{PS}	248	257^{+70}_{-70}	$10^9 A_s e^{-2\tau}$	1.8831	$1.883^{+0.030}_{-0.030}$	$H(2.33)$	230.4	$231.9^{+8.0}_{-3.2}$
A_{143}^{PS}	49.8	46^{+20}_{-20}	D_{40}	1223.0	1227^{+34}_{-32}	$D_{\text{M}}(2.33)$	5726.0	5735^{+59}_{-34}
$A_{143 \times 217}^{\text{PS}}$	52.9	43^{+20}_{-20}	D_{220}	5734	5735^{+99}_{-98}	$f\sigma_8(0.15)$	0.5064	$0.489^{+0.039}_{-0.043}$
A_{217}^{PS}	122.0	116^{+30}_{-30}	D_{810}	2539.6	2539^{+35}_{-34}	$\sigma_8(0.15)$	1.011	$0.91^{+0.12}_{-0.20}$
A^{kSZ}	0.0	—	D_{1420}	817.8	817^{+12}_{-12}	$f\sigma_8(0.38)$	0.642	$0.576^{+0.088}_{-0.13}$
A_{100}^{dustTT}	8.80	$8.9^{+4.7}_{-4.8}$	D_{2000}	231.54	$231.1^{+4.2}_{-4.0}$	$\sigma_8(0.38)$	0.905	$0.81^{+0.11}_{-0.18}$
A_{143}^{dustTT}	10.97	$10.9^{+4.5}_{-4.6}$	$n_{\text{s},0.002}$	0.9667	$0.965^{+0.011}_{-0.011}$	$f\sigma_8(0.51)$	0.674	$0.59^{+0.10}_{-0.15}$
$A_{143 \times 217}^{\text{dustTT}}$	20.0	$18.5^{+8.5}_{-8.7}$	Y_{P}	0.245420	$0.24540^{+0.00015}_{-0.00015}$	$\sigma_8(0.51)$	0.846	$0.76^{+0.10}_{-0.17}$
A_{217}^{dustTT}	95.4	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246747	$0.24673^{+0.00015}_{-0.00015}$	$f\sigma_8(0.61)$	0.680	$0.60^{+0.11}_{-0.15}$
A_{100}^{dustTE}	0.115	$0.114^{+0.099}_{-0.096}$	$10^5 D/H$	2.574	$2.582^{+0.071}_{-0.071}$	$\sigma_8(0.61)$	0.803	$0.722^{+0.097}_{-0.16}$
$A_{100 \times 143}^{\text{dustTE}}$	0.134	$0.135^{+0.074}_{-0.074}$	Age/Gyr	13.427	$13.54^{+0.34}_{-0.16}$	$f\sigma_8(2.33)$	0.400	$0.362^{+0.046}_{-0.080}$
$A_{100 \times 217}^{\text{dustTE}}$	0.480	$0.48^{+0.22}_{-0.22}$	z_*	1089.82	$1089.89^{+0.70}_{-0.72}$	$\sigma_8(2.33)$	0.400	$0.365^{+0.043}_{-0.071}$
A_{143}^{dustTE}	0.225	$0.23^{+0.14}_{-0.14}$	r_*	144.43	$144.43^{+0.74}_{-0.78}$	f_{2000}^{143}	28.0	29^{+7}_{-7}
$A_{143 \times 217}^{\text{dustTE}}$	0.665	$0.66^{+0.21}_{-0.21}$	$100\theta_*$	1.04114	$1.04112^{+0.00081}_{-0.00078}$	$f_{2000}^{143 \times 217}$	31.50	32^{+5}_{-5}
A_{217}^{dustTE}	2.08	$2.08^{+0.69}_{-0.70}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.872	$13.873^{+0.069}_{-0.073}$	f_{2000}^{217}	106.10	$106.8^{+4.6}_{-4.6}$
c_{100}	0.99973	$0.9997^{+0.0016}_{-0.0016}$	z_{drag}	1060.09	$1059.98^{+0.79}_{-0.78}$	χ_{small}^2	395.85	$397.0 (\nu: 1.6)$
c_{217}	0.99819	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	147.06	$147.09^{+0.73}_{-0.76}$	χ_{lowl}^2	22.44	$22.87 (\nu: 0.4)$
H_0	99.9	> 63.9	k_{D}	0.14094	$0.14089^{+0.00084}_{-0.00079}$	χ_{plik}^2	2341.6	$2357.3 (\nu: 16.7)$
Ω_{Λ}	0.857	$0.802^{+0.060}_{-0.16}$	$100\theta_{\text{D}}$	0.160683	$0.16073^{+0.00044}_{-0.00046}$	χ_{prior}^2	1.5	$11.5 (\nu: 10.1)$
Ω_{m}	0.143	$0.198^{+0.16}_{-0.060}$	z_{eq}	3400	3401^{+80}_{-74}	χ_{CMB}^2	2759.9	$2777.1 (\nu: 17.6)$

Best-fit $\chi_{\text{eff}}^2 = 2761.37$; $\Delta\chi_{\text{eff}}^2 = -4.40$; $\bar{\chi}_{\text{eff}}^2 = 2788.65$; $\Delta\bar{\chi}_{\text{eff}}^2 = -3.11$; $R - 1 = 0.00965$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.85 (Δ -0.20) commander_dx12_v3_2_29: 22.45 (Δ -0.81) plik_rd12_HM_v22b_TTTEE: 2341.57 (Δ -3.07)

17.6 base_w_plikHM_TTTEEE_lowl_lowE_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022465	$0.02243^{+0.00039}_{-0.00038}$	$\Omega_m h^3$	0.1420	$0.123^{+0.021}_{-0.031}$	$100\theta_{s,eq}$	0.4514	$0.4508^{+0.0065}_{-0.0068}$
$\Omega_c h^2$	0.11907	$0.1193^{+0.0031}_{-0.0030}$	σ_8	1.062	$0.96^{+0.12}_{-0.18}$	$H(0.15)$	89.2	$83.0^{+7.3}_{-12}$
$100\theta_{MC}$	1.04100	$1.04099^{+0.00082}_{-0.00081}$	S_8	0.732	$0.771^{+0.079}_{-0.057}$	$D_M(0.15)$	479	537^{+100}_{-60}
τ	0.0523	$0.052^{+0.020}_{-0.019}$	$\sigma_8 \Omega_m^{0.5}$	0.4011	$0.422^{+0.043}_{-0.031}$	$H(0.38)$	85.07	$84.7^{+1.6}_{-3.0}$
w_0	-1.92	$-1.57^{+0.66}_{-0.44}$	$\sigma_8 \Omega_m^{0.25}$	0.6528	$0.637^{+0.029}_{-0.042}$	$D_M(0.38)$	1280	1366^{+200}_{-100}
$\ln(10^{10} A_s)$	3.0373	$3.038^{+0.039}_{-0.038}$	$\sigma_8/h^{0.5}$	1.063	$1.037^{+0.045}_{-0.069}$	$H(0.51)$	87.31	$88.6^{+1.6}_{-2.2}$
n_s	0.9683	$0.967^{+0.010}_{-0.011}$	$r_{drag} h$	147.0	127^{+20}_{-30}	$D_M(0.51)$	1733	1816^{+200}_{-100}
y_{cal}	1.0001	$1.0003^{+0.0066}_{-0.0063}$	$\langle d^2 \rangle^{1/2}$	2.502	$2.485^{+0.064}_{-0.078}$	$H(0.61)$	90.65	$92.7^{+2.9}_{-2.7}$
A_{217}^{CIB}	46.3	47^{+20}_{-20}	z_{re}	7.37	$7.4^{+1.9}_{-2.1}$	$D_M(0.61)$	2071	2147^{+200}_{-100}
$\xi^{tSZ \times CIB}$	0.57	—	$10^9 A_s$	2.085	$2.087^{+0.083}_{-0.078}$	$H(2.33)$	229.9	$231.5^{+6.8}_{-3.4}$
A_{143}^{tSZ}	7.18	> 0.900	$10^9 A_s e^{-2\tau}$	1.8779	$1.879^{+0.029}_{-0.027}$	$D_M(2.33)$	5721.7	5731^{+56}_{-32}
A_{100}^{PS}	248	257^{+70}_{-70}	D_{40}	1217.3	1223^{+33}_{-29}	$f\sigma_8(0.15)$	0.4987	$0.483^{+0.032}_{-0.035}$
A_{143}^{PS}	48.5	45^{+20}_{-20}	D_{220}	5730	5734^{+98}_{-98}	$\sigma_8(0.15)$	1.002	$0.90^{+0.12}_{-0.18}$
$A_{143 \times 217}^{PS}$	50.3	42^{+20}_{-20}	D_{810}	2536.5	2536^{+35}_{-34}	$f\sigma_8(0.38)$	0.632	$0.569^{+0.084}_{-0.11}$
A_{217}^{PS}	120.5	115^{+20}_{-30}	D_{1420}	817.3	817^{+13}_{-12}	$\sigma_8(0.38)$	0.898	$0.81^{+0.11}_{-0.17}$
A^{kSZ}	0.0	—	D_{2000}	231.36	$230.9^{+4.1}_{-4.2}$	$f\sigma_8(0.51)$	0.664	$0.587^{+0.098}_{-0.13}$
A_{100}^{dustTT}	8.81	$9.0^{+4.7}_{-4.9}$	$n_{s,0.002}$	0.9683	$0.967^{+0.010}_{-0.011}$	$\sigma_8(0.51)$	0.840	$0.75^{+0.10}_{-0.16}$
A_{143}^{dustTT}	11.06	$10.9^{+4.4}_{-4.7}$	Y_P	0.245432	$0.24542^{+0.00015}_{-0.00015}$	$f\sigma_8(0.61)$	0.671	$0.59^{+0.10}_{-0.14}$
$A_{143 \times 217}^{dustTT}$	20.1	$18.6^{+8.4}_{-8.6}$	Y_P^{BBN}	0.246758	$0.24674^{+0.00015}_{-0.00015}$	$\sigma_8(0.61)$	0.797	$0.717^{+0.095}_{-0.15}$
A_{217}^{dustTT}	95.3	94^{+20}_{-20}	$10^5 D/H$	2.568	$2.576^{+0.071}_{-0.069}$	$f\sigma_8(2.33)$	0.397	$0.360^{+0.045}_{-0.073}$
A_{100}^{dustTE}	0.114	$0.114^{+0.10}_{-0.096}$	Age/Gyr	13.420	$13.54^{+0.32}_{-0.17}$	$\sigma_8(2.33)$	0.398	$0.362^{+0.042}_{-0.066}$
$A_{100 \times 143}^{dustTE}$	0.135	$0.135^{+0.074}_{-0.073}$	z_*	1089.72	$1089.79^{+0.68}_{-0.67}$	f_{2000}^{143}	28.3	29^{+7}_{-7}
$A_{100 \times 217}^{dustTE}$	0.484	$0.48^{+0.22}_{-0.22}$	r_*	144.60	$144.56^{+0.64}_{-0.68}$	$f_{2000}^{143 \times 217}$	31.58	32^{+5}_{-5}
A_{143}^{dustTE}	0.223	$0.23^{+0.14}_{-0.14}$	$100\theta_*$	1.04118	$1.04117^{+0.00080}_{-0.00080}$	f_{2000}^{217}	106.15	$106.8^{+4.5}_{-4.5}$
$A_{143 \times 217}^{dustTE}$	0.665	$0.66^{+0.21}_{-0.21}$	$D_M(z_*)/\text{Gpc}$	13.888	$13.885^{+0.061}_{-0.064}$	$\chi^2_{lensing}$	8.68	9.0 ($\nu: 0.6$)
A_{217}^{dustTE}	2.08	$2.07^{+0.70}_{-0.71}$	z_{drag}	1060.09	$1060.02^{+0.79}_{-0.77}$	χ^2_{small}	396	1325 ($\nu: 479409.9$)
c_{100}	0.99972	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	147.23	$147.21^{+0.65}_{-0.69}$	χ^2_{lowl}	22.13	22.59 ($\nu: 0.3$)
c_{217}	0.99818	$0.9982^{+0.0017}_{-0.0017}$	k_D	0.14079	$0.14079^{+0.00076}_{-0.00074}$	χ^2_{plik}	2342	1430 ($\nu: 479481.8$)
H_0	99.9	> 65.0	$100\theta_D$	0.160670	$0.16072^{+0.00044}_{-0.00046}$	χ^2_{prior}	1.6	11.6 ($\nu: 10.3$)
Ω_Λ	0.857	$0.803^{+0.060}_{-0.14}$	z_{eq}	3382	3388^{+70}_{-64}	χ^2_{CMB}	2768.9	2786.1 ($\nu: 18.1$)
Ω_m	0.143	$0.197^{+0.14}_{-0.060}$	k_{eq}	0.010323	$0.01034^{+0.00021}_{-0.00020}$			
$\Omega_m h^2$	0.14218	$0.1424^{+0.0029}_{-0.0027}$	$100\theta_{eq}$	0.8172	$0.816^{+0.013}_{-0.013}$			

Best-fit $\chi^2_{eff} = 2770.54$; $\Delta\chi^2_{eff} = -4.10$; $\bar{\chi}^2_{eff} = 2797.72$; $\Delta\bar{\chi}^2_{eff} = -2.97$; $R - 1 = 0.01426$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.68 (Δ -0.19) small_100x143_offlike5_EE_Aplanck_B: 395.65 (Δ -0.40) commander_dx12_v3_2_29: 22.13 (Δ -1.12) plik_rd12_HM_v22b_TTTEEE: 2342.46 (Δ -2.47)

17.7 base_w_plikHM_TTTEE_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02240^{+0.00040}_{-0.00037}$	$\Omega_m h^2$	$0.1429^{+0.0033}_{-0.0031}$	k_{eq}	$0.01038^{+0.00024}_{-0.00022}$
$\Omega_c h^2$	$0.1199^{+0.0035}_{-0.0033}$	$\Omega_m h^3$	$0.124^{+0.021}_{-0.033}$	$100\theta_{\text{eq}}$	$0.814^{+0.014}_{-0.015}$
$100\theta_{\text{MC}}$	$1.04094^{+0.00082}_{-0.00080}$	σ_8	$0.97^{+0.13}_{-0.20}$	$100\theta_{\text{s,eq}}$	$0.4496^{+0.0072}_{-0.0075}$
τ	$0.055^{+0.019}_{-0.013}$	S_8	$0.778^{+0.084}_{-0.058}$	$H(0.15)$	$82.9^{+7.2}_{-13}$
w_0	$-1.58^{+0.71}_{-0.45}$	$\sigma_8 \Omega_m^{0.5}$	$0.426^{+0.046}_{-0.032}$	$D_{\text{M}}(0.15)$	537^{+100}_{-60}
$\ln(10^{10} A_s)$	$3.046^{+0.041}_{-0.029}$	$\sigma_8 \Omega_m^{0.25}$	$0.643^{+0.035}_{-0.052}$	$H(0.38)$	$84.5^{+1.7}_{-2.9}$
n_s	$0.966^{+0.011}_{-0.011}$	$\sigma_8/h^{0.5}$	$1.046^{+0.053}_{-0.083}$	$D_{\text{M}}(0.38)$	1368^{+200}_{-100}
y_{cal}	$1.0005^{+0.0065}_{-0.0064}$	$r_{\text{drag}} h$	127^{+20}_{-30}	$H(0.51)$	$88.4^{+1.8}_{-2.3}$
A_{217}^{CIB}	46^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	$2.504^{+0.081}_{-0.10}$	$D_{\text{M}}(0.51)$	1819^{+200}_{-100}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	< 9.48	$H(0.61)$	$92.5^{+3.1}_{-2.8}$
A_{143}^{tSZ}	$5.5^{+4.5}_{-4.6}$	$10^9 A_s$	$2.103^{+0.087}_{-0.060}$	$D_{\text{M}}(0.61)$	2151^{+210}_{-100}
A_{100}^{PS}	257^{+70}_{-70}	$10^9 A_s e^{-2\tau}$	$1.883^{+0.030}_{-0.029}$	$H(2.33)$	$231.8^{+8.0}_{-3.2}$
A_{143}^{PS}	45^{+20}_{-20}	D_{40}	1227^{+34}_{-32}	$D_{\text{M}}(2.33)$	5735^{+58}_{-34}
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	D_{220}	5735^{+99}_{-99}	$f\sigma_8(0.15)$	$0.489^{+0.039}_{-0.043}$
A_{217}^{PS}	116^{+30}_{-30}	D_{810}	2538^{+35}_{-34}	$\sigma_8(0.15)$	$0.91^{+0.12}_{-0.20}$
A^{kSZ}	—	D_{1420}	817^{+12}_{-12}	$f\sigma_8(0.38)$	$0.577^{+0.088}_{-0.13}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.8}$	D_{2000}	$231.1^{+4.2}_{-4.0}$	$\sigma_8(0.38)$	$0.81^{+0.11}_{-0.18}$
A_{143}^{dustTT}	$10.8^{+4.5}_{-4.6}$	$n_{\text{s},0.002}$	$0.966^{+0.011}_{-0.011}$	$f\sigma_8(0.51)$	$0.59^{+0.10}_{-0.14}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.5^{+8.5}_{-8.6}$	Y_{P}	$0.24540^{+0.00015}_{-0.00015}$	$\sigma_8(0.51)$	$0.76^{+0.10}_{-0.17}$
A_{217}^{dustTT}	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24673^{+0.00015}_{-0.00015}$	$f\sigma_8(0.61)$	$0.60^{+0.11}_{-0.15}$
A_{100}^{dustTE}	$0.114^{+0.099}_{-0.096}$	$10^5 \text{D}/\text{H}$	$2.581^{+0.070}_{-0.071}$	$\sigma_8(0.61)$	$0.723^{+0.097}_{-0.16}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.074}_{-0.073}$	Age/Gyr	$13.54^{+0.34}_{-0.16}$	$f\sigma_8(2.33)$	$0.362^{+0.045}_{-0.080}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	z_*	$1089.88^{+0.68}_{-0.72}$	$\sigma_8(2.33)$	$0.365^{+0.043}_{-0.071}$
A_{143}^{dustTE}	$0.23^{+0.14}_{-0.14}$	r_*	$144.44^{+0.73}_{-0.77}$	f_{2000}^{143}	29^{+7}_{-7}
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	$100\theta_*$	$1.04113^{+0.00080}_{-0.00078}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
A_{217}^{dustTE}	$2.08^{+0.69}_{-0.69}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.874^{+0.069}_{-0.073}$	f_{2000}^{217}	$106.7^{+4.6}_{-4.5}$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	z_{drag}	$1059.99^{+0.78}_{-0.74}$	χ_{simall}^2	$396.9 (\nu: 1.7)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	$147.09^{+0.73}_{-0.76}$	χ_{lowl}^2	$22.87 (\nu: 0.4)$
H_0	> 64.0	k_{D}	$0.14088^{+0.00084}_{-0.00079}$	χ_{plik}^2	$2357.1 (\nu: 16.5)$
Ω_{Λ}	$0.802^{+0.060}_{-0.16}$	$100\theta_{\text{D}}$	$0.16073^{+0.00044}_{-0.00046}$	χ_{prior}^2	$11.5 (\nu: 10.1)$
Ω_{m}	$0.198^{+0.16}_{-0.060}$	z_{eq}	3400^{+78}_{-73}	χ_{CMB}^2	$2776.9 (\nu: 17.2)$

$$\bar{\chi}_{\text{eff}}^2 = 2788.38; \Delta \bar{\chi}_{\text{eff}}^2 = -3.15; R - 1 = 0.01060$$

17.8 base_w_plikHM_TTTEE_lowl_lowE_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02243^{+0.00039}_{-0.00038}$	$\Omega_{\mathrm{m}}h^3$	$0.123^{+0.022}_{-0.031}$	$100\theta_{\mathrm{s,eq}}$	$0.4510^{+0.0064}_{-0.0066}$
$\Omega_{\mathrm{c}}h^2$	$0.1192^{+0.0031}_{-0.0029}$	σ_8	$0.96^{+0.12}_{-0.18}$	$H(0.15)$	$82.9^{+7.4}_{-12}$
$100\theta_{\mathrm{MC}}$	$1.04100^{+0.00081}_{-0.00081}$	S_8	$0.771^{+0.079}_{-0.058}$	$D_{\mathrm{M}}(0.15)$	537^{+100}_{-60}
τ	$0.054^{+0.017}_{-0.012}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.422^{+0.043}_{-0.032}$	$H(0.38)$	$84.8^{+1.6}_{-3.0}$
w_0	$-1.56^{+0.66}_{-0.44}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.637^{+0.029}_{-0.042}$	$D_{\mathrm{M}}(0.38)$	1367^{+200}_{-100}
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.037}_{-0.025}$	$\sigma_8/h^{0.5}$	$1.037^{+0.045}_{-0.068}$	$H(0.51)$	$88.7^{+1.6}_{-2.2}$
n_{s}	$0.967^{+0.010}_{-0.011}$	$r_{\mathrm{drag}}h$	127^{+20}_{-30}	$D_{\mathrm{M}}(0.51)$	1817^{+200}_{-100}
y_{cal}	$1.0002^{+0.0067}_{-0.0063}$	$\langle d^2 \rangle^{1/2}$	$2.487^{+0.063}_{-0.075}$	$H(0.61)$	$92.8^{+2.8}_{-2.7}$
A_{217}^{CIB}	46^{+20}_{-20}	z_{re}	< 9.15	$D_{\mathrm{M}}(0.61)$	2148^{+200}_{-100}
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}$	$2.093^{+0.079}_{-0.052}$	$H(2.33)$	$231.5^{+6.8}_{-3.4}$
A_{143}^{tSZ}	> 0.904	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.879^{+0.027}_{-0.026}$	$D_{\mathrm{M}}(2.33)$	5731^{+57}_{-32}
A_{100}^{PS}	257^{+70}_{-70}	D_{40}	1223^{+32}_{-28}	$f\sigma_8(0.15)$	$0.483^{+0.032}_{-0.035}$
A_{143}^{PS}	45^{+20}_{-20}	D_{220}	5733^{+97}_{-98}	$\sigma_8(0.15)$	$0.90^{+0.12}_{-0.18}$
$A_{143 \times 217}^{\mathrm{PS}}$	42^{+20}_{-20}	D_{810}	2536^{+35}_{-34}	$f\sigma_8(0.38)$	$0.568^{+0.085}_{-0.11}$
A_{217}^{PS}	115^{+20}_{-30}	D_{1420}	817^{+13}_{-12}	$\sigma_8(0.38)$	$0.81^{+0.11}_{-0.17}$
A^{kSZ}	—	D_{2000}	$231.0^{+4.1}_{-4.1}$	$f\sigma_8(0.51)$	$0.586^{+0.098}_{-0.13}$
$A_{100}^{\mathrm{dustTT}}$	$9.0^{+4.7}_{-4.9}$	$n_{\mathrm{s},0.002}$	$0.967^{+0.010}_{-0.011}$	$\sigma_8(0.51)$	$0.75^{+0.10}_{-0.16}$
$A_{143}^{\mathrm{dustTT}}$	$10.9^{+4.4}_{-4.6}$	Y_{P}	$0.24542^{+0.00015}_{-0.00015}$	$f\sigma_8(0.61)$	$0.59^{+0.10}_{-0.14}$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.6^{+8.2}_{-8.5}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24674^{+0.00015}_{-0.00015}$	$\sigma_8(0.61)$	$0.716^{+0.096}_{-0.15}$
$A_{217}^{\mathrm{dustTT}}$	94^{+20}_{-20}	$10^5 \mathrm{D}/\mathrm{H}$	$2.574^{+0.071}_{-0.069}$	$f\sigma_8(2.33)$	$0.359^{+0.045}_{-0.073}$
$A_{100}^{\mathrm{dustTE}}$	$0.114^{+0.10}_{-0.096}$	$\mathrm{Age}/\mathrm{Gyr}$	$13.54^{+0.32}_{-0.17}$	$\sigma_8(2.33)$	$0.362^{+0.042}_{-0.066}$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135^{+0.074}_{-0.073}$	z_*	$1089.78^{+0.66}_{-0.65}$	f_{2000}^{143}	29^{+8}_{-7}
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.48^{+0.22}_{-0.22}$	r_*	$144.58^{+0.62}_{-0.68}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-4}
$A_{143}^{\mathrm{dustTE}}$	$0.23^{+0.14}_{-0.14}$	$100\theta_*$	$1.04118^{+0.00080}_{-0.00080}$	f_{2000}^{217}	$106.7^{+4.6}_{-4.4}$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.66^{+0.21}_{-0.21}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.886^{+0.059}_{-0.064}$	$\chi_{\mathrm{lensing}}^2$	$9.0 (\nu: 0.6)$
$A_{217}^{\mathrm{dustTE}}$	$2.07^{+0.70}_{-0.71}$	z_{drag}	$1060.03^{+0.82}_{-0.74}$	χ_{simall}^2	$1339 (\nu: 480033.5)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	$147.22^{+0.63}_{-0.69}$	χ_{lowl}^2	$22.58 (\nu: 0.3)$
c_{217}	$0.9982^{+0.0017}_{-0.0017}$	k_{D}	$0.14077^{+0.00076}_{-0.00074}$	χ_{plik}^2	$1416 (\nu: 480047.8)$
H_0	> 64.9	$100\theta_{\mathrm{D}}$	$0.16071^{+0.00043}_{-0.00046}$	χ_{prior}^2	$11.6 (\nu: 10.1)$
Ω_{Λ}	$0.802^{+0.061}_{-0.14}$	z_{eq}	3385^{+69}_{-64}	χ_{CMB}^2	$2785.8 (\nu: 17.6)$
Ω_{m}	$0.198^{+0.14}_{-0.061}$	k_{eq}	$0.01033^{+0.00021}_{-0.00020}$		
$\Omega_{\mathrm{m}}h^2$	$0.1423^{+0.0029}_{-0.0027}$	$100\theta_{\mathrm{eq}}$	$0.817^{+0.012}_{-0.013}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2797.43; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -3.08; R - 1 = 0.01516$$

17.9 base_w_plikHM_TT_lowl_lowE_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02217	$0.02217^{+0.00054}_{-0.00052}$	$\sigma_8/h^{0.5}$	0.990	$0.992^{+0.050}_{-0.053}$	$D_M(0.38)$	1524.8	1522^{+42}_{-42}
$\Omega_c h^2$	0.11961	$0.1197^{+0.0046}_{-0.0045}$	$r_{\text{drag}} h$	100.5	$100.9^{+6.0}_{-5.0}$	$H(0.51)$	89.54	$89.50^{+0.90}_{-1.0}$
$100\theta_{\text{MC}}$	1.04092	$1.0409^{+0.0012}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	2.441	$2.45^{+0.10}_{-0.11}$	$D_M(0.51)$	1977.2	1974^{+43}_{-43}
τ	0.0528	$0.053^{+0.023}_{-0.021}$	z_{re}	7.56	$7.6^{+2.2}_{-2.3}$	$H(0.61)$	95.09	$95.0^{+1.1}_{-1.3}$
w_0	-1.027	$-1.04^{+0.16}_{-0.19}$	$10^9 A_s$	2.090	$2.091^{+0.098}_{-0.091}$	$D_M(0.61)$	2302.2	2299^{+43}_{-43}
$\ln(10^{10} A_s)$	3.0400	$3.040^{+0.046}_{-0.045}$	$10^9 A_s e^{-2\tau}$	1.8811	$1.880^{+0.034}_{-0.033}$	$H(2.33)$	235.70	$235.6^{+2.0}_{-2.0}$
n_s	0.9655	$0.965^{+0.013}_{-0.013}$	D_{40}	1227.4	1228^{+36}_{-34}	$D_M(2.33)$	5768.2	5768^{+31}_{-31}
y_{cal}	1.0006	$1.0005^{+0.0066}_{-0.0064}$	D_{220}	5717	5716^{+100}_{-100}	$f\sigma_8(0.15)$	0.4594	$0.461^{+0.034}_{-0.033}$
A_{217}^{CIB}	49.6	48^{+20}_{-20}	D_{810}	2537.6	2536^{+36}_{-36}	$\sigma_8(0.15)$	0.755	$0.759^{+0.059}_{-0.056}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.21	—	D_{1420}	815.8	815^{+13}_{-13}	$f\sigma_8(0.38)$	0.4799	$0.483^{+0.047}_{-0.043}$
A_{143}^{tSZ}	7.0	—	D_{2000}	230.04	$229.8^{+4.5}_{-4.5}$	$\sigma_8(0.38)$	0.669	$0.673^{+0.052}_{-0.049}$
A_{100}^{PS}	257	263^{+70}_{-70}	$n_{s,0.002}$	0.9655	$0.965^{+0.013}_{-0.013}$	$f\sigma_8(0.51)$	0.4791	$0.482^{+0.050}_{-0.045}$
A_{143}^{PS}	48.2	49^{+20}_{-20}	Y_{P}	0.245315	$0.24531^{+0.00021}_{-0.00025}$	$\sigma_8(0.51)$	0.6263	$0.629^{+0.048}_{-0.045}$
$A_{143 \times 217}^{\text{PS}}$	43.9	43^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246641	$0.24664^{+0.00021}_{-0.00025}$	$f\sigma_8(0.61)$	0.4743	$0.477^{+0.050}_{-0.045}$
A_{217}^{PS}	117.7	115^{+30}_{-30}	$10^5 \text{D}/\text{H}$	2.623	$2.62^{+0.10}_{-0.098}$	$\sigma_8(0.61)$	0.5959	$0.599^{+0.045}_{-0.043}$
A^{kSZ}	0.1	—	Age/Gyr	13.799	$13.794^{+0.092}_{-0.087}$	$f\sigma_8(2.33)$	0.3004	$0.302^{+0.022}_{-0.021}$
A_{100}^{dustTT}	8.86	$9.0^{+4.7}_{-4.7}$	z_*	1090.13	$1090.15^{+0.91}_{-0.90}$	$\sigma_8(2.33)$	0.3090	$0.310^{+0.018}_{-0.018}$
A_{143}^{dustTT}	10.82	$10.7^{+4.6}_{-4.6}$	r_*	144.68	$144.7^{+1.1}_{-1.1}$	f_{2000}^{143}	30.7	31^{+7}_{-8}
$A_{143 \times 217}^{\text{dustTT}}$	19.3	$18.3^{+8.3}_{-8.5}$	$100\theta_*$	1.04113	$1.0411^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33.4	33^{+5}_{-5}
A_{217}^{dustTT}	94.5	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.897	$13.90^{+0.10}_{-0.10}$	f_{2000}^{217}	107.87	$108.0^{+4.9}_{-5.0}$
c_{100}	0.99965	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	1059.44	$1059.4^{+1.1}_{-1.2}$	χ_{simall}^2	395.86	$397.0 (\nu: 1.6)$
c_{217}	0.99829	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	147.42	$147.4^{+1.1}_{-1.1}$	χ_{lowl}^2	23.15	$23.3 (\nu: 0.5)$
H_0	68.14	$68.5^{+4.3}_{-3.6}$	k_{D}	0.14037	$0.1404^{+0.0012}_{-0.0012}$	χ_{plik}^2	759.1	$771.5 (\nu: 15.6)$
Ω_{Λ}	0.6933	$0.696^{+0.032}_{-0.031}$	$100\theta_{\text{D}}$	0.16105	$0.16105^{+0.00068}_{-0.00065}$	$\chi_{6\text{DF}}^2$	0.002	$0.13 (\nu: 0.0)$
Ω_{m}	0.3067	$0.304^{+0.031}_{-0.032}$	z_{eq}	3388	3390^{+100}_{-100}	χ_{MGS}^2	1.54	$1.9 (\nu: 0.5)$
$\Omega_{\text{m}} h^2$	0.14243	$0.1425^{+0.0044}_{-0.0043}$	k_{eq}	0.010341	$0.01035^{+0.00032}_{-0.00032}$	χ_{DR12BAO}^2	4.36	$5.2 (\nu: 1.2)$
$\Omega_{\text{m}} h^3$	0.0971	$0.0976^{+0.0080}_{-0.0068}$	$100\theta_{\text{eq}}$	0.8153	$0.815^{+0.020}_{-0.019}$	χ_{prior}^2	1.5	$7.3 (\nu: 6.9)$
σ_8	0.817	$0.821^{+0.063}_{-0.060}$	$100\theta_{s,\text{eq}}$	0.4506	$0.450^{+0.010}_{-0.0098}$	χ_{BAO}^2	5.90	$7.2 (\nu: 1.8)$
S_8	0.8260	$0.826^{+0.044}_{-0.046}$	$H(0.15)$	73.14	$73.3^{+2.3}_{-2.1}$	χ_{CMB}^2	1178.1	$1191.8 (\nu: 15.4)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4524	$0.452^{+0.024}_{-0.025}$	$D_M(0.15)$	637.7	636^{+26}_{-28}			
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6079	$0.609^{+0.035}_{-0.037}$	$H(0.38)$	82.94	$82.96^{+0.91}_{-0.84}$			

Best-fit $\chi_{\text{eff}}^2 = 1185.52$; $\Delta\chi_{\text{eff}}^2 = -0.23$; $\bar{\chi}_{\text{eff}}^2 = 1206.32$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.29$; $R - 1 = 0.00799$

χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.02) MGS: 1.54 (Δ 0.26) DR12BAO: 4.36 (Δ 0.18) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.86 (Δ -0.03) commander_dx12_v3_2_29: 23.15 (Δ 0.32) plik_rd12_HM_v22_TT: 759.14 (Δ -0.96)

17.10 base_w_plikHM_TT_lowl_lowE_BAO_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02220	$0.02217^{+0.00051}_{-0.00053}$	$\sigma_8/h^{0.5}$	0.9908	$0.992^{+0.035}_{-0.035}$	$D_M(0.38)$	1523.4	1521^{+41}_{-41}
$\Omega_c h^2$	0.11959	$0.1197^{+0.0034}_{-0.0035}$	$r_{\text{drag}} h$	100.6	$101.0^{+5.6}_{-4.9}$	$H(0.51)$	89.55	$89.52^{+0.75}_{-0.85}$
$100\theta_{\text{MC}}$	1.04086	$1.0409^{+0.0011}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	2.444	$2.445^{+0.068}_{-0.068}$	$D_M(0.51)$	1975.7	1973^{+43}_{-42}
τ	0.0542	$0.053^{+0.022}_{-0.020}$	z_{re}	7.70	$7.6^{+2.1}_{-2.2}$	$H(0.61)$	95.09	$95.03^{+0.87}_{-1.0}$
w_0	-1.031	$-1.04^{+0.13}_{-0.16}$	$10^9 A_s$	2.096	$2.092^{+0.088}_{-0.079}$	$D_M(0.61)$	2300.6	2298^{+43}_{-43}
$\ln(10^{10} A_s)$	3.0425	$3.041^{+0.041}_{-0.038}$	$10^9 A_s e^{-2\tau}$	1.8805	$1.880^{+0.028}_{-0.029}$	$H(2.33)$	235.66	$235.6^{+2.0}_{-2.0}$
n_s	0.9655	$0.965^{+0.012}_{-0.011}$	D_{40}	1227.6	1229^{+32}_{-30}	$D_M(2.33)$	5767.3	5768^{+31}_{-29}
y_{cal}	1.0003	$1.0005^{+0.0064}_{-0.0063}$	D_{220}	5719	5718^{+100}_{-100}	$f\sigma_8(0.15)$	0.4600	$0.461^{+0.024}_{-0.023}$
A_{217}^{CIB}	48.6	48^{+20}_{-20}	D_{810}	2536.8	2536^{+34}_{-35}	$\sigma_8(0.15)$	0.7568	$0.759^{+0.045}_{-0.041}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.32	—	D_{1420}	815.6	815^{+13}_{-13}	$f\sigma_8(0.38)$	0.4809	$0.483^{+0.035}_{-0.031}$
A_{143}^{tSZ}	7.0	—	D_{2000}	230.08	$229.8^{+4.3}_{-4.5}$	$\sigma_8(0.38)$	0.6709	$0.673^{+0.040}_{-0.036}$
A_{100}^{PS}	254	263^{+70}_{-70}	$n_{s,0.002}$	0.9655	$0.965^{+0.012}_{-0.011}$	$f\sigma_8(0.51)$	0.4802	$0.482^{+0.037}_{-0.032}$
A_{143}^{PS}	49.2	49^{+20}_{-20}	Y_{P}	0.245328	$0.24531^{+0.00020}_{-0.00025}$	$\sigma_8(0.51)$	0.6278	$0.630^{+0.037}_{-0.033}$
$A_{143 \times 217}^{\text{PS}}$	46.9	43^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.246654	$0.24664^{+0.00020}_{-0.00025}$	$f\sigma_8(0.61)$	0.4754	$0.477^{+0.038}_{-0.033}$
A_{217}^{PS}	119.5	115^{+30}_{-30}	$10^5 \text{D}/\text{H}$	2.617	$2.62^{+0.10}_{-0.094}$	$\sigma_8(0.61)$	0.5973	$0.599^{+0.035}_{-0.032}$
A^{kSZ}	0.0	—	Age/Gyr	13.796	$13.793^{+0.091}_{-0.085}$	$f\sigma_8(2.33)$	0.3012	$0.302^{+0.017}_{-0.016}$
A_{100}^{dustTT}	8.88	$8.9^{+5.0}_{-4.9}$	z_*	1090.09	$1090.14^{+0.82}_{-0.79}$	$\sigma_8(2.33)$	0.3097	$0.310^{+0.015}_{-0.013}$
A_{143}^{dustTT}	10.80	$10.7^{+4.7}_{-4.3}$	r_*	144.66	$144.67^{+0.86}_{-0.84}$	f_{2000}^{143}	30.2	31^{+8}_{-8}
$A_{143 \times 217}^{\text{dustTT}}$	19.4	$18.3^{+7.9}_{-8.4}$	$100\theta_*$	1.04106	$1.0411^{+0.0010}_{-0.0010}$	$f_{2000}^{143 \times 217}$	33.1	33^{+5}_{-5}
A_{217}^{dustTT}	94.5	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.896	$13.896^{+0.082}_{-0.080}$	f_{2000}^{217}	107.58	$108.0^{+5.0}_{-4.9}$
c_{100}	0.99966	$0.9996^{+0.0015}_{-0.0016}$	z_{drag}	1059.51	$1059.5^{+1.2}_{-1.2}$	χ_{lensing}^2	8.73	$9.35 (\nu: 0.4)$
c_{217}	0.99823	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	147.39	$147.40^{+0.92}_{-0.89}$	χ_{small}^2	396.05	$397.0 (\nu: 1.5)$
H_0	68.25	$68.5^{+3.9}_{-3.4}$	k_{D}	0.14043	$0.1404^{+0.0012}_{-0.0011}$	χ_{lowl}^2	23.21	$23.32 (\nu: 0.4)$
Ω_{Λ}	0.6943	$0.696^{+0.031}_{-0.031}$	$100\theta_{\text{D}}$	0.16099	$0.16104^{+0.00071}_{-0.00067}$	χ_{plik}^2	759.0	$770.9 (\nu: 14.0)$
Ω_{m}	0.3057	$0.304^{+0.031}_{-0.031}$	z_{eq}	3388	3389^{+78}_{-81}	$\chi_{6\text{DF}}^2$	0.000	$0.13 (\nu: 0.0)$
$\Omega_{\text{m}} h^2$	0.14244	$0.1425^{+0.0033}_{-0.0034}$	k_{eq}	0.010342	$0.01034^{+0.00024}_{-0.00025}$	χ_{MGS}^2	1.61	$1.92 (\nu: 0.5)$
$\Omega_{\text{m}} h^3$	0.0972	$0.0977^{+0.0067}_{-0.0058}$	$100\theta_{\text{eq}}$	0.8152	$0.815^{+0.015}_{-0.014}$	χ_{DR12BAO}^2	4.33	$5.1 (\nu: 1.0)$
σ_8	0.8186	$0.821^{+0.047}_{-0.043}$	$100\theta_{\text{s,eq}}$	0.4505	$0.4505^{+0.0079}_{-0.0074}$	χ_{prior}^2	1.3	$7.2 (\nu: 6.6)$
S_8	0.8264	$0.825^{+0.031}_{-0.031}$	$H(0.15)$	73.21	$73.4^{+2.2}_{-2.1}$	χ_{CMB}^2	1187.0	$1200.6 (\nu: 15.6)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4526	$0.452^{+0.017}_{-0.017}$	$D_M(0.15)$	636.9	635^{+26}_{-26}	χ_{BAO}^2	5.94	$7.2 (\nu: 1.5)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6087	$0.609^{+0.024}_{-0.024}$	$H(0.38)$	82.97	$82.98^{+0.87}_{-0.85}$			

Best-fit $\chi_{\text{eff}}^2 = 1194.29$; $\Delta\chi_{\text{eff}}^2 = -0.39$; $\bar{\chi}_{\text{eff}}^2 = 1214.98$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.25$; $R - 1 = 0.01126$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.03) MGS: 1.61 (Δ 0.39) DR12BAO: 4.33 (Δ -0.04) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.73 (Δ -0.14) small_100x143_offlike5_EE_Aplanc
396.05 (Δ -0.05) commander_dx12_v3.2_29: 23.21 (Δ 0.25) plik_rd12_HM.v22.TT: 759.05 (Δ -0.75)

17.11 base_w_plikHM_TT_lowl_lowE_BAO_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02217^{+0.00053}_{-0.00053}$	$\sigma_8/h^{0.5}$	$0.992^{+0.050}_{-0.053}$	$D_M(0.38)$	1522^{+42}_{-42}
$\Omega_c h^2$	$0.1197^{+0.0046}_{-0.0045}$	$r_{\text{drag}} h$	$100.9^{+6.0}_{-5.1}$	$H(0.51)$	$89.51^{+0.90}_{-1.0}$
$100\theta_{\text{MC}}$	$1.0409^{+0.0012}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	$2.45^{+0.10}_{-0.10}$	$D_M(0.51)$	1974^{+44}_{-43}
τ	$0.054^{+0.020}_{-0.013}$	z_{re}	< 9.56	$H(0.61)$	$95.0^{+1.0}_{-1.3}$
w_0	$-1.04^{+0.16}_{-0.19}$	$10^9 A_s$	$2.097^{+0.095}_{-0.064}$	$D_M(0.61)$	2299^{+43}_{-42}
$\ln(10^{10} A_s)$	$3.043^{+0.044}_{-0.031}$	$10^9 A_s e^{-2\tau}$	$1.880^{+0.034}_{-0.033}$	$H(2.33)$	$235.6^{+2.0}_{-2.0}$
n_s	$0.965^{+0.013}_{-0.013}$	D_{40}	1229^{+36}_{-34}	$D_M(2.33)$	5768^{+31}_{-30}
y_{cal}	$1.0005^{+0.0065}_{-0.0064}$	D_{220}	5716^{+100}_{-100}	$f\sigma_8(0.15)$	$0.461^{+0.034}_{-0.033}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2536^{+36}_{-36}	$\sigma_8(0.15)$	$0.759^{+0.059}_{-0.056}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	815^{+13}_{-13}	$f\sigma_8(0.38)$	$0.483^{+0.047}_{-0.043}$
A_{143}^{tSZ}	—	D_{2000}	$229.8^{+4.6}_{-4.5}$	$\sigma_8(0.38)$	$0.673^{+0.052}_{-0.049}$
A_{100}^{PS}	263^{+70}_{-70}	$n_{s,0.002}$	$0.965^{+0.013}_{-0.013}$	$f\sigma_8(0.51)$	$0.482^{+0.050}_{-0.045}$
A_{143}^{PS}	49^{+20}_{-20}	Y_{P}	$0.24531^{+0.00021}_{-0.00025}$	$\sigma_8(0.51)$	$0.630^{+0.048}_{-0.045}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24664^{+0.00021}_{-0.00025}$	$f\sigma_8(0.61)$	$0.478^{+0.050}_{-0.045}$
A_{217}^{PS}	115^{+30}_{-30}	$10^5 \text{D}/\text{H}$	$2.62^{+0.10}_{-0.097}$	$\sigma_8(0.61)$	$0.599^{+0.045}_{-0.042}$
A^{kSZ}	—	Age/Gyr	$13.794^{+0.092}_{-0.086}$	$f\sigma_8(2.33)$	$0.302^{+0.022}_{-0.021}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.8}$	z_*	$1090.14^{+0.91}_{-0.89}$	$\sigma_8(2.33)$	$0.311^{+0.018}_{-0.018}$
A_{143}^{dustTT}	$10.7^{+4.6}_{-4.6}$	r_*	$144.7^{+1.1}_{-1.1}$	f_{2000}^{143}	31^{+7}_{-7}
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.3}_{-8.5}$	$100\theta_*$	$1.0411^{+0.0012}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
A_{217}^{dustTT}	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	$13.90^{+0.10}_{-0.10}$	f_{2000}^{217}	$107.9^{+4.9}_{-4.9}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	$1059.5^{+1.1}_{-1.2}$	χ_{simall}^2	$396.9 (\nu: 1.7)$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	$147.4^{+1.1}_{-1.1}$	χ_{lowl}^2	$23.3 (\nu: 0.5)$
H_0	$68.5^{+4.3}_{-3.6}$	k_{D}	$0.1404^{+0.0013}_{-0.0012}$	χ_{plik}^2	$771.3 (\nu: 15.5)$
Ω_Λ	$0.696^{+0.032}_{-0.031}$	$100\theta_{\text{D}}$	$0.16104^{+0.00069}_{-0.00066}$	$\chi_{6\text{DF}}^2$	$0.13 (\nu: 0.0)$
Ω_{m}	$0.304^{+0.031}_{-0.032}$	z_{eq}	3389^{+110}_{-100}	χ_{MGS}^2	$1.88 (\nu: 0.5)$
$\Omega_{\text{m}} h^2$	$0.1425^{+0.0044}_{-0.0043}$	k_{eq}	$0.01034^{+0.00032}_{-0.00032}$	χ_{DR12BAO}^2	$5.2 (\nu: 1.2)$
$\Omega_{\text{m}} h^3$	$0.0976^{+0.0080}_{-0.0069}$	$100\theta_{\text{eq}}$	$0.815^{+0.020}_{-0.019}$	χ_{prior}^2	$7.3 (\nu: 6.9)$
σ_8	$0.821^{+0.062}_{-0.060}$	$100\theta_{\text{s,eq}}$	$0.450^{+0.010}_{-0.0099}$	χ_{BAO}^2	$7.2 (\nu: 1.8)$
S_8	$0.827^{+0.044}_{-0.045}$	$H(0.15)$	$73.3^{+2.3}_{-2.1}$	χ_{CMB}^2	$1191.6 (\nu: 15.1)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.453^{+0.024}_{-0.025}$	$D_M(0.15)$	636^{+26}_{-28}		
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.610^{+0.035}_{-0.036}$	$H(0.38)$	$82.96^{+0.91}_{-0.84}$		

$\bar{\chi}_{\text{eff}}^2 = 1206.07$; $\Delta \bar{\chi}_{\text{eff}}^2 = 0.31$; $R - 1 = 0.00764$

17.12 base_w_plikHM_TT_lowl_lowE_BAO_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02218^{+0.00051}_{-0.00053}$	$\sigma_8/h^{0.5}$	$0.992^{+0.035}_{-0.035}$	$D_{\mathrm{M}}(0.38)$	1521^{+41}_{-41}
$\Omega_{\mathrm{c}}h^2$	$0.1196^{+0.0034}_{-0.0034}$	$r_{\mathrm{drag}}h$	$101.0^{+5.6}_{-4.9}$	$H(0.51)$	$89.54^{+0.74}_{-0.85}$
$100\theta_{\mathrm{MC}}$	$1.0409^{+0.0010}_{-0.0010}$	$\langle d^2 \rangle^{1/2}$	$2.446^{+0.068}_{-0.068}$	$D_{\mathrm{M}}(0.51)$	1973^{+43}_{-42}
τ	$0.055^{+0.019}_{-0.014}$	z_{re}	< 9.45	$H(0.61)$	$95.05^{+0.86}_{-1.0}$
w_0	$-1.04^{+0.13}_{-0.16}$	$10^9 A_{\mathrm{s}}$	$2.097^{+0.084}_{-0.057}$	$D_{\mathrm{M}}(0.61)$	2298^{+43}_{-43}
$\ln(10^{10} A_{\mathrm{s}})$	$3.043^{+0.039}_{-0.028}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.880^{+0.027}_{-0.029}$	$H(2.33)$	$235.6^{+2.0}_{-2.0}$
n_{s}	$0.965^{+0.011}_{-0.011}$	D_{40}	1229^{+33}_{-30}	$D_{\mathrm{M}}(2.33)$	5767^{+30}_{-28}
y_{cal}	$1.0005^{+0.0063}_{-0.0064}$	D_{220}	5718^{+100}_{-110}	$f\sigma_8(0.15)$	$0.460^{+0.024}_{-0.023}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2536^{+34}_{-35}	$\sigma_8(0.15)$	$0.759^{+0.045}_{-0.041}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	815^{+13}_{-13}	$f\sigma_8(0.38)$	$0.482^{+0.034}_{-0.030}$
A_{143}^{tSZ}	—	D_{2000}	$229.9^{+4.3}_{-4.4}$	$\sigma_8(0.38)$	$0.673^{+0.040}_{-0.036}$
A_{100}^{PS}	262^{+70}_{-70}	$n_{\mathrm{s},0.002}$	$0.965^{+0.011}_{-0.011}$	$f\sigma_8(0.51)$	$0.482^{+0.037}_{-0.032}$
A_{143}^{PS}	49^{+20}_{-20}	Y_{P}	$0.24531^{+0.00020}_{-0.00025}$	$\sigma_8(0.51)$	$0.630^{+0.038}_{-0.033}$
$A_{143 \times 217}^{\mathrm{PS}}$	43^{+20}_{-20}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00020}_{-0.00025}$	$f\sigma_8(0.61)$	$0.477^{+0.037}_{-0.033}$
A_{217}^{PS}	115^{+30}_{-30}	$10^5 \mathrm{D}/\mathrm{H}$	$2.62^{+0.10}_{-0.093}$	$\sigma_8(0.61)$	$0.599^{+0.035}_{-0.031}$
A^{kSZ}	—	Age/Gyr	$13.793^{+0.092}_{-0.084}$	$f\sigma_8(2.33)$	$0.302^{+0.017}_{-0.016}$
$A_{100}^{\mathrm{dust}TT}$	$8.9^{+5.1}_{-4.9}$	z_*	$1090.12^{+0.81}_{-0.78}$	$\sigma_8(2.33)$	$0.311^{+0.015}_{-0.013}$
$A_{143}^{\mathrm{dust}TT}$	$10.7^{+4.7}_{-4.3}$	r_*	$144.69^{+0.85}_{-0.84}$	f_{2000}^{143}	31^{+8}_{-7}
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3^{+7.9}_{-8.4}$	$100\theta_*$	$1.0411^{+0.0010}_{-0.0010}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
$A_{217}^{\mathrm{dust}TT}$	93^{+20}_{-20}	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.898^{+0.081}_{-0.080}$	f_{2000}^{217}	$107.9^{+4.9}_{-4.9}$
c_{100}	$0.9996^{+0.0015}_{-0.0016}$	z_{drag}	$1059.5^{+1.2}_{-1.2}$	$\chi_{\mathrm{lensing}}^2$	$9.33 (\nu: 0.4)$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	$147.42^{+0.91}_{-0.90}$	χ_{simall}^2	$396.9 (\nu: 1.5)$
H_0	$68.5^{+3.9}_{-3.4}$	k_{D}	$0.1404^{+0.0012}_{-0.0011}$	χ_{lowl}^2	$23.31 (\nu: 0.4)$
Ω_{Λ}	$0.696^{+0.031}_{-0.031}$	$100\theta_{\mathrm{D}}$	$0.16104^{+0.00071}_{-0.00067}$	χ_{plik}^2	$770.9 (\nu: 14.0)$
Ω_{m}	$0.304^{+0.031}_{-0.031}$	z_{eq}	3387^{+77}_{-80}	$\chi_{6\mathrm{DF}}^2$	$0.13 (\nu: 0.0)$
$\Omega_{\mathrm{m}}h^2$	$0.1424^{+0.0032}_{-0.0034}$	k_{eq}	$0.01034^{+0.00024}_{-0.00024}$	χ_{MGS}^2	$1.91 (\nu: 0.5)$
$\Omega_{\mathrm{m}}h^3$	$0.0975^{+0.0066}_{-0.0057}$	$100\theta_{\mathrm{eq}}$	$0.815^{+0.015}_{-0.014}$	$\chi_{\mathrm{DR12BAO}}^2$	$5.1 (\nu: 0.9)$
σ_8	$0.821^{+0.047}_{-0.043}$	$100\theta_{\mathrm{s,eq}}$	$0.4507^{+0.0078}_{-0.0072}$	χ_{prior}^2	$7.2 (\nu: 6.6)$
S_8	$0.826^{+0.031}_{-0.031}$	$H(0.15)$	$73.3^{+2.2}_{-2.1}$	χ_{CMB}^2	$1200.4 (\nu: 15.5)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.452^{+0.017}_{-0.017}$	$D_{\mathrm{M}}(0.15)$	635^{+25}_{-26}	χ_{BAO}^2	$7.1 (\nu: 1.5)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.609^{+0.025}_{-0.024}$	$H(0.38)$	$83.00^{+0.86}_{-0.85}$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1214.74$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.16$; $R - 1 = 0.01087$

17.13 base_w_plikHM_TTTEEE_lowl_lowE_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022384	$0.02238^{+0.00037}_{-0.00038}$	σ_8	0.823	$0.822^{+0.053}_{-0.048}$	$D_M(0.15)$	634.2	634^{+26}_{-27}
$\Omega_c h^2$	0.11994	$0.1199^{+0.0032}_{-0.0032}$	S_8	0.8281	$0.827^{+0.033}_{-0.033}$	$H(0.38)$	83.12	$83.11^{+0.80}_{-0.79}$
$100\theta_{MC}$	1.04092	$1.04095^{+0.00080}_{-0.00079}$	$\sigma_8 \Omega_m^{0.5}$	0.4536	$0.453^{+0.018}_{-0.018}$	$D_M(0.38)$	1518.4	1519^{+41}_{-43}
τ	0.0544	$0.055^{+0.022}_{-0.020}$	$\sigma_8 \Omega_m^{0.25}$	0.6110	$0.610^{+0.027}_{-0.027}$	$H(0.51)$	89.66	$89.66^{+0.66}_{-0.75}$
w_0	-1.041	$-1.04^{+0.14}_{-0.16}$	$\sigma_8/h^{0.5}$	0.9936	$0.993^{+0.040}_{-0.039}$	$D_M(0.51)$	1970.1	1970^{+43}_{-44}
$\ln(10^{10} A_s)$	3.0443	$3.044^{+0.043}_{-0.042}$	$r_{drag} h$	100.9	$101.0^{+5.9}_{-5.0}$	$H(0.61)$	95.18	$95.18^{+0.77}_{-0.98}$
n_s	0.9663	$0.965^{+0.011}_{-0.011}$	$\langle d^2 \rangle^{1/2}$	2.449	$2.449^{+0.078}_{-0.081}$	$D_M(0.61)$	2294.7	2295^{+43}_{-43}
y_{cal}	1.0003	$1.0006^{+0.0064}_{-0.0066}$	z_{re}	7.68	$7.7^{+2.1}_{-2.2}$	$H(2.33)$	235.93	$236.0^{+1.8}_{-1.9}$
A_{217}^{CIB}	46.4	47^{+20}_{-20}	$10^9 A_s$	2.099	$2.100^{+0.091}_{-0.086}$	$D_M(2.33)$	5758.7	5759^{+24}_{-23}
$\xi^{tSZ \times CIB}$	0.56	—	$10^9 A_s e^{-2\tau}$	1.8829	$1.883^{+0.029}_{-0.031}$	$f\sigma_8(0.15)$	0.4618	$0.461^{+0.025}_{-0.024}$
A_{143}^{tSZ}	7.1	—	D_{40}	1227.5	1230^{+32}_{-32}	$\sigma_8(0.15)$	0.7610	$0.760^{+0.051}_{-0.046}$
A_{100}^{PS}	249	259^{+70}_{-70}	D_{220}	5729	5734^{+100}_{-100}	$f\sigma_8(0.38)$	0.4838	$0.483^{+0.037}_{-0.033}$
A_{143}^{PS}	49.5	46^{+20}_{-20}	D_{810}	2540.0	2539^{+35}_{-36}	$\sigma_8(0.38)$	0.6747	$0.674^{+0.046}_{-0.041}$
$A_{143 \times 217}^{PS}$	50.8	42^{+20}_{-20}	D_{1420}	818.0	817^{+12}_{-12}	$f\sigma_8(0.51)$	0.4833	$0.483^{+0.040}_{-0.035}$
A_{217}^{PS}	121.1	115^{+30}_{-30}	D_{2000}	231.23	$231.0^{+4.1}_{-4.1}$	$\sigma_8(0.51)$	0.6313	$0.631^{+0.042}_{-0.038}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9663	$0.965^{+0.011}_{-0.011}$	$f\sigma_8(0.61)$	0.4786	$0.478^{+0.041}_{-0.036}$
A_{100}^{dustTT}	8.81	$8.9^{+4.8}_{-4.7}$	Y_P	0.245401	$0.24540^{+0.00014}_{-0.00016}$	$\sigma_8(0.61)$	0.6006	$0.600^{+0.040}_{-0.036}$
A_{143}^{dustTT}	11.04	$10.9^{+4.5}_{-4.4}$	Y_P^{BBN}	0.246728	$0.24673^{+0.00014}_{-0.00016}$	$f\sigma_8(2.33)$	0.3028	$0.303^{+0.020}_{-0.018}$
$A_{143 \times 217}^{dustTT}$	20.0	$18.6^{+8.6}_{-8.4}$	$10^5 D/H$	2.583	$2.584^{+0.072}_{-0.067}$	$\sigma_8(2.33)$	0.3112	$0.311^{+0.017}_{-0.015}$
A_{217}^{dustTT}	95.4	94^{+20}_{-20}	Age/Gyr	13.771	$13.772^{+0.081}_{-0.080}$	f_{2000}^{143}	28.7	29^{+7}_{-7}
A_{100}^{dustTE}	0.114	$0.115^{+0.098}_{-0.096}$	z_*	1089.90	$1089.89^{+0.69}_{-0.64}$	$f_{2000}^{143 \times 217}$	31.98	32^{+5}_{-5}
$A_{100 \times 143}^{dustTE}$	0.136	$0.135^{+0.077}_{-0.073}$	r_*	144.44	$144.46^{+0.72}_{-0.71}$	f_{2000}^{217}	106.51	$107.0^{+4.5}_{-4.5}$
$A_{100 \times 217}^{dustTE}$	0.480	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	1.04110	$1.04113^{+0.00080}_{-0.00077}$	χ_{small}^2	396.06	$397.1 (\nu: 1.8)$
A_{143}^{dustTE}	0.227	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.873	$13.875^{+0.068}_{-0.067}$	χ_{lowl}^2	23.12	$23.35 (\nu: 0.4)$
$A_{143 \times 217}^{dustTE}$	0.666	$0.66^{+0.21}_{-0.21}$	z_{drag}	1059.97	$1059.96^{+0.78}_{-0.79}$	χ_{plik}^2	2344.5	$2359.4 (\nu: 17.6)$
A_{217}^{dustTE}	2.09	$2.08^{+0.70}_{-0.70}$	r_{drag}	147.09	$147.11^{+0.72}_{-0.70}$	χ_{6DF}^2	0.001	$0.13 (\nu: 0.0)$
c_{100}	0.99970	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14088	$0.14086^{+0.00079}_{-0.00079}$	χ_{MGS}^2	1.75	$1.89 (\nu: 0.5)$
c_{217}	0.99819	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	0.160740	$0.16075^{+0.00046}_{-0.00045}$	$\chi_{DR12BAO}^2$	4.40	$5.2 (\nu: 0.9)$
H_0	68.61	$68.6^{+4.1}_{-3.5}$	z_{eq}	3401	3399^{+72}_{-72}	χ_{prior}^2	1.7	$11.5 (\nu: 10.1)$
Ω_Λ	0.6963	$0.696^{+0.032}_{-0.031}$	k_{eq}	0.010381	$0.01038^{+0.00022}_{-0.00022}$	χ_{BAO}^2	6.15	$7.2 (\nu: 1.5)$
Ω_m	0.3037	$0.304^{+0.031}_{-0.032}$	$100\theta_{eq}$	0.8135	$0.814^{+0.014}_{-0.013}$	χ_{CMB}^2	2763.7	$2779.9 (\nu: 17.5)$
$\Omega_m h^2$	0.14297	$0.1429^{+0.0030}_{-0.0030}$	$100\theta_{s,eq}$	0.4495	$0.4497^{+0.0071}_{-0.0069}$			
$\Omega_m h^3$	0.0981	$0.0981^{+0.0070}_{-0.0060}$	$H(0.15)$	73.46	$73.5^{+2.3}_{-2.1}$			

Best-fit $\chi_{eff}^2 = 2771.48$; $\Delta\chi_{eff}^2 = -0.44$; $\bar{\chi}_{eff}^2 = 2798.61$; $\Delta\bar{\chi}_{eff}^2 = 0.70$; $R - 1 = 0.00736$

χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.03) MGS: 1.75 (Δ 0.53) DR12BAO: 4.40 (Δ -0.01) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.06 (Δ -0.14) commander_dx12_v3_2_29: 23.12 (Δ 0.25) plik_rd12_HM_v22b_TTTEEE: 2344.49 (Δ -1.02)

17.14 base_w_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022391	$0.02239^{+0.00037}_{-0.00038}$	σ_8	0.8220	$0.821^{+0.043}_{-0.039}$	$D_M(0.15)$	634.3	634^{+24}_{-27}
$\Omega_c h^2$	0.11983	$0.1198^{+0.0028}_{-0.0028}$	S_8	0.8271	$0.826^{+0.027}_{-0.027}$	$H(0.38)$	83.14	$83.14^{+0.79}_{-0.78}$
$100\theta_{MC}$	1.04094	$1.04095^{+0.00080}_{-0.00079}$	$\sigma_8 \Omega_m^{0.5}$	0.4530	$0.452^{+0.015}_{-0.015}$	$D_M(0.38)$	1518.5	1518^{+40}_{-42}
τ	0.0545	$0.055^{+0.021}_{-0.019}$	$\sigma_8 \Omega_m^{0.25}$	0.6102	$0.609^{+0.021}_{-0.020}$	$H(0.51)$	89.69	$89.69^{+0.60}_{-0.67}$
w_0	-1.038	$-1.04^{+0.12}_{-0.15}$	$\sigma_8/h^{0.5}$	0.9926	$0.991^{+0.031}_{-0.030}$	$D_M(0.51)$	1970.0	1970^{+42}_{-43}
$\ln(10^{10} A_s)$	3.0448	$3.044^{+0.040}_{-0.037}$	$r_{drag} h$	100.9	$101.0^{+5.7}_{-4.8}$	$H(0.61)$	95.21	$95.21^{+0.69}_{-0.87}$
n_s	0.9662	$0.966^{+0.010}_{-0.011}$	$\langle d^2 \rangle^{1/2}$	2.448	$2.447^{+0.061}_{-0.061}$	$D_M(0.61)$	2294.5	2294^{+41}_{-42}
y_{cal}	1.0006	$1.0006^{+0.0064}_{-0.0064}$	z_{re}	7.68	$7.7^{+2.0}_{-2.0}$	$H(2.33)$	235.90	$235.9^{+1.8}_{-1.8}$
A_{217}^{CIB}	46.4	47^{+20}_{-20}	$10^9 A_s$	2.100	$2.099^{+0.086}_{-0.077}$	$D_M(2.33)$	5758.1	5758^{+24}_{-23}
$\xi^{tSZ \times CIB}$	0.58	—	$10^9 A_s e^{-2\tau}$	1.8837	$1.882^{+0.027}_{-0.027}$	$f\sigma_8(0.15)$	0.4611	$0.460^{+0.020}_{-0.019}$
A_{143}^{tSZ}	7.1	—	D_{40}	1228.7	1230^{+29}_{-29}	$\sigma_8(0.15)$	0.7601	$0.759^{+0.042}_{-0.037}$
A_{100}^{PS}	249	259^{+70}_{-70}	D_{220}	5735	5736^{+100}_{-100}	$f\sigma_8(0.38)$	0.4829	$0.482^{+0.030}_{-0.026}$
A_{143}^{PS}	50.1	46^{+20}_{-20}	D_{810}	2541.3	2539^{+34}_{-35}	$\sigma_8(0.38)$	0.6739	$0.673^{+0.037}_{-0.034}$
$A_{143 \times 217}^{PS}$	51.5	42^{+20}_{-20}	D_{1420}	818.4	817^{+12}_{-12}	$f\sigma_8(0.51)$	0.4824	$0.482^{+0.033}_{-0.029}$
A_{217}^{PS}	121.4	115^{+20}_{-30}	D_{2000}	231.32	$231.0^{+4.0}_{-4.1}$	$\sigma_8(0.51)$	0.6306	$0.630^{+0.035}_{-0.031}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9662	$0.966^{+0.010}_{-0.011}$	$f\sigma_8(0.61)$	0.4777	$0.477^{+0.033}_{-0.029}$
A_{100}^{dustTT}	8.80	$8.9^{+4.8}_{-4.6}$	Y_P	0.245404	$0.24540^{+0.00014}_{-0.00016}$	$\sigma_8(0.61)$	0.5999	$0.599^{+0.032}_{-0.030}$
A_{143}^{dustTT}	11.00	$10.9^{+4.5}_{-4.5}$	Y_P^{BBN}	0.246730	$0.24673^{+0.00014}_{-0.00016}$	$f\sigma_8(2.33)$	0.3025	$0.302^{+0.016}_{-0.015}$
$A_{143 \times 217}^{dustTT}$	20.1	$18.6^{+8.4}_{-8.4}$	$10^5 D/H$	2.582	$2.582^{+0.071}_{-0.067}$	$\sigma_8(2.33)$	0.3109	$0.311^{+0.014}_{-0.013}$
A_{217}^{dustTT}	95.6	94^{+20}_{-20}	Age/Gyr	13.771	$13.771^{+0.079}_{-0.078}$	f_{2000}^{143}	28.9	29^{+7}_{-7}
A_{100}^{dustTE}	0.114	$0.114^{+0.098}_{-0.097}$	z_*	1089.88	$1089.87^{+0.63}_{-0.60}$	$f_{2000}^{143 \times 217}$	32.09	32^{+5}_{-5}
$A_{100 \times 143}^{dustTE}$	0.135	$0.135^{+0.078}_{-0.074}$	r_*	144.46	$144.48^{+0.63}_{-0.64}$	f_{2000}^{217}	106.64	$107.0^{+4.5}_{-4.5}$
$A_{100 \times 217}^{dustTE}$	0.482	$0.48^{+0.22}_{-0.21}$	$100\theta_*$	1.04112	$1.04113^{+0.00080}_{-0.00077}$	$\chi_{lensing}^2$	8.75	$9.16 (\nu: 0.2)$
A_{143}^{dustTE}	0.226	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.875	$13.877^{+0.060}_{-0.060}$	χ_{small}^2	396	$226 (\nu: 17328.9)$
$A_{143 \times 217}^{dustTE}$	0.663	$0.66^{+0.21}_{-0.21}$	z_{drag}	1059.97	$1059.97^{+0.76}_{-0.80}$	χ_{lowl}^2	23	$194 (\nu: 17321.2)$
A_{217}^{dustTE}	2.08	$2.08^{+0.69}_{-0.72}$	r_{drag}	147.11	$147.13^{+0.65}_{-0.64}$	χ_{plik}^2	2344.6	$2359.2 (\nu: 16.6)$
c_{100}	0.99973	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14086	$0.14084^{+0.00077}_{-0.00075}$	χ_{6DF}^2	0.00	$0.9 (\nu: 0.6)$
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	0.160737	$0.16074^{+0.00047}_{-0.00045}$	χ_{MGS}^2	1.75	$1.1 (\nu: 0.7)$
H_0	68.58	$68.6^{+3.9}_{-3.3}$	z_{eq}	3399	3397^{+63}_{-62}	$\chi_{DR12BAO}^2$	4.32	$5.1 (\nu: 0.8)$
Ω_Λ	0.6962	$0.696^{+0.032}_{-0.030}$	k_{eq}	0.010373	$0.01037^{+0.00019}_{-0.00019}$	χ_{prior}^2	1.6	$11.5 (\nu: 9.9)$
Ω_m	0.3038	$0.304^{+0.030}_{-0.032}$	$100\theta_{eq}$	0.8140	$0.814^{+0.012}_{-0.012}$	χ_{CMB}^2	2772.5	$2788.7 (\nu: 17.5)$
$\Omega_m h^2$	0.14286	$0.1428^{+0.0027}_{-0.0026}$	$100\theta_{s,eq}$	0.4497	$0.4499^{+0.0061}_{-0.0060}$	χ_{BAO}^2	6.07	$7.1 (\nu: 1.3)$
$\Omega_m h^3$	0.0980	$0.0980^{+0.0063}_{-0.0053}$	$H(0.15)$	73.46	$73.5^{+2.3}_{-2.0}$			

Best-fit $\chi_{eff}^2 = 2780.22$; $\Delta\chi_{eff}^2 = -0.48$; $\bar{\chi}_{eff}^2 = 2807.23$; $\Delta\bar{\chi}_{eff}^2 = 0.39$; $R - 1 = 0.01456$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.03) MGS: 1.75 (Δ 0.53) DR12BAO: 4.32 (Δ -0.10) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb.consext8: 8.75 (Δ 0.02) simall_100x143_offlike5_EE_Aplanck 396.04 (Δ -0.48) commander_dx12_v3.2_29: 23.15 (Δ 0.25) plik_rd12_HM_v22b.TTTEEE: 2344.57 (Δ -0.75)

17.15 base_w_plikHM_TTTEEE_lowl_lowE_BAO_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02239^{+0.00037}_{-0.00038}$	σ_8	$0.823^{+0.054}_{-0.048}$	$D_M(0.15)$	634^{+26}_{-27}
$\Omega_c h^2$	$0.1198^{+0.0032}_{-0.0032}$	S_8	$0.828^{+0.033}_{-0.033}$	$H(0.38)$	$83.12^{+0.80}_{-0.78}$
$100\theta_{MC}$	$1.04095^{+0.00080}_{-0.00078}$	$\sigma_8 \Omega_m^{0.5}$	$0.453^{+0.018}_{-0.018}$	$D_M(0.38)$	1519^{+41}_{-43}
τ	$0.056^{+0.019}_{-0.014}$	$\sigma_8 \Omega_m^{0.25}$	$0.611^{+0.027}_{-0.027}$	$H(0.51)$	$89.67^{+0.66}_{-0.75}$
w_0	$-1.04^{+0.14}_{-0.16}$	$\sigma_8/h^{0.5}$	$0.993^{+0.040}_{-0.039}$	$D_M(0.51)$	1970^{+43}_{-44}
$\ln(10^{10} A_s)$	$3.046^{+0.042}_{-0.031}$	$r_{\text{drag}} h$	$100.9^{+5.8}_{-5.0}$	$H(0.61)$	$95.19^{+0.77}_{-0.99}$
n_s	$0.966^{+0.011}_{-0.011}$	$\langle d^2 \rangle^{1/2}$	$2.451^{+0.077}_{-0.081}$	$D_M(0.61)$	2295^{+43}_{-43}
y_{cal}	$1.0006^{+0.0064}_{-0.0067}$	z_{re}	< 9.54	$H(2.33)$	$235.9^{+1.8}_{-1.8}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.104^{+0.089}_{-0.065}$	$D_M(2.33)$	5759^{+24}_{-23}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.883^{+0.029}_{-0.031}$	$f\sigma_8(0.15)$	$0.462^{+0.025}_{-0.024}$
A_{143}^{tSZ}	$5.5^{+4.2}_{-4.9}$	D_{40}	1230^{+32}_{-32}	$\sigma_8(0.15)$	$0.761^{+0.051}_{-0.046}$
A_{100}^{PS}	258^{+70}_{-70}	D_{220}	5734^{+100}_{-100}	$f\sigma_8(0.38)$	$0.483^{+0.037}_{-0.033}$
A_{143}^{PS}	46^{+20}_{-20}	D_{810}	2539^{+34}_{-36}	$\sigma_8(0.38)$	$0.675^{+0.046}_{-0.041}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	817^{+12}_{-12}	$f\sigma_8(0.51)$	$0.483^{+0.040}_{-0.036}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$231.0^{+4.1}_{-4.1}$	$\sigma_8(0.51)$	$0.631^{+0.042}_{-0.038}$
A^{kSZ}	—	$n_{s,0.002}$	$0.966^{+0.011}_{-0.011}$	$f\sigma_8(0.61)$	$0.478^{+0.041}_{-0.036}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.7}$	Y_P	$0.24540^{+0.00014}_{-0.00016}$	$\sigma_8(0.61)$	$0.600^{+0.040}_{-0.036}$
A_{143}^{dustTT}	$10.9^{+4.5}_{-4.4}$	Y_P^{BBN}	$0.24673^{+0.00014}_{-0.00016}$	$f\sigma_8(2.33)$	$0.303^{+0.020}_{-0.018}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.6}_{-8.4}$	10^5D/H	$2.583^{+0.072}_{-0.067}$	$\sigma_8(2.33)$	$0.311^{+0.017}_{-0.015}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.772^{+0.082}_{-0.080}$	f_{2000}^{143}	29^{+7}_{-7}
A_{100}^{dustTE}	$0.115^{+0.098}_{-0.096}$	z_*	$1089.89^{+0.69}_{-0.64}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.077}_{-0.072}$	r_*	$144.46^{+0.72}_{-0.70}$	f_{2000}^{217}	$106.9^{+4.5}_{-4.5}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	$1.04114^{+0.00080}_{-0.00077}$	χ_{simall}^2	$397.1 (\nu: 1.9)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.875^{+0.068}_{-0.067}$	χ_{lowl}^2	$23.36 (\nu: 0.4)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	z_{drag}	$1059.96^{+0.77}_{-0.79}$	χ_{plik}^2	$2359.2 (\nu: 17.5)$
A_{217}^{dustTE}	$2.08^{+0.70}_{-0.70}$	r_{drag}	$147.12^{+0.72}_{-0.70}$	$\chi_{6\text{DF}}^2$	$0.13 (\nu: 0.0)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_D	$0.14085^{+0.00078}_{-0.00079}$	χ_{MGS}^2	$1.88 (\nu: 0.5)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.16075^{+0.00046}_{-0.00045}$	χ_{DR12BAO}^2	$5.1 (\nu: 0.9)$
H_0	$68.6^{+4.1}_{-3.5}$	z_{eq}	3399^{+73}_{-72}	χ_{prior}^2	$11.5 (\nu: 10.0)$
Ω_Λ	$0.696^{+0.032}_{-0.030}$	k_{eq}	$0.01037^{+0.00022}_{-0.00022}$	χ_{BAO}^2	$7.2 (\nu: 1.4)$
Ω_m	$0.304^{+0.030}_{-0.032}$	$100\theta_{\text{eq}}$	$0.814^{+0.014}_{-0.013}$	χ_{CMB}^2	$2779.7 (\nu: 17.1)$
$\Omega_m h^2$	$0.1429^{+0.0031}_{-0.0030}$	$100\theta_{s,\text{eq}}$	$0.4497^{+0.0071}_{-0.0069}$		
$\Omega_m h^3$	$0.0980^{+0.0070}_{-0.0059}$	$H(0.15)$	$73.5^{+2.3}_{-2.1}$		

$$\bar{\chi}_{\text{eff}}^2 = 2798.36; \Delta \bar{\chi}_{\text{eff}}^2 = 0.65; R - 1 = 0.00833$$

17.16 base_w_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02240^{+0.00037}_{-0.00037}$	σ_8	$0.821^{+0.043}_{-0.039}$	$D_M(0.15)$	634^{+24}_{-27}
$\Omega_c h^2$	$0.1197^{+0.0028}_{-0.0028}$	S_8	$0.826^{+0.027}_{-0.027}$	$H(0.38)$	$83.14^{+0.79}_{-0.78}$
$100\theta_{MC}$	$1.04096^{+0.00080}_{-0.00079}$	$\sigma_8 \Omega_m^{0.5}$	$0.452^{+0.015}_{-0.015}$	$D_M(0.38)$	1519^{+39}_{-42}
τ	$0.055^{+0.018}_{-0.014}$	$\sigma_8 \Omega_m^{0.25}$	$0.609^{+0.021}_{-0.020}$	$H(0.51)$	$89.70^{+0.60}_{-0.66}$
w_0	$-1.04^{+0.12}_{-0.14}$	$\sigma_8/h^{0.5}$	$0.991^{+0.031}_{-0.030}$	$D_M(0.51)$	1970^{+41}_{-43}
$\ln(10^{10} A_s)$	$3.046^{+0.039}_{-0.029}$	$r_{\text{drag}} h$	$100.9^{+5.7}_{-4.8}$	$H(0.61)$	$95.22^{+0.68}_{-0.84}$
n_s	$0.966^{+0.010}_{-0.011}$	$\langle d^2 \rangle^{1/2}$	$2.448^{+0.060}_{-0.060}$	$D_M(0.61)$	2295^{+41}_{-42}
y_{cal}	$1.0006^{+0.0064}_{-0.0064}$	z_{re}	< 9.44	$H(2.33)$	$235.9^{+1.8}_{-1.8}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.103^{+0.084}_{-0.060}$	$D_M(2.33)$	5758^{+24}_{-23}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.882^{+0.027}_{-0.027}$	$f\sigma_8(0.15)$	$0.460^{+0.020}_{-0.019}$
A_{143}^{tSZ}	—	D_{40}	1230^{+30}_{-29}	$\sigma_8(0.15)$	$0.759^{+0.041}_{-0.038}$
A_{100}^{PS}	259^{+70}_{-70}	D_{220}	5736^{+99}_{-100}	$f\sigma_8(0.38)$	$0.482^{+0.030}_{-0.027}$
A_{143}^{PS}	46^{+20}_{-20}	D_{810}	2539^{+34}_{-35}	$\sigma_8(0.38)$	$0.673^{+0.037}_{-0.034}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	817^{+12}_{-12}	$f\sigma_8(0.51)$	$0.482^{+0.032}_{-0.029}$
A_{217}^{PS}	115^{+20}_{-30}	D_{2000}	$231.0^{+4.0}_{-4.1}$	$\sigma_8(0.51)$	$0.630^{+0.034}_{-0.032}$
A^{kSZ}	—	$n_{s,0.002}$	$0.966^{+0.010}_{-0.011}$	$f\sigma_8(0.61)$	$0.477^{+0.033}_{-0.029}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.6}$	Y_P	$0.24540^{+0.00014}_{-0.00015}$	$\sigma_8(0.61)$	$0.599^{+0.032}_{-0.030}$
A_{143}^{dustTT}	$10.9^{+4.5}_{-4.5}$	Y_P^{BBN}	$0.24673^{+0.00014}_{-0.00015}$	$f\sigma_8(2.33)$	$0.302^{+0.016}_{-0.015}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.3}_{-8.4}$	10^5D/H	$2.581^{+0.071}_{-0.067}$	$\sigma_8(2.33)$	$0.311^{+0.014}_{-0.013}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.771^{+0.079}_{-0.078}$	f_{2000}^{143}	29^{+7}_{-7}
A_{100}^{dustTE}	$0.114^{+0.10}_{-0.096}$	z_*	$1089.86^{+0.63}_{-0.59}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.078}_{-0.074}$	r_*	$144.49^{+0.62}_{-0.63}$	f_{2000}^{217}	$106.9^{+4.5}_{-4.5}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.21}$	$100\theta_*$	$1.04114^{+0.00080}_{-0.00077}$	χ_{lensing}^2	$9.15 (\nu: 0.2)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.878^{+0.059}_{-0.060}$	χ_{simall}^2	$227 (\nu: 17317.2)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.21}_{-0.21}$	z_{drag}	$1059.98^{+0.76}_{-0.81}$	χ_{lowl}^2	$193 (\nu: 17309.2)$
A_{217}^{dustTE}	$2.08^{+0.69}_{-0.70}$	r_{drag}	$147.14^{+0.64}_{-0.63}$	χ_{plik}^2	$2359.1 (\nu: 16.6)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_D	$0.14084^{+0.00076}_{-0.00074}$	$\chi_{6\text{DF}}^2$	$0.9 (\nu: 0.6)$
c_{217}	$0.9982^{+0.0017}_{-0.0016}$	$100\theta_D$	$0.16074^{+0.00047}_{-0.00045}$	χ_{MGS}^2	$1.1 (\nu: 0.7)$
H_0	$68.6^{+3.9}_{-3.3}$	z_{eq}	3396^{+62}_{-62}	χ_{DR12BAO}^2	$5.0 (\nu: 0.8)$
Ω_Λ	$0.696^{+0.031}_{-0.030}$	k_{eq}	$0.01036^{+0.00019}_{-0.00019}$	χ_{prior}^2	$11.5 (\nu: 9.8)$
Ω_m	$0.304^{+0.030}_{-0.031}$	$100\theta_{\text{eq}}$	$0.815^{+0.012}_{-0.012}$	χ_{CMB}^2	$2788.5 (\nu: 17.2)$
$\Omega_m h^2$	$0.1427^{+0.0026}_{-0.0026}$	$100\theta_{s,\text{eq}}$	$0.4500^{+0.0060}_{-0.0059}$	χ_{BAO}^2	$7.0 (\nu: 1.3)$
$\Omega_m h^3$	$0.0979^{+0.0061}_{-0.0053}$	$H(0.15)$	$73.5^{+2.3}_{-2.0}$		

$$\bar{\chi}_{\text{eff}}^2 = 2807.01; \Delta \bar{\chi}_{\text{eff}}^2 = 0.29; R - 1 = 0.01536$$

17.17 base_w_plikHM_TT_lowl_lowE_BAO_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_{\mathrm{b}}h^2$	0.02218	$0.02218^{+0.00053}_{-0.00051}$	$\sigma_8/h^{0.5}$	0.9902	$0.989^{+0.041}_{-0.042}$	$D_{\mathrm{M}}(0.38)$	1524.9	1525^{+27}_{-27}
$\Omega_{\mathrm{c}}h^2$	0.11970	$0.1195^{+0.0039}_{-0.0040}$	$r_{\mathrm{drag}}h$	100.43	$100.5^{+3.2}_{-3.0}$	$H(0.51)$	89.53	$89.55^{+0.86}_{-0.86}$
$100\theta_{\mathrm{MC}}$	1.04089	$1.0409^{+0.0011}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	2.442	$2.441^{+0.089}_{-0.089}$	$D_{\mathrm{M}}(0.51)$	1977.4	1977^{+30}_{-30}
τ	0.0527	$0.053^{+0.022}_{-0.023}$	z_{re}	7.54	$7.6^{+2.1}_{-2.6}$	$H(0.61)$	95.08	$95.10^{+0.87}_{-0.90}$
w_0	-1.029	$-1.027^{+0.094}_{-0.095}$	$10^9 A_{\mathrm{s}}$	2.090	$2.091^{+0.097}_{-0.097}$	$D_{\mathrm{M}}(0.61)$	2302.4	2302^{+31}_{-32}
$\ln(10^{10} A_{\mathrm{s}})$	3.0399	$3.040^{+0.045}_{-0.047}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8813	$1.880^{+0.031}_{-0.031}$	$H(2.33)$	235.75	$235.7^{+2.0}_{-1.9}$
n_{s}	0.9654	$0.965^{+0.012}_{-0.012}$	D_{40}	1227.5	1228^{+35}_{-34}	$D_{\mathrm{M}}(2.33)$	5768.3	5768^{+32}_{-33}
y_{cal}	1.0005	$1.0005^{+0.0063}_{-0.0064}$	D_{220}	5717	5719^{+100}_{-100}	$f\sigma_8(0.15)$	0.4599	$0.459^{+0.028}_{-0.027}$
A_{217}^{CIB}	49.7	48^{+20}_{-20}	D_{810}	2537.7	2536^{+35}_{-34}	$\sigma_8(0.15)$	0.7556	$0.754^{+0.036}_{-0.037}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.17	—	D_{1420}	815.9	815^{+13}_{-13}	$f\sigma_8(0.38)$	0.4805	$0.479^{+0.030}_{-0.031}$
A_{143}^{tSZ}	7.1	—	D_{2000}	230.10	$229.8^{+4.6}_{-4.5}$	$\sigma_8(0.38)$	0.6698	$0.669^{+0.031}_{-0.032}$
A_{100}^{PS}	257	263^{+70}_{-70}	$n_{\mathrm{s},0.002}$	0.9654	$0.965^{+0.012}_{-0.012}$	$f\sigma_8(0.51)$	0.4796	$0.479^{+0.030}_{-0.031}$
A_{143}^{PS}	47.0	49^{+20}_{-20}	Y_{P}	0.245319	$0.24531^{+0.00021}_{-0.00025}$	$\sigma_8(0.51)$	0.6267	$0.626^{+0.028}_{-0.029}$
$A_{143 \times 217}^{\mathrm{PS}}$	42.9	43^{+20}_{-20}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246646	$0.24664^{+0.00021}_{-0.00025}$	$f\sigma_8(0.61)$	0.4748	$0.474^{+0.030}_{-0.030}$
A_{217}^{PS}	117.5	115^{+30}_{-30}	$10^5 \mathrm{D}/\mathrm{H}$	2.621	$2.62^{+0.10}_{-0.097}$	$\sigma_8(0.61)$	0.5962	$0.595^{+0.026}_{-0.028}$
A^{kSZ}	0.0	—	Age/Gyr	13.798	$13.799^{+0.073}_{-0.077}$	$f\sigma_8(2.33)$	0.3006	$0.300^{+0.013}_{-0.014}$
$A_{100}^{\mathrm{dustTT}}$	8.84	$8.9^{+4.7}_{-4.8}$	z_*	1090.13	$1090.12^{+0.84}_{-0.85}$	$\sigma_8(2.33)$	0.3091	$0.309^{+0.011}_{-0.012}$
$A_{143}^{\mathrm{dustTT}}$	10.75	$10.7^{+4.7}_{-4.5}$	r_*	144.65	$144.71^{+0.98}_{-0.97}$	f_{2000}^{143}	30.4	31^{+7}_{-7}
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.0	$18.3^{+8.4}_{-8.5}$	$100\theta_*$	1.04109	$1.0411^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33.2	33^{+5}_{-5}
$A_{217}^{\mathrm{dustTT}}$	94.1	93^{+20}_{-20}	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.894	$13.899^{+0.093}_{-0.092}$	f_{2000}^{217}	107.71	$108.0^{+4.9}_{-4.9}$
c_{100}	0.99967	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	1059.47	$1059.4^{+1.1}_{-1.2}$	χ_{small}^2	395.85	$397.0 (\nu: 1.6)$
c_{217}	0.99827	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	147.38	$147.4^{+1.0}_{-1.0}$	χ_{lowl}^2	23.15	$23.3 (\nu: 0.5)$
H_0	68.15	$68.2^{+2.2}_{-2.1}$	k_{D}	0.14042	$0.1403^{+0.0012}_{-0.0012}$	χ_{plik}^2	759.1	$771.6 (\nu: 14.8)$
Ω_{Λ}	0.6931	$0.694^{+0.020}_{-0.021}$	$100\theta_{\mathrm{D}}$	0.16102	$0.16105^{+0.00068}_{-0.00066}$	χ_{JLA}^2	1034.71	$1035.4 (\nu: 0.5)$
Ω_{m}	0.3069	$0.306^{+0.021}_{-0.020}$	z_{eq}	3391	3386^{+91}_{-91}	$\chi_{6\mathrm{DF}}^2$	0.002	$0.049 (\nu: 0.0)$
$\Omega_{\mathrm{m}}h^2$	0.14253	$0.1423^{+0.0038}_{-0.0038}$	k_{eq}	0.010348	$0.01033^{+0.00028}_{-0.00028}$	χ_{MGS}^2	1.54	$1.64 (\nu: 0.2)$
$\Omega_{\mathrm{m}}h^3$	0.09713	$0.0970^{+0.0041}_{-0.0042}$	$100\theta_{\mathrm{eq}}$	0.8148	$0.816^{+0.017}_{-0.016}$	$\chi_{\mathrm{DR12BAO}}^2$	4.45	$4.9 (\nu: 1.1)$
σ_8	0.8174	$0.816^{+0.039}_{-0.040}$	$100\theta_{\mathrm{s,eq}}$	0.4503	$0.4508^{+0.0090}_{-0.0086}$	χ_{prior}^2	1.4	$7.3 (\nu: 6.7)$
S_8	0.8267	$0.825^{+0.043}_{-0.042}$	$H(0.15)$	73.13	$73.2^{+1.4}_{-1.4}$	χ_{BAO}^2	6.00	$6.6 (\nu: 0.8)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4528	$0.452^{+0.024}_{-0.023}$	$D_{\mathrm{M}}(0.15)$	637.7	638^{+16}_{-16}	χ_{CMB}^2	1178.1	$1191.9 (\nu: 14.9)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6084	$0.607^{+0.029}_{-0.029}$	$H(0.38)$	82.93	$82.95^{+0.92}_{-0.89}$			

Best-fit $\chi_{\mathrm{eff}}^2 = 2220.25$; $\bar{\chi}_{\mathrm{eff}}^2 = 2241.16$; $R - 1 = 0.00635$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.54 DR12BAO: 4.45 CMB - small_100x143.offlike5_EE_Aplanck_B: 395.85 commander_dx12_v3.2.29: 23.15 plik_rd12_HM_v22.TT: 759.09
SN - JLA Pantheon18: 1034.71

17.18 base_w_plikHM_TT_lowl_lowE_BAO_Pantheon18_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02221	$0.02218^{+0.00051}_{-0.00050}$	$\sigma_8 \Omega_m^{0.25}$	0.6081	$0.608^{+0.020}_{-0.021}$	$D_M(0.15)$	637.6	637^{+16}_{-16}
$\Omega_c h^2$	0.11964	$0.1195^{+0.0032}_{-0.0033}$	$\sigma_8/h^{0.5}$	0.9897	$0.990^{+0.029}_{-0.030}$	$H(0.38)$	82.97	$82.96^{+0.88}_{-0.82}$
$100\theta_{MC}$	1.04097	$1.0409^{+0.0011}_{-0.0011}$	$r_{drag}h$	100.44	$100.6^{+3.1}_{-3.1}$	$D_M(0.38)$	1524.4	1524^{+27}_{-27}
τ	0.0529	$0.054^{+0.021}_{-0.021}$	$\langle d^2 \rangle^{1/2}$	2.442	$2.443^{+0.062}_{-0.062}$	$H(0.51)$	89.57	$89.55^{+0.80}_{-0.78}$
w_0	-1.027	$-1.029^{+0.083}_{-0.086}$	z_{re}	7.57	$7.6^{+2.0}_{-2.2}$	$D_M(0.51)$	1976.6	1977^{+30}_{-30}
$\ln(10^{10} A_s)$	3.0408	$3.041^{+0.040}_{-0.039}$	$10^9 A_s$	2.092	$2.093^{+0.086}_{-0.081}$	$H(0.61)$	95.12	$95.09^{+0.81}_{-0.81}$
n_s	0.9656	$0.965^{+0.011}_{-0.011}$	$10^9 A_s e^{-2\tau}$	1.8819	$1.880^{+0.027}_{-0.027}$	$D_M(0.61)$	2301.5	2301^{+31}_{-31}
y_{cal}	1.0007	$1.0006^{+0.0064}_{-0.0063}$	D_{40}	1227.9	1229^{+31}_{-30}	$H(2.33)$	235.77	$235.7^{+1.8}_{-1.7}$
A_{217}^{CIB}	49.4	48^{+20}_{-20}	D_{220}	5721	5721^{+110}_{-100}	$D_M(2.33)$	5766.4	5768^{+31}_{-32}
$\xi^{tSZ \times CIB}$	0.23	—	D_{810}	2538.9	2536^{+34}_{-34}	$f\sigma_8(0.15)$	0.4595	$0.459^{+0.020}_{-0.020}$
A_{143}^{tSZ}	7.0	—	D_{1420}	816.4	815^{+13}_{-13}	$\sigma_8(0.15)$	0.7553	$0.756^{+0.027}_{-0.029}$
A_{100}^{PS}	258	263^{+70}_{-70}	D_{2000}	230.30	$229.8^{+4.6}_{-4.4}$	$f\sigma_8(0.38)$	0.4800	$0.480^{+0.023}_{-0.023}$
A_{143}^{PS}	48.0	49^{+20}_{-20}	$n_{s,0.002}$	0.9656	$0.965^{+0.011}_{-0.011}$	$\sigma_8(0.38)$	0.6696	$0.670^{+0.024}_{-0.025}$
$A_{143 \times 217}^{PS}$	44.2	43^{+20}_{-20}	Y_P	0.245328	$0.24531^{+0.00020}_{-0.00024}$	$f\sigma_8(0.51)$	0.4792	$0.479^{+0.024}_{-0.024}$
A_{217}^{PS}	118.1	115^{+30}_{-30}	Y_P^{BBN}	0.246654	$0.24664^{+0.00020}_{-0.00024}$	$\sigma_8(0.51)$	0.6265	$0.627^{+0.023}_{-0.023}$
A^{kSZ}	0.0	—	$10^5 D/H$	2.617	$2.622^{+0.097}_{-0.093}$	$f\sigma_8(0.61)$	0.4744	$0.475^{+0.023}_{-0.024}$
A_{100}^{dustTT}	8.81	$8.9^{+4.8}_{-4.8}$	Age/Gyr	13.795	$13.798^{+0.073}_{-0.077}$	$\sigma_8(0.61)$	0.5961	$0.596^{+0.021}_{-0.022}$
A_{143}^{dustTT}	10.80	$10.7^{+4.6}_{-4.5}$	z_*	1090.10	$1090.12^{+0.79}_{-0.80}$	$f\sigma_8(2.33)$	0.3005	$0.301^{+0.011}_{-0.011}$
$A_{143 \times 217}^{dustTT}$	19.2	$18.3^{+8.3}_{-8.6}$	r_*	144.65	$144.69^{+0.82}_{-0.81}$	$\sigma_8(2.33)$	0.3091	$0.3092^{+0.0092}_{-0.0094}$
A_{217}^{dustTT}	94.3	93^{+20}_{-20}	$100\theta_*$	1.04116	$1.0411^{+0.0011}_{-0.0011}$	$\chi^2_{lensing}$	8.77	$9.26 (\nu: 0.3)$
c_{100}	0.99967	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.893	$13.898^{+0.079}_{-0.077}$	χ^2_{small}	395.89	$397.0 (\nu: 1.4)$
c_{217}	0.99823	$0.9982^{+0.0016}_{-0.0016}$	z_{drag}	1059.51	$1059.5^{+1.1}_{-1.2}$	χ^2_{lowl}	23.14	$23.35 (\nu: 0.4)$
H_0	68.16	$68.2^{+2.1}_{-2.1}$	r_{drag}	147.37	$147.42^{+0.87}_{-0.88}$	χ^2_{plik}	759.3	$771.2 (\nu: 13.6)$
Ω_Λ	0.6933	$0.694^{+0.019}_{-0.020}$	k_D	0.14045	$0.1404^{+0.0011}_{-0.0011}$	χ^2_{JLA}	1034.71	$1035.40 (\nu: 0.5)$
Ω_m	0.3067	$0.306^{+0.020}_{-0.019}$	$100\theta_D$	0.16100	$0.16104^{+0.00068}_{-0.00065}$	χ^2_{6DF}	0.002	$0.048 (\nu: 0.0)$
$\Omega_m h^2$	0.14249	$0.1424^{+0.0031}_{-0.0032}$	z_{eq}	3390	3387^{+74}_{-76}	χ^2_{MGS}	1.54	$1.66 (\nu: 0.2)$
$\Omega_m h^3$	0.09712	$0.0971^{+0.0037}_{-0.0037}$	k_{eq}	0.010346	$0.01034^{+0.00023}_{-0.00023}$	$\chi^2_{DR12BAO}$	4.36	$4.8 (\nu: 0.8)$
σ_8	0.8171	$0.817^{+0.029}_{-0.031}$	$100\theta_{eq}$	0.8151	$0.816^{+0.014}_{-0.013}$	χ^2_{prior}	1.4	$7.3 (\nu: 6.8)$
S_8	0.8262	$0.825^{+0.032}_{-0.032}$	$100\theta_{s,eq}$	0.4505	$0.4507^{+0.0073}_{-0.0069}$	χ^2_{CMB}	1187.1	$1200.8 (\nu: 14.8)$
$\sigma_8 \Omega_m^{0.5}$	0.4525	$0.452^{+0.017}_{-0.017}$	$H(0.15)$	73.16	$73.2^{+1.4}_{-1.4}$	χ^2_{BAO}	5.90	$6.5 (\nu: 0.6)$

Best-fit $\chi^2_{eff} = 2229.02$; $\Delta\chi^2_{eff} = -0.69$; $\bar{\chi}^2_{eff} = 2249.95$; $\Delta\bar{\chi}^2_{eff} = 0.18$; $R - 1 = 0.00823$
 χ^2_{eff} : BAO - 6DF: 0.00 (Δ -0.01) MGS: 1.54 (Δ 0.20) DR12BAO: 4.36 (Δ 0.33) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.77 (Δ -0.11) small_100x143_offlike5_EE_Aplanck: 395.89 (Δ -0.48) commander_dx12_v3.2_29: 23.14 (Δ 0.33) plik_rd12_HM_v22.TT: 759.25 (Δ -0.53) SN - JLA Pantheon18: 1034.71 (Δ -0.24)

17.19 base_w_plikHM_TT_lowl_lowE_BAO_Pantheon18_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02218^{+0.00053}_{-0.00051}$	$\sigma_8/h^{0.5}$	$0.990^{+0.040}_{-0.040}$	$D_{\mathrm{M}}(0.38)$	1524^{+27}_{-27}
$\Omega_{\mathrm{c}}h^2$	$0.1195^{+0.0039}_{-0.0039}$	$r_{\mathrm{drag}}h$	$100.5^{+3.2}_{-3.0}$	$H(0.51)$	$89.56^{+0.85}_{-0.86}$
$100\theta_{\mathrm{MC}}$	$1.0409^{+0.0011}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	$2.443^{+0.088}_{-0.082}$	$D_{\mathrm{M}}(0.51)$	1977^{+29}_{-30}
τ	$0.055^{+0.019}_{-0.013}$	z_{re}	< 9.47	$H(0.61)$	$95.11^{+0.87}_{-0.90}$
w_0	$-1.026^{+0.094}_{-0.095}$	$10^9 A_{\mathrm{s}}$	$2.097^{+0.093}_{-0.062}$	$D_{\mathrm{M}}(0.61)$	2302^{+31}_{-32}
$\ln(10^{10} A_{\mathrm{s}})$	$3.043^{+0.043}_{-0.030}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.880^{+0.031}_{-0.030}$	$H(2.33)$	$235.7^{+2.0}_{-1.9}$
n_{s}	$0.965^{+0.012}_{-0.012}$	D_{40}	1228^{+35}_{-34}	$D_{\mathrm{M}}(2.33)$	5768^{+31}_{-33}
y_{cal}	$1.0005^{+0.0063}_{-0.0064}$	D_{220}	5719^{+100}_{-100}	$f\sigma_8(0.15)$	$0.459^{+0.028}_{-0.027}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2536^{+34}_{-34}	$\sigma_8(0.15)$	$0.755^{+0.036}_{-0.036}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	815^{+13}_{-13}	$f\sigma_8(0.38)$	$0.480^{+0.031}_{-0.031}$
A_{143}^{tSZ}	—	D_{2000}	$229.8^{+4.5}_{-4.4}$	$\sigma_8(0.38)$	$0.670^{+0.031}_{-0.031}$
A_{100}^{PS}	263^{+70}_{-70}	$n_{\mathrm{s},0.002}$	$0.965^{+0.012}_{-0.012}$	$f\sigma_8(0.51)$	$0.479^{+0.030}_{-0.031}$
A_{143}^{PS}	49^{+20}_{-20}	Y_{P}	$0.24531^{+0.00021}_{-0.00024}$	$\sigma_8(0.51)$	$0.627^{+0.028}_{-0.029}$
$A_{143 \times 217}^{\mathrm{PS}}$	43^{+20}_{-20}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00021}_{-0.00024}$	$f\sigma_8(0.61)$	$0.474^{+0.030}_{-0.030}$
A_{217}^{PS}	115^{+30}_{-30}	$10^5 \mathrm{D}/\mathrm{H}$	$2.622^{+0.099}_{-0.097}$	$\sigma_8(0.61)$	$0.596^{+0.026}_{-0.027}$
A^{kSZ}	—	Age/Gyr	$13.799^{+0.073}_{-0.076}$	$f\sigma_8(2.33)$	$0.301^{+0.013}_{-0.013}$
$A_{100}^{\mathrm{dust}TT}$	$8.9^{+4.7}_{-4.8}$	z_*	$1090.11^{+0.84}_{-0.84}$	$\sigma_8(2.33)$	$0.309^{+0.011}_{-0.011}$
$A_{143}^{\mathrm{dust}TT}$	$10.7^{+4.7}_{-4.5}$	r_*	$144.72^{+0.97}_{-0.97}$	f_{2000}^{143}	31^{+7}_{-7}
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3^{+8.3}_{-8.6}$	$100\theta_*$	$1.0411^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
$A_{217}^{\mathrm{dust}TT}$	93^{+20}_{-20}	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.900^{+0.092}_{-0.092}$	f_{2000}^{217}	$108.0^{+4.8}_{-4.9}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	$1059.5^{+1.1}_{-1.2}$	χ_{simall}^2	$396.9 (\nu: 1.6)$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	$147.4^{+1.0}_{-1.0}$	χ_{lowl}^2	$23.3 (\nu: 0.5)$
H_0	$68.2^{+2.2}_{-2.1}$	k_{D}	$0.1403^{+0.0012}_{-0.0012}$	χ_{plik}^2	$771.4 (\nu: 14.5)$
Ω_{Λ}	$0.694^{+0.020}_{-0.020}$	$100\theta_{\mathrm{D}}$	$0.16104^{+0.00067}_{-0.00065}$	χ_{JLA}^2	$1035.42 (\nu: 0.5)$
Ω_{m}	$0.306^{+0.020}_{-0.020}$	z_{eq}	3385^{+91}_{-90}	$\chi_{6\mathrm{DF}}^2$	$0.049 (\nu: 0.0)$
$\Omega_{\mathrm{m}}h^2$	$0.1423^{+0.0038}_{-0.0038}$	k_{eq}	$0.01033^{+0.00028}_{-0.00027}$	χ_{MGS}^2	$1.65 (\nu: 0.2)$
$\Omega_{\mathrm{m}}h^3$	$0.0970^{+0.0041}_{-0.0042}$	$100\theta_{\mathrm{eq}}$	$0.816^{+0.017}_{-0.017}$	$\chi_{\mathrm{DR12BAO}}^2$	$4.8 (\nu: 1.0)$
σ_8	$0.817^{+0.038}_{-0.040}$	$100\theta_{\mathrm{s,eq}}$	$0.4509^{+0.0089}_{-0.0086}$	χ_{prior}^2	$7.3 (\nu: 6.7)$
S_8	$0.825^{+0.043}_{-0.041}$	$H(0.15)$	$73.2^{+1.4}_{-1.4}$	χ_{BAO}^2	$6.5 (\nu: 0.8)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.452^{+0.024}_{-0.023}$	$D_{\mathrm{M}}(0.15)$	638^{+16}_{-16}	χ_{CMB}^2	$1191.6 (\nu: 14.4)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.608^{+0.028}_{-0.028}$	$H(0.38)$	$82.96^{+0.92}_{-0.88}$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2240.85; R - 1 = 0.00444$

17.20 base_w_plikHM_TT_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02219^{+0.00051}_{-0.00050}$	$\sigma_8/h^{0.5}$	$0.990^{+0.029}_{-0.030}$	$D_M(0.38)$	1524^{+27}_{-27}
$\Omega_c h^2$	$0.1195^{+0.0032}_{-0.0032}$	$r_{\text{drag}} h$	$100.6^{+3.1}_{-3.0}$	$H(0.51)$	$89.56^{+0.80}_{-0.75}$
$100\theta_{\text{MC}}$	$1.0409^{+0.0011}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	$2.444^{+0.061}_{-0.062}$	$D_M(0.51)$	1976^{+29}_{-30}
τ	$0.055^{+0.019}_{-0.013}$	z_{re}	< 9.42	$H(0.61)$	$95.11^{+0.80}_{-0.79}$
w_0	$-1.028^{+0.082}_{-0.086}$	$10^9 A_s$	$2.098^{+0.083}_{-0.057}$	$D_M(0.61)$	2301^{+30}_{-31}
$\ln(10^{10} A_s)$	$3.043^{+0.039}_{-0.028}$	$10^9 A_s e^{-2\tau}$	$1.880^{+0.027}_{-0.027}$	$H(2.33)$	$235.6^{+1.8}_{-1.7}$
n_s	$0.965^{+0.011}_{-0.011}$	D_{40}	1229^{+31}_{-30}	$D_M(2.33)$	5768^{+30}_{-32}
y_{cal}	$1.0006^{+0.0064}_{-0.0064}$	D_{220}	5721^{+110}_{-100}	$f\sigma_8(0.15)$	$0.459^{+0.020}_{-0.020}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2536^{+34}_{-34}	$\sigma_8(0.15)$	$0.756^{+0.028}_{-0.029}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	815^{+13}_{-13}	$f\sigma_8(0.38)$	$0.480^{+0.023}_{-0.023}$
A_{143}^{tSZ}	—	D_{2000}	$229.8^{+4.5}_{-4.4}$	$\sigma_8(0.38)$	$0.670^{+0.024}_{-0.025}$
A_{100}^{PS}	263^{+70}_{-70}	$n_{s,0.002}$	$0.965^{+0.011}_{-0.011}$	$f\sigma_8(0.51)$	$0.479^{+0.024}_{-0.024}$
A_{143}^{PS}	49^{+20}_{-20}	Y_{P}	$0.24532^{+0.00020}_{-0.00024}$	$\sigma_8(0.51)$	$0.627^{+0.023}_{-0.023}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24664^{+0.00020}_{-0.00024}$	$f\sigma_8(0.61)$	$0.475^{+0.023}_{-0.024}$
A_{217}^{PS}	115^{+30}_{-30}	10^5D/H	$2.621^{+0.097}_{-0.093}$	$\sigma_8(0.61)$	$0.597^{+0.021}_{-0.022}$
A^{kSZ}	—	Age/Gyr	$13.798^{+0.073}_{-0.077}$	$f\sigma_8(2.33)$	$0.301^{+0.011}_{-0.011}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.8}$	z_*	$1090.11^{+0.78}_{-0.79}$	$\sigma_8(2.33)$	$0.3094^{+0.0091}_{-0.0092}$
A_{143}^{dustTT}	$10.7^{+4.6}_{-4.5}$	r_*	$144.71^{+0.81}_{-0.80}$	f_{2000}^{143}	31^{+7}_{-7}
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.1}_{-8.6}$	$100\theta_*$	$1.0411^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
A_{217}^{dustTT}	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	$13.900^{+0.078}_{-0.076}$	f_{2000}^{217}	$108.0^{+4.8}_{-4.9}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	$1059.5^{+1.1}_{-1.1}$	χ_{lensing}^2	$9.24 (\nu: 0.3)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	$147.44^{+0.86}_{-0.88}$	χ_{simall}^2	$396.9 (\nu: 1.5)$
H_0	$68.2^{+2.1}_{-2.1}$	k_{D}	$0.1404^{+0.0011}_{-0.0011}$	χ_{lowl}^2	$23.34 (\nu: 0.4)$
Ω_{Λ}	$0.694^{+0.019}_{-0.020}$	$100\theta_{\text{D}}$	$0.16103^{+0.00067}_{-0.00065}$	χ_{plik}^2	$771.1 (\nu: 13.5)$
Ω_{m}	$0.306^{+0.020}_{-0.019}$	z_{eq}	3385^{+74}_{-75}	χ_{JLA}^2	$1035.38 (\nu: 0.4)$
$\Omega_{\text{m}} h^2$	$0.1423^{+0.0031}_{-0.0032}$	k_{eq}	$0.01033^{+0.00022}_{-0.00023}$	$\chi_{6\text{DF}}^2$	$0.047 (\nu: 0.0)$
$\Omega_{\text{m}} h^3$	$0.0970^{+0.0037}_{-0.0037}$	$100\theta_{\text{eq}}$	$0.816^{+0.014}_{-0.013}$	χ_{MGS}^2	$1.67 (\nu: 0.2)$
σ_8	$0.818^{+0.030}_{-0.030}$	$100\theta_{\text{s,eq}}$	$0.4509^{+0.0073}_{-0.0069}$	χ_{DR12BAO}^2	$4.7 (\nu: 0.7)$
S_8	$0.826^{+0.032}_{-0.032}$	$H(0.15)$	$73.2^{+1.4}_{-1.4}$	χ_{prior}^2	$7.3 (\nu: 6.7)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.452^{+0.017}_{-0.018}$	$D_M(0.15)$	637^{+16}_{-15}	χ_{CMB}^2	$1200.6 (\nu: 14.6)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.608^{+0.020}_{-0.021}$	$H(0.38)$	$82.97^{+0.87}_{-0.79}$	χ_{BAO}^2	$6.5 (\nu: 0.6)$

$$\bar{\chi}_{\text{eff}}^2 = 2249.69; \Delta \bar{\chi}_{\text{eff}}^2 = 0.06; R - 1 = 0.00980$$

17.21 base_w_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022402	$0.02239^{+0.00036}_{-0.00036}$	σ_8	0.8195	$0.819^{+0.033}_{-0.035}$	$D_M(0.15)$	635.7	636^{+16}_{-15}
$\Omega_c h^2$	0.11974	$0.1197^{+0.0031}_{-0.0031}$	S_8	0.8269	$0.827^{+0.035}_{-0.034}$	$H(0.38)$	83.12	$83.09^{+0.72}_{-0.72}$
$100\theta_{MC}$	1.04094	$1.04096^{+0.00078}_{-0.00078}$	$\sigma_8 \Omega_m^{0.5}$	0.4529	$0.453^{+0.019}_{-0.019}$	$D_M(0.38)$	1520.7	1522^{+26}_{-26}
τ	0.0545	$0.055^{+0.022}_{-0.020}$	$\sigma_8 \Omega_m^{0.25}$	0.6092	$0.609^{+0.023}_{-0.024}$	$H(0.51)$	89.71	$89.69^{+0.65}_{-0.67}$
w_0	-1.030	$-1.028^{+0.085}_{-0.085}$	$\sigma_8/h^{0.5}$	0.9911	$0.991^{+0.033}_{-0.035}$	$D_M(0.51)$	1972.2	1973^{+28}_{-28}
$\ln(10^{10} A_s)$	3.0451	$3.045^{+0.045}_{-0.041}$	$r_{drag} h$	100.60	$100.5^{+3.1}_{-3.1}$	$H(0.61)$	95.25	$95.25^{+0.68}_{-0.70}$
n_s	0.9664	$0.966^{+0.011}_{-0.010}$	$\langle d^2 \rangle^{1/2}$	2.445	$2.446^{+0.073}_{-0.076}$	$D_M(0.61)$	2296.6	2298^{+29}_{-28}
y_{cal}	1.0009	$1.0006^{+0.0063}_{-0.0061}$	z_{re}	7.68	$7.7^{+2.1}_{-2.2}$	$H(2.33)$	235.98	$236.0^{+1.6}_{-1.6}$
A_{217}^{CIB}	47.2	47^{+20}_{-20}	$10^9 A_s$	2.101	$2.101^{+0.097}_{-0.085}$	$D_M(2.33)$	5758.2	5759^{+23}_{-23}
$\xi^{tSZ \times CIB}$	0.42	—	$10^9 A_s e^{-2\tau}$	1.8844	$1.882^{+0.028}_{-0.029}$	$f\sigma_8(0.15)$	0.4602	$0.460^{+0.021}_{-0.022}$
A_{143}^{tSZ}	7.25	> 0.917	D_{40}	1229.0	1229^{+31}_{-31}	$\sigma_8(0.15)$	0.7577	$0.757^{+0.030}_{-0.033}$
A_{100}^{PS}	250	258^{+70}_{-70}	D_{220}	5739	5734^{+98}_{-100}	$f\sigma_8(0.38)$	0.4812	$0.481^{+0.025}_{-0.026}$
A_{143}^{PS}	47.2	46^{+20}_{-20}	D_{810}	2542.6	2539^{+33}_{-34}	$\sigma_8(0.38)$	0.6718	$0.671^{+0.027}_{-0.029}$
$A_{143 \times 217}^{PS}$	47.4	42^{+20}_{-20}	D_{1420}	818.9	818^{+12}_{-12}	$f\sigma_8(0.51)$	0.4805	$0.480^{+0.025}_{-0.026}$
A_{217}^{PS}	119.8	115^{+30}_{-30}	D_{2000}	231.47	$231.0^{+4.0}_{-4.1}$	$\sigma_8(0.51)$	0.6286	$0.628^{+0.025}_{-0.027}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9664	$0.966^{+0.011}_{-0.010}$	$f\sigma_8(0.61)$	0.4758	$0.475^{+0.025}_{-0.026}$
A_{100}^{dustTT}	8.82	$8.9^{+4.6}_{-4.7}$	Y_P	0.245408	$0.24540^{+0.00014}_{-0.00015}$	$\sigma_8(0.61)$	0.5981	$0.597^{+0.023}_{-0.025}$
A_{143}^{dustTT}	10.97	$10.9^{+4.7}_{-4.5}$	Y_P^{BBN}	0.246735	$0.24673^{+0.00014}_{-0.00015}$	$f\sigma_8(2.33)$	0.3016	$0.301^{+0.012}_{-0.013}$
$A_{143 \times 217}^{dustTT}$	19.7	$18.6^{+8.3}_{-8.4}$	$10^5 D/H$	2.580	$2.582^{+0.068}_{-0.065}$	$\sigma_8(2.33)$	0.3102	$0.310^{+0.010}_{-0.011}$
A_{217}^{dustTT}	95.0	94^{+20}_{-20}	Age/Gyr	13.774	$13.777^{+0.059}_{-0.057}$	f_{2000}^{143}	28.8	29^{+7}_{-7}
A_{100}^{dustTE}	0.114	$0.114^{+0.097}_{-0.095}$	z_*	1089.86	$1089.87^{+0.64}_{-0.62}$	$f_{2000}^{143 \times 217}$	31.96	32^{+5}_{-5}
$A_{100 \times 143}^{dustTE}$	0.135	$0.135^{+0.076}_{-0.075}$	r_*	144.47	$144.49^{+0.69}_{-0.68}$	f_{2000}^{217}	106.67	$106.9^{+4.6}_{-4.5}$
$A_{100 \times 217}^{dustTE}$	0.482	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	1.04112	$1.04114^{+0.00077}_{-0.00076}$	χ_{small}^2	396.1	$397.2 (\nu: 2.0)$
A_{143}^{dustTE}	0.225	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.877	$13.878^{+0.066}_{-0.064}$	χ_{lowl}^2	23.11	$23.27 (\nu: 0.4)$
$A_{143 \times 217}^{dustTE}$	0.665	$0.67^{+0.21}_{-0.21}$	z_{drag}	1060.01	$1059.96^{+0.73}_{-0.75}$	χ_{plik}^2	2344.5	$2359.3 (\nu: 16.8)$
A_{217}^{dustTE}	2.08	$2.08^{+0.69}_{-0.68}$	r_{drag}	147.12	$147.14^{+0.69}_{-0.68}$	χ_{JLA}^2	1034.74	$1035.39 (\nu: 0.5)$
c_{100}	0.99971	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14086	$0.14083^{+0.00077}_{-0.00078}$	χ_{6DF}^2	0.000	$0.048 (\nu: 0.0)$
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	0.160727	$0.16075^{+0.00044}_{-0.00042}$	χ_{MGS}^2	1.61	$1.64 (\nu: 0.2)$
H_0	68.38	$68.3^{+2.1}_{-2.1}$	z_{eq}	3397	3396^{+69}_{-68}	$\chi_{DR12BAO}^2$	4.35	$4.8 (\nu: 0.7)$
Ω_Λ	0.6946	$0.694^{+0.019}_{-0.020}$	k_{eq}	0.010367	$0.01037^{+0.00021}_{-0.00021}$	χ_{prior}^2	1.9	$11.5 (\nu: 10.1)$
Ω_m	0.3054	$0.306^{+0.020}_{-0.019}$	$100\theta_{eq}$	0.8144	$0.814^{+0.013}_{-0.013}$	χ_{BAO}^2	5.96	$6.5 (\nu: 0.5)$
$\Omega_m h^2$	0.14279	$0.1428^{+0.0029}_{-0.0029}$	$100\theta_{s,eq}$	0.4499	$0.4500^{+0.0067}_{-0.0066}$	χ_{CMB}^2	2763.7	$2779.8 (\nu: 16.7)$
$\Omega_m h^3$	0.09763	$0.0975^{+0.0037}_{-0.0037}$	$H(0.15)$	73.34	$73.3^{+1.4}_{-1.3}$			

Best-fit $\chi_{eff}^2 = 3806.25$; $\bar{\chi}_{eff}^2 = 3833.20$; $R - 1 = 0.00703$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.61 DR12BAO: 4.35 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.06 commander_dx12_v3_2_29: 23.11 plik_rd12_HM_v22b_TTTEEE: 2344.51 SN - JLA Pantheon18: 1034.74

17.22 base_w_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022416	$0.02240^{+0.00036}_{-0.00036}$	$\Omega_m h^3$	0.09767	$0.0975^{+0.0035}_{-0.0035}$	$100\theta_{s,eq}$	0.4501	$0.4501^{+0.0059}_{-0.0057}$
$\Omega_c h^2$	0.11965	$0.1197^{+0.0026}_{-0.0027}$	σ_8	0.8197	$0.818^{+0.027}_{-0.028}$	$H(0.15)$	73.40	$73.3^{+1.3}_{-1.3}$
$100\theta_{MC}$	1.04098	$1.04096^{+0.00075}_{-0.00075}$	S_8	0.8260	$0.826^{+0.027}_{-0.028}$	$D_M(0.15)$	635.2	636^{+15}_{-15}
τ	0.0551	$0.055^{+0.020}_{-0.019}$	$\sigma_8 \Omega_m^{0.5}$	0.4524	$0.452^{+0.015}_{-0.015}$	$H(0.38)$	83.16	$83.11^{+0.69}_{-0.67}$
w_0	-1.030	$-1.028^{+0.080}_{-0.082}$	$\sigma_8 \Omega_m^{0.25}$	0.6090	$0.608^{+0.018}_{-0.018}$	$D_M(0.38)$	1519.6	1521^{+25}_{-26}
$\ln(10^{10} A_s)$	3.0459	$3.045^{+0.039}_{-0.037}$	$\sigma_8/h^{0.5}$	0.9908	$0.990^{+0.026}_{-0.027}$	$H(0.51)$	89.74	$89.71^{+0.62}_{-0.62}$
n_s	0.9668	$0.966^{+0.010}_{-0.0097}$	$r_{drag} h$	100.70	$100.6^{+3.2}_{-3.0}$	$D_M(0.51)$	1970.9	1973^{+27}_{-28}
y_{cal}	1.0007	$1.0006^{+0.0062}_{-0.0061}$	$\langle d^2 \rangle^{1/2}$	2.445	$2.445^{+0.055}_{-0.058}$	$H(0.61)$	95.28	$95.26^{+0.63}_{-0.65}$
A_{217}^{CIB}	46.6	47^{+20}_{-20}	z_{re}	7.75	$7.7^{+1.9}_{-2.1}$	$D_M(0.61)$	2295.2	2297^{+28}_{-28}
$\xi^{tSZ \times CIB}$	0.56	—	$10^9 A_s$	2.103	$2.101^{+0.083}_{-0.077}$	$H(2.33)$	235.93	$236.0^{+1.5}_{-1.5}$
A_{143}^{tSZ}	7.1	—	$10^9 A_s e^{-2\tau}$	1.8833	$1.882^{+0.026}_{-0.027}$	$D_M(2.33)$	5756.9	5758^{+22}_{-23}
A_{100}^{PS}	249	258^{+70}_{-70}	D_{40}	1227.8	1229^{+29}_{-29}	$f\sigma_8(0.15)$	0.4598	$0.460^{+0.017}_{-0.017}$
A_{143}^{PS}	49.4	46^{+20}_{-20}	D_{220}	5737	5735^{+97}_{-97}	$\sigma_8(0.15)$	0.7579	$0.757^{+0.026}_{-0.027}$
$A_{143 \times 217}^{PS}$	50.9	42^{+20}_{-20}	D_{810}	2541.8	2539^{+33}_{-33}	$f\sigma_8(0.38)$	0.4810	$0.480^{+0.020}_{-0.021}$
A_{217}^{PS}	120.9	115^{+30}_{-30}	D_{1420}	818.8	818^{+12}_{-12}	$\sigma_8(0.38)$	0.6721	$0.671^{+0.023}_{-0.024}$
A^{kSZ}	0.0	—	D_{2000}	231.49	$231.0^{+4.0}_{-4.1}$	$f\sigma_8(0.51)$	0.4804	$0.480^{+0.021}_{-0.022}$
A_{100}^{dustTT}	8.82	$8.9^{+4.6}_{-4.9}$	$n_{s,0.002}$	0.9668	$0.966^{+0.010}_{-0.0097}$	$\sigma_8(0.51)$	0.6289	$0.628^{+0.021}_{-0.022}$
A_{143}^{dustTT}	11.04	$10.9^{+4.6}_{-4.4}$	Y_P	0.245413	$0.24540^{+0.00013}_{-0.00015}$	$f\sigma_8(0.61)$	0.4758	$0.475^{+0.021}_{-0.022}$
$A_{143 \times 217}^{dustTT}$	20.0	$18.6^{+8.3}_{-8.6}$	Y_P^{BBN}	0.246740	$0.24673^{+0.00013}_{-0.00015}$	$\sigma_8(0.61)$	0.5984	$0.597^{+0.020}_{-0.021}$
A_{217}^{dustTT}	95.2	94^{+20}_{-20}	$10^5 D/H$	2.577	$2.581^{+0.068}_{-0.064}$	$f\sigma_8(2.33)$	0.3018	$0.301^{+0.010}_{-0.011}$
A_{100}^{dustTE}	0.114	$0.114^{+0.096}_{-0.093}$	Age/Gyr	13.771	$13.776^{+0.057}_{-0.057}$	$\sigma_8(2.33)$	0.3104	$0.3098^{+0.0091}_{-0.0092}$
$A_{100 \times 143}^{dustTE}$	0.135	$0.135^{+0.075}_{-0.077}$	z_*	1089.83	$1089.86^{+0.59}_{-0.60}$	$\chi_{lensing}^2$	8.72	$9.13 (\nu: 0.2)$
$A_{100 \times 217}^{dustTE}$	0.481	$0.48^{+0.23}_{-0.22}$	r_*	144.49	$144.50^{+0.62}_{-0.60}$	χ_{small}^2	396.20	$397.1 (\nu: 1.6)$
A_{143}^{dustTE}	0.225	$0.22^{+0.14}_{-0.14}$	$100\theta_*$	1.04116	$1.04114^{+0.00075}_{-0.00074}$	χ_{lowl}^2	23.06	$23.27 (\nu: 0.3)$
$A_{143 \times 217}^{dustTE}$	0.663	$0.66^{+0.21}_{-0.21}$	$D_M(z_*)/Gpc$	13.878	$13.879^{+0.059}_{-0.057}$	χ_{plik}^2	2344.7	$2359.1 (\nu: 15.8)$
A_{217}^{dustTE}	2.08	$2.08^{+0.70}_{-0.68}$	z_{drag}	1060.01	$1059.97^{+0.72}_{-0.76}$	χ_{JLA}^2	1034.76	$1035.36 (\nu: 0.4)$
c_{100}	0.99974	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	147.13	$147.15^{+0.62}_{-0.61}$	χ_{6DF}^2	0.000	$0.046 (\nu: 0.0)$
c_{217}	0.99819	$0.9982^{+0.0016}_{-0.0015}$	k_D	0.14086	$0.14082^{+0.00072}_{-0.00073}$	χ_{MGS}^2	1.68	$1.67 (\nu: 0.2)$
H_0	68.44	$68.3^{+2.1}_{-2.1}$	$100\theta_D$	0.160717	$0.16074^{+0.00044}_{-0.00042}$	$\chi_{DR12BAO}^2$	4.23	$4.7 (\nu: 0.5)$
Ω_Λ	0.6953	$0.694^{+0.019}_{-0.020}$	z_{eq}	3395	3395^{+60}_{-61}	χ_{prior}^2	1.7	$11.6 (\nu: 10.2)$
Ω_m	0.3047	$0.306^{+0.020}_{-0.019}$	k_{eq}	0.010361	$0.01036^{+0.00018}_{-0.00018}$	χ_{CMB}^2	2772.6	$2788.6 (\nu: 16.5)$
$\Omega_m h^2$	0.14271	$0.1427^{+0.0025}_{-0.0025}$	$100\theta_{eq}$	0.8148	$0.815^{+0.012}_{-0.011}$	χ_{BAO}^2	5.91	$6.45 (\nu: 0.4)$

Best-fit $\chi_{eff}^2 = 3814.98$; $\Delta\chi_{eff}^2 = -0.69$; $\bar{\chi}_{eff}^2 = 3841.96$; $\Delta\bar{\chi}_{eff}^2 = 0.11$; $R - 1 = 0.01118$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.02) MGS: 1.68 (Δ 0.40) DR12BAO: 4.23 (Δ -0.01) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.72 (Δ -0.00) small_100x143_offlike5_EE_Aplanc
396.20 (Δ -0.32) commander_dx12_v3.2_29: 23.06 (Δ 0.18) plik_rd12_HM_v22b.TTTEEE: 2344.67 (Δ -0.60) SN - JLA Pantheon18: 1034.76 (Δ -0.22)

17.23 base_w_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02239^{+0.00036}_{-0.00036}$	σ_8	$0.819^{+0.032}_{-0.034}$	$D_M(0.15)$	636^{+16}_{-15}
$\Omega_c h^2$	$0.1197^{+0.0031}_{-0.0031}$	S_8	$0.827^{+0.034}_{-0.034}$	$H(0.38)$	$83.10^{+0.72}_{-0.73}$
$100\theta_{MC}$	$1.04096^{+0.00078}_{-0.00077}$	$\sigma_8 \Omega_m^{0.5}$	$0.453^{+0.019}_{-0.018}$	$D_M(0.38)$	1522^{+26}_{-26}
τ	$0.056^{+0.019}_{-0.014}$	$\sigma_8 \Omega_m^{0.25}$	$0.609^{+0.022}_{-0.023}$	$H(0.51)$	$89.70^{+0.65}_{-0.68}$
w_0	$-1.028^{+0.084}_{-0.086}$	$\sigma_8/h^{0.5}$	$0.991^{+0.033}_{-0.034}$	$D_M(0.51)$	1973^{+28}_{-28}
$\ln(10^{10} A_s)$	$3.047^{+0.044}_{-0.030}$	$r_{\text{drag}} h$	$100.5^{+3.1}_{-3.1}$	$H(0.61)$	$95.25^{+0.67}_{-0.71}$
n_s	$0.966^{+0.011}_{-0.010}$	$\langle d^2 \rangle^{1/2}$	$2.448^{+0.071}_{-0.073}$	$D_M(0.61)$	2298^{+29}_{-28}
y_{cal}	$1.0006^{+0.0063}_{-0.0061}$	z_{re}	< 9.60	$H(2.33)$	$236.0^{+1.6}_{-1.5}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.105^{+0.094}_{-0.063}$	$D_M(2.33)$	5759^{+23}_{-23}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.882^{+0.028}_{-0.029}$	$f\sigma_8(0.15)$	$0.460^{+0.021}_{-0.022}$
A_{143}^{tSZ}	> 0.922	D_{40}	1229^{+31}_{-32}	$\sigma_8(0.15)$	$0.757^{+0.030}_{-0.031}$
A_{100}^{PS}	258^{+70}_{-70}	D_{220}	5734^{+98}_{-100}	$f\sigma_8(0.38)$	$0.481^{+0.025}_{-0.025}$
A_{143}^{PS}	46^{+20}_{-20}	D_{810}	2539^{+33}_{-33}	$\sigma_8(0.38)$	$0.672^{+0.026}_{-0.028}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	818^{+12}_{-12}	$f\sigma_8(0.51)$	$0.480^{+0.025}_{-0.026}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$231.0^{+4.0}_{-4.1}$	$\sigma_8(0.51)$	$0.628^{+0.024}_{-0.025}$
A^{kSZ}	—	$n_{s,0.002}$	$0.966^{+0.011}_{-0.010}$	$f\sigma_8(0.61)$	$0.476^{+0.025}_{-0.026}$
A_{100}^{dustTT}	$8.9^{+4.6}_{-4.7}$	Y_P	$0.24540^{+0.00013}_{-0.00015}$	$\sigma_8(0.61)$	$0.598^{+0.023}_{-0.024}$
A_{143}^{dustTT}	$10.9^{+4.7}_{-4.5}$	Y_P^{BBN}	$0.24673^{+0.00014}_{-0.00015}$	$f\sigma_8(2.33)$	$0.301^{+0.011}_{-0.012}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.2}_{-8.3}$	$10^5 D/H$	$2.582^{+0.069}_{-0.065}$	$\sigma_8(2.33)$	$0.310^{+0.010}_{-0.010}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.776^{+0.059}_{-0.057}$	f_{2000}^{143}	29^{+7}_{-7}
A_{100}^{dustTE}	$0.114^{+0.098}_{-0.095}$	z_*	$1089.87^{+0.64}_{-0.62}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.076}_{-0.075}$	r_*	$144.49^{+0.69}_{-0.68}$	f_{2000}^{217}	$106.9^{+4.6}_{-4.5}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	$1.04114^{+0.00076}_{-0.00076}$	χ_{simall}^2	$397.2 (\nu: 2.0)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.878^{+0.066}_{-0.064}$	χ_{lowl}^2	$23.28 (\nu: 0.4)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.67^{+0.21}_{-0.21}$	z_{drag}	$1059.96^{+0.73}_{-0.76}$	χ_{plik}^2	$2359.1 (\nu: 16.6)$
A_{217}^{dustTE}	$2.08^{+0.68}_{-0.68}$	r_{drag}	$147.14^{+0.69}_{-0.68}$	χ_{JLA}^2	$1035.39 (\nu: 0.5)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_D	$0.14083^{+0.00077}_{-0.00077}$	$\chi_{6\text{DF}}^2$	$0.047 (\nu: 0.0)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.16075^{+0.00044}_{-0.00042}$	χ_{MGS}^2	$1.64 (\nu: 0.2)$
H_0	$68.3^{+2.1}_{-2.1}$	z_{eq}	3396^{+69}_{-68}	χ_{DR12BAO}^2	$4.8 (\nu: 0.7)$
Ω_Λ	$0.694^{+0.019}_{-0.020}$	k_{eq}	$0.01036^{+0.00021}_{-0.00021}$	χ_{prior}^2	$11.5 (\nu: 10.1)$
Ω_m	$0.306^{+0.020}_{-0.019}$	$100\theta_{\text{eq}}$	$0.815^{+0.013}_{-0.013}$	χ_{BAO}^2	$6.5 (\nu: 0.5)$
$\Omega_m h^2$	$0.1428^{+0.0029}_{-0.0029}$	$100\theta_{s,\text{eq}}$	$0.4500^{+0.0067}_{-0.0067}$	χ_{CMB}^2	$2779.6 (\nu: 16.3)$
$\Omega_m h^3$	$0.0975^{+0.0037}_{-0.0037}$	$H(0.15)$	$73.3^{+1.4}_{-1.3}$		

$$\bar{\chi}_{\text{eff}}^2 = 3832.98; R - 1 = 0.00746$$

17.24 base_w_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02240^{+0.00036}_{-0.00036}$	σ_8	$0.819^{+0.027}_{-0.028}$	$D_M(0.15)$	636^{+15}_{-15}
$\Omega_c h^2$	$0.1196^{+0.0026}_{-0.0027}$	S_8	$0.826^{+0.027}_{-0.027}$	$H(0.38)$	$83.12^{+0.68}_{-0.68}$
$100\theta_{MC}$	$1.04097^{+0.00075}_{-0.00075}$	$\sigma_8 \Omega_m^{0.5}$	$0.453^{+0.015}_{-0.015}$	$D_M(0.38)$	1521^{+25}_{-26}
τ	$0.056^{+0.018}_{-0.014}$	$\sigma_8 \Omega_m^{0.25}$	$0.609^{+0.018}_{-0.018}$	$H(0.51)$	$89.72^{+0.61}_{-0.61}$
w_0	$-1.027^{+0.079}_{-0.082}$	$\sigma_8/h^{0.5}$	$0.990^{+0.025}_{-0.027}$	$D_M(0.51)$	1973^{+27}_{-28}
$\ln(10^{10} A_s)$	$3.046^{+0.038}_{-0.028}$	$r_{\text{drag}} h$	$100.6^{+3.2}_{-3.0}$	$H(0.61)$	$95.27^{+0.62}_{-0.65}$
n_s	$0.966^{+0.010}_{-0.0096}$	$\langle d^2 \rangle^{1/2}$	$2.446^{+0.055}_{-0.057}$	$D_M(0.61)$	2297^{+28}_{-28}
y_{cal}	$1.0006^{+0.0063}_{-0.0061}$	z_{re}	< 9.44	$H(2.33)$	$236.0^{+1.5}_{-1.4}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.104^{+0.080}_{-0.058}$	$D_M(2.33)$	5758^{+22}_{-23}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.882^{+0.026}_{-0.027}$	$f\sigma_8(0.15)$	$0.460^{+0.017}_{-0.017}$
A_{143}^{tSZ}	—	D_{40}	1229^{+29}_{-29}	$\sigma_8(0.15)$	$0.757^{+0.026}_{-0.026}$
A_{100}^{PS}	258^{+70}_{-70}	D_{220}	5735^{+98}_{-97}	$f\sigma_8(0.38)$	$0.481^{+0.020}_{-0.021}$
A_{143}^{PS}	45^{+20}_{-20}	D_{810}	2539^{+33}_{-32}	$\sigma_8(0.38)$	$0.671^{+0.023}_{-0.024}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	817^{+12}_{-12}	$f\sigma_8(0.51)$	$0.480^{+0.021}_{-0.022}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$231.0^{+4.0}_{-4.0}$	$\sigma_8(0.51)$	$0.628^{+0.021}_{-0.022}$
A^{kSZ}	—	$n_{s,0.002}$	$0.966^{+0.010}_{-0.0096}$	$f\sigma_8(0.61)$	$0.475^{+0.021}_{-0.022}$
A_{100}^{dustTT}	$8.9^{+4.6}_{-4.8}$	Y_P	$0.24540^{+0.00013}_{-0.00015}$	$\sigma_8(0.61)$	$0.598^{+0.020}_{-0.020}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.4}$	Y_P^{BBN}	$0.24673^{+0.00013}_{-0.00015}$	$f\sigma_8(2.33)$	$0.301^{+0.010}_{-0.010}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.3}_{-8.6}$	$10^5 D/H$	$2.581^{+0.068}_{-0.064}$	$\sigma_8(2.33)$	$0.3100^{+0.0089}_{-0.0091}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.775^{+0.057}_{-0.057}$	f_{2000}^{143}	29^{+7}_{-7}
A_{100}^{dustTE}	$0.114^{+0.097}_{-0.094}$	z_*	$1089.85^{+0.60}_{-0.60}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.076}_{-0.077}$	r_*	$144.51^{+0.61}_{-0.58}$	f_{2000}^{217}	$106.9^{+4.6}_{-4.6}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.23}_{-0.22}$	$100\theta_*$	$1.04115^{+0.00075}_{-0.00074}$	χ_{lensing}^2	$9.11 (\nu: 0.2)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.879^{+0.058}_{-0.056}$	χ_{simall}^2	$397.1 (\nu: 1.7)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.66^{+0.20}_{-0.21}$	z_{drag}	$1059.98^{+0.72}_{-0.77}$	χ_{lowl}^2	$23.27 (\nu: 0.3)$
A_{217}^{dustTE}	$2.08^{+0.70}_{-0.68}$	r_{drag}	$147.16^{+0.62}_{-0.61}$	χ_{plik}^2	$2359.0 (\nu: 15.7)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_D	$0.14082^{+0.00072}_{-0.00073}$	χ_{JLA}^2	$1035.36 (\nu: 0.4)$
c_{217}	$0.9982^{+0.0016}_{-0.0015}$	$100\theta_D$	$0.16074^{+0.00045}_{-0.00042}$	$\chi_{6\text{DF}}^2$	$0.046 (\nu: 0.0)$
H_0	$68.3^{+2.1}_{-2.1}$	z_{eq}	3394^{+58}_{-60}	χ_{MGS}^2	$1.67 (\nu: 0.2)$
Ω_Λ	$0.694^{+0.019}_{-0.020}$	k_{eq}	$0.01036^{+0.00018}_{-0.00018}$	χ_{DR12BAO}^2	$4.7 (\nu: 0.5)$
Ω_m	$0.306^{+0.020}_{-0.019}$	$100\theta_{\text{eq}}$	$0.815^{+0.011}_{-0.011}$	χ_{prior}^2	$11.6 (\nu: 10.2)$
$\Omega_m h^2$	$0.1427^{+0.0024}_{-0.0025}$	$100\theta_{s,\text{eq}}$	$0.4502^{+0.0059}_{-0.0056}$	χ_{CMB}^2	$2788.4 (\nu: 16.3)$
$\Omega_m h^3$	$0.0975^{+0.0036}_{-0.0035}$	$H(0.15)$	$73.3^{+1.3}_{-1.3}$	χ_{BAO}^2	$6.42 (\nu: 0.4)$

$$\bar{\chi}_{\text{eff}}^2 = 3841.79; \Delta \bar{\chi}_{\text{eff}}^2 = 0.05; R - 1 = 0.01215$$

18 w+wa

18.1 base_w_wa_plikHM_TT_lowl_lowE_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02217	$0.02213^{+0.00054}_{-0.00052}$	$\sigma_8 \Omega_m^{0.25}$	0.6089	$0.609^{+0.036}_{-0.036}$	$H(0.38)$	84.71	$84.8^{+2.5}_{-2.9}$
$\Omega_c h^2$	0.12035	$0.1206^{+0.0048}_{-0.0049}$	$\sigma_8/h^{0.5}$	0.990	$0.990^{+0.052}_{-0.052}$	$D_M(0.38)$	1527.0	1527^{+45}_{-45}
$100\theta_{MC}$	1.04079	$1.0408^{+0.0012}_{-0.0012}$	$r_{drag}h$	95.6	$95.5^{+10}_{-7.8}$	$H(0.51)$	91.42	$91.4^{+2.8}_{-3.1}$
τ	0.0530	$0.052^{+0.022}_{-0.023}$	$\langle d^2 \rangle^{1/2}$	2.466	$2.47^{+0.11}_{-0.11}$	$D_M(0.51)$	1969.8	1969^{+45}_{-45}
w_0	-0.62	$-0.59^{+0.57}_{-0.69}$	z_{re}	7.57	$7.4^{+2.1}_{-2.6}$	$H(0.61)$	96.82	$96.8^{+2.9}_{-2.9}$
w_a	-1.20	< 0.411	$10^9 A_s$	2.093	$2.089^{+0.096}_{-0.097}$	$D_M(0.61)$	2288.5	2288^{+47}_{-45}
$\ln(10^{10} A_s)$	3.0413	$3.039^{+0.045}_{-0.048}$	$10^9 A_s e^{-2\tau}$	1.8827	$1.884^{+0.034}_{-0.034}$	$H(2.33)$	233.96	$234.0^{+3.3}_{-2.9}$
n_s	0.9644	$0.963^{+0.014}_{-0.013}$	D_{40}	1228.6	1232^{+38}_{-37}	$D_M(2.33)$	5754.1	5757^{+36}_{-37}
y_{cal}	1.0001	$1.0004^{+0.0062}_{-0.0062}$	D_{220}	5710	5714^{+110}_{-100}	$f\sigma_8(0.15)$	0.4487	$0.449^{+0.038}_{-0.035}$
A_{217}^{CIB}	48.3	48^{+20}_{-20}	D_{810}	2536.0	2536^{+36}_{-34}	$\sigma_8(0.15)$	0.736	$0.736^{+0.067}_{-0.061}$
$\xi^{tSZ \times CIB}$	0.37	—	D_{1420}	815.1	814^{+13}_{-13}	$f\sigma_8(0.38)$	0.460	$0.460^{+0.057}_{-0.050}$
A_{143}^{tSZ}	7.0	—	D_{2000}	230.03	$229.7^{+4.5}_{-4.4}$	$\sigma_8(0.38)$	0.653	$0.653^{+0.059}_{-0.053}$
A_{100}^{PS}	253	262^{+70}_{-70}	$n_{s,0.002}$	0.9644	$0.963^{+0.014}_{-0.013}$	$f\sigma_8(0.51)$	0.460	$0.460^{+0.058}_{-0.052}$
A_{143}^{PS}	49.9	49^{+20}_{-20}	Y_P	0.245314	$0.24529^{+0.00021}_{-0.00025}$	$\sigma_8(0.51)$	0.612	$0.612^{+0.054}_{-0.048}$
$A_{143 \times 217}^{PS}$	48.0	44^{+20}_{-20}	Y_P^{BBN}	0.246641	$0.24662^{+0.00021}_{-0.00025}$	$f\sigma_8(0.61)$	0.457	$0.458^{+0.057}_{-0.052}$
A_{217}^{PS}	119.8	115^{+30}_{-30}	$10^5 D/H$	2.623	$2.63^{+0.10}_{-0.099}$	$\sigma_8(0.61)$	0.5830	$0.583^{+0.050}_{-0.045}$
A^{kSZ}	0.0	—	Age/Gyr	13.775	$13.777^{+0.092}_{-0.085}$	$f\sigma_8(2.33)$	0.2963	$0.296^{+0.023}_{-0.020}$
A_{100}^{dustTT}	8.90	$8.9^{+4.7}_{-4.8}$	z_*	1090.20	$1090.28^{+0.94}_{-0.92}$	$\sigma_8(2.33)$	0.3014	$0.301^{+0.023}_{-0.020}$
A_{143}^{dustTT}	10.75	$10.7^{+4.6}_{-4.6}$	r_*	144.49	$144.5^{+1.2}_{-1.1}$	f_{2000}^{143}	30.1	31^{+7}_{-7}
$A_{143 \times 217}^{dustTT}$	19.4	$18.3^{+8.5}_{-8.5}$	$100\theta_*$	1.04100	$1.0410^{+0.0011}_{-0.0012}$	$f_{2000}^{143 \times 217}$	33.1	33^{+5}_{-5}
A_{217}^{dustTT}	94.6	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.880	$13.88^{+0.11}_{-0.10}$	f_{2000}^{217}	107.46	$108.0^{+4.9}_{-4.9}$
c_{100}	0.99965	$0.9996^{+0.0016}_{-0.0015}$	z_{drag}	1059.51	$1059.4^{+1.1}_{-1.1}$	χ_{simall}^2	395.89	$396.9 (\nu: 1.4)$
c_{217}	0.99825	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	147.22	$147.2^{+1.2}_{-1.1}$	χ_{lowl}^2	23.46	$23.8 (\nu: 0.7)$
H_0	64.9	$64.9^{+6.9}_{-5.4}$	k_D	0.14058	$0.1406^{+0.0013}_{-0.0013}$	χ_{plik}^2	758.0	$770.5 (\nu: 14.3)$
Ω_Λ	0.661	$0.658^{+0.065}_{-0.062}$	$100\theta_D$	0.16101	$0.16106^{+0.00067}_{-0.00063}$	χ_{6DF}^2	0.32	$0.56 (\nu: 0.2)$
Ω_m	0.339	$0.342^{+0.062}_{-0.065}$	z_{eq}	3406	3410^{+110}_{-110}	χ_{MGS}^2	0.63	$0.89 (\nu: 0.4)$
$\Omega_m h^2$	0.14316	$0.1433^{+0.0046}_{-0.0047}$	k_{eq}	0.010395	$0.01041^{+0.00033}_{-0.00035}$	$\chi_{DR12BAO}^2$	3.49	$5.0 (\nu: 1.1)$
$\Omega_m h^3$	0.0930	$0.0930^{+0.010}_{-0.0086}$	$100\theta_{eq}$	0.8120	$0.811^{+0.021}_{-0.020}$	χ_{prior}^2	1.3	$7.2 (\nu: 6.4)$
σ_8	0.798	$0.798^{+0.070}_{-0.064}$	$100\theta_{s,eq}$	0.4489	$0.448^{+0.011}_{-0.010}$	χ_{BAO}^2	4.43	$6.4 (\nu: 1.7)$
S_8	0.849	$0.850^{+0.055}_{-0.058}$	$H(0.15)$	73.09	$73.1^{+2.5}_{-2.3}$	χ_{CMB}^2	1177.3	$1191.2 (\nu: 14.9)$
$\sigma_8 \Omega_m^{0.5}$	0.4648	$0.466^{+0.030}_{-0.032}$	$D_M(0.15)$	651.6	652^{+36}_{-37}			

Best-fit $\chi_{eff}^2 = 1183.08$; $\Delta\chi_{eff}^2 = -2.67$; $\bar{\chi}_{eff}^2 = 1204.85$; $\Delta\bar{\chi}_{eff}^2 = -1.18$; $R - 1 = 0.00724$

χ_{eff}^2 : BAO - 6DF: 0.32 (Δ 0.29) MGS: 0.62 (Δ -0.65) DR12BAO: 3.49 (Δ -0.70) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.89 (Δ 0.00) commander_dx12_v3_2_29: 23.46 (Δ 0.64) plik_rd12_HM_v22_TT: 757.98 (Δ -2.12)

18.2 base_w_wa_plikHM_TT_lowl_lowE_BAO_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02220	$0.02216^{+0.00052}_{-0.00049}$	$\sigma_8 \Omega_m^{0.25}$	0.6047	$0.605^{+0.025}_{-0.025}$	$H(0.38)$	84.55	$84.7^{+2.6}_{-2.9}$
$\Omega_c h^2$	0.11973	$0.1199^{+0.0036}_{-0.0037}$	$\sigma_8/h^{0.5}$	0.9841	$0.984^{+0.036}_{-0.037}$	$D_M(0.38)$	1527.2	1528^{+43}_{-46}
$100\theta_{MC}$	1.04093	$1.0408^{+0.0011}_{-0.0011}$	$r_{drag}h$	96.1	$95.7^{+10}_{-7.8}$	$H(0.51)$	91.30	$91.5^{+2.9}_{-3.1}$
τ	0.0525	$0.051^{+0.021}_{-0.023}$	$\langle d^2 \rangle^{1/2}$	2.451	$2.455^{+0.068}_{-0.071}$	$D_M(0.51)$	1970.8	1970^{+44}_{-46}
w_0	-0.66	$-0.61^{+0.60}_{-0.67}$	z_{re}	7.51	$7.4^{+2.1}_{-2.6}$	$H(0.61)$	96.75	$96.9^{+2.8}_{-3.0}$
w_a	-1.01	< 0.445	$10^9 A_s$	2.088	$2.084^{+0.087}_{-0.088}$	$D_M(0.61)$	2289.8	2289^{+46}_{-46}
$\ln(10^{10} A_s)$	3.0389	$3.037^{+0.041}_{-0.043}$	$10^9 A_s e^{-2\tau}$	1.8801	$1.881^{+0.029}_{-0.028}$	$H(2.33)$	234.01	$233.9^{+3.5}_{-2.9}$
n_s	0.9657	$0.964^{+0.012}_{-0.012}$	D_{40}	1225.7	1229^{+32}_{-32}	$D_M(2.33)$	5752.4	5755^{+38}_{-36}
y_{cal}	1.0001	$1.0003^{+0.0062}_{-0.0062}$	D_{220}	5712	5715^{+100}_{-100}	$f\sigma_8(0.15)$	0.4463	$0.445^{+0.033}_{-0.030}$
A_{217}^{CIB}	48.8	48^{+20}_{-20}	D_{810}	2535.8	2535^{+35}_{-34}	$\sigma_8(0.15)$	0.734	$0.732^{+0.061}_{-0.053}$
$\xi^{tSZ \times CIB}$	0.30	—	D_{1420}	815.4	814^{+13}_{-13}	$f\sigma_8(0.38)$	0.4577	$0.456^{+0.052}_{-0.045}$
A_{143}^{tSZ}	7.1	—	D_{2000}	230.09	$229.6^{+4.5}_{-4.3}$	$\sigma_8(0.38)$	0.6513	$0.650^{+0.053}_{-0.046}$
A_{100}^{PS}	254	263^{+70}_{-70}	$n_{s,0.002}$	0.9657	$0.964^{+0.012}_{-0.012}$	$f\sigma_8(0.51)$	0.458	$0.456^{+0.054}_{-0.046}$
A_{143}^{PS}	48.8	49^{+20}_{-20}	Y_P	0.245324	$0.24531^{+0.00020}_{-0.00024}$	$\sigma_8(0.51)$	0.6103	$0.609^{+0.049}_{-0.042}$
$A_{143 \times 217}^{PS}$	46.1	43^{+20}_{-20}	Y_P^{BBN}	0.246650	$0.24663^{+0.00020}_{-0.00024}$	$f\sigma_8(0.61)$	0.4547	$0.453^{+0.052}_{-0.045}$
A_{217}^{PS}	118.8	115^{+30}_{-30}	$10^5 D/H$	2.619	$2.626^{+0.096}_{-0.095}$	$\sigma_8(0.61)$	0.5811	$0.580^{+0.046}_{-0.040}$
A^{kSZ}	0.0	—	Age/Gyr	13.776	$13.779^{+0.090}_{-0.086}$	$f\sigma_8(2.33)$	0.2953	$0.294^{+0.020}_{-0.018}$
A_{100}^{dustTT}	8.88	$8.9^{+4.9}_{-5.0}$	z_*	1090.12	$1090.18^{+0.84}_{-0.81}$	$\sigma_8(2.33)$	0.3011	$0.300^{+0.022}_{-0.019}$
A_{143}^{dustTT}	10.84	$10.7^{+4.5}_{-4.6}$	r_*	144.63	$144.61^{+0.88}_{-0.85}$	f_{2000}^{143}	30.2	31^{+7}_{-7}
$A_{143 \times 217}^{dustTT}$	19.5	$18.3^{+8.3}_{-8.3}$	$100\theta_*$	1.04112	$1.0410^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33.1	33^{+5}_{-5}
A_{217}^{dustTT}	94.6	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.892	$13.891^{+0.086}_{-0.081}$	f_{2000}^{217}	107.48	$108.0^{+5.0}_{-4.9}$
c_{100}	0.99965	$0.9996^{+0.0016}_{-0.0015}$	z_{drag}	1059.51	$1059.4^{+1.1}_{-1.1}$	$\chi_{lensing}^2$	8.80	$9.4 (\nu: 0.5)$
c_{217}	0.99825	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	147.36	$147.35^{+0.92}_{-0.88}$	χ_{small}^2	395.81	$396.8 (\nu: 1.1)$
H_0	65.2	$64.9^{+7.0}_{-5.4}$	k_D	0.14045	$0.1404^{+0.0011}_{-0.0011}$	χ_{lowl}^2	23.18	$23.52 (\nu: 0.4)$
Ω_Λ	0.665	$0.660^{+0.064}_{-0.063}$	$100\theta_D$	0.16101	$0.16104^{+0.00066}_{-0.00063}$	χ_{plik}^2	758.6	$770.6 (\nu: 13.3)$
Ω_m	0.335	$0.340^{+0.063}_{-0.064}$	z_{eq}	3392	3395^{+82}_{-85}	χ_{6DF}^2	0.25	$0.55 (\nu: 0.2)$
$\Omega_m h^2$	0.14257	$0.1427^{+0.0034}_{-0.0036}$	k_{eq}	0.010352	$0.01036^{+0.00025}_{-0.00026}$	χ_{MGS}^2	0.72	$0.91 (\nu: 0.4)$
$\Omega_m h^3$	0.0930	$0.0927^{+0.010}_{-0.0082}$	$100\theta_{eq}$	0.8147	$0.814^{+0.016}_{-0.015}$	$\chi_{DR12BAO}^2$	3.34	$4.9 (\nu: 1.2)$
σ_8	0.795	$0.793^{+0.063}_{-0.055}$	$100\theta_{s,eq}$	0.4502	$0.4499^{+0.0083}_{-0.0077}$	χ_{prior}^2	1.4	$7.2 (\nu: 6.5)$
S_8	0.8400	$0.842^{+0.040}_{-0.042}$	$H(0.15)$	73.05	$73.1^{+2.5}_{-2.2}$	χ_{CMB}^2	1186.4	$1200.3 (\nu: 14.7)$
$\sigma_8 \Omega_m^{0.5}$	0.4601	$0.461^{+0.022}_{-0.023}$	$D_M(0.15)$	650.6	652^{+35}_{-37}	χ_{BAO}^2	4.31	$6.3 (\nu: 1.9)$

Best-fit $\chi_{eff}^2 = 1192.04$; $\Delta\chi_{eff}^2 = -2.65$; $\bar{\chi}_{eff}^2 = 1213.89$; $\Delta\bar{\chi}_{eff}^2 = -0.84$; $R - 1 = 0.01045$

χ_{eff}^2 : BAO - 6DF: 0.25 (Δ 0.23) MGS: 0.72 (Δ -0.50) DR12BAO: 3.34 (Δ -1.03) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.80 (Δ -0.08) small_100x143_offlike5_EE_Aplanc. 395.81 (Δ -0.28) commander_dx12_v3.2_29: 23.18 (Δ 0.22) plik_rd12_HM_v22.TT: 758.58 (Δ -1.23)

18.3 base_w_wa_plikHM_TT_lowl_lowE_BAO_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}} h^2$	$0.02214^{+0.00053}_{-0.00052}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.610^{+0.036}_{-0.036}$	$H(0.38)$	$84.8^{+2.5}_{-2.9}$
$\Omega_{\mathrm{c}} h^2$	$0.1205^{+0.0048}_{-0.0049}$	$\sigma_8/h^{0.5}$	$0.992^{+0.052}_{-0.051}$	$D_{\mathrm{M}}(0.38)$	1527^{+45}_{-45}
$100\theta_{\mathrm{MC}}$	$1.0408^{+0.0012}_{-0.0012}$	$r_{\mathrm{drag}} h$	$95.6^{+10}_{-7.9}$	$H(0.51)$	$91.4^{+2.8}_{-3.1}$
τ	$0.054^{+0.019}_{-0.012}$	$\langle d^2 \rangle^{1/2}$	$2.47^{+0.11}_{-0.11}$	$D_{\mathrm{M}}(0.51)$	1969^{+45}_{-45}
w_0	$-0.59^{+0.57}_{-0.69}$	z_{re}	< 9.39	$H(0.61)$	$96.8^{+2.9}_{-3.0}$
w_a	< 0.429	$10^9 A_{\mathrm{s}}$	$2.097^{+0.091}_{-0.061}$	$D_{\mathrm{M}}(0.61)$	2288^{+47}_{-45}
$\ln(10^{10} A_{\mathrm{s}})$	$3.043^{+0.042}_{-0.030}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.884^{+0.034}_{-0.034}$	$H(2.33)$	$234.0^{+3.3}_{-3.0}$
n_{s}	$0.963^{+0.014}_{-0.014}$	D_{40}	1232^{+38}_{-38}	$D_{\mathrm{M}}(2.33)$	5757^{+37}_{-37}
y_{cal}	$1.0004^{+0.0063}_{-0.0062}$	D_{220}	5714^{+110}_{-100}	$f\sigma_8(0.15)$	$0.449^{+0.038}_{-0.035}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2536^{+36}_{-34}	$\sigma_8(0.15)$	$0.737^{+0.067}_{-0.060}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	814^{+13}_{-13}	$f\sigma_8(0.38)$	$0.460^{+0.057}_{-0.050}$
A_{143}^{tSZ}	—	D_{2000}	$229.7^{+4.5}_{-4.4}$	$\sigma_8(0.38)$	$0.654^{+0.058}_{-0.052}$
A_{100}^{PS}	262^{+70}_{-70}	$n_{\mathrm{s},0.002}$	$0.963^{+0.014}_{-0.014}$	$f\sigma_8(0.51)$	$0.461^{+0.058}_{-0.052}$
A_{143}^{PS}	49^{+20}_{-20}	Y_{P}	$0.24530^{+0.00021}_{-0.00025}$	$\sigma_8(0.51)$	$0.613^{+0.053}_{-0.048}$
$A_{143 \times 217}^{\mathrm{PS}}$	44^{+20}_{-20}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24662^{+0.00021}_{-0.00025}$	$f\sigma_8(0.61)$	$0.458^{+0.057}_{-0.051}$
A_{217}^{PS}	115^{+30}_{-30}	$10^5 \mathrm{D}/\mathrm{H}$	$2.63^{+0.10}_{-0.098}$	$\sigma_8(0.61)$	$0.584^{+0.049}_{-0.044}$
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.777^{+0.092}_{-0.085}$	$f\sigma_8(2.33)$	$0.296^{+0.023}_{-0.020}$
$A_{100}^{\mathrm{dustTT}}$	$8.9^{+4.7}_{-4.8}$	z_*	$1090.26^{+0.95}_{-0.92}$	$\sigma_8(2.33)$	$0.301^{+0.023}_{-0.020}$
$A_{143}^{\mathrm{dustTT}}$	$10.7^{+4.6}_{-4.6}$	r_*	$144.5^{+1.2}_{-1.1}$	f_{2000}^{143}	31^{+7}_{-7}
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3^{+8.4}_{-8.5}$	$100\theta_*$	$1.0410^{+0.0011}_{-0.0012}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
$A_{217}^{\mathrm{dustTT}}$	93^{+20}_{-20}	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.88^{+0.11}_{-0.10}$	f_{2000}^{217}	$108.0^{+5.0}_{-4.8}$
c_{100}	$0.9996^{+0.0016}_{-0.0015}$	z_{drag}	$1059.4^{+1.1}_{-1.1}$	χ_{simall}^2	$396.7 (\nu: 1.3)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	$147.2^{+1.2}_{-1.1}$	χ_{lowl}^2	$23.8 (\nu: 0.7)$
H_0	$64.9^{+7.0}_{-5.4}$	k_{D}	$0.1405^{+0.0013}_{-0.0013}$	χ_{plik}^2	$770.3 (\nu: 14.3)$
Ω_{Λ}	$0.659^{+0.065}_{-0.062}$	$100\theta_{\mathrm{D}}$	$0.16105^{+0.00068}_{-0.00064}$	$\chi_{6\mathrm{DF}}^2$	$0.56 (\nu: 0.2)$
Ω_{m}	$0.341^{+0.062}_{-0.065}$	z_{eq}	3408^{+110}_{-110}	χ_{MGS}^2	$0.89 (\nu: 0.4)$
$\Omega_{\mathrm{m}} h^2$	$0.1433^{+0.0046}_{-0.0047}$	k_{eq}	$0.01040^{+0.00033}_{-0.00034}$	$\chi_{\mathrm{DR12BAO}}^2$	$5.0 (\nu: 1.1)$
$\Omega_{\mathrm{m}} h^3$	$0.0930^{+0.010}_{-0.0087}$	$100\theta_{\mathrm{eq}}$	$0.812^{+0.021}_{-0.020}$	χ_{prior}^2	$7.2 (\nu: 6.4)$
σ_8	$0.799^{+0.070}_{-0.063}$	$100\theta_{\mathrm{s,eq}}$	$0.449^{+0.011}_{-0.010}$	χ_{BAO}^2	$6.4 (\nu: 1.8)$
S_8	$0.851^{+0.055}_{-0.058}$	$H(0.15)$	$73.1^{+2.5}_{-2.3}$	χ_{CMB}^2	$1190.9 (\nu: 14.5)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.466^{+0.030}_{-0.032}$	$D_{\mathrm{M}}(0.15)$	652^{+36}_{-37}		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1204.53; \Delta \bar{\chi}_{\mathrm{eff}}^2 = -1.22; R - 1 = 0.00721$$

18.4 base_w_wa_plikHM_TT_lowl_lowE_BAO_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}} h^2$	$0.02217^{+0.00051}_{-0.00049}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.605^{+0.025}_{-0.025}$	$H(0.38)$	$84.7^{+2.6}_{-2.9}$
$\Omega_{\mathrm{c}} h^2$	$0.1198^{+0.0034}_{-0.0036}$	$\sigma_8 / h^{0.5}$	$0.984^{+0.036}_{-0.037}$	$D_{\mathrm{M}}(0.38)$	1528^{+44}_{-46}
$100\theta_{\mathrm{MC}}$	$1.0408^{+0.0011}_{-0.0011}$	$r_{\mathrm{drag}} h$	$95.7^{+10}_{-8.0}$	$H(0.51)$	$91.5^{+2.9}_{-3.1}$
τ	$0.053^{+0.018}_{-0.012}$	$\langle d^2 \rangle^{1/2}$	$2.456^{+0.068}_{-0.071}$	$D_{\mathrm{M}}(0.51)$	1971^{+44}_{-46}
w_0	$-0.61^{+0.60}_{-0.67}$	z_{re}	< 9.24	$H(0.61)$	$96.9^{+2.8}_{-3.0}$
w_a	$-1.2^{+1.6}_{-1.8}$	$10^9 A_{\mathrm{s}}$	$2.091^{+0.082}_{-0.054}$	$D_{\mathrm{M}}(0.61)$	2289^{+46}_{-47}
$\ln(10^{10} A_{\mathrm{s}})$	$3.040^{+0.038}_{-0.026}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.880^{+0.029}_{-0.028}$	$H(2.33)$	$233.9^{+3.5}_{-3.0}$
n_{s}	$0.965^{+0.012}_{-0.012}$	D_{40}	1229^{+32}_{-32}	$D_{\mathrm{M}}(2.33)$	5755^{+38}_{-36}
y_{cal}	$1.0003^{+0.0062}_{-0.0062}$	D_{220}	5715^{+100}_{-100}	$f\sigma_8(0.15)$	$0.445^{+0.033}_{-0.030}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2535^{+35}_{-34}	$\sigma_8(0.15)$	$0.732^{+0.060}_{-0.054}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	814^{+13}_{-13}	$f\sigma_8(0.38)$	$0.456^{+0.053}_{-0.045}$
A_{143}^{tSZ}	—	D_{2000}	$229.7^{+4.6}_{-4.3}$	$\sigma_8(0.38)$	$0.650^{+0.053}_{-0.047}$
A_{100}^{PS}	263^{+70}_{-70}	$n_{\mathrm{s},0.002}$	$0.965^{+0.012}_{-0.012}$	$f\sigma_8(0.51)$	$0.456^{+0.054}_{-0.046}$
A_{143}^{PS}	49^{+20}_{-20}	Y_{P}	$0.24531^{+0.00020}_{-0.00024}$	$\sigma_8(0.51)$	$0.609^{+0.048}_{-0.043}$
$A_{143 \times 217}^{\mathrm{PS}}$	43^{+20}_{-20}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00020}_{-0.00024}$	$f\sigma_8(0.61)$	$0.454^{+0.052}_{-0.045}$
A_{217}^{PS}	115^{+30}_{-30}	$10^5 \mathrm{D}/\mathrm{H}$	$2.624^{+0.096}_{-0.094}$	$\sigma_8(0.61)$	$0.580^{+0.045}_{-0.040}$
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.780^{+0.091}_{-0.087}$	$f\sigma_8(2.33)$	$0.295^{+0.020}_{-0.018}$
$A_{100}^{\mathrm{dustTT}}$	$8.9^{+4.9}_{-5.1}$	z_*	$1090.15^{+0.79}_{-0.80}$	$\sigma_8(2.33)$	$0.300^{+0.022}_{-0.019}$
$A_{143}^{\mathrm{dustTT}}$	$10.8^{+4.6}_{-4.7}$	r_*	$144.64^{+0.88}_{-0.82}$	f_{2000}^{143}	31^{+8}_{-7}
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3^{+8.2}_{-8.3}$	$100\theta_*$	$1.0411^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
$A_{217}^{\mathrm{dustTT}}$	93^{+20}_{-20}	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.894^{+0.084}_{-0.078}$	f_{2000}^{217}	$108.0^{+5.1}_{-4.9}$
c_{100}	$0.9996^{+0.0016}_{-0.0015}$	z_{drag}	$1059.5^{+1.1}_{-1.1}$	$\chi_{\mathrm{lensing}}^2$	$9.4 (\nu: 0.5)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	r_{drag}	$147.38^{+0.91}_{-0.87}$	χ_{simall}^2	$396.6 (\nu: 1.0)$
H_0	$65.0^{+7.0}_{-5.5}$	k_{D}	$0.1404^{+0.0011}_{-0.0011}$	χ_{lowl}^2	$23.50 (\nu: 0.4)$
Ω_{Λ}	$0.661^{+0.064}_{-0.063}$	$100\theta_{\mathrm{D}}$	$0.16104^{+0.00065}_{-0.00063}$	χ_{plik}^2	$770.5 (\nu: 13.4)$
Ω_{m}	$0.339^{+0.063}_{-0.064}$	z_{eq}	3392^{+78}_{-84}	$\chi_{6\mathrm{DF}}^2$	$0.54 (\nu: 0.2)$
$\Omega_{\mathrm{m}} h^2$	$0.1426^{+0.0033}_{-0.0035}$	k_{eq}	$0.01035^{+0.00024}_{-0.00026}$	χ_{MGS}^2	$0.91 (\nu: 0.4)$
$\Omega_{\mathrm{m}} h^3$	$0.0926^{+0.010}_{-0.0083}$	$100\theta_{\mathrm{eq}}$	$0.815^{+0.016}_{-0.014}$	$\chi_{\mathrm{DR12BAO}}^2$	$4.9 (\nu: 1.2)$
σ_8	$0.793^{+0.063}_{-0.055}$	$100\theta_{\mathrm{s,eq}}$	$0.4502^{+0.0082}_{-0.0073}$	χ_{prior}^2	$7.3 (\nu: 6.5)$
S_8	$0.842^{+0.040}_{-0.042}$	$H(0.15)$	$73.0^{+2.5}_{-2.2}$	χ_{CMB}^2	$1200.0 (\nu: 14.2)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.461^{+0.022}_{-0.023}$	$D_{\mathrm{M}}(0.15)$	652^{+36}_{-37}	χ_{BAO}^2	$6.3 (\nu: 1.9)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 1213.56; \Delta \bar{\chi}_{\mathrm{eff}}^2 = -1.01; R - 1 = 0.01398$$

18.5 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022395	$0.02236^{+0.00037}_{-0.00037}$	$\Omega_m h^3$	0.0929	$0.0930^{+0.010}_{-0.0080}$	$H(0.15)$	73.19	$73.2^{+2.3}_{-2.3}$
$\Omega_c h^2$	0.12001	$0.1203^{+0.0033}_{-0.0033}$	σ_8	0.795	$0.795^{+0.065}_{-0.056}$	$D_M(0.15)$	651.2	652^{+35}_{-38}
$100\theta_{MC}$	1.04093	$1.04089^{+0.00083}_{-0.00079}$	S_8	0.8454	$0.848^{+0.043}_{-0.045}$	$H(0.38)$	84.95	$85.0^{+2.5}_{-2.8}$
τ	0.0546	$0.054^{+0.022}_{-0.020}$	$\sigma_8 \Omega_m^{0.5}$	0.4631	$0.464^{+0.023}_{-0.024}$	$D_M(0.38)$	1524.6	1524^{+45}_{-43}
w_0	-0.60	$-0.58^{+0.58}_{-0.70}$	$\sigma_8 \Omega_m^{0.25}$	0.6067	$0.608^{+0.027}_{-0.027}$	$H(0.51)$	91.71	$91.7^{+2.8}_{-3.1}$
w_a	-1.20	< 0.356	$\sigma_8/h^{0.5}$	0.9865	$0.988^{+0.040}_{-0.040}$	$D_M(0.51)$	1966.1	1965^{+47}_{-43}
$\ln(10^{10} A_s)$	3.0454	$3.044^{+0.044}_{-0.041}$	$r_{drag} h$	95.5	$95.4^{+10}_{-7.9}$	$H(0.61)$	97.14	$97.1^{+2.8}_{-3.0}$
n_s	0.9664	$0.965^{+0.011}_{-0.011}$	$\langle d^2 \rangle^{1/2}$	2.461	$2.466^{+0.079}_{-0.083}$	$D_M(0.61)$	2283.8	2283^{+48}_{-44}
y_{cal}	1.0006	$1.0005^{+0.0062}_{-0.0066}$	z_{re}	7.68	$7.6^{+2.1}_{-2.1}$	$H(2.33)$	234.06	$234.1^{+3.2}_{-2.7}$
A_{217}^{CIB}	45.5	47^{+20}_{-20}	$10^9 A_s$	2.102	$2.099^{+0.094}_{-0.085}$	$D_M(2.33)$	5742.5	5746^{+32}_{-28}
$\xi^{tSZ \times CIB}$	0.69	—	$10^9 A_s e^{-2\tau}$	1.8846	$1.884^{+0.029}_{-0.030}$	$f\sigma_8(0.15)$	0.4460	$0.446^{+0.034}_{-0.029}$
A_{143}^{tSZ}	7.02	$5.5^{+4.5}_{-4.6}$	D_{40}	1228.1	1232^{+32}_{-32}	$\sigma_8(0.15)$	0.734	$0.734^{+0.063}_{-0.054}$
A_{100}^{PS}	248	258^{+70}_{-70}	D_{220}	5732	5731^{+97}_{-100}	$f\sigma_8(0.38)$	0.4563	$0.457^{+0.055}_{-0.045}$
A_{143}^{PS}	51.1	46^{+20}_{-20}	D_{810}	2541.5	2539^{+34}_{-36}	$\sigma_8(0.38)$	0.651	$0.652^{+0.055}_{-0.047}$
$A_{143 \times 217}^{PS}$	54.0	42^{+20}_{-20}	D_{1420}	818.5	817^{+12}_{-13}	$f\sigma_8(0.51)$	0.457	$0.457^{+0.056}_{-0.046}$
A_{217}^{PS}	122.4	115^{+30}_{-30}	D_{2000}	231.50	$230.9^{+4.0}_{-4.3}$	$\sigma_8(0.51)$	0.6105	$0.611^{+0.050}_{-0.043}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9664	$0.965^{+0.011}_{-0.011}$	$f\sigma_8(0.61)$	0.4538	$0.455^{+0.054}_{-0.045}$
A_{100}^{dustTT}	8.79	$8.9^{+4.7}_{-4.6}$	Y_P	0.245405	$0.24539^{+0.00014}_{-0.00016}$	$\sigma_8(0.61)$	0.5814	$0.582^{+0.047}_{-0.040}$
A_{143}^{dustTT}	11.00	$10.9^{+4.6}_{-4.6}$	Y_P^{BBN}	0.246732	$0.24671^{+0.00014}_{-0.00016}$	$f\sigma_8(2.33)$	0.2958	$0.296^{+0.021}_{-0.018}$
$A_{143 \times 217}^{dustTT}$	20.2	$18.6^{+8.4}_{-8.5}$	$10^5 D/H$	2.581	$2.589^{+0.071}_{-0.067}$	$\sigma_8(2.33)$	0.3011	$0.301^{+0.022}_{-0.019}$
A_{217}^{dustTT}	95.7	94^{+20}_{-20}	Age/Gyr	13.753	$13.755^{+0.084}_{-0.074}$	f_{2000}^{143}	28.5	29^{+7}_{-7}
A_{100}^{dustTE}	0.115	$0.115^{+0.10}_{-0.096}$	z_*	1089.89	$1089.96^{+0.68}_{-0.65}$	$f_{2000}^{143 \times 217}$	31.83	32^{+5}_{-5}
$A_{100 \times 143}^{dustTE}$	0.135	$0.134^{+0.076}_{-0.075}$	r_*	144.41	$144.37^{+0.76}_{-0.73}$	f_{2000}^{217}	106.35	$106.9^{+4.6}_{-4.6}$
$A_{100 \times 217}^{dustTE}$	0.483	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	1.04111	$1.04108^{+0.00082}_{-0.00078}$	χ_{small}^2	396.05	$397.0 (\nu: 1.6)$
A_{143}^{dustTE}	0.226	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.871	$13.867^{+0.071}_{-0.069}$	χ_{lowl}^2	23.24	$23.63 (\nu: 0.4)$
$A_{143 \times 217}^{dustTE}$	0.665	$0.67^{+0.21}_{-0.21}$	z_{drag}	1060.01	$1059.92^{+0.77}_{-0.79}$	χ_{plik}^2	2343.6	$2358.5 (\nu: 16.6)$
A_{217}^{dustTE}	2.09	$2.09^{+0.69}_{-0.68}$	r_{drag}	147.06	$147.03^{+0.76}_{-0.73}$	χ_{6DF}^2	0.33	$0.57 (\nu: 0.2)$
c_{100}	0.99973	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14092	$0.14092^{+0.00082}_{-0.00085}$	χ_{MGS}^2	0.63	$0.87 (\nu: 0.4)$
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	0.160724	$0.16077^{+0.00046}_{-0.00045}$	$\chi_{DR12BAO}^2$	3.45	$4.9 (\nu: 1.1)$
H_0	64.9	$64.9^{+7.1}_{-5.4}$	z_{eq}	3403	3409^{+74}_{-75}	χ_{prior}^2	1.6	$11.5 (\nu: 10.0)$
Ω_Λ	0.661	$0.658^{+0.064}_{-0.063}$	k_{eq}	0.010387	$0.01040^{+0.00022}_{-0.00023}$	χ_{BAO}^2	4.40	$6.3 (\nu: 1.7)$
Ω_m	0.339	$0.342^{+0.063}_{-0.064}$	$100\theta_{eq}$	0.8132	$0.812^{+0.014}_{-0.014}$	χ_{CMB}^2	2762.9	$2779.1 (\nu: 17.0)$
$\Omega_m h^2$	0.14305	$0.1433^{+0.0031}_{-0.0032}$	$100\theta_{s,eq}$	0.4493	$0.4488^{+0.0073}_{-0.0070}$			

Best-fit $\chi_{eff}^2 = 2768.85$; $\Delta\chi_{eff}^2 = -3.07$; $\bar{\chi}_{eff}^2 = 2796.92$; $\Delta\bar{\chi}_{eff}^2 = -0.99$; $R - 1 = 0.01402$
 χ_{eff}^2 : BAO - 6DF: 0.33 (Δ 0.30) MGS: 0.62 (Δ -0.59) DR12BAO: 3.45 (Δ -0.96) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.05 (Δ -0.15) commander_dx12_v3_2_29: 23.24 (Δ 0.37) plik_rd12_HM_v22b_TTTEEE: 2343.59 (Δ -1.91)

18.6 base_w_wa_plikHM_TTTEE_lowl_lowE_BAO_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022408	$0.02238^{+0.00036}_{-0.00036}$	$\Omega_m h^3$	0.0929	$0.0928^{+0.010}_{-0.0079}$	$H(0.15)$	73.10	$73.2^{+2.3}_{-2.3}$
$\Omega_c h^2$	0.11969	$0.1199^{+0.0029}_{-0.0028}$	σ_8	0.792	$0.792^{+0.064}_{-0.052}$	$D_M(0.15)$	651.2	651^{+35}_{-37}
$100\theta_{MC}$	1.04095	$1.04092^{+0.00084}_{-0.00080}$	S_8	0.8396	$0.842^{+0.036}_{-0.037}$	$H(0.38)$	84.79	$85.0^{+2.7}_{-2.8}$
τ	0.0530	$0.053^{+0.021}_{-0.019}$	$\sigma_8 \Omega_m^{0.5}$	0.4599	$0.461^{+0.020}_{-0.020}$	$D_M(0.38)$	1526.2	1525^{+45}_{-42}
w_0	-0.63	$-0.59^{+0.61}_{-0.68}$	$\sigma_8 \Omega_m^{0.25}$	0.6034	$0.604^{+0.022}_{-0.021}$	$H(0.51)$	91.58	$91.7^{+3.0}_{-3.1}$
w_a	-1.07	< 0.360	$\sigma_8/h^{0.5}$	0.9817	$0.983^{+0.033}_{-0.032}$	$D_M(0.51)$	1968.5	1966^{+46}_{-43}
$\ln(10^{10} A_s)$	3.0408	$3.041^{+0.040}_{-0.037}$	$r_{\text{drag}} h$	95.7	$95.6^{+10}_{-7.9}$	$H(0.61)$	97.05	$97.1^{+2.9}_{-3.0}$
n_s	0.9671	$0.965^{+0.010}_{-0.010}$	$\langle d^2 \rangle^{1/2}$	2.448	$2.455^{+0.060}_{-0.061}$	$D_M(0.61)$	2286.5	2284^{+47}_{-44}
y_{cal}	1.0005	$1.0004^{+0.0062}_{-0.0066}$	z_{re}	7.51	$7.5^{+2.0}_{-2.0}$	$H(2.33)$	234.19	$234.1^{+3.3}_{-2.8}$
A_{217}^{CIB}	46.6	47^{+20}_{-20}	$10^9 A_s$	2.092	$2.092^{+0.085}_{-0.076}$	$D_M(2.33)$	5742.7	5744^{+33}_{-28}
$\xi^{\text{tSZ} \times \text{CIB}}$	0.52	—	$10^9 A_s e^{-2\tau}$	1.8818	$1.882^{+0.027}_{-0.028}$	$f\sigma_8(0.15)$	0.4444	$0.444^{+0.032}_{-0.027}$
A_{143}^{tSZ}	7.16	> 0.851	D_{40}	1225.3	1229^{+29}_{-29}	$\sigma_8(0.15)$	0.731	$0.731^{+0.062}_{-0.050}$
A_{100}^{PS}	249	258^{+70}_{-70}	D_{220}	5729	5732^{+98}_{-100}	$f\sigma_8(0.38)$	0.4549	$0.455^{+0.053}_{-0.043}$
A_{143}^{PS}	48.6	46^{+20}_{-20}	D_{810}	2539.7	2538^{+34}_{-36}	$\sigma_8(0.38)$	0.6489	$0.649^{+0.054}_{-0.044}$
$A_{143 \times 217}^{\text{PS}}$	49.7	42^{+20}_{-20}	D_{1420}	818.2	817^{+12}_{-13}	$f\sigma_8(0.51)$	0.4548	$0.455^{+0.054}_{-0.044}$
A_{217}^{PS}	120.6	115^{+30}_{-30}	D_{2000}	231.36	$230.8^{+3.9}_{-4.4}$	$\sigma_8(0.51)$	0.6081	$0.608^{+0.049}_{-0.040}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9671	$0.965^{+0.010}_{-0.010}$	$f\sigma_8(0.61)$	0.4519	$0.452^{+0.052}_{-0.043}$
A_{100}^{dustTT}	8.85	$8.9^{+4.7}_{-4.5}$	Y_P	0.245411	$0.24540^{+0.00013}_{-0.00015}$	$\sigma_8(0.61)$	0.5791	$0.579^{+0.046}_{-0.037}$
A_{143}^{dustTT}	11.02	$10.9^{+4.5}_{-4.7}$	Y_P^{BBN}	0.246737	$0.24672^{+0.00013}_{-0.00015}$	$f\sigma_8(2.33)$	0.2945	$0.295^{+0.020}_{-0.017}$
$A_{143 \times 217}^{\text{dustTT}}$	19.9	$18.6^{+8.3}_{-8.6}$	$10^5 D/H$	2.578	$2.584^{+0.068}_{-0.065}$	$\sigma_8(2.33)$	0.3004	$0.300^{+0.022}_{-0.018}$
A_{217}^{dustTT}	95.2	94^{+20}_{-20}	Age/Gyr	13.757	$13.756^{+0.083}_{-0.075}$	f_{2000}^{143}	28.6	29^{+7}_{-7}
A_{100}^{dustTE}	0.114	$0.115^{+0.099}_{-0.095}$	z_*	1089.84	$1089.90^{+0.62}_{-0.61}$	$f_{2000}^{143 \times 217}$	31.89	32^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.134^{+0.077}_{-0.077}$	r_*	144.48	$144.45^{+0.64}_{-0.65}$	f_{2000}^{217}	106.47	$106.9^{+4.6}_{-4.6}$
$A_{100 \times 217}^{\text{dustTE}}$	0.481	$0.48^{+0.21}_{-0.22}$	$100\theta_*$	1.04113	$1.04111^{+0.00084}_{-0.00079}$	χ_{lensing}^2	8.77	9.28 (ν : 0.4)
A_{143}^{dustTE}	0.225	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.877	$13.875^{+0.061}_{-0.061}$	χ_{small}^2	395.82	396.8 (ν : 1.2)
$A_{143 \times 217}^{\text{dustTE}}$	0.666	$0.67^{+0.21}_{-0.21}$	z_{drag}	1060.01	$1059.95^{+0.79}_{-0.78}$	χ_{lowl}^2	23.02	23.44 (ν : 0.3)
A_{217}^{dustTE}	2.08	$2.08^{+0.68}_{-0.70}$	r_{drag}	147.13	$147.11^{+0.66}_{-0.65}$	χ_{plik}^2	2344.2	2358.6 (ν : 16.1)
c_{100}	0.99971	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14085	$0.14085^{+0.00075}_{-0.00076}$	$\chi_{6\text{DF}}^2$	0.31	0.56 (ν : 0.2)
c_{217}	0.99819	$0.9982^{+0.0017}_{-0.0016}$	$100\theta_D$	0.160720	$0.16075^{+0.00045}_{-0.00045}$	χ_{MGS}^2	0.63	0.89 (ν : 0.4)
H_0	65.1	$65.0^{+6.9}_{-5.4}$	z_{eq}	3396	3400^{+65}_{-63}	χ_{DR12BAO}^2	3.35	4.8 (ν : 1.1)
Ω_Λ	0.663	$0.660^{+0.063}_{-0.063}$	k_{eq}	0.010364	$0.01038^{+0.00020}_{-0.00019}$	χ_{prior}^2	1.7	11.5 (ν : 10.2)
Ω_m	0.337	$0.340^{+0.063}_{-0.063}$	$100\theta_{\text{eq}}$	0.8146	$0.814^{+0.012}_{-0.012}$	χ_{CMB}^2	2771.8	2788.1 (ν : 17.1)
$\Omega_m h^2$	0.14275	$0.1429^{+0.0027}_{-0.0027}$	$100\theta_{s,\text{eq}}$	0.4500	$0.4496^{+0.0061}_{-0.0062}$	χ_{BAO}^2	4.28	6.3 (ν : 1.7)

Best-fit $\chi_{\text{eff}}^2 = 2777.81$; $\Delta\chi_{\text{eff}}^2 = -2.88$; $\bar{\chi}_{\text{eff}}^2 = 2805.90$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.95$; $R - 1 = 0.01750$

χ_{eff}^2 : BAO - 6DF: 0.31 (Δ 0.28) MGS: 0.62 (Δ -0.59) DR12BAO: 3.35 (Δ -1.07) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.77 (Δ 0.04) simall_100x143_offlike5_EE_Aplanck 395.82 (Δ -0.70) commander_dx12_v3.2_29: 23.02 (Δ 0.12) plik_rd12_HM_v22b.TTTEE: 2344.24 (Δ -1.08)

18.7 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02236^{+0.00037}_{-0.00038}$	$\Omega_m h^3$	$0.0929^{+0.010}_{-0.0080}$	$H(0.15)$	$73.2^{+2.3}_{-2.3}$
$\Omega_c h^2$	$0.1202^{+0.0033}_{-0.0033}$	σ_8	$0.796^{+0.066}_{-0.054}$	$D_M(0.15)$	652^{+35}_{-38}
$100\theta_{MC}$	$1.04090^{+0.00084}_{-0.00079}$	S_8	$0.848^{+0.042}_{-0.044}$	$H(0.38)$	$85.0^{+2.5}_{-2.9}$
τ	$0.055^{+0.019}_{-0.013}$	$\sigma_8 \Omega_m^{0.5}$	$0.465^{+0.023}_{-0.024}$	$D_M(0.38)$	1524^{+45}_{-43}
w_0	$-0.58^{+0.58}_{-0.70}$	$\sigma_8 \Omega_m^{0.25}$	$0.608^{+0.027}_{-0.027}$	$H(0.51)$	$91.7^{+2.8}_{-3.1}$
w_a	< 0.360	$\sigma_8/h^{0.5}$	$0.988^{+0.040}_{-0.040}$	$D_M(0.51)$	1966^{+46}_{-43}
$\ln(10^{10} A_s)$	$3.046^{+0.042}_{-0.030}$	$r_{\text{drag}} h$	$95.4^{+10}_{-7.9}$	$H(0.61)$	$97.1^{+2.8}_{-3.1}$
n_s	$0.965^{+0.011}_{-0.011}$	$\langle d^2 \rangle^{1/2}$	$2.468^{+0.079}_{-0.081}$	$D_M(0.61)$	2283^{+48}_{-43}
y_{cal}	$1.0005^{+0.0062}_{-0.0066}$	z_{re}	< 9.51	$H(2.33)$	$234.1^{+3.2}_{-2.7}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.104^{+0.090}_{-0.062}$	$D_M(2.33)$	5745^{+32}_{-28}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.884^{+0.029}_{-0.030}$	$f\sigma_8(0.15)$	$0.447^{+0.034}_{-0.029}$
A_{143}^{tSZ}	$5.5^{+4.5}_{-4.6}$	D_{40}	1232^{+32}_{-32}	$\sigma_8(0.15)$	$0.735^{+0.063}_{-0.052}$
A_{100}^{PS}	258^{+70}_{-70}	D_{220}	5731^{+97}_{-100}	$f\sigma_8(0.38)$	$0.457^{+0.055}_{-0.044}$
A_{143}^{PS}	46^{+20}_{-20}	D_{810}	2539^{+34}_{-36}	$\sigma_8(0.38)$	$0.652^{+0.055}_{-0.046}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	817^{+12}_{-13}	$f\sigma_8(0.51)$	$0.458^{+0.056}_{-0.045}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$230.9^{+4.0}_{-4.3}$	$\sigma_8(0.51)$	$0.611^{+0.051}_{-0.042}$
A^{kSZ}	—	$n_{s,0.002}$	$0.965^{+0.011}_{-0.011}$	$f\sigma_8(0.61)$	$0.455^{+0.054}_{-0.044}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.6}$	Y_P	$0.24539^{+0.00014}_{-0.00016}$	$\sigma_8(0.61)$	$0.582^{+0.047}_{-0.039}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.6}$	Y_P^{BBN}	$0.24672^{+0.00014}_{-0.00016}$	$f\sigma_8(2.33)$	$0.296^{+0.021}_{-0.018}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.5^{+8.4}_{-8.5}$	10^5D/H	$2.588^{+0.071}_{-0.067}$	$\sigma_8(2.33)$	$0.301^{+0.022}_{-0.018}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.755^{+0.084}_{-0.073}$	f_{2000}^{143}	29^{+7}_{-7}
A_{100}^{dustTE}	$0.115^{+0.10}_{-0.096}$	z_*	$1089.96^{+0.68}_{-0.65}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	$0.134^{+0.076}_{-0.075}$	r_*	$144.38^{+0.76}_{-0.72}$	f_{2000}^{217}	$106.9^{+4.5}_{-4.6}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	$1.04108^{+0.00083}_{-0.00078}$	χ_{simall}^2	$397.0 (\nu: 1.7)$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.868^{+0.071}_{-0.068}$	χ_{lowl}^2	$23.64 (\nu: 0.4)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.67^{+0.21}_{-0.21}$	z_{drag}	$1059.93^{+0.77}_{-0.80}$	χ_{plik}^2	$2358.3 (\nu: 16.5)$
A_{217}^{dustTE}	$2.09^{+0.69}_{-0.68}$	r_{drag}	$147.04^{+0.76}_{-0.73}$	$\chi_{6\text{DF}}^2$	$0.57 (\nu: 0.2)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_D	$0.14091^{+0.00082}_{-0.00085}$	χ_{MGS}^2	$0.87 (\nu: 0.4)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.16076^{+0.00046}_{-0.00045}$	χ_{DR12BAO}^2	$4.9 (\nu: 1.1)$
H_0	$64.9^{+7.1}_{-5.4}$	z_{eq}	3408^{+74}_{-75}	χ_{prior}^2	$11.5 (\nu: 10.0)$
Ω_Λ	$0.658^{+0.065}_{-0.062}$	k_{eq}	$0.01040^{+0.00022}_{-0.00023}$	χ_{BAO}^2	$6.3 (\nu: 1.7)$
Ω_m	$0.342^{+0.062}_{-0.065}$	$100\theta_{\text{eq}}$	$0.812^{+0.014}_{-0.014}$	χ_{CMB}^2	$2778.9 (\nu: 16.7)$
$\Omega_m h^2$	$0.1432^{+0.0031}_{-0.0031}$	$100\theta_{s,\text{eq}}$	$0.4489^{+0.0073}_{-0.0070}$		

$$\bar{\chi}_{\text{eff}}^2 = 2796.70; \Delta \bar{\chi}_{\text{eff}}^2 = -1.01; R - 1 = 0.01451$$

18.8 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02238^{+0.00036}_{-0.00036}$	$\Omega_m h^3$	$0.0928^{+0.010}_{-0.0079}$	$H(0.15)$	$73.2^{+2.2}_{-2.3}$
$\Omega_c h^2$	$0.1198^{+0.0028}_{-0.0028}$	σ_8	$0.792^{+0.064}_{-0.052}$	$D_M(0.15)$	652^{+35}_{-38}
$100\theta_{MC}$	$1.04093^{+0.00085}_{-0.00080}$	S_8	$0.842^{+0.036}_{-0.037}$	$H(0.38)$	$85.0^{+2.7}_{-2.8}$
τ	$0.054^{+0.018}_{-0.012}$	$\sigma_8 \Omega_m^{0.5}$	$0.461^{+0.020}_{-0.020}$	$D_M(0.38)$	1525^{+45}_{-42}
w_0	$-0.60^{+0.61}_{-0.68}$	$\sigma_8 \Omega_m^{0.25}$	$0.605^{+0.022}_{-0.021}$	$H(0.51)$	$91.7^{+3.0}_{-3.1}$
w_a	< 0.365	$\sigma_8/h^{0.5}$	$0.983^{+0.033}_{-0.032}$	$D_M(0.51)$	1967^{+46}_{-43}
$\ln(10^{10} A_s)$	$3.043^{+0.038}_{-0.026}$	$r_{\text{drag}} h$	$95.6^{+10}_{-7.9}$	$H(0.61)$	$97.1^{+2.9}_{-3.0}$
n_s	$0.965^{+0.010}_{-0.010}$	$\langle d^2 \rangle^{1/2}$	$2.457^{+0.059}_{-0.059}$	$D_M(0.61)$	2284^{+47}_{-43}
y_{cal}	$1.0003^{+0.0062}_{-0.0066}$	z_{re}	< 9.32	$H(2.33)$	$234.1^{+3.3}_{-2.8}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s$	$2.097^{+0.081}_{-0.054}$	$D_M(2.33)$	5744^{+33}_{-28}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.881^{+0.027}_{-0.028}$	$f\sigma_8(0.15)$	$0.444^{+0.032}_{-0.027}$
A_{143}^{tSZ}	> 0.838	D_{40}	1229^{+29}_{-29}	$\sigma_8(0.15)$	$0.731^{+0.062}_{-0.050}$
A_{100}^{PS}	258^{+70}_{-70}	D_{220}	5731^{+98}_{-100}	$f\sigma_8(0.38)$	$0.455^{+0.053}_{-0.043}$
A_{143}^{PS}	46^{+20}_{-20}	D_{810}	2537^{+34}_{-36}	$\sigma_8(0.38)$	$0.650^{+0.054}_{-0.044}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	817^{+12}_{-13}	$f\sigma_8(0.51)$	$0.455^{+0.055}_{-0.044}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$230.8^{+4.0}_{-4.4}$	$\sigma_8(0.51)$	$0.609^{+0.049}_{-0.040}$
A^{kSZ}	—	$n_{s,0.002}$	$0.965^{+0.010}_{-0.010}$	$f\sigma_8(0.61)$	$0.452^{+0.053}_{-0.042}$
$A_{100}^{\text{dust}TT}$	$8.9^{+4.7}_{-4.5}$	Y_P	$0.24540^{+0.00013}_{-0.00015}$	$\sigma_8(0.61)$	$0.580^{+0.046}_{-0.037}$
$A_{143}^{\text{dust}TT}$	$10.9^{+4.4}_{-4.6}$	Y_P^{BBN}	$0.24673^{+0.00013}_{-0.00015}$	$f\sigma_8(2.33)$	$0.295^{+0.020}_{-0.017}$
$A_{143 \times 217}^{\text{dust}TT}$	$18.6^{+8.3}_{-8.6}$	10^5D/H	$2.583^{+0.068}_{-0.064}$	$\sigma_8(2.33)$	$0.300^{+0.022}_{-0.018}$
$A_{217}^{\text{dust}TT}$	94^{+20}_{-20}	Age/Gyr	$13.757^{+0.083}_{-0.075}$	f_{2000}^{143}	29^{+7}_{-7}
$A_{100}^{\text{dust}TE}$	$0.115^{+0.099}_{-0.095}$	z_*	$1089.89^{+0.60}_{-0.60}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{100 \times 143}^{\text{dust}TE}$	$0.135^{+0.077}_{-0.077}$	r_*	$144.47^{+0.64}_{-0.63}$	f_{2000}^{217}	$106.9^{+4.5}_{-4.6}$
$A_{100 \times 217}^{\text{dust}TE}$	$0.48^{+0.21}_{-0.22}$	$100\theta_*$	$1.04112^{+0.00084}_{-0.00079}$	χ_{lensing}^2	$9.29 (\nu: 0.4)$
$A_{143}^{\text{dust}TE}$	$0.22^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$13.876^{+0.060}_{-0.059}$	χ_{simall}^2	$396.7 (\nu: 1.2)$
$A_{143 \times 217}^{\text{dust}TE}$	$0.67^{+0.21}_{-0.21}$	z_{drag}	$1059.95^{+0.78}_{-0.78}$	χ_{lowl}^2	$23.43 (\nu: 0.3)$
$A_{217}^{\text{dust}TE}$	$2.08^{+0.67}_{-0.68}$	r_{drag}	$147.12^{+0.65}_{-0.64}$	χ_{plik}^2	$2358.5 (\nu: 16.0)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_D	$0.14084^{+0.00074}_{-0.00077}$	$\chi_{6\text{DF}}^2$	$0.56 (\nu: 0.2)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.16075^{+0.00046}_{-0.00045}$	χ_{MGS}^2	$0.89 (\nu: 0.4)$
H_0	$65.0^{+6.9}_{-5.4}$	z_{eq}	3398^{+62}_{-62}	χ_{DR12BAO}^2	$4.8 (\nu: 1.1)$
Ω_Λ	$0.660^{+0.063}_{-0.062}$	k_{eq}	$0.01037^{+0.00019}_{-0.00019}$	χ_{prior}^2	$11.5 (\nu: 10.2)$
Ω_m	$0.340^{+0.062}_{-0.063}$	$100\theta_{\text{eq}}$	$0.814^{+0.012}_{-0.012}$	χ_{CMB}^2	$2787.9 (\nu: 16.8)$
$\Omega_m h^2$	$0.1429^{+0.0026}_{-0.0026}$	$100\theta_{s,\text{eq}}$	$0.4498^{+0.0061}_{-0.0060}$	χ_{BAO}^2	$6.3 (\nu: 1.7)$

$$\bar{\chi}_{\text{eff}}^2 = 2805.65; \Delta \bar{\chi}_{\text{eff}}^2 = -1.07; R - 1 = 0.01782$$

18.9 base_w_wa_plikHM_TT_lowl_lowE_BAO_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02215	$0.02212^{+0.00057}_{-0.00053}$	$\sigma_8 \Omega_m^{0.25}$	0.6137	$0.615^{+0.034}_{-0.034}$	$H(0.38)$	83.41	$83.4^{+1.6}_{-1.6}$
$\Omega_c h^2$	0.12027	$0.1206^{+0.0048}_{-0.0045}$	$\sigma_8/h^{0.5}$	0.9978	$0.999^{+0.049}_{-0.049}$	$D_M(0.38)$	1516.3	1516^{+34}_{-34}
$100\theta_{MC}$	1.04082	$1.0408^{+0.0012}_{-0.0012}$	$r_{drag}h$	100.49	$100.3^{+3.3}_{-3.0}$	$H(0.51)$	89.88	$89.9^{+1.3}_{-1.3}$
τ	0.0526	$0.052^{+0.021}_{-0.022}$	$\langle d^2 \rangle^{1/2}$	2.460	$2.47^{+0.11}_{-0.11}$	$D_M(0.51)$	1966.6	1966^{+41}_{-40}
w_0	-0.971	$-0.95^{+0.22}_{-0.20}$	z_{re}	7.55	$7.5^{+2.1}_{-2.4}$	$H(0.61)$	95.31	$95.3^{+1.2}_{-1.1}$
w_a	-0.27	$-0.36^{+0.79}_{-1.1}$	$10^9 A_s$	2.092	$2.091^{+0.093}_{-0.090}$	$D_M(0.61)$	2290.6	2290^{+43}_{-42}
$\ln(10^{10} A_s)$	3.0406	$3.040^{+0.044}_{-0.044}$	$10^9 A_s e^{-2\tau}$	1.8828	$1.884^{+0.035}_{-0.034}$	$H(2.33)$	235.10	$235.1^{+2.5}_{-2.5}$
n_s	0.9646	$0.963^{+0.013}_{-0.013}$	D_{40}	1228.3	1232^{+38}_{-36}	$D_M(2.33)$	5763.8	5766^{+32}_{-33}
y_{cal}	1.0003	$1.0005^{+0.0066}_{-0.0065}$	D_{220}	5710	5713^{+110}_{-110}	$f\sigma_8(0.15)$	0.4618	$0.462^{+0.029}_{-0.027}$
A_{217}^{CIB}	48.9	48^{+20}_{-20}	D_{810}	2536.9	2536^{+37}_{-36}	$\sigma_8(0.15)$	0.7621	$0.763^{+0.042}_{-0.041}$
$\xi^{tSZ \times CIB}$	0.31	—	D_{1420}	815.3	814^{+13}_{-13}	$f\sigma_8(0.38)$	0.4832	$0.484^{+0.034}_{-0.031}$
A_{143}^{tSZ}	7.1	—	D_{2000}	230.01	$229.6^{+4.6}_{-4.6}$	$\sigma_8(0.38)$	0.6759	$0.676^{+0.036}_{-0.036}$
A_{100}^{PS}	254	263^{+70}_{-70}	$n_{s,0.002}$	0.9646	$0.963^{+0.013}_{-0.013}$	$f\sigma_8(0.51)$	0.4834	$0.484^{+0.036}_{-0.033}$
A_{143}^{PS}	49.0	49^{+20}_{-20}	Y_P	0.245306	$0.24529^{+0.00022}_{-0.00025}$	$\sigma_8(0.51)$	0.6325	$0.633^{+0.033}_{-0.034}$
$A_{143 \times 217}^{PS}$	46.5	43^{+20}_{-20}	Y_P^{BBN}	0.246632	$0.24661^{+0.00022}_{-0.00025}$	$f\sigma_8(0.61)$	0.4793	$0.480^{+0.037}_{-0.033}$
A_{217}^{PS}	119.0	115^{+30}_{-30}	$10^5 D/H$	2.627	$2.63^{+0.10}_{-0.10}$	$\sigma_8(0.61)$	0.6018	$0.602^{+0.031}_{-0.032}$
A^{kSZ}	0.0	—	Age/Gyr	13.778	$13.779^{+0.093}_{-0.088}$	$f\sigma_8(2.33)$	0.3040	$0.304^{+0.015}_{-0.017}$
A_{100}^{dustTT}	8.86	$9.0^{+4.7}_{-4.7}$	z_*	1090.22	$1090.29^{+0.96}_{-0.93}$	$\sigma_8(2.33)$	0.3110	$0.311^{+0.012}_{-0.013}$
A_{143}^{dustTT}	10.85	$10.7^{+4.6}_{-4.6}$	r_*	144.53	$144.5^{+1.1}_{-1.1}$	f_{2000}^{143}	30.3	31^{+8}_{-7}
$A_{143 \times 217}^{dustTT}$	19.4	$18.3^{+8.3}_{-8.5}$	$100\theta_*$	1.04103	$1.0410^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33.2	34^{+5}_{-5}
A_{217}^{dustTT}	94.5	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.883	$13.88^{+0.10}_{-0.10}$	f_{2000}^{217}	107.61	$108.1^{+5.0}_{-4.8}$
c_{100}	0.99966	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	1059.44	$1059.4^{+1.2}_{-1.1}$	χ_{simall}^2	395.87	$396.9 (\nu: 1.3)$
c_{217}	0.99825	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	147.26	$147.2^{+1.2}_{-1.1}$	χ_{lowl}^2	23.28	$23.7 (\nu: 0.6)$
H_0	68.24	$68.1^{+2.2}_{-2.1}$	k_D	0.14052	$0.1405^{+0.0013}_{-0.0013}$	χ_{plik}^2	758.4	$770.8 (\nu: 14.6)$
Ω_Λ	0.6928	$0.691^{+0.021}_{-0.021}$	$100\theta_D$	0.16104	$0.16107^{+0.00069}_{-0.00070}$	χ_{JLA}^2	1034.78	$1035.9 (\nu: 1.1)$
Ω_m	0.3072	$0.309^{+0.021}_{-0.021}$	z_{eq}	3404	3410^{+110}_{-100}	χ_{6DF}^2	0.001	$0.052 (\nu: 0.0)$
$\Omega_m h^2$	0.14307	$0.1433^{+0.0045}_{-0.0043}$	k_{eq}	0.010388	$0.01041^{+0.00033}_{-0.00032}$	χ_{MGS}^2	1.82	$1.87 (\nu: 0.2)$
$\Omega_m h^3$	0.09763	$0.0977^{+0.0046}_{-0.0043}$	$100\theta_{eq}$	0.8124	$0.811^{+0.020}_{-0.020}$	$\chi_{DR12BAO}^2$	4.04	$5.0 (\nu: 0.9)$
σ_8	0.8243	$0.825^{+0.045}_{-0.044}$	$100\theta_{s,eq}$	0.4491	$0.449^{+0.010}_{-0.010}$	χ_{prior}^2	1.4	$7.3 (\nu: 6.8)$
S_8	0.834	$0.837^{+0.052}_{-0.052}$	$H(0.15)$	73.60	$73.6^{+1.9}_{-1.8}$	χ_{BAO}^2	5.86	$6.9 (\nu: 1.1)$
$\sigma_8 \Omega_m^{0.5}$	0.4569	$0.458^{+0.029}_{-0.028}$	$D_M(0.15)$	634.9	635^{+17}_{-17}	χ_{CMB}^2	1177.5	$1191.3 (\nu: 15.0)$

Best-fit $\chi_{eff}^2 = 2219.53$; $\bar{\chi}_{eff}^2 = 2241.47$; $R - 1 = 0.00718$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.82 DR12BAO: 4.04 CMB - simall_100x143.offlike5_EE_Aplanck_B: 395.87 commander_dx12_v3.2.29: 23.29 plik_rd12_HM_v22.TT: 758.36
SN - JLA Pantheon18: 1034.78

18.10 base_w_wa_plikHM_TT_lowl_lowE_BAO_Pantheon18_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02219	$0.02215^{+0.00055}_{-0.00051}$	$\sigma_8 \Omega_m^{0.25}$	0.6096	$0.611^{+0.022}_{-0.023}$	$H(0.38)$	83.40	$83.4^{+1.7}_{-1.5}$
$\Omega_c h^2$	0.11971	$0.1200^{+0.0035}_{-0.0034}$	$\sigma_8/h^{0.5}$	0.9921	$0.994^{+0.031}_{-0.032}$	$D_M(0.38)$	1517.3	1517^{+33}_{-34}
$100\theta_{MC}$	1.04081	$1.0408^{+0.0011}_{-0.0011}$	$r_{drag}h$	100.49	$100.4^{+3.3}_{-3.0}$	$H(0.51)$	89.90	$89.9^{+1.3}_{-1.3}$
τ	0.0528	$0.052^{+0.021}_{-0.022}$	$\langle d^2 \rangle^{1/2}$	2.449	$2.455^{+0.068}_{-0.071}$	$D_M(0.51)$	1967.5	1967^{+39}_{-40}
w_0	-0.974	$-0.96^{+0.21}_{-0.19}$	z_{re}	7.55	$7.4^{+2.1}_{-2.4}$	$H(0.61)$	95.36	$95.3^{+1.2}_{-1.1}$
w_a	-0.22	$-0.29^{+0.70}_{-0.90}$	$10^9 A_s$	2.090	$2.087^{+0.082}_{-0.081}$	$D_M(0.61)$	2291.4	2291^{+42}_{-43}
$\ln(10^{10} A_s)$	3.0397	$3.038^{+0.039}_{-0.039}$	$10^9 A_s e^{-2\tau}$	1.8804	$1.882^{+0.028}_{-0.028}$	$H(2.33)$	235.02	$235.0^{+2.5}_{-2.5}$
n_s	0.9653	$0.964^{+0.011}_{-0.012}$	D_{40}	1226.7	1230^{+32}_{-31}	$D_M(2.33)$	5762.9	5765^{+32}_{-33}
y_{cal}	1.0003	$1.0004^{+0.0065}_{-0.0064}$	D_{220}	5715	5716^{+100}_{-110}	$f\sigma_8(0.15)$	0.4584	$0.459^{+0.020}_{-0.020}$
A_{217}^{CIB}	49.0	48^{+20}_{-20}	D_{810}	2536.1	2535^{+35}_{-35}	$\sigma_8(0.15)$	0.7576	$0.759^{+0.030}_{-0.030}$
$\xi^{tSZ \times CIB}$	0.26	—	D_{1420}	815.3	814^{+13}_{-13}	$f\sigma_8(0.38)$	0.4794	$0.481^{+0.023}_{-0.024}$
A_{143}^{tSZ}	7.1	—	D_{2000}	229.98	$229.6^{+4.4}_{-4.5}$	$\sigma_8(0.38)$	0.6720	$0.673^{+0.026}_{-0.026}$
A_{100}^{PS}	255	264^{+70}_{-70}	$n_{s,0.002}$	0.9653	$0.964^{+0.011}_{-0.012}$	$f\sigma_8(0.51)$	0.4795	$0.481^{+0.024}_{-0.024}$
A_{143}^{PS}	48.4	49^{+20}_{-20}	Y_P	0.245320	$0.24530^{+0.00022}_{-0.00024}$	$\sigma_8(0.51)$	0.6290	$0.630^{+0.024}_{-0.024}$
$A_{143 \times 217}^{PS}$	45.2	43^{+20}_{-20}	Y_P^{BBN}	0.246647	$0.24663^{+0.00022}_{-0.00024}$	$f\sigma_8(0.61)$	0.4754	$0.477^{+0.025}_{-0.025}$
A_{217}^{PS}	118.5	115^{+30}_{-30}	$10^5 D/H$	2.620	$2.628^{+0.098}_{-0.10}$	$\sigma_8(0.61)$	0.5985	$0.599^{+0.023}_{-0.023}$
A^{kSZ}	0.0	—	Age/Gyr	13.781	$13.781^{+0.087}_{-0.091}$	$f\sigma_8(2.33)$	0.3023	$0.303^{+0.012}_{-0.012}$
A_{100}^{dustTT}	8.91	$9.0^{+4.6}_{-4.8}$	z_*	1090.13	$1090.21^{+0.83}_{-0.83}$	$\sigma_8(2.33)$	0.3098	$0.3098^{+0.0094}_{-0.0094}$
A_{143}^{dustTT}	10.82	$10.8^{+4.4}_{-4.6}$	r_*	144.65	$144.59^{+0.87}_{-0.86}$	$\chi_{lensing}^2$	8.72	$9.40 (\nu: 0.5)$
$A_{143 \times 217}^{dustTT}$	19.5	$18.3^{+8.0}_{-8.6}$	$100\theta_*$	1.04102	$1.0410^{+0.0011}_{-0.0011}$	χ_{small}^2	395.86	$396.8 (\nu: 1.1)$
A_{217}^{dustTT}	94.8	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.895	$13.889^{+0.082}_{-0.082}$	χ_{lowl}^2	23.14	$23.48 (\nu: 0.4)$
c_{100}	0.99963	$0.9996^{+0.0016}_{-0.0017}$	z_{drag}	1059.47	$1059.4^{+1.2}_{-1.1}$	χ_{plik}^2	758.7	$770.7 (\nu: 13.9)$
c_{217}	0.99826	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	147.37	$147.33^{+0.92}_{-0.90}$	χ_{JLA}^2	1034.79	$1035.9 (\nu: 1.1)$
H_0	68.19	$68.1^{+2.2}_{-2.1}$	k_D	0.14043	$0.1404^{+0.0012}_{-0.0012}$	χ_{6DF}^2	0.001	$0.053 (\nu: 0.0)$
Ω_Λ	0.6934	$0.692^{+0.020}_{-0.021}$	$100\theta_D$	0.16101	$0.16105^{+0.00069}_{-0.00071}$	χ_{MGS}^2	1.82	$1.89 (\nu: 0.2)$
Ω_m	0.3066	$0.308^{+0.021}_{-0.020}$	z_{eq}	3391	3398^{+80}_{-77}	$\chi_{DR12BAO}^2$	3.86	$4.8 (\nu: 0.8)$
$\Omega_m h^2$	0.14254	$0.1428^{+0.0033}_{-0.0032}$	k_{eq}	0.010350	$0.01037^{+0.00024}_{-0.00024}$	χ_{prior}^2	1.5	$7.3 (\nu: 6.8)$
$\Omega_m h^3$	0.09720	$0.0973^{+0.0039}_{-0.0038}$	$100\theta_{eq}$	0.8147	$0.813^{+0.015}_{-0.014}$	χ_{CMB}^2	1186.4	$1200.4 (\nu: 15.5)$
σ_8	0.8193	$0.821^{+0.031}_{-0.032}$	$100\theta_{s,eq}$	0.4503	$0.4496^{+0.0075}_{-0.0074}$	χ_{BAO}^2	5.68	$6.7 (\nu: 1.1)$
S_8	0.8282	$0.831^{+0.034}_{-0.034}$	$H(0.15)$	73.54	$73.6^{+1.9}_{-1.7}$			
$\sigma_8 \Omega_m^{0.5}$	0.4536	$0.455^{+0.019}_{-0.019}$	$D_M(0.15)$	635.4	635^{+17}_{-17}			

Best-fit $\chi_{eff}^2 = 2228.36$; $\Delta\chi_{eff}^2 = -1.35$; $\bar{\chi}_{eff}^2 = 2250.30$; $\Delta\bar{\chi}_{eff}^2 = 0.53$; $R - 1 = 0.00973$

χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.01) MGS: 1.82 (Δ 0.48) DR12BAO: 3.86 (Δ -0.17) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.72 (Δ -0.16) small_100x143_offlike5_EE_Aplanc 395.86 (Δ -0.51) commander_dx12_v3.2_29: 23.14 (Δ 0.33) plik_rd12_HM_v22.TT: 758.71 (Δ -1.08) SN - JLA Pantheon18: 1034.79 (Δ -0.16)

18.11 base_w_wa_plikHM_TT_lowl_lowE_BAO_Pantheon18_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02213^{+0.00056}_{-0.00053}$	$\sigma_8 \Omega_m^{0.25}$	$0.615^{+0.034}_{-0.033}$	$H(0.38)$	$83.4^{+1.6}_{-1.6}$
$\Omega_c h^2$	$0.1205^{+0.0047}_{-0.0045}$	$\sigma_8/h^{0.5}$	$1.000^{+0.048}_{-0.047}$	$D_M(0.38)$	1516^{+34}_{-34}
$100\theta_{MC}$	$1.0408^{+0.0012}_{-0.0011}$	$r_{drag}h$	$100.3^{+3.3}_{-3.0}$	$H(0.51)$	$89.9^{+1.3}_{-1.3}$
τ	$0.054^{+0.018}_{-0.012}$	$\langle d^2 \rangle^{1/2}$	$2.47^{+0.10}_{-0.10}$	$D_M(0.51)$	1967^{+40}_{-40}
w_0	$-0.95^{+0.22}_{-0.20}$	z_{re}	< 9.35	$H(0.61)$	$95.3^{+1.2}_{-1.1}$
w_a	$-0.35^{+0.78}_{-1.0}$	$10^9 A_s$	$2.097^{+0.088}_{-0.061}$	$D_M(0.61)$	2291^{+43}_{-42}
$\ln(10^{10} A_s)$	$3.043^{+0.041}_{-0.030}$	$10^9 A_s e^{-2\tau}$	$1.884^{+0.034}_{-0.033}$	$H(2.33)$	$235.1^{+2.5}_{-2.5}$
n_s	$0.963^{+0.012}_{-0.013}$	D_{40}	1232^{+38}_{-36}	$D_M(2.33)$	5766^{+32}_{-33}
y_{cal}	$1.0005^{+0.0066}_{-0.0065}$	D_{220}	5713^{+110}_{-110}	$f\sigma_8(0.15)$	$0.463^{+0.028}_{-0.027}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2536^{+36}_{-36}	$\sigma_8(0.15)$	$0.763^{+0.041}_{-0.040}$
$\xi^{tSZ \times CIB}$	—	D_{1420}	814^{+13}_{-13}	$f\sigma_8(0.38)$	$0.484^{+0.034}_{-0.031}$
A_{143}^{tSZ}	—	D_{2000}	$229.7^{+4.6}_{-4.5}$	$\sigma_8(0.38)$	$0.677^{+0.036}_{-0.036}$
A_{100}^{PS}	263^{+70}_{-70}	$n_{s,0.002}$	$0.963^{+0.012}_{-0.013}$	$f\sigma_8(0.51)$	$0.485^{+0.036}_{-0.033}$
A_{143}^{PS}	49^{+20}_{-20}	Y_P	$0.24529^{+0.00022}_{-0.00025}$	$\sigma_8(0.51)$	$0.633^{+0.033}_{-0.033}$
$A_{143 \times 217}^{PS}$	43^{+20}_{-20}	Y_P^{BBN}	$0.24662^{+0.00022}_{-0.00026}$	$f\sigma_8(0.61)$	$0.481^{+0.036}_{-0.033}$
A_{217}^{PS}	115^{+30}_{-30}	$10^5 D/H$	$2.63^{+0.10}_{-0.10}$	$\sigma_8(0.61)$	$0.603^{+0.030}_{-0.031}$
A^{kSZ}	—	Age/Gyr	$13.779^{+0.093}_{-0.088}$	$f\sigma_8(2.33)$	$0.304^{+0.015}_{-0.017}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.7}$	z_*	$1090.27^{+0.95}_{-0.93}$	$\sigma_8(2.33)$	$0.311^{+0.012}_{-0.012}$
A_{143}^{dustTT}	$10.7^{+4.6}_{-4.6}$	r_*	$144.5^{+1.1}_{-1.1}$	f_{2000}^{143}	31^{+7}_{-7}
$A_{143 \times 217}^{dustTT}$	$18.3^{+8.3}_{-8.5}$	$100\theta_*$	$1.0410^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
A_{217}^{dustTT}	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	$13.88^{+0.10}_{-0.10}$	f_{2000}^{217}	$108.0^{+5.0}_{-4.8}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	z_{drag}	$1059.4^{+1.2}_{-1.2}$	χ_{simall}^2	$396.8 (\nu: 1.3)$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	r_{drag}	$147.2^{+1.1}_{-1.1}$	χ_{lowl}^2	$23.7 (\nu: 0.6)$
H_0	$68.1^{+2.3}_{-2.1}$	k_D	$0.1405^{+0.0013}_{-0.0013}$	χ_{plik}^2	$770.6 (\nu: 14.5)$
Ω_Λ	$0.691^{+0.021}_{-0.021}$	$100\theta_D$	$0.16107^{+0.00069}_{-0.00070}$	χ_{JLA}^2	$1035.9 (\nu: 1.2)$
Ω_m	$0.309^{+0.021}_{-0.021}$	z_{eq}	3408^{+110}_{-100}	χ_{6DF}^2	$0.053 (\nu: 0.0)$
$\Omega_m h^2$	$0.1433^{+0.0045}_{-0.0043}$	k_{eq}	$0.01040^{+0.00033}_{-0.00031}$	χ_{MGS}^2	$1.86 (\nu: 0.2)$
$\Omega_m h^3$	$0.0976^{+0.0045}_{-0.0043}$	$100\theta_{eq}$	$0.812^{+0.019}_{-0.019}$	$\chi_{DR12BAO}^2$	$5.0 (\nu: 0.9)$
σ_8	$0.826^{+0.045}_{-0.044}$	$100\theta_{s,eq}$	$0.4487^{+0.0099}_{-0.010}$	χ_{prior}^2	$7.3 (\nu: 6.8)$
S_8	$0.838^{+0.052}_{-0.050}$	$H(0.15)$	$73.6^{+1.9}_{-1.8}$	χ_{BAO}^2	$6.9 (\nu: 1.1)$
$\sigma_8 \Omega_m^{0.5}$	$0.459^{+0.028}_{-0.027}$	$D_M(0.15)$	635^{+17}_{-17}	χ_{CMB}^2	$1191.0 (\nu: 14.5)$

$$\bar{\chi}_{eff}^2 = 2241.17; R - 1 = 0.00784$$

18.12 base_w_wa_plikHM_TT_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\text{b}}h^2$	$0.02216^{+0.00055}_{-0.00051}$	$\sigma_8/h^{0.5}$	$0.994^{+0.031}_{-0.032}$	$H(0.51)$	$89.9^{+1.3}_{-1.3}$
$\Omega_{\text{c}}h^2$	$0.1199^{+0.0034}_{-0.0033}$	$r_{\text{drag}}h$	$100.4^{+3.3}_{-3.1}$	$D_{\text{M}}(0.51)$	1967^{+40}_{-41}
$100\theta_{\text{MC}}$	$1.0408^{+0.0011}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	$2.456^{+0.068}_{-0.071}$	$H(0.61)$	$95.3^{+1.2}_{-1.1}$
τ	$0.053^{+0.018}_{-0.012}$	z_{re}	< 9.25	$D_{\text{M}}(0.61)$	2291^{+42}_{-43}
w_0	$-0.96^{+0.21}_{-0.20}$	$10^9 A_{\text{s}}$	$2.093^{+0.077}_{-0.056}$	$H(2.33)$	$235.0^{+2.6}_{-2.6}$
w_a	$-0.28^{+0.69}_{-0.89}$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.881^{+0.028}_{-0.028}$	$D_{\text{M}}(2.33)$	5764^{+33}_{-34}
$\ln(10^{10} A_{\text{s}})$	$3.041^{+0.036}_{-0.027}$	D_{40}	1230^{+32}_{-31}	$f\sigma_8(0.15)$	$0.459^{+0.020}_{-0.020}$
n_{s}	$0.964^{+0.011}_{-0.011}$	D_{220}	5716^{+100}_{-110}	$\sigma_8(0.15)$	$0.759^{+0.030}_{-0.030}$
y_{cal}	$1.0004^{+0.0066}_{-0.0064}$	D_{810}	2535^{+35}_{-34}	$f\sigma_8(0.38)$	$0.480^{+0.023}_{-0.024}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{1420}	814^{+13}_{-13}	$\sigma_8(0.38)$	$0.673^{+0.026}_{-0.027}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{2000}	$229.7^{+4.4}_{-4.4}$	$f\sigma_8(0.51)$	$0.481^{+0.024}_{-0.024}$
A_{143}^{tSZ}	—	$n_{\text{s},0.002}$	$0.964^{+0.011}_{-0.011}$	$\sigma_8(0.51)$	$0.630^{+0.024}_{-0.025}$
A_{100}^{PS}	263^{+70}_{-70}	Y_{P}	$0.24530^{+0.00022}_{-0.00024}$	$f\sigma_8(0.61)$	$0.477^{+0.025}_{-0.024}$
A_{143}^{PS}	49^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.24663^{+0.00022}_{-0.00024}$	$\sigma_8(0.61)$	$0.599^{+0.023}_{-0.023}$
$A_{143 \times 217}^{\text{PS}}$	43^{+20}_{-20}	$10^5 \text{D}/\text{H}$	$2.626^{+0.098}_{-0.10}$	$f\sigma_8(2.33)$	$0.303^{+0.012}_{-0.012}$
A_{217}^{PS}	115^{+30}_{-30}	Age/Gyr	$13.781^{+0.089}_{-0.091}$	$\sigma_8(2.33)$	$0.3100^{+0.0094}_{-0.0093}$
A^{kSZ}	—	z_*	$1090.18^{+0.82}_{-0.81}$	f_{2000}^{143}	31^{+8}_{-7}
A_{100}^{dustTT}	$9.0^{+4.7}_{-4.8}$	r_*	$144.62^{+0.84}_{-0.83}$	$f_{2000}^{143 \times 217}$	33^{+5}_{-5}
A_{143}^{dustTT}	$10.8^{+4.5}_{-4.7}$	$100\theta_*$	$1.0410^{+0.0011}_{-0.0011}$	f_{2000}^{217}	$108.1^{+5.0}_{-5.0}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+7.9}_{-8.6}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.892^{+0.081}_{-0.079}$	χ_{lensing}^2	$9.39 (\nu: 0.5)$
A_{217}^{dustTT}	93^{+20}_{-20}	z_{drag}	$1059.4^{+1.2}_{-1.1}$	χ_{simall}^2	$396.7 (\nu: 1.0)$
c_{100}	$0.9996^{+0.0016}_{-0.0017}$	r_{drag}	$147.35^{+0.90}_{-0.89}$	χ_{lowl}^2	$23.44 (\nu: 0.4)$
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	k_{D}	$0.1404^{+0.0012}_{-0.0011}$	χ_{plik}^2	$770.6 (\nu: 14.1)$
H_0	$68.1^{+2.3}_{-2.1}$	$100\theta_{\text{D}}$	$0.16105^{+0.00069}_{-0.00071}$	χ_{JLA}^2	$1035.9 (\nu: 1.2)$
Ω_{Λ}	$0.692^{+0.021}_{-0.021}$	z_{eq}	3395^{+78}_{-75}	$\chi_{6\text{DF}}^2$	$0.053 (\nu: 0.0)$
Ω_{m}	$0.308^{+0.021}_{-0.021}$	k_{eq}	$0.01036^{+0.00024}_{-0.00023}$	χ_{MGS}^2	$1.88 (\nu: 0.2)$
$\Omega_{\text{m}}h^2$	$0.1427^{+0.0033}_{-0.0031}$	$100\theta_{\text{eq}}$	$0.814^{+0.014}_{-0.014}$	χ_{DR12BAO}^2	$4.8 (\nu: 0.8)$
$\Omega_{\text{m}}h^3$	$0.0972^{+0.0037}_{-0.0037}$	$100\theta_{\text{s,eq}}$	$0.4499^{+0.0073}_{-0.0073}$	χ_{prior}^2	$7.3 (\nu: 6.9)$
σ_8	$0.821^{+0.032}_{-0.032}$	$H(0.15)$	$73.6^{+1.9}_{-1.7}$	χ_{CMB}^2	$1200.1 (\nu: 15.3)$
S_8	$0.831^{+0.034}_{-0.034}$	$D_{\text{M}}(0.15)$	636^{+17}_{-17}	χ_{BAO}^2	$6.7 (\nu: 1.1)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.455^{+0.019}_{-0.019}$	$H(0.38)$	$83.4^{+1.7}_{-1.5}$		
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.611^{+0.022}_{-0.023}$	$D_{\text{M}}(0.38)$	1517^{+34}_{-34}		

$$\bar{\chi}_{\text{eff}}^2 = 2250.01; \Delta\bar{\chi}_{\text{eff}}^2 = 0.39; R - 1 = 0.01194$$

18.13 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022366	$0.02236^{+0.00036}_{-0.00036}$	$\Omega_m h^3$	0.09770	$0.0978^{+0.0037}_{-0.0037}$	$H(0.15)$	73.70	$73.8^{+1.9}_{-1.8}$
$\Omega_c h^2$	0.12004	$0.1202^{+0.0033}_{-0.0032}$	σ_8	0.8226	$0.823^{+0.035}_{-0.036}$	$D_M(0.15)$	634.2	634^{+17}_{-17}
$100\theta_{MC}$	1.04088	$1.04090^{+0.00076}_{-0.00077}$	S_8	0.8318	$0.833^{+0.037}_{-0.038}$	$H(0.38)$	83.57	$83.7^{+1.6}_{-1.6}$
τ	0.0544	$0.054^{+0.020}_{-0.020}$	$\sigma_8 \Omega_m^{0.5}$	0.4556	$0.456^{+0.020}_{-0.021}$	$D_M(0.38)$	1514.1	1512^{+33}_{-35}
w_0	-0.967	$-0.95^{+0.23}_{-0.21}$	$\sigma_8 \Omega_m^{0.25}$	0.6122	$0.613^{+0.025}_{-0.026}$	$H(0.51)$	90.07	$90.1^{+1.3}_{-1.3}$
w_a	-0.25	$-0.33^{+0.75}_{-0.97}$	$\sigma_8/h^{0.5}$	0.9954	$0.996^{+0.036}_{-0.038}$	$D_M(0.51)$	1963.5	1961^{+40}_{-41}
$\ln(10^{10} A_s)$	3.0448	$3.044^{+0.041}_{-0.041}$	$r_{drag} h$	100.45	$100.4^{+3.1}_{-3.1}$	$H(0.61)$	95.52	$95.5^{+1.1}_{-1.0}$
n_s	0.9661	$0.965^{+0.011}_{-0.011}$	$\langle d^2 \rangle^{1/2}$	2.456	$2.461^{+0.081}_{-0.086}$	$D_M(0.61)$	2286.8	2285^{+42}_{-43}
y_{cal}	1.0006	$1.0005^{+0.0062}_{-0.0063}$	z_{re}	7.68	$7.6^{+1.9}_{-2.2}$	$H(2.33)$	235.30	$235.3^{+2.4}_{-2.3}$
A_{217}^{CIB}	46.9	47^{+20}_{-20}	$10^9 A_s$	2.101	$2.099^{+0.087}_{-0.085}$	$D_M(2.33)$	5754.1	5754^{+27}_{-24}
$\xi^{tSZ \times CIB}$	0.46	—	$10^9 A_s e^{-2\tau}$	1.8840	$1.884^{+0.028}_{-0.030}$	$f\sigma_8(0.15)$	0.4601	$0.460^{+0.021}_{-0.021}$
A_{143}^{tSZ}	7.23	$5.5^{+4.5}_{-4.6}$	D_{40}	1228.1	1231^{+32}_{-32}	$\sigma_8(0.15)$	0.7607	$0.761^{+0.033}_{-0.034}$
A_{100}^{PS}	249	259^{+70}_{-70}	D_{220}	5729	5733^{+96}_{-100}	$f\sigma_8(0.38)$	0.4813	$0.482^{+0.025}_{-0.025}$
A_{143}^{PS}	47.8	46^{+20}_{-20}	D_{810}	2540.6	2539^{+33}_{-35}	$\sigma_8(0.38)$	0.6748	$0.675^{+0.029}_{-0.030}$
$A_{143 \times 217}^{PS}$	48.3	42^{+20}_{-20}	D_{1420}	818.1	817^{+12}_{-12}	$f\sigma_8(0.51)$	0.4815	$0.482^{+0.026}_{-0.026}$
A_{217}^{PS}	120.2	115^{+30}_{-30}	D_{2000}	231.25	$230.9^{+4.0}_{-3.9}$	$\sigma_8(0.51)$	0.6316	$0.632^{+0.027}_{-0.028}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9661	$0.965^{+0.011}_{-0.011}$	$f\sigma_8(0.61)$	0.4774	$0.478^{+0.027}_{-0.026}$
A_{100}^{dustTT}	8.87	$8.9^{+4.7}_{-4.9}$	Y_P	0.245394	$0.24539^{+0.00013}_{-0.00015}$	$\sigma_8(0.61)$	0.6010	$0.601^{+0.026}_{-0.026}$
A_{143}^{dustTT}	11.00	$10.9^{+4.6}_{-4.5}$	Y_P^{BBN}	0.246721	$0.24672^{+0.00013}_{-0.00015}$	$f\sigma_8(2.33)$	0.3037	$0.304^{+0.013}_{-0.014}$
$A_{143 \times 217}^{dustTT}$	19.9	$18.6^{+8.4}_{-8.5}$	$10^5 D/H$	2.586	$2.587^{+0.069}_{-0.065}$	$\sigma_8(2.33)$	0.3110	$0.311^{+0.011}_{-0.011}$
A_{217}^{dustTT}	95.3	94^{+20}_{-20}	Age/Gyr	13.759	$13.755^{+0.082}_{-0.073}$	f_{2000}^{143}	28.7	29^{+7}_{-7}
A_{100}^{dustTE}	0.113	$0.115^{+0.098}_{-0.097}$	z_*	1089.93	$1089.95^{+0.66}_{-0.64}$	$f_{2000}^{143 \times 217}$	31.95	32^{+5}_{-5}
$A_{100 \times 143}^{dustTE}$	0.135	$0.135^{+0.078}_{-0.077}$	r_*	144.42	$144.38^{+0.73}_{-0.73}$	f_{2000}^{217}	106.63	$107.0^{+4.5}_{-4.7}$
$A_{100 \times 217}^{dustTE}$	0.480	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	1.04107	$1.04108^{+0.00075}_{-0.00076}$	χ_{simall}^2	396.04	$397.0 (\nu: 1.6)$
A_{143}^{dustTE}	0.226	$0.23^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.873	$13.869^{+0.068}_{-0.068}$	χ_{lowl}^2	23.14	$23.49 (\nu: 0.4)$
$A_{143 \times 217}^{dustTE}$	0.664	$0.67^{+0.21}_{-0.21}$	z_{drag}	1059.93	$1059.93^{+0.72}_{-0.73}$	χ_{plik}^2	2344.0	$2358.7 (\nu: 16.5)$
A_{217}^{dustTE}	2.08	$2.09^{+0.69}_{-0.68}$	r_{drag}	147.08	$147.04^{+0.74}_{-0.72}$	χ_{JLA}^2	1034.82	$1035.9 (\nu: 1.2)$
c_{100}	0.99972	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14087	$0.14091^{+0.00079}_{-0.00081}$	χ_{6DF}^2	0.001	$0.054 (\nu: 0.0)$
c_{217}	0.99819	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	0.160757	$0.16076^{+0.00044}_{-0.00043}$	χ_{MGS}^2	1.82	$1.95 (\nu: 0.2)$
H_0	68.29	$68.3^{+2.1}_{-2.1}$	z_{eq}	3403	3407^{+74}_{-72}	$\chi_{DR12BAO}^2$	3.91	$4.8 (\nu: 0.7)$
Ω_Λ	0.6933	$0.693^{+0.019}_{-0.021}$	k_{eq}	0.010387	$0.01040^{+0.00023}_{-0.00022}$	χ_{prior}^2	1.8	$11.6 (\nu: 10.4)$
Ω_m	0.3067	$0.307^{+0.021}_{-0.019}$	$100\theta_{eq}$	0.8131	$0.812^{+0.014}_{-0.014}$	χ_{BAO}^2	5.73	$6.8 (\nu: 1.1)$
$\Omega_m h^2$	0.14305	$0.1432^{+0.0031}_{-0.0030}$	$100\theta_{s,eq}$	0.4493	$0.4489^{+0.0070}_{-0.0070}$	χ_{CMB}^2	2763.1	$2779.2 (\nu: 16.6)$

Best-fit $\chi_{eff}^2 = 3805.46$; $\bar{\chi}_{eff}^2 = 3833.50$; $R - 1 = 0.00745$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.82 DR12BAO: 3.91 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.04 commander_dx12_v3_2_29: 23.14 plik_rd12_HM_v22b_TTTEEE: 2343.97 SN - JLA Pantheon18: 1034.82

18.14 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022398	$0.02238^{+0.00035}_{-0.00036}$	$\Omega_m h^3$	0.09764	$0.0977^{+0.0035}_{-0.0034}$	$H(0.15)$	73.71	$73.8^{+1.8}_{-1.7}$
$\Omega_c h^2$	0.11992	$0.1199^{+0.0028}_{-0.0027}$	σ_8	0.8210	$0.820^{+0.029}_{-0.029}$	$D_M(0.15)$	634.2	634^{+16}_{-17}
$100\theta_{MC}$	1.04094	$1.04092^{+0.00075}_{-0.00074}$	S_8	0.8298	$0.829^{+0.029}_{-0.028}$	$H(0.38)$	83.60	$83.7^{+1.6}_{-1.5}$
τ	0.0540	$0.053^{+0.020}_{-0.019}$	$\sigma_8 \Omega_m^{0.5}$	0.4545	$0.454^{+0.016}_{-0.016}$	$D_M(0.38)$	1513.9	1513^{+33}_{-33}
w_0	-0.967	$-0.96^{+0.23}_{-0.21}$	$\sigma_8 \Omega_m^{0.25}$	0.6108	$0.610^{+0.018}_{-0.019}$	$H(0.51)$	90.10	$90.1^{+1.3}_{-1.3}$
w_a	-0.24	$-0.29^{+0.71}_{-0.88}$	$\sigma_8/h^{0.5}$	0.9934	$0.993^{+0.027}_{-0.028}$	$D_M(0.51)$	1963.2	1962^{+39}_{-39}
$\ln(10^{10} A_s)$	3.0437	$3.042^{+0.037}_{-0.038}$	$r_{drag} h$	100.45	$100.5^{+3.1}_{-3.0}$	$H(0.61)$	95.56	$95.6^{+1.0}_{-1.1}$
n_s	0.9666	$0.965^{+0.010}_{-0.010}$	$\langle d^2 \rangle^{1/2}$	2.452	$2.454^{+0.060}_{-0.063}$	$D_M(0.61)$	2286.3	2285^{+41}_{-42}
y_{cal}	1.0005	$1.0004^{+0.0063}_{-0.0063}$	z_{re}	7.63	$7.6^{+1.9}_{-2.0}$	$H(2.33)$	235.33	$235.2^{+2.4}_{-2.3}$
A_{217}^{CIB}	46.3	47^{+20}_{-20}	$10^9 A_s$	2.098	$2.095^{+0.079}_{-0.078}$	$D_M(2.33)$	5752.4	5753^{+27}_{-23}
$\xi^{tSZ \times CIB}$	0.57	—	$10^9 A_s e^{-2\tau}$	1.8834	$1.883^{+0.026}_{-0.028}$	$f\sigma_8(0.15)$	0.4589	$0.458^{+0.017}_{-0.017}$
A_{143}^{tSZ}	7.2	—	D_{40}	1227.0	1230^{+28}_{-30}	$\sigma_8(0.15)$	0.7592	$0.759^{+0.027}_{-0.027}$
A_{100}^{PS}	249	259^{+70}_{-70}	D_{220}	5730	5734^{+98}_{-100}	$f\sigma_8(0.38)$	0.4800	$0.479^{+0.020}_{-0.020}$
A_{143}^{PS}	49.0	46^{+20}_{-20}	D_{810}	2540.7	2538^{+33}_{-35}	$\sigma_8(0.38)$	0.6735	$0.673^{+0.024}_{-0.024}$
$A_{143 \times 217}^{PS}$	50.9	42^{+20}_{-20}	D_{1420}	818.4	817^{+12}_{-12}	$f\sigma_8(0.51)$	0.4802	$0.480^{+0.021}_{-0.021}$
A_{217}^{PS}	121.1	115^{+30}_{-30}	D_{2000}	231.40	$230.8^{+4.1}_{-3.9}$	$\sigma_8(0.51)$	0.6304	$0.630^{+0.023}_{-0.022}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9666	$0.965^{+0.010}_{-0.010}$	$f\sigma_8(0.61)$	0.4762	$0.476^{+0.022}_{-0.021}$
A_{100}^{dustTT}	8.85	$9.0^{+4.7}_{-4.5}$	Y_P	0.245406	$0.24540^{+0.00013}_{-0.00015}$	$\sigma_8(0.61)$	0.5999	$0.600^{+0.021}_{-0.021}$
A_{143}^{dustTT}	11.05	$10.9^{+4.5}_{-4.5}$	Y_P^{BBN}	0.246733	$0.24672^{+0.00013}_{-0.00015}$	$f\sigma_8(2.33)$	0.3031	$0.303^{+0.011}_{-0.011}$
$A_{143 \times 217}^{dustTT}$	20.1	$18.6^{+8.3}_{-8.2}$	$10^5 D/H$	2.580	$2.584^{+0.068}_{-0.063}$	$\sigma_8(2.33)$	0.3106	$0.3102^{+0.0090}_{-0.0090}$
A_{217}^{dustTT}	95.4	94^{+20}_{-20}	Age/Gyr	13.756	$13.756^{+0.079}_{-0.071}$	$\chi^2_{lensing}$	8.81	$9.20 (\nu: 0.3)$
A_{100}^{dustTE}	0.115	$0.114^{+0.10}_{-0.098}$	z_*	1089.88	$1089.90^{+0.61}_{-0.59}$	χ^2_{small}	396.01	$396.9 (\nu: 1.2)$
$A_{100 \times 143}^{dustTE}$	0.135	$0.135^{+0.076}_{-0.078}$	r_*	144.43	$144.44^{+0.63}_{-0.62}$	χ^2_{lowl}	23.05	$23.38 (\nu: 0.3)$
$A_{100 \times 217}^{dustTE}$	0.480	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	1.04112	$1.04110^{+0.00074}_{-0.00074}$	χ^2_{plik}	2344.2	$2358.6 (\nu: 15.6)$
A_{143}^{dustTE}	0.226	$0.23^{+0.14}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.873	$13.874^{+0.060}_{-0.061}$	χ^2_{JLA}	1034.83	$1035.9 (\nu: 1.3)$
$A_{143 \times 217}^{dustTE}$	0.663	$0.67^{+0.21}_{-0.21}$	z_{drag}	1060.01	$1059.95^{+0.74}_{-0.75}$	χ^2_{6DF}	0.001	$0.053 (\nu: 0.0)$
A_{217}^{dustTE}	2.08	$2.08^{+0.69}_{-0.66}$	r_{drag}	147.08	$147.10^{+0.65}_{-0.64}$	χ^2_{MGS}	1.82	$1.96 (\nu: 0.2)$
c_{100}	0.99971	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14090	$0.14087^{+0.00074}_{-0.00077}$	$\chi^2_{DR12BAO}$	3.86	$4.7 (\nu: 0.6)$
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	0.160725	$0.16075^{+0.00045}_{-0.00043}$	χ^2_{prior}	1.7	$11.6 (\nu: 10.3)$
H_0	68.30	$68.3^{+2.1}_{-2.1}$	z_{eq}	3401	3401^{+65}_{-62}	χ^2_{CMB}	2772.1	$2788.0 (\nu: 16.6)$
Ω_Λ	0.6935	$0.693^{+0.019}_{-0.020}$	k_{eq}	0.010380	$0.01038^{+0.00020}_{-0.00019}$	χ^2_{BAO}	5.68	$6.7 (\nu: 1.0)$
Ω_m	0.3065	$0.307^{+0.020}_{-0.019}$	$100\theta_{eq}$	0.8136	$0.814^{+0.012}_{-0.012}$			
$\Omega_m h^2$	0.14296	$0.1430^{+0.0027}_{-0.0026}$	$100\theta_{s,eq}$	0.4495	$0.4495^{+0.0060}_{-0.0061}$			

Best-fit $\chi^2_{eff} = 3814.30$; $\Delta\chi^2_{eff} = -1.37$; $\bar{\chi}^2_{eff} = 3842.17$; $\Delta\bar{\chi}^2_{eff} = 0.31$; $R - 1 = 0.01143$
 χ^2_{eff} : BAO - 6DF: 0.00 (Δ -0.02) MGS: 1.82 (Δ 0.54) DR12BAO: 3.86 (Δ -0.38) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb.consext8: 8.80 (Δ 0.09) small_100x143_offlike5_EE_Aplanck 396.01 (Δ -0.51) commander_dx12_v3.2_29: 23.05 (Δ 0.17) plik_rd12_HM_v22b.TTTEEE: 2344.24 (Δ -1.03) SN - JLA Pantheon18: 1034.83 (Δ -0.14)

18.15 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\text{b}}h^2$	$0.02237^{+0.00036}_{-0.00037}$	$\Omega_{\text{m}}h^3$	$0.0978^{+0.0037}_{-0.0037}$	$H(0.15)$	$73.8^{+2.0}_{-1.8}$
$\Omega_{\text{c}}h^2$	$0.1202^{+0.0033}_{-0.0032}$	σ_8	$0.824^{+0.035}_{-0.036}$	$D_{\text{M}}(0.15)$	634^{+17}_{-17}
$100\theta_{\text{MC}}$	$1.04090^{+0.00076}_{-0.00078}$	S_8	$0.833^{+0.037}_{-0.038}$	$H(0.38)$	$83.7^{+1.6}_{-1.5}$
τ	$0.055^{+0.018}_{-0.013}$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.456^{+0.020}_{-0.021}$	$D_{\text{M}}(0.38)$	1513^{+33}_{-35}
w_0	$-0.95^{+0.23}_{-0.21}$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.613^{+0.024}_{-0.025}$	$H(0.51)$	$90.1^{+1.3}_{-1.3}$
w_a	$-0.32^{+0.74}_{-0.98}$	$\sigma_8/h^{0.5}$	$0.997^{+0.036}_{-0.037}$	$D_{\text{M}}(0.51)$	1962^{+39}_{-41}
$\ln(10^{10}A_{\text{s}})$	$3.046^{+0.039}_{-0.030}$	$r_{\text{drag}}h$	$100.4^{+3.1}_{-3.1}$	$H(0.61)$	$95.5^{+1.0}_{-1.0}$
n_{s}	$0.965^{+0.011}_{-0.011}$	$\langle d^2 \rangle^{1/2}$	$2.463^{+0.079}_{-0.083}$	$D_{\text{M}}(0.61)$	2285^{+42}_{-43}
y_{cal}	$1.0005^{+0.0063}_{-0.0064}$	z_{re}	< 9.42	$H(2.33)$	$235.3^{+2.4}_{-2.3}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_{\text{s}}$	$2.104^{+0.084}_{-0.062}$	$D_{\text{M}}(2.33)$	5754^{+27}_{-24}
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_{\text{s}} e^{-2\tau}$	$1.884^{+0.029}_{-0.030}$	$f\sigma_8(0.15)$	$0.460^{+0.021}_{-0.021}$
A_{143}^{tSZ}	$5.5^{+4.5}_{-4.6}$	D_{40}	1231^{+32}_{-32}	$\sigma_8(0.15)$	$0.762^{+0.033}_{-0.034}$
A_{100}^{PS}	258^{+70}_{-70}	D_{220}	5732^{+97}_{-100}	$f\sigma_8(0.38)$	$0.482^{+0.024}_{-0.025}$
A_{143}^{PS}	46^{+20}_{-20}	D_{810}	2539^{+34}_{-35}	$\sigma_8(0.38)$	$0.676^{+0.029}_{-0.030}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{1420}	817^{+12}_{-12}	$f\sigma_8(0.51)$	$0.482^{+0.026}_{-0.026}$
A_{217}^{PS}	115^{+30}_{-30}	D_{2000}	$230.9^{+4.0}_{-4.0}$	$\sigma_8(0.51)$	$0.633^{+0.027}_{-0.028}$
A^{kSZ}	—	$n_{\text{s},0.002}$	$0.965^{+0.011}_{-0.011}$	$f\sigma_8(0.61)$	$0.479^{+0.027}_{-0.026}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.9}$	Y_{P}	$0.24539^{+0.00013}_{-0.00015}$	$\sigma_8(0.61)$	$0.602^{+0.026}_{-0.026}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.5}$	$Y_{\text{P}}^{\text{BBN}}$	$0.24672^{+0.00013}_{-0.00015}$	$f\sigma_8(2.33)$	$0.304^{+0.013}_{-0.014}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.5}_{-8.5}$	10^5D/H	$2.587^{+0.069}_{-0.065}$	$\sigma_8(2.33)$	$0.311^{+0.010}_{-0.010}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.755^{+0.081}_{-0.073}$	f_{2000}^{143}	29^{+7}_{-7}
A_{100}^{dustTE}	$0.114^{+0.098}_{-0.097}$	z_*	$1089.94^{+0.66}_{-0.64}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.078}_{-0.078}$	r_*	$144.39^{+0.73}_{-0.73}$	f_{2000}^{217}	$107.0^{+4.5}_{-4.6}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	$1.04108^{+0.00074}_{-0.00076}$	χ_{simall}^2	$397.0 (\nu: 1.6)$
A_{143}^{dustTE}	$0.23^{+0.14}_{-0.14}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.869^{+0.068}_{-0.068}$	χ_{lowl}^2	$23.50 (\nu: 0.4)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.67^{+0.21}_{-0.21}$	z_{drag}	$1059.94^{+0.72}_{-0.73}$	χ_{plik}^2	$2358.5 (\nu: 16.3)$
A_{217}^{dustTE}	$2.09^{+0.69}_{-0.68}$	r_{drag}	$147.05^{+0.73}_{-0.72}$	χ_{JLA}^2	$1035.9 (\nu: 1.2)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_{D}	$0.14091^{+0.00079}_{-0.00081}$	$\chi_{6\text{DF}}^2$	$0.054 (\nu: 0.0)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_{\text{D}}$	$0.16076^{+0.00045}_{-0.00043}$	χ_{MGS}^2	$1.95 (\nu: 0.2)$
H_0	$68.3^{+2.1}_{-2.1}$	z_{eq}	3406^{+74}_{-72}	χ_{DR12BAO}^2	$4.7 (\nu: 0.7)$
Ω_{Λ}	$0.693^{+0.019}_{-0.021}$	k_{eq}	$0.01040^{+0.00023}_{-0.00022}$	χ_{prior}^2	$11.6 (\nu: 10.5)$
Ω_{m}	$0.307^{+0.021}_{-0.019}$	$100\theta_{\text{eq}}$	$0.813^{+0.014}_{-0.014}$	χ_{BAO}^2	$6.7 (\nu: 1.1)$
$\Omega_{\text{m}}h^2$	$0.1432^{+0.0031}_{-0.0030}$	$100\theta_{\text{s,eq}}$	$0.4490^{+0.0070}_{-0.0070}$	χ_{CMB}^2	$2779.0 (\nu: 16.2)$

$$\bar{\chi}_{\text{eff}}^2 = 3833.27; R - 1 = 0.00878$$

18.16 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02238^{+0.00035}_{-0.00035}$	σ_8	$0.821^{+0.028}_{-0.029}$	$H(0.38)$	$83.6^{+1.6}_{-1.5}$
$\Omega_c h^2$	$0.1199^{+0.0027}_{-0.0027}$	S_8	$0.829^{+0.029}_{-0.028}$	$D_M(0.38)$	1513^{+33}_{-34}
$100\theta_{MC}$	$1.04092^{+0.00075}_{-0.00075}$	$\sigma_8 \Omega_m^{0.5}$	$0.454^{+0.016}_{-0.016}$	$H(0.51)$	$90.1^{+1.3}_{-1.3}$
τ	$0.055^{+0.018}_{-0.013}$	$\sigma_8 \Omega_m^{0.25}$	$0.611^{+0.018}_{-0.019}$	$D_M(0.51)$	1962^{+39}_{-40}
w_0	$-0.96^{+0.22}_{-0.20}$	$\sigma_8/h^{0.5}$	$0.993^{+0.027}_{-0.028}$	$H(0.61)$	$95.6^{+1.0}_{-1.1}$
w_a	$-0.28^{+0.70}_{-0.87}$	$r_{\text{drag}} h$	$100.5^{+3.1}_{-3.0}$	$D_M(0.61)$	2285^{+41}_{-42}
$\ln(10^{10} A_s)$	$3.044^{+0.036}_{-0.027}$	$\langle d^2 \rangle^{1/2}$	$2.455^{+0.060}_{-0.063}$	$H(2.33)$	$235.2^{+2.4}_{-2.3}$
n_s	$0.965^{+0.010}_{-0.0097}$	z_{re}	< 9.31	$D_M(2.33)$	5753^{+27}_{-23}
y_{cal}	$1.0004^{+0.0064}_{-0.0064}$	$10^9 A_s$	$2.099^{+0.076}_{-0.056}$	$f\sigma_8(0.15)$	$0.458^{+0.017}_{-0.017}$
A_{217}^{CIB}	47^{+20}_{-20}	$10^9 A_s e^{-2\tau}$	$1.882^{+0.026}_{-0.028}$	$\sigma_8(0.15)$	$0.759^{+0.027}_{-0.027}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{40}	1230^{+28}_{-30}	$f\sigma_8(0.38)$	$0.480^{+0.020}_{-0.020}$
A_{143}^{tSZ}	—	D_{220}	5733^{+99}_{-100}	$\sigma_8(0.38)$	$0.673^{+0.024}_{-0.024}$
A_{100}^{PS}	259^{+70}_{-70}	D_{810}	2538^{+34}_{-35}	$f\sigma_8(0.51)$	$0.480^{+0.021}_{-0.020}$
A_{143}^{PS}	46^{+20}_{-20}	D_{1420}	817^{+12}_{-12}	$\sigma_8(0.51)$	$0.630^{+0.022}_{-0.022}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{2000}	$230.8^{+4.0}_{-4.0}$	$f\sigma_8(0.61)$	$0.476^{+0.022}_{-0.021}$
A_{217}^{PS}	115^{+30}_{-30}	$n_{s,0.002}$	$0.965^{+0.010}_{-0.0097}$	$\sigma_8(0.61)$	$0.600^{+0.021}_{-0.021}$
A^{kSZ}	—	Y_P	$0.24540^{+0.00013}_{-0.00015}$	$f\sigma_8(2.33)$	$0.303^{+0.011}_{-0.011}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.7}$	Y_P^{BBN}	$0.24673^{+0.00013}_{-0.00015}$	$\sigma_8(2.33)$	$0.3104^{+0.0088}_{-0.0088}$
A_{143}^{dustTT}	$10.9^{+4.6}_{-4.4}$	10^5D/H	$2.583^{+0.067}_{-0.062}$	f_{2000}^{143}	30^{+7}_{-7}
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.4}_{-8.3}$	Age/Gyr	$13.756^{+0.078}_{-0.072}$	$f_{2000}^{143 \times 217}$	32^{+5}_{-5}
A_{217}^{dustTT}	94^{+20}_{-20}	z_*	$1089.89^{+0.62}_{-0.58}$	f_{2000}^{217}	$107.0^{+4.5}_{-4.8}$
A_{100}^{dustTE}	$0.114^{+0.099}_{-0.098}$	r_*	$144.45^{+0.62}_{-0.61}$	χ_{lensing}^2	$9.19 (\nu: 0.3)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135^{+0.076}_{-0.078}$	$100\theta_*$	$1.04110^{+0.00074}_{-0.00075}$	χ_{simall}^2	$396.8 (\nu: 1.2)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.22}_{-0.22}$	$D_M(z_*)/\text{Gpc}$	$13.875^{+0.060}_{-0.060}$	χ_{lowl}^2	$23.37 (\nu: 0.3)$
A_{143}^{dustTE}	$0.23^{+0.14}_{-0.14}$	z_{drag}	$1059.96^{+0.74}_{-0.75}$	χ_{plik}^2	$2358.4 (\nu: 15.5)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.67^{+0.20}_{-0.21}$	r_{drag}	$147.11^{+0.65}_{-0.62}$	χ_{JLA}^2	$1035.9 (\nu: 1.2)$
A_{217}^{dustTE}	$2.08^{+0.70}_{-0.66}$	k_D	$0.14086^{+0.00074}_{-0.00076}$	$\chi_{6\text{DF}}^2$	$0.053 (\nu: 0.0)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.16074^{+0.00044}_{-0.00043}$	χ_{MGS}^2	$1.95 (\nu: 0.2)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	z_{eq}	3400^{+61}_{-60}	χ_{DR12BAO}^2	$4.6 (\nu: 0.6)$
H_0	$68.3^{+2.1}_{-2.1}$	k_{eq}	$0.01038^{+0.00019}_{-0.00018}$	χ_{prior}^2	$11.6 (\nu: 10.3)$
Ω_Λ	$0.694^{+0.019}_{-0.020}$	$100\theta_{\text{eq}}$	$0.814^{+0.011}_{-0.011}$	χ_{CMB}^2	$2787.8 (\nu: 16.2)$
Ω_m	$0.306^{+0.020}_{-0.019}$	$100\theta_{s,\text{eq}}$	$0.4497^{+0.0059}_{-0.0058}$	χ_{BAO}^2	$6.6 (\nu: 1.0)$
$\Omega_m h^2$	$0.1429^{+0.0026}_{-0.0025}$	$H(0.15)$	$73.8^{+1.8}_{-1.7}$		
$\Omega_m h^3$	$0.0976^{+0.0036}_{-0.0034}$	$D_M(0.15)$	634^{+16}_{-17}		

$$\bar{\chi}_{\text{eff}}^2 = 3841.93; \Delta \bar{\chi}_{\text{eff}}^2 = 0.19; R - 1 = 0.01414$$

19 yhe

19.1 base_yhe_plikHM_TT_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02210	$0.02212^{+0.00080}_{-0.00076}$	$\sigma_8 \Omega_m^{0.5}$	0.4596	$0.460^{+0.035}_{-0.034}$	$H(0.15)$	72.21	$72.3^{+2.6}_{-2.4}$
$\Omega_c h^2$	0.1206	$0.1206^{+0.0055}_{-0.0055}$	$\sigma_8 \Omega_m^{0.25}$	0.6106	$0.611^{+0.030}_{-0.030}$	$D_M(0.15)$	648.0	648^{+25}_{-25}
$100\theta_{MC}$	1.04067	$1.0408^{+0.0023}_{-0.0023}$	$\sigma_8/h^{0.5}$	0.9924	$0.992^{+0.041}_{-0.041}$	$H(0.38)$	82.48	$82.5^{+2.0}_{-1.8}$
τ	0.0518	$0.052^{+0.022}_{-0.023}$	$r_{drag} h$	98.40	$98.5^{+4.7}_{-4.5}$	$D_M(0.38)$	1543	1542^{+50}_{-51}
Y_P	0.242	$0.246^{+0.051}_{-0.054}$	$\langle d^2 \rangle^{1/2}$	2.452	$2.45^{+0.11}_{-0.11}$	$H(0.51)$	89.28	$89.3^{+1.7}_{-1.5}$
$\ln(10^{10} A_s)$	3.0391	$3.040^{+0.047}_{-0.047}$	z_{re}	7.48	$7.5^{+2.2}_{-2.6}$	$D_M(0.51)$	1997	1996^{+58}_{-60}
n_s	0.9627	$0.963^{+0.029}_{-0.028}$	$10^9 A_s$	2.089	$2.09^{+0.10}_{-0.097}$	$H(0.61)$	94.97	$95.0^{+1.4}_{-1.3}$
y_{cal}	1.0004	$1.0004^{+0.0067}_{-0.0063}$	$10^9 A_s e^{-2\tau}$	1.8831	$1.885^{+0.040}_{-0.039}$	$D_M(0.61)$	2323	2322^{+63}_{-65}
A_{217}^{CIB}	48.2	48^{+20}_{-20}	D_{40}	1232	1233^{+57}_{-55}	$H(2.33)$	236.68	$236.7^{+3.3}_{-3.2}$
$\xi^{tSZ \times CIB}$	0.38	—	D_{220}	5709	5713^{+100}_{-110}	$D_M(2.33)$	5780	5777^{+64}_{-69}
A_{143}^{tSZ}	7.0	—	D_{810}	2537.4	2536^{+37}_{-36}	$f\sigma_8(0.15)$	0.4634	$0.463^{+0.031}_{-0.032}$
A_{100}^{PS}	254	264^{+70}_{-80}	D_{1420}	815.9	814^{+14}_{-14}	$\sigma_8(0.15)$	0.7487	$0.749^{+0.023}_{-0.021}$
A_{143}^{PS}	49.8	49^{+20}_{-20}	D_{2000}	230.3	$229.4^{+6.5}_{-6.1}$	$f\sigma_8(0.38)$	0.4797	$0.480^{+0.024}_{-0.025}$
$A_{143 \times 217}^{PS}$	48.3	43^{+20}_{-20}	$n_{s,0.002}$	0.9627	$0.963^{+0.029}_{-0.028}$	$\sigma_8(0.38)$	0.6627	$0.663^{+0.020}_{-0.019}$
A_{217}^{PS}	119.9	115^{+30}_{-30}	Y_P	0.242	$0.246^{+0.051}_{-0.054}$	$f\sigma_8(0.51)$	0.4771	$0.477^{+0.021}_{-0.021}$
A^{kSZ}	0.0	—	Y_P^{BBN}	0.243	$0.247^{+0.051}_{-0.055}$	$\sigma_8(0.51)$	0.6197	$0.620^{+0.019}_{-0.018}$
A_{100}^{dustTT}	8.89	$9.0^{+4.7}_{-4.8}$	Age/Gyr	13.835	$13.83^{+0.15}_{-0.16}$	$f\sigma_8(0.61)$	0.4714	$0.471^{+0.018}_{-0.019}$
A_{143}^{dustTT}	10.88	$10.7^{+4.7}_{-4.6}$	z_*	1090.18	$1090.3^{+1.7}_{-1.7}$	$\sigma_8(0.61)$	0.5894	$0.590^{+0.018}_{-0.017}$
$A_{143 \times 217}^{dustTT}$	19.4	$18.3^{+8.6}_{-8.4}$	r_*	144.49	$144.5^{+1.2}_{-1.2}$	$f\sigma_8(2.33)$	0.2968	$0.2970^{+0.0095}_{-0.0090}$
A_{217}^{dustTT}	94.7	93^{+20}_{-20}	$100\theta_*$	1.04096	$1.0410^{+0.0013}_{-0.0013}$	$\sigma_8(2.33)$	0.3056	$0.306^{+0.010}_{-0.010}$
c_{100}	0.99965	$0.9996^{+0.0016}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.880	$13.88^{+0.12}_{-0.12}$	f_{2000}^{143}	30.0	31^{+10}_{-10}
c_{217}	0.99823	$0.9983^{+0.0016}_{-0.0016}$	z_{drag}	1059.25	$1059.4^{+3.1}_{-3.1}$	$f_{2000}^{143 \times 217}$	33.0	34^{+7}_{-7}
H_0	66.83	$66.9^{+2.9}_{-2.8}$	r_{drag}	147.24	$147.2^{+1.3}_{-1.3}$	f_{2000}^{217}	107.5	$108.3^{+6.7}_{-6.6}$
Ω_Λ	0.6790	$0.679^{+0.036}_{-0.039}$	k_D	0.14064	$0.1405^{+0.0019}_{-0.0019}$	χ_{simall}^2	395.83	$396.9 (\nu: 1.4)$
Ω_m	0.3210	$0.321^{+0.039}_{-0.036}$	$100\theta_D$	0.16093	$0.1611^{+0.0019}_{-0.0020}$	χ_{lowl}^2	23.7	$24.0 (\nu: 2.1)$
$\Omega_m h^2$	0.1434	$0.1434^{+0.0051}_{-0.0051}$	z_{eq}	3411	3411^{+120}_{-120}	χ_{plik}^2	758.7	$772.2 (\nu: 16.6)$
$\Omega_m h^3$	0.09582	$0.0959^{+0.0021}_{-0.0020}$	k_{eq}	0.010410	$0.01041^{+0.00037}_{-0.00037}$	χ_{prior}^2	1.3	$7.3 (\nu: 6.8)$
σ_8	0.8113	$0.812^{+0.025}_{-0.024}$	$100\theta_{eq}$	0.8109	$0.811^{+0.024}_{-0.023}$	χ_{CMB}^2	1178.2	$1193.1 (\nu: 16.1)$
S_8	0.839	$0.839^{+0.063}_{-0.063}$	$100\theta_{s,eq}$	0.4483	$0.448^{+0.012}_{-0.012}$			

Best-fit $\chi_{eff}^2 = 1179.56$; $\Delta\chi_{eff}^2 = -0.01$; $\bar{\chi}_{eff}^2 = 1200.43$; $\Delta\bar{\chi}_{eff}^2 = 0.85$; $R - 1 = 0.00562$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.83 (Δ -0.04) commander_dx12_v3_2_29: 23.69 (Δ 0.09) plik_rd12_HM_v22_TT: 758.72 (Δ -0.02)

19.2 base_yhe_plikHM_TT_lowl_lowE_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02225	$0.02227^{+0.00065}_{-0.00063}$	$\sigma_8 \Omega_m^{0.25}$	0.6030	$0.603^{+0.022}_{-0.020}$	$H(0.38)$	83.02	$83.1^{+1.1}_{-1.1}$
$\Omega_c h^2$	0.11890	$0.1190^{+0.0032}_{-0.0032}$	$\sigma_8/h^{0.5}$	0.9827	$0.983^{+0.033}_{-0.029}$	$D_M(0.38)$	1528.1	1527^{+28}_{-28}
$100\theta_{MC}$	1.04108	$1.0413^{+0.0019}_{-0.0019}$	$r_{drag}h$	99.86	$99.9^{+2.5}_{-2.5}$	$H(0.51)$	89.72	$89.8^{+1.0}_{-0.97}$
τ	0.0545	$0.054^{+0.022}_{-0.020}$	$\langle d^2 \rangle^{1/2}$	2.425	$2.424^{+0.074}_{-0.075}$	$D_M(0.51)$	1979.9	1979^{+34}_{-33}
Y_P	0.2484	$0.253^{+0.048}_{-0.049}$	z_{re}	7.73	$7.6^{+2.1}_{-2.2}$	$H(0.61)$	95.31	$95.37^{+0.92}_{-0.88}$
$\ln(10^{10} A_s)$	3.0423	$3.042^{+0.047}_{-0.042}$	$10^9 A_s$	2.095	$2.09^{+0.10}_{-0.087}$	$D_M(0.61)$	2304.2	2303^{+37}_{-36}
n_s	0.9688	$0.969^{+0.022}_{-0.021}$	$10^9 A_s e^{-2\tau}$	1.8788	$1.881^{+0.039}_{-0.037}$	$H(2.33)$	235.73	$235.8^{+2.1}_{-2.1}$
y_{cal}	1.0005	$1.0005^{+0.0068}_{-0.0063}$	D_{40}	1221.0	1221^{+44}_{-43}	$D_M(2.33)$	5764.1	5761^{+47}_{-50}
A_{217}^{CIB}	49.2	49^{+20}_{-20}	D_{220}	5716	5720^{+100}_{-100}	$f\sigma_8(0.15)$	0.4545	$0.455^{+0.020}_{-0.019}$
$\xi^{tSZ \times CIB}$	0.24	—	D_{810}	2537.3	2537^{+37}_{-35}	$\sigma_8(0.15)$	0.7473	$0.748^{+0.023}_{-0.020}$
A_{143}^{tSZ}	7.0	—	D_{1420}	816.0	815^{+14}_{-13}	$f\sigma_8(0.38)$	0.4732	$0.473^{+0.018}_{-0.016}$
A_{100}^{PS}	256	267^{+70}_{-70}	D_{2000}	230.0	$229.1^{+6.3}_{-6.0}$	$\sigma_8(0.38)$	0.6627	$0.663^{+0.020}_{-0.018}$
A_{143}^{PS}	49.1	50^{+20}_{-20}	$n_{s,0.002}$	0.9688	$0.969^{+0.022}_{-0.021}$	$f\sigma_8(0.51)$	0.4721	$0.472^{+0.017}_{-0.015}$
$A_{143 \times 217}^{PS}$	45.0	44^{+20}_{-20}	Y_P	0.2484	$0.253^{+0.048}_{-0.049}$	$\sigma_8(0.51)$	0.6202	$0.621^{+0.019}_{-0.016}$
A_{217}^{PS}	118.6	115^{+30}_{-30}	Y_P^{BBN}	0.2498	$0.255^{+0.048}_{-0.049}$	$f\sigma_8(0.61)$	0.4673	$0.468^{+0.016}_{-0.014}$
A^{kSZ}	0.0	—	Age/Gyr	13.800	$13.79^{+0.11}_{-0.12}$	$\sigma_8(0.61)$	0.5902	$0.591^{+0.018}_{-0.016}$
A_{100}^{dustTT}	8.93	$9.0^{+4.8}_{-5.0}$	z_*	1090.10	$1090.3^{+1.7}_{-1.7}$	$f\sigma_8(2.33)$	0.2977	$0.2978^{+0.0092}_{-0.0082}$
A_{143}^{dustTT}	10.77	$10.8^{+4.7}_{-4.9}$	r_*	144.80	$144.73^{+0.94}_{-0.95}$	$\sigma_8(2.33)$	0.3070	$0.3072^{+0.0099}_{-0.0086}$
$A_{143 \times 217}^{dustTT}$	19.5	$18.3^{+8.6}_{-8.3}$	$100\theta_*$	1.04121	$1.0412^{+0.0011}_{-0.0011}$	f_{2000}^{143}	30.7	32^{+10}_{-10}
A_{217}^{dustTT}	94.8	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	13.907	$13.900^{+0.094}_{-0.097}$	$f_{2000}^{143 \times 217}$	33.4	34^{+7}_{-7}
c_{100}	0.99961	$0.9996^{+0.0015}_{-0.0017}$	z_{drag}	1059.67	$1059.9^{+2.9}_{-2.7}$	f_{2000}^{217}	107.9	$108.7^{+6.6}_{-6.6}$
c_{217}	0.99828	$0.9983^{+0.0017}_{-0.0016}$	r_{drag}	147.51	$147.4^{+1.1}_{-1.1}$	χ_{simall}^2	396.06	$397.0 (\nu: 1.5)$
H_0	67.70	$67.7^{+1.6}_{-1.6}$	k_D	0.14021	$0.1401^{+0.0015}_{-0.0015}$	χ_{lowl}^2	22.64	$22.8 (\nu: 0.9)$
Ω_Λ	0.6906	$0.691^{+0.019}_{-0.020}$	$100\theta_D$	0.16112	$0.1613^{+0.0018}_{-0.0019}$	χ_{plik}^2	760.1	$773.3 (\nu: 16.3)$
Ω_m	0.3094	$0.309^{+0.020}_{-0.019}$	z_{eq}	3373	3376^{+74}_{-74}	χ_{6DF}^2	0.016	$0.056 (\nu: 0.0)$
$\Omega_m h^2$	0.14179	$0.1419^{+0.0031}_{-0.0031}$	k_{eq}	0.010295	$0.01030^{+0.00023}_{-0.00023}$	χ_{MGS}^2	1.34	$1.41 (\nu: 0.2)$
$\Omega_m h^3$	0.09599	$0.0961^{+0.0020}_{-0.0019}$	$100\theta_{eq}$	0.8183	$0.818^{+0.014}_{-0.013}$	$\chi_{DR12BAO}^2$	4.05	$4.7 (\nu: 1.3)$
σ_8	0.8085	$0.809^{+0.025}_{-0.022}$	$100\theta_{s,eq}$	0.4521	$0.4519^{+0.0072}_{-0.0069}$	χ_{prior}^2	1.5	$7.3 (\nu: 6.9)$
S_8	0.8211	$0.822^{+0.039}_{-0.037}$	$H(0.15)$	72.95	$73.0^{+1.4}_{-1.4}$	χ_{BAO}^2	5.41	$6.2 (\nu: 0.9)$
$\sigma_8 \Omega_m^{0.5}$	0.4497	$0.450^{+0.022}_{-0.020}$	$D_M(0.15)$	640.5	640^{+14}_{-13}	χ_{CMB}^2	1178.8	$1193.1 (\nu: 15.7)$

Best-fit $\chi_{eff}^2 = 1185.74$; $\Delta\chi_{eff}^2 = -0.00$; $\bar{\chi}_{eff}^2 = 1206.53$; $\Delta\bar{\chi}_{eff}^2 = 0.51$; $R - 1 = 0.01126$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ -0.01) MGS: 1.34 (Δ 0.06) DR12BAO: 4.05 (Δ -0.13) CMB - simall_100x143_offlike5_EE_Aplanck.B: 396.06 (Δ 0.17) commander_dx12_v3_2_29: 22.64 (Δ -0.18) plik_rd12_HM_v22_TT: 760.12 (Δ 0.02)

19.3 base_yhe_plikHM_TT_lowl_lowE_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02213	$0.02213^{+0.00074}_{-0.00073}$	$\sigma_8 \Omega_m^{0.5}$	0.4568	$0.457^{+0.023}_{-0.023}$	$H(0.15)$	72.36	$72.4^{+2.0}_{-2.0}$
$\Omega_c h^2$	0.12014	$0.1203^{+0.0041}_{-0.0042}$	$\sigma_8 \Omega_m^{0.25}$	0.6081	$0.609^{+0.020}_{-0.020}$	$D_M(0.15)$	646.5	646^{+20}_{-19}
$100\theta_{MC}$	1.04064	$1.0408^{+0.0022}_{-0.0022}$	$\sigma_8/h^{0.5}$	0.9890	$0.990^{+0.027}_{-0.028}$	$H(0.38)$	82.57	$82.6^{+1.6}_{-1.5}$
τ	0.0525	$0.052^{+0.022}_{-0.023}$	$r_{drag} h$	98.74	$98.7^{+3.6}_{-3.5}$	$D_M(0.38)$	1540.2	1540^{+41}_{-40}
Y_P	0.239	$0.244^{+0.050}_{-0.054}$	$\langle d^2 \rangle^{1/2}$	2.448	$2.448^{+0.074}_{-0.074}$	$H(0.51)$	89.35	$89.4^{+1.4}_{-1.3}$
$\ln(10^{10} A_s)$	3.0392	$3.039^{+0.045}_{-0.045}$	z_{re}	7.53	$7.5^{+2.2}_{-2.5}$	$D_M(0.51)$	1994.1	1994^{+49}_{-48}
n_s	0.9626	$0.963^{+0.026}_{-0.025}$	$10^9 A_s$	2.089	$2.089^{+0.097}_{-0.091}$	$H(0.61)$	95.01	$95.0^{+1.2}_{-1.2}$
y_{cal}	1.0005	$1.0004^{+0.0066}_{-0.0062}$	$10^9 A_s e^{-2\tau}$	1.8806	$1.882^{+0.038}_{-0.036}$	$D_M(0.61)$	2320	2319^{+53}_{-52}
A_{217}^{CIB}	47.8	48^{+20}_{-20}	D_{40}	1232.7	1233^{+49}_{-49}	$H(2.33)$	236.39	$236.5^{+2.5}_{-2.5}$
$\xi^{tSZ \times CIB}$	0.46	—	D_{220}	5715	5716^{+100}_{-110}	$D_M(2.33)$	5778	5776^{+60}_{-61}
A_{143}^{tSZ}	6.9	—	D_{810}	2537.6	2536^{+37}_{-35}	$f\sigma_8(0.15)$	0.4608	$0.461^{+0.021}_{-0.021}$
A_{100}^{PS}	252	264^{+70}_{-70}	D_{1420}	816.7	814^{+14}_{-14}	$\sigma_8(0.15)$	0.7475	$0.748^{+0.020}_{-0.018}$
A_{143}^{PS}	50.2	49^{+20}_{-20}	D_{2000}	230.7	$229.6^{+6.4}_{-6.1}$	$f\sigma_8(0.38)$	0.4776	$0.478^{+0.016}_{-0.016}$
$A_{143 \times 217}^{PS}$	49.5	43^{+20}_{-20}	$n_{s,0.002}$	0.9626	$0.963^{+0.026}_{-0.025}$	$\sigma_8(0.38)$	0.6618	$0.662^{+0.018}_{-0.017}$
A_{217}^{PS}	119.9	115^{+30}_{-30}	Y_P	0.239	$0.244^{+0.050}_{-0.054}$	$f\sigma_8(0.51)$	0.4754	$0.476^{+0.014}_{-0.014}$
A^{kSZ}	0.0	—	Y_P^{BBN}	0.241	$0.246^{+0.050}_{-0.054}$	$\sigma_8(0.51)$	0.6191	$0.619^{+0.018}_{-0.017}$
A_{100}^{dustTT}	8.86	$8.9^{+4.7}_{-5.0}$	Age/Gyr	13.831	$13.83^{+0.14}_{-0.14}$	$f\sigma_8(0.61)$	0.4699	$0.470^{+0.013}_{-0.013}$
A_{143}^{dustTT}	10.77	$10.7^{+4.7}_{-4.7}$	z_*	1090.00	$1090.2^{+1.7}_{-1.6}$	$\sigma_8(0.61)$	0.5889	$0.589^{+0.017}_{-0.016}$
$A_{143 \times 217}^{dustTT}$	19.5	$18.3^{+8.7}_{-8.4}$	r_*	144.60	$144.6^{+1.0}_{-0.97}$	$f\sigma_8(2.33)$	0.2967	$0.2968^{+0.0093}_{-0.0087}$
A_{217}^{dustTT}	94.8	93^{+20}_{-20}	$100\theta_*$	1.04100	$1.0410^{+0.0012}_{-0.0012}$	$\sigma_8(2.33)$	0.3055	$0.306^{+0.010}_{-0.0098}$
c_{100}	0.99965	$0.9996^{+0.0015}_{-0.0016}$	$D_M(z_*)/\text{Gpc}$	13.891	$13.886^{+0.095}_{-0.093}$	f_{2000}^{143}	29.6	31^{+10}_{-10}
c_{217}	0.99824	$0.9983^{+0.0017}_{-0.0016}$	z_{drag}	1059.17	$1059.4^{+3.1}_{-3.0}$	$f_{2000}^{143 \times 217}$	32.6	34^{+7}_{-7}
H_0	67.01	$67.0^{+2.3}_{-2.2}$	r_{drag}	147.34	$147.3^{+1.1}_{-1.1}$	f_{2000}^{217}	107.0	$108.1^{+6.8}_{-6.5}$
Ω_Λ	0.6817	$0.681^{+0.028}_{-0.029}$	k_D	0.14065	$0.1405^{+0.0017}_{-0.0017}$	$\chi_{lensing}^2$	8.83	$9.48 (\nu: 0.4)$
Ω_m	0.3183	$0.319^{+0.029}_{-0.028}$	$100\theta_D$	0.16080	$0.1610^{+0.0020}_{-0.0020}$	χ_{small}^2	395.86	$396.8 (\nu: 1.2)$
$\Omega_m h^2$	0.14291	$0.1430^{+0.0039}_{-0.0039}$	z_{eq}	3400	3403^{+92}_{-93}	χ_{lowl}^2	23.69	$23.9 (\nu: 1.6)$
$\Omega_m h^3$	0.09577	$0.0959^{+0.0021}_{-0.0020}$	k_{eq}	0.010376	$0.01038^{+0.00028}_{-0.00029}$	χ_{plik}^2	758.8	$771.8 (\nu: 15.4)$
σ_8	0.8096	$0.810^{+0.020}_{-0.019}$	$100\theta_{eq}$	0.8128	$0.813^{+0.018}_{-0.017}$	χ_{prior}^2	1.3	$7.3 (\nu: 6.9)$
S_8	0.8339	$0.835^{+0.042}_{-0.042}$	$100\theta_{s,eq}$	0.4493	$0.4492^{+0.0094}_{-0.0088}$	χ_{CMB}^2	1187.2	$1202.1 (\nu: 16.4)$

Best-fit $\chi_{eff}^2 = 1188.45$; $\Delta\chi_{eff}^2 = -0.12$; $\bar{\chi}_{eff}^2 = 1209.39$; $\Delta\bar{\chi}_{eff}^2 = 0.98$; $R - 1 = 0.00784$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.83 (Δ -0.07) small_100x143_offlike5_EE_Aplanck_B: 395.86 (Δ -0.00) commander_dx12_v3_2_29: 23.69 (Δ 0.46) plik_rd12_HM_v22_TT: 758.77 (Δ -0.55)

19.4 base_yhe_plikHM_TT_lowl_lowE_post_BAO_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02224	$0.02226^{+0.00066}_{-0.00062}$	$\sigma_8/h^{0.5}$	0.9849	$0.985^{+0.025}_{-0.025}$	$H(0.51)$	89.66	$89.7^{+1.0}_{-0.95}$
$\Omega_c h^2$	0.11918	$0.1191^{+0.0028}_{-0.0028}$	$r_{\text{drag}} h$	99.65	$99.7^{+2.3}_{-2.3}$	$D_M(0.51)$	1982.2	1981^{+32}_{-32}
$100\theta_{\text{MC}}$	1.04106	$1.0412^{+0.0019}_{-0.0019}$	$\langle d^2 \rangle^{1/2}$	2.432	$2.431^{+0.060}_{-0.059}$	$H(0.61)$	95.28	$95.33^{+0.93}_{-0.87}$
τ	0.0549	$0.055^{+0.021}_{-0.019}$	z_{re}	7.77	$7.8^{+2.0}_{-2.0}$	$D_M(0.61)$	2306.6	2305^{+35}_{-35}
Y_{P}	0.2480	$0.251^{+0.049}_{-0.049}$	$10^9 A_{\text{s}}$	2.098	$2.100^{+0.093}_{-0.080}$	$H(2.33)$	235.90	$235.9^{+1.9}_{-1.9}$
$\ln(10^{10} A_{\text{s}})$	3.0437	$3.045^{+0.043}_{-0.039}$	$10^9 A_{\text{s}} e^{-2\tau}$	1.8802	$1.882^{+0.038}_{-0.035}$	$D_M(2.33)$	5765.6	5763^{+47}_{-50}
n_{s}	0.9674	$0.968^{+0.021}_{-0.020}$	D_{40}	1224.6	1224^{+42}_{-42}	$f\sigma_8(0.15)$	0.4562	$0.456^{+0.016}_{-0.016}$
y_{cal}	1.0005	$1.0006^{+0.0067}_{-0.0062}$	D_{220}	5720	5724^{+100}_{-100}	$\sigma_8(0.15)$	0.7482	$0.749^{+0.019}_{-0.018}$
A_{217}^{CIB}	50.2	48^{+20}_{-20}	D_{810}	2537.4	2538^{+36}_{-34}	$f\sigma_8(0.38)$	0.4746	$0.475^{+0.014}_{-0.014}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.12	—	D_{1420}	815.7	815^{+13}_{-13}	$\sigma_8(0.38)$	0.6633	$0.664^{+0.018}_{-0.016}$
A_{143}^{tSZ}	7.2	—	D_{2000}	229.9	$229.4^{+6.2}_{-6.0}$	$f\sigma_8(0.51)$	0.4732	$0.473^{+0.013}_{-0.013}$
A_{100}^{PS}	256	266^{+70}_{-70}	$n_{\text{s},0.002}$	0.9674	$0.968^{+0.021}_{-0.020}$	$\sigma_8(0.51)$	0.6207	$0.621^{+0.017}_{-0.015}$
A_{143}^{PS}	46.8	50^{+20}_{-20}	Y_{P}	0.2480	$0.251^{+0.049}_{-0.049}$	$f\sigma_8(0.61)$	0.4683	$0.468^{+0.012}_{-0.012}$
$A_{143 \times 217}^{\text{PS}}$	41.9	44^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.2494	$0.253^{+0.049}_{-0.049}$	$\sigma_8(0.61)$	0.5906	$0.591^{+0.017}_{-0.015}$
A_{217}^{PS}	117.1	115^{+30}_{-30}	Age/Gyr	13.803	$13.80^{+0.11}_{-0.12}$	$f\sigma_8(2.33)$	0.2978	$0.2981^{+0.0085}_{-0.0076}$
A^{kSZ}	0.0	—	z_*	1090.13	$1090.2^{+1.7}_{-1.6}$	$\sigma_8(2.33)$	0.3071	$0.3074^{+0.0090}_{-0.0081}$
A_{100}^{dustTT}	8.95	$9.0^{+4.6}_{-4.9}$	r_*	144.74	$144.72^{+0.91}_{-0.91}$	f_{2000}^{143}	30.8	32^{+10}_{-10}
A_{143}^{dustTT}	10.80	$10.7^{+4.7}_{-4.9}$	$100\theta_*$	1.04119	$1.0412^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	33.5	34^{+7}_{-7}
$A_{143 \times 217}^{\text{dustTT}}$	19.2	$18.3^{+8.6}_{-8.3}$	$D_M(z_*)/\text{Gpc}$	13.901	$13.899^{+0.091}_{-0.093}$	f_{2000}^{217}	108.0	$108.6^{+6.6}_{-6.6}$
A_{217}^{dustTT}	94.2	93^{+20}_{-20}	z_{drag}	1059.67	$1059.8^{+3.0}_{-2.7}$	χ_{lensing}^2	8.88	$9.36 (\nu: 0.3)$
c_{100}	0.99965	$0.9996^{+0.0015}_{-0.0017}$	r_{drag}	147.45	$147.4^{+1.0}_{-1.1}$	χ_{simall}^2	396.18	$397.0 (\nu: 1.5)$
c_{217}	0.99826	$0.9983^{+0.0017}_{-0.0016}$	k_{D}	0.14028	$0.1402^{+0.0015}_{-0.0015}$	χ_{lowl}^2	22.92	$23.0 (\nu: 0.9)$
H_0	67.58	$67.7^{+1.5}_{-1.5}$	$100\theta_{\text{D}}$	0.16110	$0.1613^{+0.0019}_{-0.0018}$	χ_{plik}^2	759.5	$772.7 (\nu: 15.5)$
Ω_{Λ}	0.6890	$0.690^{+0.017}_{-0.018}$	z_{eq}	3379	3379^{+66}_{-68}	$\chi_{6\text{DF}}^2$	0.029	$0.057 (\nu: 0.0)$
Ω_{m}	0.3110	$0.310^{+0.018}_{-0.017}$	k_{eq}	0.010314	$0.01031^{+0.00020}_{-0.00021}$	χ_{MGS}^2	1.22	$1.33 (\nu: 0.1)$
$\Omega_{\text{m}} h^2$	0.14206	$0.1421^{+0.0028}_{-0.0028}$	$100\theta_{\text{eq}}$	0.8171	$0.817^{+0.012}_{-0.012}$	χ_{DR12BAO}^2	4.37	$4.8 (\nu: 1.2)$
$\Omega_{\text{m}} h^3$	0.09601	$0.0961^{+0.0020}_{-0.0019}$	$100\theta_{\text{s,eq}}$	0.4515	$0.4516^{+0.0064}_{-0.0061}$	χ_{prior}^2	1.5	$7.3 (\nu: 7.0)$
σ_8	0.8096	$0.810^{+0.021}_{-0.019}$	$H(0.15)$	72.85	$72.9^{+1.4}_{-1.3}$	χ_{CMB}^2	1187.5	$1202.1 (\nu: 15.9)$
S_8	0.8244	$0.824^{+0.032}_{-0.031}$	$D_M(0.15)$	641.5	641^{+13}_{-13}	χ_{BAO}^2	5.62	$6.2 (\nu: 0.8)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4515	$0.451^{+0.017}_{-0.017}$	$H(0.38)$	82.95	$83.0^{+1.1}_{-1.1}$			
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6046	$0.605^{+0.017}_{-0.017}$	$D_M(0.38)$	1530.1	1529^{+27}_{-27}			

Best-fit $\chi_{\text{eff}}^2 = 1194.68$; $\Delta\chi_{\text{eff}}^2 = -0.00$; $\bar{\chi}_{\text{eff}}^2 = 1215.53$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.80$; $R - 1 = 0.01408$

χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.37 (Δ 0.00) CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.88 (Δ 0.00) simall_100x143_offlike5_EE_Aplanck.L
396.18 (Δ 0.09) commander_dx12.v3.2.29: 22.92 (Δ -0.04) plik_rd12_HM.v22.TT: 759.54 (Δ -0.26)

19.5 base_yhe_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}} h^2$	$0.02213^{+0.00080}_{-0.00075}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.460^{+0.035}_{-0.034}$	$H(0.15)$	$72.3^{+2.6}_{-2.4}$
$\Omega_{\mathrm{c}} h^2$	$0.1205^{+0.0055}_{-0.0055}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.611^{+0.030}_{-0.030}$	$D_{\mathrm{M}}(0.15)$	647^{+25}_{-25}
$100\theta_{\mathrm{MC}}$	$1.0408^{+0.0023}_{-0.0023}$	$\sigma_8/h^{0.5}$	$0.993^{+0.040}_{-0.040}$	$H(0.38)$	$82.6^{+2.0}_{-1.8}$
τ	$0.054^{+0.019}_{-0.012}$	$r_{\mathrm{drag}} h$	$98.6^{+4.7}_{-4.5}$	$D_{\mathrm{M}}(0.38)$	1541^{+49}_{-51}
Y_{P}	$0.247^{+0.051}_{-0.054}$	$\langle d^2 \rangle^{1/2}$	$2.45^{+0.11}_{-0.11}$	$H(0.51)$	$89.4^{+1.7}_{-1.5}$
$\ln(10^{10} A_{\mathrm{s}})$	$3.043^{+0.045}_{-0.032}$	z_{re}	< 9.46	$D_{\mathrm{M}}(0.51)$	1995^{+58}_{-60}
n_{s}	$0.964^{+0.028}_{-0.027}$	$10^9 A_{\mathrm{s}}$	$2.098^{+0.096}_{-0.066}$	$H(0.61)$	$95.1^{+1.4}_{-1.2}$
y_{cal}	$1.0004^{+0.0066}_{-0.0063}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.885^{+0.040}_{-0.039}$	$D_{\mathrm{M}}(0.61)$	2320^{+63}_{-66}
A_{217}^{CIB}	48^{+20}_{-20}	D_{40}	1233^{+56}_{-55}	$H(2.33)$	$236.7^{+3.2}_{-3.2}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{220}	5713^{+100}_{-110}	$D_{\mathrm{M}}(2.33)$	5776^{+64}_{-69}
A_{143}^{tSZ}	—	D_{810}	2536^{+37}_{-36}	$f\sigma_8(0.15)$	$0.464^{+0.031}_{-0.032}$
A_{100}^{PS}	264^{+70}_{-80}	D_{1420}	814^{+14}_{-14}	$\sigma_8(0.15)$	$0.750^{+0.022}_{-0.019}$
A_{143}^{PS}	49^{+20}_{-20}	D_{2000}	$229.4^{+6.5}_{-6.1}$	$f\sigma_8(0.38)$	$0.480^{+0.024}_{-0.025}$
$A_{143 \times 217}^{\mathrm{PS}}$	43^{+20}_{-20}	$n_{\mathrm{s},0.002}$	$0.964^{+0.028}_{-0.027}$	$\sigma_8(0.38)$	$0.664^{+0.019}_{-0.016}$
A_{217}^{PS}	115^{+30}_{-30}	Y_{P}	$0.247^{+0.051}_{-0.054}$	$f\sigma_8(0.51)$	$0.478^{+0.020}_{-0.021}$
A^{kSZ}	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.248^{+0.051}_{-0.054}$	$\sigma_8(0.51)$	$0.621^{+0.018}_{-0.015}$
$A_{100}^{\mathrm{dust}TT}$	$9.0^{+4.7}_{-4.8}$	Age/Gyr	$13.83^{+0.15}_{-0.16}$	$f\sigma_8(0.61)$	$0.472^{+0.018}_{-0.019}$
$A_{143}^{\mathrm{dust}TT}$	$10.7^{+4.7}_{-4.6}$	z_*	$1090.3^{+1.7}_{-1.6}$	$\sigma_8(0.61)$	$0.591^{+0.017}_{-0.014}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3^{+8.5}_{-8.4}$	r_*	$144.5^{+1.2}_{-1.2}$	$f\sigma_8(2.33)$	$0.2976^{+0.0091}_{-0.0072}$
$A_{217}^{\mathrm{dust}TT}$	93^{+20}_{-20}	$100\theta_*$	$1.0410^{+0.0013}_{-0.0013}$	$\sigma_8(2.33)$	$0.3065^{+0.0099}_{-0.0081}$
c_{100}	$0.9996^{+0.0016}_{-0.0016}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.88^{+0.12}_{-0.11}$	f_{2000}^{143}	31^{+10}_{-10}
c_{217}	$0.9983^{+0.0016}_{-0.0016}$	z_{drag}	$1059.5^{+3.2}_{-3.1}$	$f_{2000}^{143 \times 217}$	34^{+7}_{-7}
H_0	$67.0^{+2.9}_{-2.7}$	r_{drag}	$147.2^{+1.3}_{-1.3}$	f_{2000}^{217}	$108.3^{+6.7}_{-6.6}$
Ω_{Λ}	$0.680^{+0.036}_{-0.039}$	k_{D}	$0.1405^{+0.0019}_{-0.0019}$	χ_{simall}^2	$396.8 (\nu: 1.3)$
Ω_{m}	$0.320^{+0.039}_{-0.036}$	$100\theta_{\mathrm{D}}$	$0.1611^{+0.0019}_{-0.0020}$	χ_{lowl}^2	$23.9 (\nu: 2.1)$
$\Omega_{\mathrm{m}} h^2$	$0.1433^{+0.0051}_{-0.0051}$	z_{eq}	3409^{+120}_{-120}	χ_{plik}^2	$772.1 (\nu: 16.7)$
$\Omega_{\mathrm{m}} h^3$	$0.0959^{+0.0021}_{-0.0020}$	k_{eq}	$0.01040^{+0.00037}_{-0.00037}$	χ_{prior}^2	$7.3 (\nu: 6.8)$
σ_8	$0.813^{+0.025}_{-0.022}$	$100\theta_{\mathrm{eq}}$	$0.812^{+0.024}_{-0.023}$	χ_{CMB}^2	$1192.9 (\nu: 15.6)$
S_8	$0.839^{+0.063}_{-0.063}$	$100\theta_{\mathrm{s,eq}}$	$0.449^{+0.012}_{-0.012}$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1200.15$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.83$; $R - 1 = 0.00514$

19.6 base_yhe_plikHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02228^{+0.00065}_{-0.00063}$	$\sigma_8 \Omega_m^{0.25}$	$0.604^{+0.022}_{-0.020}$	$H(0.38)$	$83.1^{+1.1}_{-1.1}$
$\Omega_c h^2$	$0.1190^{+0.0032}_{-0.0032}$	$\sigma_8/h^{0.5}$	$0.984^{+0.032}_{-0.029}$	$D_M(0.38)$	1527^{+28}_{-28}
$100\theta_{MC}$	$1.0413^{+0.0019}_{-0.0019}$	$r_{\text{drag}} h$	$99.9^{+2.5}_{-2.5}$	$H(0.51)$	$89.8^{+1.0}_{-0.98}$
τ	$0.055^{+0.019}_{-0.014}$	$\langle d^2 \rangle^{1/2}$	$2.426^{+0.072}_{-0.070}$	$D_M(0.51)$	1979^{+34}_{-33}
Y_P	$0.253^{+0.048}_{-0.049}$	z_{re}	< 9.58	$H(0.61)$	$95.37^{+0.92}_{-0.88}$
$\ln(10^{10} A_s)$	$3.044^{+0.045}_{-0.033}$	$10^9 A_s$	$2.100^{+0.097}_{-0.068}$	$D_M(0.61)$	2303^{+37}_{-36}
n_s	$0.969^{+0.022}_{-0.021}$	$10^9 A_s e^{-2\tau}$	$1.881^{+0.040}_{-0.037}$	$H(2.33)$	$235.8^{+2.1}_{-2.1}$
y_{cal}	$1.0005^{+0.0068}_{-0.0064}$	D_{40}	1221^{+43}_{-43}	$D_M(2.33)$	5761^{+47}_{-50}
A_{217}^{CIB}	49^{+20}_{-20}	D_{220}	5719^{+100}_{-100}	$f\sigma_8(0.15)$	$0.455^{+0.020}_{-0.019}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{810}	2537^{+37}_{-35}	$\sigma_8(0.15)$	$0.749^{+0.022}_{-0.018}$
A_{143}^{tSZ}	—	D_{1420}	815^{+14}_{-13}	$f\sigma_8(0.38)$	$0.474^{+0.017}_{-0.016}$
A_{100}^{PS}	267^{+70}_{-80}	D_{2000}	$229.1^{+6.3}_{-6.0}$	$\sigma_8(0.38)$	$0.664^{+0.020}_{-0.016}$
A_{143}^{PS}	50^{+20}_{-20}	$n_{s,0.002}$	$0.969^{+0.022}_{-0.021}$	$f\sigma_8(0.51)$	$0.473^{+0.016}_{-0.015}$
$A_{143 \times 217}^{\text{PS}}$	44^{+20}_{-20}	Y_P	$0.253^{+0.048}_{-0.049}$	$\sigma_8(0.51)$	$0.621^{+0.018}_{-0.015}$
A_{217}^{PS}	115^{+30}_{-30}	Y_P^{BBN}	$0.255^{+0.048}_{-0.049}$	$f\sigma_8(0.61)$	$0.468^{+0.015}_{-0.014}$
A^{kSZ}	—	Age/Gyr	$13.79^{+0.11}_{-0.12}$	$\sigma_8(0.61)$	$0.591^{+0.017}_{-0.014}$
A_{100}^{dustTT}	$9.0^{+4.8}_{-5.0}$	z_*	$1090.3^{+1.7}_{-1.7}$	$f\sigma_8(2.33)$	$0.2982^{+0.0091}_{-0.0069}$
A_{143}^{dustTT}	$10.8^{+4.7}_{-4.9}$	r_*	$144.74^{+0.95}_{-0.96}$	$\sigma_8(2.33)$	$0.3076^{+0.0096}_{-0.0074}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.3^{+8.5}_{-8.3}$	$100\theta_*$	$1.0412^{+0.0011}_{-0.0011}$	f_{2000}^{143}	32^{+10}_{-10}
A_{217}^{dustTT}	93^{+20}_{-20}	$D_M(z_*)/\text{Gpc}$	$13.900^{+0.094}_{-0.098}$	$f_{2000}^{143 \times 217}$	34^{+7}_{-7}
c_{100}	$0.9996^{+0.0015}_{-0.0017}$	z_{drag}	$1059.9^{+2.9}_{-2.7}$	f_{2000}^{217}	$108.7^{+6.6}_{-6.7}$
c_{217}	$0.9983^{+0.0017}_{-0.0016}$	r_{drag}	$147.4^{+1.1}_{-1.1}$	χ_{simall}^2	$396.9 (\nu: 1.6)$
H_0	$67.8^{+1.6}_{-1.6}$	k_D	$0.1401^{+0.0015}_{-0.0015}$	χ_{lowl}^2	$22.8 (\nu: 0.9)$
Ω_Λ	$0.691^{+0.019}_{-0.020}$	$100\theta_D$	$0.1613^{+0.0018}_{-0.0019}$	χ_{plik}^2	$773.2 (\nu: 16.3)$
Ω_m	$0.309^{+0.020}_{-0.019}$	z_{eq}	3376^{+74}_{-74}	$\chi_{6\text{DF}}^2$	$0.055 (\nu: 0.0)$
$\Omega_m h^2$	$0.1419^{+0.0031}_{-0.0031}$	k_{eq}	$0.01030^{+0.00023}_{-0.00023}$	χ_{MGS}^2	$1.43 (\nu: 0.2)$
$\Omega_m h^3$	$0.0961^{+0.0020}_{-0.0019}$	$100\theta_{\text{eq}}$	$0.818^{+0.014}_{-0.013}$	χ_{DR12BAO}^2	$4.7 (\nu: 1.2)$
σ_8	$0.810^{+0.024}_{-0.020}$	$100\theta_{s,\text{eq}}$	$0.4520^{+0.0071}_{-0.0069}$	χ_{prior}^2	$7.3 (\nu: 6.9)$
S_8	$0.822^{+0.039}_{-0.037}$	$H(0.15)$	$73.0^{+1.4}_{-1.4}$	χ_{BAO}^2	$6.1 (\nu: 0.8)$
$\sigma_8 \Omega_m^{0.5}$	$0.450^{+0.021}_{-0.020}$	$D_M(0.15)$	640^{+14}_{-13}	χ_{CMB}^2	$1192.9 (\nu: 15.4)$

$$\bar{\chi}_{\text{eff}}^2 = 1206.38; \Delta\bar{\chi}_{\text{eff}}^2 = 0.62; R - 1 = 0.01225$$

19.7 base_yhe_plikHM_TT_lowl_lowE_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}} h^2$	$0.02215^{+0.00074}_{-0.00072}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.457^{+0.023}_{-0.023}$	$H(0.15)$	$72.4^{+2.0}_{-1.9}$
$\Omega_{\mathrm{c}} h^2$	$0.1201^{+0.0040}_{-0.0041}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.609^{+0.020}_{-0.020}$	$D_{\mathrm{M}}(0.15)$	646^{+19}_{-19}
$100\theta_{\mathrm{MC}}$	$1.0408^{+0.0022}_{-0.0021}$	$\sigma_8/h^{0.5}$	$0.990^{+0.027}_{-0.028}$	$H(0.38)$	$82.7^{+1.6}_{-1.5}$
τ	$0.054^{+0.019}_{-0.013}$	$r_{\mathrm{drag}} h$	$98.9^{+3.5}_{-3.3}$	$D_{\mathrm{M}}(0.38)$	1538^{+39}_{-39}
Y_{P}	$0.245^{+0.050}_{-0.053}$	$\langle d^2 \rangle^{1/2}$	$2.448^{+0.074}_{-0.074}$	$H(0.51)$	$89.4^{+1.4}_{-1.3}$
$\ln(10^{10} A_{\mathrm{s}})$	$3.042^{+0.043}_{-0.030}$	z_{re}	< 9.40	$D_{\mathrm{M}}(0.51)$	1992^{+46}_{-46}
n_{s}	$0.964^{+0.026}_{-0.025}$	$10^9 A_{\mathrm{s}}$	$2.095^{+0.092}_{-0.063}$	$H(0.61)$	$95.1^{+1.2}_{-1.1}$
y_{cal}	$1.0004^{+0.0066}_{-0.0062}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.882^{+0.037}_{-0.036}$	$D_{\mathrm{M}}(0.61)$	2317^{+50}_{-51}
A_{217}^{CIB}	48^{+20}_{-20}	D_{40}	1232^{+49}_{-48}	$H(2.33)$	$236.4^{+2.4}_{-2.5}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{220}	5716^{+100}_{-110}	$D_{\mathrm{M}}(2.33)$	5775^{+59}_{-61}
A_{143}^{tSZ}	—	D_{810}	2536^{+36}_{-35}	$f\sigma_8(0.15)$	$0.461^{+0.021}_{-0.021}$
A_{100}^{PS}	264^{+70}_{-80}	D_{1420}	814^{+14}_{-13}	$\sigma_8(0.15)$	$0.749^{+0.019}_{-0.016}$
A_{143}^{PS}	49^{+20}_{-20}	D_{2000}	$229.5^{+6.4}_{-6.0}$	$f\sigma_8(0.38)$	$0.478^{+0.016}_{-0.016}$
$A_{143 \times 217}^{\mathrm{PS}}$	43^{+20}_{-20}	$n_{\mathrm{s},0.002}$	$0.964^{+0.026}_{-0.025}$	$\sigma_8(0.38)$	$0.663^{+0.018}_{-0.014}$
A_{217}^{PS}	115^{+30}_{-30}	Y_{P}	$0.245^{+0.050}_{-0.053}$	$f\sigma_8(0.51)$	$0.476^{+0.014}_{-0.014}$
A^{kSZ}	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246^{+0.050}_{-0.054}$	$\sigma_8(0.51)$	$0.620^{+0.017}_{-0.014}$
$A_{100}^{\mathrm{dustTT}}$	$8.9^{+4.7}_{-4.9}$	Age/Gyr	$13.82^{+0.14}_{-0.14}$	$f\sigma_8(0.61)$	$0.470^{+0.013}_{-0.013}$
$A_{143}^{\mathrm{dustTT}}$	$10.7^{+4.7}_{-4.7}$	z_*	$1090.2^{+1.7}_{-1.6}$	$\sigma_8(0.61)$	$0.590^{+0.017}_{-0.013}$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3^{+8.7}_{-8.3}$	r_*	$144.6^{+1.0}_{-0.97}$	$f\sigma_8(2.33)$	$0.2973^{+0.0088}_{-0.0070}$
$A_{217}^{\mathrm{dustTT}}$	93^{+20}_{-20}	$100\theta_*$	$1.0410^{+0.0012}_{-0.0012}$	$\sigma_8(2.33)$	$0.306^{+0.010}_{-0.0079}$
c_{100}	$0.9996^{+0.0016}_{-0.0017}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.888^{+0.095}_{-0.093}$	f_{2000}^{143}	31^{+10}_{-10}
c_{217}	$0.9983^{+0.0017}_{-0.0016}$	z_{drag}	$1059.4^{+3.1}_{-3.0}$	$f_{2000}^{143 \times 217}$	34^{+7}_{-7}
H_0	$67.1^{+2.2}_{-2.1}$	r_{drag}	$147.3^{+1.1}_{-1.1}$	f_{2000}^{217}	$108.1^{+6.7}_{-6.6}$
Ω_{Λ}	$0.682^{+0.027}_{-0.028}$	k_{D}	$0.1404^{+0.0017}_{-0.0017}$	$\chi_{\mathrm{lensing}}^2$	$9.46 (\nu: 0.4)$
Ω_{m}	$0.318^{+0.028}_{-0.027}$	$100\theta_{\mathrm{D}}$	$0.1611^{+0.0020}_{-0.0019}$	χ_{simall}^2	$396.7 (\nu: 1.2)$
$\Omega_{\mathrm{m}} h^2$	$0.1429^{+0.0038}_{-0.0038}$	z_{eq}	3399^{+90}_{-92}	χ_{lowl}^2	$23.8 (\nu: 1.5)$
$\Omega_{\mathrm{m}} h^3$	$0.0959^{+0.0021}_{-0.0020}$	k_{eq}	$0.01038^{+0.00027}_{-0.00028}$	χ_{plik}^2	$771.8 (\nu: 15.4)$
σ_8	$0.811^{+0.020}_{-0.017}$	$100\theta_{\mathrm{eq}}$	$0.813^{+0.018}_{-0.017}$	χ_{prior}^2	$7.3 (\nu: 6.8)$
S_8	$0.834^{+0.042}_{-0.042}$	$100\theta_{\mathrm{s,eq}}$	$0.4495^{+0.0091}_{-0.0086}$	χ_{CMB}^2	$1201.8 (\nu: 15.9)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 1209.13; \Delta \bar{\chi}_{\mathrm{eff}}^2 = 0.97; R - 1 = 0.00826$$

19.8 base_yhe_plikHM_TT_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02226^{+0.00065}_{-0.00063}$	$\sigma_8/h^{0.5}$	$0.985^{+0.025}_{-0.024}$	$H(0.51)$	$89.73^{+0.99}_{-0.95}$
$\Omega_{\mathrm{c}}h^2$	$0.1191^{+0.0028}_{-0.0028}$	$r_{\mathrm{drag}}h$	$99.8^{+2.3}_{-2.2}$	$D_{\mathrm{M}}(0.51)$	1980^{+32}_{-32}
$100\theta_{\mathrm{MC}}$	$1.0412^{+0.0019}_{-0.0018}$	$\langle d^2 \rangle^{1/2}$	$2.432^{+0.059}_{-0.058}$	$H(0.61)$	$95.33^{+0.94}_{-0.87}$
τ	$0.056^{+0.018}_{-0.014}$	z_{re}	< 9.57	$D_{\mathrm{M}}(0.61)$	2304^{+35}_{-35}
Y_{P}	$0.251^{+0.049}_{-0.049}$	$10^9 A_{\mathrm{s}}$	$2.103^{+0.090}_{-0.065}$	$H(2.33)$	$235.9^{+1.9}_{-1.9}$
$\ln(10^{10} A_{\mathrm{s}})$	$3.046^{+0.042}_{-0.031}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.882^{+0.037}_{-0.035}$	$D_{\mathrm{M}}(2.33)$	5763^{+47}_{-50}
n_{s}	$0.968^{+0.022}_{-0.020}$	D_{40}	1224^{+42}_{-42}	$f\sigma_8(0.15)$	$0.456^{+0.016}_{-0.016}$
y_{cal}	$1.0006^{+0.0067}_{-0.0063}$	D_{220}	5723^{+98}_{-100}	$\sigma_8(0.15)$	$0.749^{+0.019}_{-0.017}$
A_{217}^{CIB}	48^{+20}_{-20}	D_{810}	2537^{+36}_{-34}	$f\sigma_8(0.38)$	$0.475^{+0.014}_{-0.014}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	815^{+13}_{-13}	$\sigma_8(0.38)$	$0.664^{+0.017}_{-0.015}$
A_{143}^{tSZ}	—	D_{2000}	$229.4^{+6.2}_{-6.0}$	$f\sigma_8(0.51)$	$0.474^{+0.013}_{-0.012}$
A_{100}^{PS}	266^{+70}_{-70}	$n_{\mathrm{s},0.002}$	$0.968^{+0.022}_{-0.020}$	$\sigma_8(0.51)$	$0.622^{+0.017}_{-0.014}$
A_{143}^{PS}	50^{+20}_{-20}	Y_{P}	$0.251^{+0.049}_{-0.049}$	$f\sigma_8(0.61)$	$0.469^{+0.012}_{-0.012}$
$A_{143 \times 217}^{\mathrm{PS}}$	44^{+20}_{-20}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.253^{+0.049}_{-0.049}$	$\sigma_8(0.61)$	$0.592^{+0.016}_{-0.013}$
A_{217}^{PS}	115^{+30}_{-30}	Age/Gyr	$13.80^{+0.11}_{-0.12}$	$f\sigma_8(2.33)$	$0.2983^{+0.0084}_{-0.0068}$
A^{kSZ}	—	z_*	$1090.2^{+1.7}_{-1.6}$	$\sigma_8(2.33)$	$0.3076^{+0.0088}_{-0.0074}$
$A_{100}^{\mathrm{dust}TT}$	$9.0^{+4.6}_{-5.0}$	r_*	$144.72^{+0.91}_{-0.91}$	f_{2000}^{143}	32^{+10}_{-10}
$A_{143}^{\mathrm{dust}TT}$	$10.7^{+4.7}_{-4.9}$	$100\theta_*$	$1.0412^{+0.0011}_{-0.0011}$	$f_{2000}^{143 \times 217}$	34^{+7}_{-7}
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3^{+8.6}_{-8.3}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.899^{+0.091}_{-0.093}$	f_{2000}^{217}	$108.6^{+6.6}_{-6.6}$
$A_{217}^{\mathrm{dust}TT}$	93^{+20}_{-20}	z_{drag}	$1059.8^{+3.0}_{-2.7}$	$\chi_{\mathrm{lensing}}^2$	$9.32 (\nu: 0.3)$
c_{100}	$0.9996^{+0.0015}_{-0.0017}$	r_{drag}	$147.4^{+1.0}_{-1.1}$	χ_{simall}^2	$397.0 (\nu: 1.6)$
c_{217}	$0.9983^{+0.0017}_{-0.0016}$	k_{D}	$0.1402^{+0.0015}_{-0.0015}$	χ_{lowl}^2	$23.0 (\nu: 0.9)$
H_0	$67.7^{+1.5}_{-1.5}$	$100\theta_{\mathrm{D}}$	$0.1613^{+0.0019}_{-0.0018}$	χ_{plik}^2	$772.6 (\nu: 15.5)$
Ω_{Λ}	$0.690^{+0.017}_{-0.018}$	z_{eq}	3378^{+66}_{-67}	$\chi_{6\mathrm{DF}}^2$	$0.055 (\nu: 0.0)$
Ω_{m}	$0.310^{+0.018}_{-0.017}$	k_{eq}	$0.01031^{+0.00020}_{-0.00020}$	χ_{MGS}^2	$1.35 (\nu: 0.1)$
$\Omega_{\mathrm{m}}h^2$	$0.1420^{+0.0028}_{-0.0028}$	$100\theta_{\mathrm{eq}}$	$0.818^{+0.012}_{-0.012}$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 (\nu: 1.1)$
$\Omega_{\mathrm{m}}h^3$	$0.0961^{+0.0020}_{-0.0019}$	$100\theta_{\mathrm{s,eq}}$	$0.4517^{+0.0064}_{-0.0061}$	χ_{prior}^2	$7.3 (\nu: 7.0)$
σ_8	$0.811^{+0.020}_{-0.018}$	$H(0.15)$	$72.9^{+1.3}_{-1.3}$	χ_{CMB}^2	$1202.0 (\nu: 15.7)$
S_8	$0.824^{+0.031}_{-0.031}$	$D_{\mathrm{M}}(0.15)$	641^{+13}_{-13}	χ_{BAO}^2	$6.1 (\nu: 0.7)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.451^{+0.017}_{-0.017}$	$H(0.38)$	$83.0^{+1.1}_{-1.1}$		
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.605^{+0.017}_{-0.017}$	$D_{\mathrm{M}}(0.38)$	1529^{+27}_{-27}		

$\bar{\chi}_{\mathrm{eff}}^2 = 1215.38$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.80$; $R - 1 = 0.01428$

19.9 base_yhe_plikHM_TTTEE_lowl_lowE

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02228	$0.02229^{+0.00051}_{-0.00052}$	$\Omega_m h^2$	0.14325	$0.1432^{+0.0032}_{-0.0033}$	$100\theta_{\text{eq}}$	0.8118	$0.812^{+0.015}_{-0.014}$
$\Omega_c h^2$	0.12033	$0.1202^{+0.0035}_{-0.0035}$	$\Omega_m h^3$	0.09606	$0.0961^{+0.0014}_{-0.0014}$	$100\theta_{\text{s,eq}}$	0.4486	$0.4489^{+0.0078}_{-0.0074}$
$100\theta_{\text{MC}}$	1.04058	$1.0407^{+0.0015}_{-0.0014}$	σ_8	0.8109	$0.810^{+0.021}_{-0.021}$	$H(0.15)$	72.41	$72.5^{+1.5}_{-1.5}$
τ	0.0540	$0.054^{+0.024}_{-0.022}$	S_8	0.8357	$0.834^{+0.040}_{-0.042}$	$D_{\text{M}}(0.15)$	646.0	645^{+15}_{-15}
Y_{P}	0.2365	$0.240^{+0.032}_{-0.034}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4577	$0.457^{+0.022}_{-0.023}$	$H(0.38)$	82.64	$82.7^{+1.2}_{-1.1}$
$\ln(10^{10} A_{\text{s}})$	3.0431	$3.042^{+0.048}_{-0.046}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6093	$0.609^{+0.021}_{-0.021}$	$D_{\text{M}}(0.38)$	1539.0	1538^{+31}_{-30}
n_{s}	0.9621	$0.962^{+0.018}_{-0.018}$	$\sigma_8/h^{0.5}$	0.9903	$0.989^{+0.030}_{-0.031}$	$H(0.51)$	89.43	$89.48^{+0.98}_{-0.93}$
y_{cal}	1.0006	$1.0006^{+0.0061}_{-0.0063}$	$r_{\text{drag}} h$	98.65	$98.8^{+2.9}_{-2.8}$	$D_{\text{M}}(0.51)$	1992.5	1991^{+36}_{-36}
A_{217}^{CIB}	44.3	46^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.454	$2.452^{+0.075}_{-0.075}$	$H(0.61)$	95.10	$95.15^{+0.84}_{-0.79}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.85	—	z_{re}	7.63	$7.6^{+2.2}_{-2.4}$	$D_{\text{M}}(0.61)$	2317.7	2316^{+39}_{-39}
A_{143}^{tSZ}	6.95	> 1.02	$10^9 A_{\text{s}}$	2.097	$2.10^{+0.10}_{-0.095}$	$H(2.33)$	236.66	$236.6^{+2.0}_{-2.1}$
A_{100}^{PS}	245	257^{+70}_{-70}	$10^9 A_{\text{s}} e^{-2\tau}$	1.8823	$1.882^{+0.031}_{-0.032}$	$D_{\text{M}}(2.33)$	5772.5	5770^{+41}_{-42}
A_{143}^{PS}	51.3	45^{+20}_{-20}	D_{40}	1236.4	1236^{+41}_{-41}	$f\sigma_8(0.15)$	0.4617	$0.461^{+0.020}_{-0.021}$
$A_{143 \times 217}^{\text{PS}}$	56.6	42^{+20}_{-20}	D_{220}	5733	5733^{+100}_{-100}	$\sigma_8(0.15)$	0.7487	$0.748^{+0.019}_{-0.019}$
A_{217}^{PS}	123.5	115^{+20}_{-30}	D_{810}	2541.3	2538^{+33}_{-35}	$f\sigma_8(0.38)$	0.4785	$0.478^{+0.017}_{-0.017}$
A^{kSZ}	0.0	—	D_{1420}	819.4	817^{+12}_{-13}	$\sigma_8(0.38)$	0.6629	$0.663^{+0.017}_{-0.017}$
A_{100}^{dustTT}	8.71	$8.9^{+4.6}_{-4.7}$	D_{2000}	232.13	$231.2^{+4.8}_{-4.7}$	$f\sigma_8(0.51)$	0.4763	$0.476^{+0.015}_{-0.016}$
A_{143}^{dustTT}	10.88	$10.8^{+4.7}_{-4.8}$	$n_{\text{s},0.002}$	0.9621	$0.962^{+0.018}_{-0.018}$	$\sigma_8(0.51)$	0.6200	$0.620^{+0.017}_{-0.016}$
$A_{143 \times 217}^{\text{dustTT}}$	20.1	$18.5^{+8.5}_{-8.3}$	Y_{P}	0.2365	$0.240^{+0.032}_{-0.034}$	$f\sigma_8(0.61)$	0.4707	$0.470^{+0.014}_{-0.014}$
A_{217}^{dustTT}	95.7	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.2378	$0.241^{+0.032}_{-0.034}$	$\sigma_8(0.61)$	0.5898	$0.590^{+0.016}_{-0.015}$
A_{100}^{dustTE}	0.114	$0.114^{+0.097}_{-0.095}$	Age/Gyr	13.818	$13.813^{+0.095}_{-0.095}$	$f\sigma_8(2.33)$	0.2971	$0.2970^{+0.0084}_{-0.0076}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135	$0.134^{+0.075}_{-0.075}$	z_*	1089.71	$1089.8^{+1.1}_{-1.1}$	$\sigma_8(2.33)$	0.3060	$0.3060^{+0.0091}_{-0.0082}$
$A_{100 \times 217}^{\text{dustTE}}$	0.484	$0.48^{+0.22}_{-0.21}$	r_*	144.45	$144.45^{+0.83}_{-0.79}$	f_{2000}^{143}	27.4	29^{+8}_{-8}
A_{143}^{dustTE}	0.224	$0.22^{+0.13}_{-0.14}$	$100\theta_*$	1.04100	$1.04103^{+0.00087}_{-0.00085}$	$f_{2000}^{143 \times 217}$	31.1	32^{+6}_{-6}
$A_{143 \times 217}^{\text{dustTE}}$	0.665	$0.67^{+0.21}_{-0.20}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.876	$13.876^{+0.079}_{-0.078}$	f_{2000}^{217}	105.7	$106.6^{+5.5}_{-5.1}$
A_{217}^{dustTE}	2.09	$2.09^{+0.69}_{-0.69}$	z_{drag}	1059.47	$1059.6^{+2.0}_{-2.0}$	χ_{simall}^2	396.06	$397.1 (\nu: 1.9)$
c_{100}	0.99975	$0.9997^{+0.0016}_{-0.0015}$	r_{drag}	147.13	$147.13^{+0.86}_{-0.83}$	χ_{lowl}^2	23.94	$24.1 (\nu: 1.1)$
c_{217}	0.99815	$0.9982^{+0.0016}_{-0.0016}$	k_{D}	0.14111	$0.1410^{+0.0011}_{-0.0011}$	χ_{plik}^2	2343.8	$2359.9 (\nu: 18.0)$
H_0	67.05	$67.1^{+1.8}_{-1.7}$	$100\theta_{\text{D}}$	0.16045	$0.1606^{+0.0012}_{-0.0012}$	χ_{prior}^2	1.4	$11.5 (\nu: 10.1)$
Ω_{Λ}	0.6814	$0.682^{+0.022}_{-0.023}$	z_{eq}	3408	3406^{+77}_{-79}	χ_{CMB}^2	2763.8	$2781.1 (\nu: 17.9)$
Ω_{m}	0.3186	$0.318^{+0.023}_{-0.022}$	k_{eq}	0.010401	$0.01040^{+0.00024}_{-0.00024}$			

Best-fit $\chi_{\text{eff}}^2 = 2765.27$; $\Delta\chi_{\text{eff}}^2 = -0.51$; $\bar{\chi}_{\text{eff}}^2 = 2792.56$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.80$; $R - 1 = 0.00867$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.06 (Δ 0.01) commander_dx12_v3.2.29: 23.95 (Δ 0.69) plik_rd12_HM_v22b_TTTEE: 2343.82 (Δ -0.83)

19.10 base_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022389	$0.02239^{+0.00045}_{-0.00047}$	$\Omega_m h^3$	0.09619	$0.0962^{+0.0013}_{-0.0013}$	$H(0.15)$	72.87	$72.9^{+1.1}_{-1.1}$
$\Omega_c h^2$	0.11930	$0.1193^{+0.0026}_{-0.0026}$	σ_8	0.8090	$0.809^{+0.023}_{-0.021}$	$D_M(0.15)$	641.4	641^{+11}_{-11}
$100\theta_{MC}$	1.04082	$1.0409^{+0.0013}_{-0.0013}$	S_8	0.8244	$0.824^{+0.033}_{-0.033}$	$H(0.38)$	82.98	$83.01^{+0.87}_{-0.89}$
τ	0.0553	$0.056^{+0.024}_{-0.022}$	$\sigma_8 \Omega_m^{0.5}$	0.4516	$0.451^{+0.018}_{-0.018}$	$D_M(0.38)$	1529.8	1529^{+23}_{-22}
Y_P	0.2402	$0.243^{+0.030}_{-0.032}$	$\sigma_8 \Omega_m^{0.25}$	0.6044	$0.604^{+0.020}_{-0.018}$	$H(0.51)$	89.70	$89.73^{+0.76}_{-0.77}$
$\ln(10^{10} A_s)$	3.0444	$3.044^{+0.050}_{-0.044}$	$\sigma_8/h^{0.5}$	0.9840	$0.984^{+0.028}_{-0.027}$	$D_M(0.51)$	1981.7	1981^{+27}_{-26}
n_s	0.9658	$0.966^{+0.016}_{-0.016}$	$r_{drag} h$	99.54	$99.6^{+2.0}_{-2.1}$	$H(0.61)$	95.32	$95.35^{+0.68}_{-0.68}$
y_{cal}	1.0007	$1.0006^{+0.0062}_{-0.0068}$	$\langle d^2 \rangle^{1/2}$	2.437	$2.437^{+0.066}_{-0.064}$	$D_M(0.61)$	2305.9	2305^{+30}_{-28}
A_{217}^{CIB}	44.9	47^{+20}_{-20}	z_{re}	7.75	$7.8^{+2.3}_{-2.4}$	$H(2.33)$	236.11	$236.1^{+1.7}_{-1.6}$
$\xi^{tSZ \times CIB}$	0.78	—	$10^9 A_s$	2.100	$2.10^{+0.11}_{-0.091}$	$D_M(2.33)$	5762.4	5761^{+36}_{-35}
A_{143}^{tSZ}	6.99	> 1.02	$10^9 A_s e^{-2\tau}$	1.8798	$1.879^{+0.030}_{-0.032}$	$f\sigma_8(0.15)$	0.4561	$0.456^{+0.017}_{-0.017}$
A_{100}^{PS}	246	257^{+70}_{-70}	D_{40}	1229.6	1229^{+37}_{-39}	$\sigma_8(0.15)$	0.7475	$0.748^{+0.021}_{-0.019}$
A_{143}^{PS}	50.9	45^{+20}_{-20}	D_{220}	5739	5737^{+100}_{-100}	$f\sigma_8(0.38)$	0.4744	$0.474^{+0.016}_{-0.015}$
$A_{143 \times 217}^{PS}$	55.1	42^{+20}_{-20}	D_{810}	2541.4	2539^{+34}_{-35}	$\sigma_8(0.38)$	0.6626	$0.663^{+0.018}_{-0.017}$
A_{217}^{PS}	122.6	115^{+20}_{-30}	D_{1420}	819.8	818^{+12}_{-12}	$f\sigma_8(0.51)$	0.4730	$0.473^{+0.015}_{-0.014}$
A^{kSZ}	0.0	—	D_{2000}	232.10	$231.3^{+4.8}_{-4.8}$	$\sigma_8(0.51)$	0.6201	$0.620^{+0.017}_{-0.016}$
A_{100}^{dustTT}	8.79	$8.9^{+4.8}_{-4.6}$	$n_{s,0.002}$	0.9658	$0.966^{+0.016}_{-0.016}$	$f\sigma_8(0.61)$	0.4680	$0.468^{+0.014}_{-0.013}$
A_{143}^{dustTT}	10.95	$10.9^{+4.8}_{-4.6}$	Y_P	0.2402	$0.243^{+0.030}_{-0.032}$	$\sigma_8(0.61)$	0.5900	$0.590^{+0.016}_{-0.016}$
$A_{143 \times 217}^{dustTT}$	20.2	$18.6^{+8.2}_{-8.4}$	Y_P^{BBN}	0.2415	$0.244^{+0.030}_{-0.032}$	$f\sigma_8(2.33)$	0.2975	$0.2976^{+0.0086}_{-0.0079}$
A_{217}^{dustTT}	95.7	94^{+20}_{-20}	Age/Gyr	13.795	$13.793^{+0.083}_{-0.080}$	$\sigma_8(2.33)$	0.3067	$0.3068^{+0.0090}_{-0.0081}$
A_{100}^{dustTE}	0.113	$0.113^{+0.098}_{-0.091}$	z_*	1089.62	$1089.7^{+1.1}_{-1.0}$	f_{2000}^{143}	27.8	29^{+8}_{-8}
$A_{100 \times 143}^{dustTE}$	0.136	$0.134^{+0.074}_{-0.076}$	r_*	144.62	$144.61^{+0.69}_{-0.72}$	$f_{2000}^{143 \times 217}$	31.3	32^{+6}_{-5}
$A_{100 \times 217}^{dustTE}$	0.482	$0.48^{+0.22}_{-0.22}$	$100\theta_*$	1.04114	$1.04116^{+0.00083}_{-0.00079}$	f_{2000}^{217}	105.8	$106.6^{+5.7}_{-5.2}$
A_{143}^{dustTE}	0.227	$0.22^{+0.14}_{-0.13}$	$D_M(z_*)/\text{Gpc}$	13.890	$13.890^{+0.066}_{-0.069}$	χ_{small}^2	396.2	$397.4 (\nu: 2.5)$
$A_{143 \times 217}^{dustTE}$	0.664	$0.66^{+0.20}_{-0.20}$	z_{drag}	1059.74	$1059.8^{+1.9}_{-1.9}$	χ_{lowl}^2	23.25	$23.4 (\nu: 0.7)$
A_{217}^{dustTE}	2.07	$2.08^{+0.68}_{-0.68}$	r_{drag}	147.27	$147.27^{+0.78}_{-0.78}$	χ_{plik}^2	2344.9	$2360.4 (\nu: 18.2)$
c_{100}	0.99974	$0.9997^{+0.0016}_{-0.0016}$	k_D	0.14090	$0.14080^{+0.00096}_{-0.00094}$	χ_{6DF}^2	0.038	$0.061 (\nu: 0.0)$
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	0.16052	$0.1606^{+0.0012}_{-0.0011}$	χ_{MGS}^2	1.16	$1.24 (\nu: 0.1)$
H_0	67.59	$67.6^{+1.3}_{-1.3}$	z_{eq}	3386	3385^{+60}_{-58}	$\chi_{DR12BAO}^2$	4.62	$5.0 (\nu: 1.2)$
Ω_Λ	0.6884	$0.689^{+0.016}_{-0.017}$	k_{eq}	0.010334	$0.01033^{+0.00018}_{-0.00018}$	χ_{prior}^2	1.5	$11.6 (\nu: 10.3)$
Ω_m	0.3116	$0.311^{+0.017}_{-0.016}$	$100\theta_{eq}$	0.8162	$0.816^{+0.011}_{-0.011}$	χ_{BAO}^2	5.82	$6.3 (\nu: 0.8)$
$\Omega_m h^2$	0.14233	$0.1423^{+0.0025}_{-0.0024}$	$100\theta_{s,eq}$	0.4509	$0.4510^{+0.0057}_{-0.0057}$	χ_{CMB}^2	2764.3	$2781.1 (\nu: 17.7)$

Best-fit $\chi_{eff}^2 = 2771.70$; $\Delta\chi_{eff}^2 = -0.21$; $\bar{\chi}_{eff}^2 = 2798.91$; $\Delta\bar{\chi}_{eff}^2 = 1.00$; $R - 1 = 0.02958$
 χ_{eff}^2 : BAO - 6DF: 0.04 (Δ 0.01) MGS: 1.16 (Δ -0.06) DR12BAO: 4.62 (Δ 0.21) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.22 (Δ 0.02) commander_dx12_v3_2_29: 23.25 (Δ 0.38) plik_rd12_HM_v22b_TTTEEE: 2344.87 (Δ -0.64)

19.11 base_yhe_plikHM_TTTEE_lowl_lowE_post_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.02230	$0.02230^{+0.00052}_{-0.00051}$	$\Omega_m h^2$	0.14297	$0.1430^{+0.0029}_{-0.0029}$	$100\theta_{\text{eq}}$	0.8131	$0.813^{+0.013}_{-0.013}$
$\Omega_c h^2$	0.12002	$0.1201^{+0.0031}_{-0.0030}$	$\Omega_m h^3$	0.09606	$0.0961^{+0.0014}_{-0.0014}$	$100\theta_{\text{s,eq}}$	0.4493	$0.4492^{+0.0067}_{-0.0065}$
$100\theta_{\text{MC}}$	1.04061	$1.0407^{+0.0014}_{-0.0014}$	σ_8	0.8097	$0.810^{+0.019}_{-0.017}$	$H(0.15)$	72.52	$72.5^{+1.5}_{-1.4}$
τ	0.0541	$0.054^{+0.022}_{-0.020}$	S_8	0.8319	$0.832^{+0.032}_{-0.033}$	$D_{\text{M}}(0.15)$	644.9	645^{+14}_{-14}
Y_{P}	0.2366	$0.239^{+0.032}_{-0.033}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4557	$0.456^{+0.017}_{-0.018}$	$H(0.38)$	82.72	$82.7^{+1.1}_{-1.1}$
$\ln(10^{10} A_{\text{s}})$	3.0422	$3.042^{+0.044}_{-0.041}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6074	$0.607^{+0.016}_{-0.017}$	$D_{\text{M}}(0.38)$	1536.7	1537^{+28}_{-29}
n_{s}	0.9629	$0.962^{+0.018}_{-0.017}$	$\sigma_8/h^{0.5}$	0.9878	$0.988^{+0.024}_{-0.024}$	$H(0.51)$	89.49	$89.50^{+0.94}_{-0.90}$
y_{cal}	1.0005	$1.0005^{+0.0062}_{-0.0064}$	$r_{\text{drag}} h$	98.89	$98.9^{+2.6}_{-2.5}$	$D_{\text{M}}(0.51)$	1989.8	1990^{+33}_{-34}
A_{217}^{CIB}	44.7	46^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	2.448	$2.450^{+0.059}_{-0.060}$	$H(0.61)$	95.15	$95.16^{+0.80}_{-0.77}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.78	—	z_{re}	7.64	$7.6^{+2.1}_{-2.2}$	$D_{\text{M}}(0.61)$	2314.8	2315^{+36}_{-37}
A_{143}^{tSZ}	7.00	> 1.04	$10^9 A_{\text{s}}$	2.095	$2.094^{+0.094}_{-0.084}$	$H(2.33)$	236.48	$236.5^{+1.8}_{-1.8}$
A_{100}^{PS}	245	257^{+70}_{-70}	$10^9 A_{\text{s}} e^{-2\tau}$	1.8801	$1.881^{+0.029}_{-0.030}$	$D_{\text{M}}(2.33)$	5770.5	5770^{+40}_{-40}
A_{143}^{PS}	50.0	45^{+20}_{-20}	D_{40}	1234.0	1236^{+38}_{-39}	$f\sigma_8(0.15)$	0.4598	$0.460^{+0.016}_{-0.017}$
$A_{143 \times 217}^{\text{PS}}$	54.6	42^{+20}_{-20}	D_{220}	5731	5735^{+100}_{-100}	$\sigma_8(0.15)$	0.7477	$0.747^{+0.018}_{-0.016}$
A_{217}^{PS}	122.5	115^{+20}_{-30}	D_{810}	2540.0	2538^{+34}_{-33}	$f\sigma_8(0.38)$	0.4770	$0.477^{+0.013}_{-0.014}$
A^{kSZ}	0.0	—	D_{1420}	819.3	818^{+12}_{-12}	$\sigma_8(0.38)$	0.6622	$0.662^{+0.016}_{-0.015}$
A_{100}^{dustTT}	8.70	$8.9^{+4.7}_{-4.5}$	D_{2000}	232.10	$231.3^{+4.8}_{-4.7}$	$f\sigma_8(0.51)$	0.4750	$0.475^{+0.012}_{-0.012}$
A_{143}^{dustTT}	10.94	$10.8^{+4.7}_{-4.7}$	$n_{\text{s},0.002}$	0.9629	$0.962^{+0.018}_{-0.017}$	$\sigma_8(0.51)$	0.6195	$0.619^{+0.016}_{-0.014}$
$A_{143 \times 217}^{\text{dustTT}}$	20.0	$18.6^{+8.3}_{-8.3}$	Y_{P}	0.2366	$0.239^{+0.032}_{-0.033}$	$f\sigma_8(0.61)$	0.4696	$0.469^{+0.011}_{-0.011}$
A_{217}^{dustTT}	95.7	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	0.2379	$0.240^{+0.032}_{-0.034}$	$\sigma_8(0.61)$	0.5893	$0.589^{+0.015}_{-0.014}$
A_{100}^{dustTE}	0.115	$0.113^{+0.099}_{-0.092}$	Age/Gyr	13.814	$13.812^{+0.093}_{-0.091}$	$f\sigma_8(2.33)$	0.2969	$0.2968^{+0.0080}_{-0.0073}$
$A_{100 \times 143}^{\text{dustTE}}$	0.136	$0.134^{+0.074}_{-0.076}$	z_*	1089.66	$1089.8^{+1.1}_{-1.0}$	$\sigma_8(2.33)$	0.3059	$0.3058^{+0.0087}_{-0.0079}$
$A_{100 \times 217}^{\text{dustTE}}$	0.482	$0.48^{+0.21}_{-0.21}$	r_*	144.51	$144.49^{+0.73}_{-0.72}$	f_{2000}^{143}	27.4	29^{+8}_{-8}
A_{143}^{dustTE}	0.226	$0.22^{+0.13}_{-0.14}$	$100\theta_*$	1.04102	$1.04103^{+0.00085}_{-0.00083}$	$f_{2000}^{143 \times 217}$	31.0	32^{+6}_{-5}
$A_{143 \times 217}^{\text{dustTE}}$	0.666	$0.67^{+0.20}_{-0.20}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.881	$13.880^{+0.071}_{-0.068}$	f_{2000}^{217}	105.6	$106.5^{+5.7}_{-5.1}$
A_{217}^{dustTE}	2.09	$2.08^{+0.69}_{-0.68}$	z_{drag}	1059.51	$1059.6^{+1.9}_{-2.0}$	χ_{lensing}^2	8.76	$9.18 (\nu: 0.2)$
c_{100}	0.99973	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	147.19	$147.17^{+0.78}_{-0.75}$	χ_{small}^2	396.05	$397.0 (\nu: 1.5)$
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0016}$	k_{D}	0.14107	$0.14098^{+0.00099}_{-0.0010}$	χ_{lowl}^2	23.75	$24.0 (\nu: 0.9)$
H_0	67.19	$67.2^{+1.7}_{-1.6}$	$100\theta_{\text{D}}$	0.16043	$0.1605^{+0.0012}_{-0.0011}$	χ_{plik}^2	2344.0	$2359.6 (\nu: 17.1)$
Ω_{Λ}	0.6833	$0.683^{+0.020}_{-0.021}$	z_{eq}	3401	3402^{+68}_{-68}	χ_{prior}^2	1.5	$11.5 (\nu: 10.3)$
Ω_{m}	0.3167	$0.317^{+0.021}_{-0.020}$	k_{eq}	0.010380	$0.01038^{+0.00021}_{-0.00021}$	χ_{CMB}^2	2772.6	$2789.9 (\nu: 18.1)$

Best-fit $\chi_{\text{eff}}^2 = 2774.06$; $\Delta\chi_{\text{eff}}^2 = -0.57$; $\bar{\chi}_{\text{eff}}^2 = 2801.34$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.65$; $R - 1 = 0.01603$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.76 (Δ -0.11) small_100x143_offlike5_EE_Aplanck_B: 396.05 (Δ -0.00) commander_dx12_v3_2_29: 23.75 (Δ 0.50) plik_rd12_HM_v22b_TTTEE: 2344.00 (Δ -0.93)

19.12 base_yhe_plikHM_TTTEE_lowl_lowE_post_BAO_lensing

Parameter	Best fit	99% limits	Parameter	Best fit	99% limits	Parameter	Best fit	99% limits
$\Omega_b h^2$	0.022390	$0.02239^{+0.00045}_{-0.00046}$	σ_8	0.8089	$0.809^{+0.019}_{-0.018}$	$H(0.38)$	82.98	$83.00^{+0.88}_{-0.87}$
$\Omega_c h^2$	0.11926	$0.1193^{+0.0024}_{-0.0023}$	S_8	0.8243	$0.825^{+0.027}_{-0.027}$	$D_M(0.38)$	1529.8	1530^{+22}_{-22}
$100\theta_{MC}$	1.04080	$1.0409^{+0.0013}_{-0.0013}$	$\sigma_8 \Omega_m^{0.5}$	0.4515	$0.452^{+0.015}_{-0.015}$	$H(0.51)$	89.70	$89.72^{+0.75}_{-0.76}$
τ	0.0559	$0.056^{+0.021}_{-0.019}$	$\sigma_8 \Omega_m^{0.25}$	0.6043	$0.605^{+0.016}_{-0.015}$	$D_M(0.51)$	1981.7	1981^{+26}_{-26}
Y_P	0.2395	$0.242^{+0.030}_{-0.031}$	$\sigma_8/h^{0.5}$	0.9840	$0.985^{+0.023}_{-0.023}$	$H(0.61)$	95.32	$95.34^{+0.68}_{-0.68}$
$\ln(10^{10} A_s)$	3.0450	$3.046^{+0.044}_{-0.040}$	$r_{drag} h$	99.55	$99.6^{+1.9}_{-1.9}$	$D_M(0.61)$	2305.9	2306^{+29}_{-28}
n_s	0.9653	$0.965^{+0.016}_{-0.016}$	$\langle d^2 \rangle^{1/2}$	2.439	$2.440^{+0.056}_{-0.056}$	$H(2.33)$	236.08	$236.1^{+1.6}_{-1.4}$
y_{cal}	1.0007	$1.0007^{+0.0062}_{-0.0066}$	z_{re}	7.80	$7.8^{+2.0}_{-2.0}$	$D_M(2.33)$	5762.6	5762^{+36}_{-35}
A_{217}^{CIB}	46.0	46^{+20}_{-20}	$10^9 A_s$	2.101	$2.103^{+0.094}_{-0.083}$	$f\sigma_8(0.15)$	0.4561	$0.456^{+0.014}_{-0.014}$
$\xi^{tSZ \times CIB}$	0.57	—	$10^9 A_s e^{-2\tau}$	1.8788	$1.879^{+0.029}_{-0.029}$	$\sigma_8(0.15)$	0.7475	$0.748^{+0.018}_{-0.017}$
A_{143}^{tSZ}	7.15	> 1.04	D_{40}	1230.4	1231^{+36}_{-35}	$f\sigma_8(0.38)$	0.4744	$0.475^{+0.012}_{-0.012}$
A_{100}^{PS}	248	257^{+70}_{-70}	D_{220}	5739	5740^{+100}_{-98}	$\sigma_8(0.38)$	0.6626	$0.663^{+0.017}_{-0.015}$
A_{143}^{PS}	47.5	45^{+20}_{-20}	D_{810}	2540.4	2539^{+34}_{-33}	$f\sigma_8(0.51)$	0.4730	$0.473^{+0.012}_{-0.012}$
$A_{143 \times 217}^{PS}$	49.7	42^{+20}_{-20}	D_{1420}	819.4	818^{+12}_{-12}	$\sigma_8(0.51)$	0.6201	$0.621^{+0.016}_{-0.014}$
A_{217}^{PS}	120.5	115^{+20}_{-30}	D_{2000}	232.04	$231.4^{+4.7}_{-4.8}$	$f\sigma_8(0.61)$	0.4680	$0.468^{+0.011}_{-0.011}$
A^{kSZ}	0.0	—	$n_{s,0.002}$	0.9653	$0.965^{+0.016}_{-0.016}$	$\sigma_8(0.61)$	0.5900	$0.590^{+0.015}_{-0.013}$
A_{100}^{dustTT}	8.80	$8.9^{+4.7}_{-4.5}$	Y_P	0.2395	$0.242^{+0.030}_{-0.031}$	$f\sigma_8(2.33)$	0.2975	$0.2977^{+0.0078}_{-0.0069}$
A_{143}^{dustTT}	10.92	$10.9^{+4.8}_{-4.6}$	Y_P^{BBN}	0.2408	$0.243^{+0.030}_{-0.031}$	$\sigma_8(2.33)$	0.3067	$0.3069^{+0.0082}_{-0.0074}$
$A_{143 \times 217}^{dustTT}$	19.8	$18.6^{+8.1}_{-8.3}$	Age/Gyr	13.796	$13.794^{+0.083}_{-0.079}$	f_{2000}^{143}	27.8	29^{+8}_{-7}
A_{217}^{dustTT}	95.3	94^{+20}_{-20}	z_*	1089.59	$1089.7^{+1.1}_{-1.0}$	$f_{2000}^{143 \times 217}$	31.2	32^{+6}_{-5}
A_{100}^{dustTE}	0.114	$0.112^{+0.098}_{-0.091}$	r_*	144.63	$144.61^{+0.66}_{-0.66}$	f_{2000}^{217}	106.0	$106.5^{+5.8}_{-5.2}$
$A_{100 \times 143}^{dustTE}$	0.134	$0.134^{+0.074}_{-0.076}$	$100\theta_*$	1.04113	$1.04115^{+0.00080}_{-0.00079}$	$\chi_{lensing}^2$	8.66	$9.08 (\nu: 0.2)$
$A_{100 \times 217}^{dustTE}$	0.483	$0.48^{+0.21}_{-0.22}$	$D_M(z_*)/\text{Gpc}$	13.891	$13.890^{+0.064}_{-0.064}$	χ_{small}^2	396.3	$397.3 (\nu: 2.1)$
A_{143}^{dustTE}	0.224	$0.22^{+0.13}_{-0.13}$	z_{drag}	1059.74	$1059.8^{+1.9}_{-1.9}$	χ_{lowl}^2	23.34	$23.5 (\nu: 0.7)$
$A_{143 \times 217}^{dustTE}$	0.664	$0.67^{+0.20}_{-0.20}$	r_{drag}	147.28	$147.27^{+0.72}_{-0.71}$	χ_{plik}^2	2344.6	$2360.0 (\nu: 17.4)$
A_{217}^{dustTE}	2.08	$2.08^{+0.68}_{-0.68}$	k_D	0.14092	$0.14083^{+0.00093}_{-0.00093}$	χ_{6DF}^2	0.037	$0.060 (\nu: 0.0)$
c_{100}	0.99974	$0.9997^{+0.0016}_{-0.0016}$	$100\theta_D$	0.16049	$0.1606^{+0.0012}_{-0.0012}$	χ_{MGS}^2	1.16	$1.22 (\nu: 0.1)$
c_{217}	0.99818	$0.9982^{+0.0016}_{-0.0016}$	z_{eq}	3385	3386^{+56}_{-53}	$\chi_{DR12BAO}^2$	4.61	$5.0 (\nu: 1.1)$
H_0	67.59	$67.6^{+1.3}_{-1.2}$	k_{eq}	0.010332	$0.01033^{+0.00017}_{-0.00016}$	χ_{prior}^2	1.6	$11.6 (\nu: 10.2)$
Ω_Λ	0.6885	$0.688^{+0.015}_{-0.016}$	$100\theta_{eq}$	0.8163	$0.816^{+0.010}_{-0.010}$	χ_{CMB}^2	2773.0	$2789.8 (\nu: 17.9)$
Ω_m	0.3115	$0.312^{+0.016}_{-0.015}$	$100\theta_{s,eq}$	0.4509	$0.4509^{+0.0051}_{-0.0053}$	χ_{BAO}^2	5.80	$6.2 (\nu: 0.7)$
$\Omega_m h^2$	0.14230	$0.1423^{+0.0023}_{-0.0022}$	$H(0.15)$	72.87	$72.9^{+1.1}_{-1.1}$			
$\Omega_m h^3$	0.09618	$0.0962^{+0.0013}_{-0.0013}$	$D_M(0.15)$	641.4	641^{+11}_{-11}			

Best-fit $\chi_{\text{eff}}^2 = 2780.41$; $\Delta\chi_{\text{eff}}^2 = -0.29$; $\bar{\chi}_{\text{eff}}^2 = 2807.64$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.79$; $R - 1 = 0.02881$
 χ_{eff}^2 : BAO - 6DF: 0.04 (Δ 0.01) MGS: 1.16 (Δ -0.06) DR12BAO: 4.61 (Δ 0.19) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.66 (Δ -0.07) simall_100x143_offlike5_EE_Aplanck
396.33 (Δ -0.19) commander_dx12_v3.2_29: 23.34 (Δ 0.45) plik_rd12_HM_v22b.TTTEE: 2344.62 (Δ -0.70)

19.13 base_yhe_plikHM_TTTEE_lowl_lowE_post_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02230^{+0.00051}_{-0.00052}$	$\Omega_{\mathrm{m}}h^2$	$0.1432^{+0.0032}_{-0.0033}$	$100\theta_{\mathrm{eq}}$	$0.812^{+0.015}_{-0.015}$
$\Omega_{\mathrm{c}}h^2$	$0.1202^{+0.0035}_{-0.0035}$	$\Omega_{\mathrm{m}}h^3$	$0.0961^{+0.0014}_{-0.0014}$	$100\theta_{\mathrm{s,eq}}$	$0.4490^{+0.0077}_{-0.0074}$
$100\theta_{\mathrm{MC}}$	$1.0407^{+0.0014}_{-0.0014}$	σ_8	$0.811^{+0.020}_{-0.018}$	$H(0.15)$	$72.5^{+1.5}_{-1.5}$
τ	$0.055^{+0.020}_{-0.014}$	S_8	$0.835^{+0.040}_{-0.042}$	$D_{\mathrm{M}}(0.15)$	645^{+15}_{-15}
Y_{P}	$0.240^{+0.032}_{-0.033}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.457^{+0.022}_{-0.023}$	$H(0.38)$	$82.7^{+1.2}_{-1.1}$
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.045}_{-0.031}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.609^{+0.020}_{-0.021}$	$D_{\mathrm{M}}(0.38)$	1537^{+31}_{-31}
n_{s}	$0.962^{+0.018}_{-0.018}$	$\sigma_8/h^{0.5}$	$0.990^{+0.029}_{-0.029}$	$H(0.51)$	$89.49^{+0.98}_{-0.94}$
y_{cal}	$1.0006^{+0.0061}_{-0.0063}$	$r_{\mathrm{drag}}h$	$98.8^{+2.9}_{-2.8}$	$D_{\mathrm{M}}(0.51)$	1990^{+36}_{-36}
A_{217}^{CIB}	46^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	$2.455^{+0.074}_{-0.073}$	$H(0.61)$	$95.16^{+0.83}_{-0.79}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	z_{re}	< 9.61	$D_{\mathrm{M}}(0.61)$	2315^{+39}_{-39}
A_{143}^{tSZ}	> 1.02	$10^9 A_{\mathrm{s}}$	$2.101^{+0.097}_{-0.065}$	$H(2.33)$	$236.6^{+2.0}_{-2.1}$
A_{100}^{PS}	257^{+70}_{-70}	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.882^{+0.031}_{-0.031}$	$D_{\mathrm{M}}(2.33)$	5770^{+41}_{-41}
A_{143}^{PS}	45^{+20}_{-20}	D_{40}	1236^{+41}_{-41}	$f\sigma_8(0.15)$	$0.461^{+0.020}_{-0.021}$
$A_{143 \times 217}^{\mathrm{PS}}$	42^{+20}_{-20}	D_{220}	5733^{+100}_{-99}	$\sigma_8(0.15)$	$0.749^{+0.019}_{-0.016}$
A_{217}^{PS}	115^{+20}_{-30}	D_{810}	2538^{+33}_{-35}	$f\sigma_8(0.38)$	$0.478^{+0.017}_{-0.017}$
A^{kSZ}	—	D_{1420}	817^{+12}_{-13}	$\sigma_8(0.38)$	$0.664^{+0.017}_{-0.014}$
$A_{100}^{\mathrm{dustTT}}$	$8.9^{+4.6}_{-4.7}$	D_{2000}	$231.3^{+4.7}_{-4.7}$	$f\sigma_8(0.51)$	$0.476^{+0.015}_{-0.015}$
$A_{143}^{\mathrm{dustTT}}$	$10.8^{+4.7}_{-4.8}$	$n_{\mathrm{s},0.002}$	$0.962^{+0.018}_{-0.018}$	$\sigma_8(0.51)$	$0.621^{+0.016}_{-0.013}$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.5^{+8.5}_{-8.3}$	Y_{P}	$0.240^{+0.032}_{-0.033}$	$f\sigma_8(0.61)$	$0.471^{+0.013}_{-0.014}$
$A_{217}^{\mathrm{dustTT}}$	94^{+20}_{-20}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.241^{+0.032}_{-0.033}$	$\sigma_8(0.61)$	$0.590^{+0.015}_{-0.012}$
$A_{100}^{\mathrm{dustTE}}$	$0.114^{+0.097}_{-0.095}$	Age/Gyr	$13.812^{+0.094}_{-0.095}$	$f\sigma_8(2.33)$	$0.2975^{+0.0080}_{-0.0061}$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.134^{+0.076}_{-0.074}$	z_*	$1089.8^{+1.1}_{-1.1}$	$\sigma_8(2.33)$	$0.3064^{+0.0087}_{-0.0065}$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.48^{+0.22}_{-0.21}$	r_*	$144.45^{+0.84}_{-0.79}$	f_{2000}^{143}	29^{+8}_{-8}
$A_{143}^{\mathrm{dustTE}}$	$0.22^{+0.14}_{-0.14}$	$100\theta_*$	$1.04103^{+0.00088}_{-0.00086}$	$f_{2000}^{143 \times 217}$	32^{+6}_{-6}
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.67^{+0.21}_{-0.20}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.876^{+0.079}_{-0.078}$	f_{2000}^{217}	$106.6^{+5.6}_{-5.1}$
$A_{217}^{\mathrm{dustTE}}$	$2.09^{+0.69}_{-0.69}$	z_{drag}	$1059.6^{+1.9}_{-2.0}$	χ_{simall}^2	$397.1 (\nu: 2.0)$
c_{100}	$0.9997^{+0.0016}_{-0.0015}$	r_{drag}	$147.13^{+0.87}_{-0.83}$	χ_{lowl}^2	$24.1 (\nu: 1.1)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	k_{D}	$0.1410^{+0.0011}_{-0.0011}$	χ_{plik}^2	$2359.7 (\nu: 17.9)$
H_0	$67.2^{+1.8}_{-1.7}$	$100\theta_{\mathrm{D}}$	$0.1606^{+0.0012}_{-0.0012}$	χ_{prior}^2	$11.5 (\nu: 10.1)$
Ω_{Λ}	$0.682^{+0.022}_{-0.023}$	z_{eq}	3406^{+78}_{-78}	χ_{CMB}^2	$2780.8 (\nu: 17.5)$
Ω_{m}	$0.318^{+0.023}_{-0.022}$	k_{eq}	$0.01039^{+0.00024}_{-0.00024}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2792.32; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.79; R - 1 = 0.01241$$

19.14 base_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02239^{+0.00044}_{-0.00046}$	$\Omega_m h^3$	$0.0962^{+0.0013}_{-0.0013}$	$H(0.15)$	$72.9^{+1.1}_{-1.1}$
$\Omega_c h^2$	$0.1193^{+0.0026}_{-0.0026}$	σ_8	$0.810^{+0.022}_{-0.019}$	$D_M(0.15)$	641^{+11}_{-11}
$100\theta_{MC}$	$1.0409^{+0.0013}_{-0.0013}$	S_8	$0.825^{+0.033}_{-0.032}$	$H(0.38)$	$83.02^{+0.87}_{-0.87}$
τ	$0.057^{+0.021}_{-0.015}$	$\sigma_8 \Omega_m^{0.5}$	$0.452^{+0.018}_{-0.018}$	$D_M(0.38)$	1529^{+23}_{-22}
Y_P	$0.243^{+0.030}_{-0.032}$	$\sigma_8 \Omega_m^{0.25}$	$0.605^{+0.019}_{-0.018}$	$H(0.51)$	$89.74^{+0.77}_{-0.76}$
$\ln(10^{10} A_s)$	$3.047^{+0.048}_{-0.034}$	$\sigma_8/h^{0.5}$	$0.985^{+0.028}_{-0.026}$	$D_M(0.51)$	1981^{+27}_{-26}
n_s	$0.966^{+0.016}_{-0.015}$	$r_{drag} h$	$99.6^{+2.1}_{-2.1}$	$H(0.61)$	$95.36^{+0.69}_{-0.68}$
y_{cal}	$1.0006^{+0.0062}_{-0.0066}$	$\langle d^2 \rangle^{1/2}$	$2.439^{+0.065}_{-0.059}$	$D_M(0.61)$	2305^{+29}_{-29}
A_{217}^{CIB}	47^{+20}_{-20}	z_{re}	< 9.83	$H(2.33)$	$236.1^{+1.7}_{-1.6}$
$\xi^{tSZ \times CIB}$	—	$10^9 A_s$	$2.10^{+0.10}_{-0.071}$	$D_M(2.33)$	5761^{+35}_{-35}
A_{143}^{tSZ}	> 1.02	$10^9 A_s e^{-2\tau}$	$1.879^{+0.030}_{-0.031}$	$f\sigma_8(0.15)$	$0.456^{+0.017}_{-0.017}$
A_{100}^{PS}	257^{+70}_{-70}	D_{40}	1229^{+38}_{-38}	$\sigma_8(0.15)$	$0.748^{+0.020}_{-0.017}$
A_{143}^{PS}	45^{+20}_{-20}	D_{220}	5736^{+100}_{-100}	$f\sigma_8(0.38)$	$0.475^{+0.015}_{-0.014}$
$A_{143 \times 217}^{PS}$	42^{+20}_{-20}	D_{810}	2539^{+34}_{-35}	$\sigma_8(0.38)$	$0.663^{+0.018}_{-0.015}$
A_{217}^{PS}	115^{+20}_{-30}	D_{1420}	818^{+12}_{-12}	$f\sigma_8(0.51)$	$0.473^{+0.014}_{-0.013}$
A^{kSZ}	—	D_{2000}	$231.3^{+4.8}_{-4.8}$	$\sigma_8(0.51)$	$0.621^{+0.016}_{-0.014}$
A_{100}^{dustTT}	$8.9^{+4.8}_{-4.5}$	$n_{s,0.002}$	$0.966^{+0.016}_{-0.015}$	$f\sigma_8(0.61)$	$0.468^{+0.013}_{-0.012}$
A_{143}^{dustTT}	$10.9^{+4.9}_{-4.6}$	Y_P	$0.243^{+0.030}_{-0.032}$	$\sigma_8(0.61)$	$0.591^{+0.016}_{-0.013}$
$A_{143 \times 217}^{dustTT}$	$18.6^{+8.1}_{-8.2}$	Y_P^{BBN}	$0.244^{+0.030}_{-0.032}$	$f\sigma_8(2.33)$	$0.2979^{+0.0083}_{-0.0064}$
A_{217}^{dustTT}	94^{+20}_{-20}	Age/Gyr	$13.792^{+0.082}_{-0.080}$	$\sigma_8(2.33)$	$0.3071^{+0.0088}_{-0.0068}$
A_{100}^{dustTE}	$0.113^{+0.098}_{-0.091}$	z_*	$1089.7^{+1.1}_{-1.0}$	f_{2000}^{143}	29^{+8}_{-8}
$A_{100 \times 143}^{dustTE}$	$0.134^{+0.074}_{-0.076}$	r_*	$144.61^{+0.69}_{-0.72}$	$f_{2000}^{143 \times 217}$	32^{+6}_{-5}
$A_{100 \times 217}^{dustTE}$	$0.48^{+0.21}_{-0.22}$	$100\theta_*$	$1.04117^{+0.00082}_{-0.00078}$	f_{2000}^{217}	$106.6^{+5.8}_{-5.2}$
A_{143}^{dustTE}	$0.22^{+0.14}_{-0.13}$	$D_M(z_*)/\text{Gpc}$	$13.889^{+0.066}_{-0.070}$	χ_{simall}^2	$397.3 (\nu: 2.6)$
$A_{143 \times 217}^{dustTE}$	$0.66^{+0.20}_{-0.20}$	z_{drag}	$1059.9^{+1.9}_{-1.9}$	χ_{lowl}^2	$23.4 (\nu: 0.7)$
A_{217}^{dustTE}	$2.08^{+0.68}_{-0.68}$	r_{drag}	$147.27^{+0.78}_{-0.78}$	χ_{plik}^2	$2360.2 (\nu: 17.9)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	k_D	$0.14080^{+0.00096}_{-0.00094}$	χ_{6DF}^2	$0.060 (\nu: 0.0)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	$100\theta_D$	$0.1606^{+0.0012}_{-0.0011}$	χ_{MGS}^2	$1.25 (\nu: 0.1)$
H_0	$67.6^{+1.3}_{-1.3}$	z_{eq}	3385^{+61}_{-58}	$\chi_{DR12BAO}^2$	$4.9 (\nu: 1.2)$
Ω_Λ	$0.689^{+0.015}_{-0.017}$	k_{eq}	$0.01033^{+0.00018}_{-0.00018}$	χ_{prior}^2	$11.6 (\nu: 10.3)$
Ω_m	$0.311^{+0.017}_{-0.015}$	$100\theta_{eq}$	$0.816^{+0.011}_{-0.011}$	χ_{BAO}^2	$6.2 (\nu: 0.8)$
$\Omega_m h^2$	$0.1423^{+0.0025}_{-0.0024}$	$100\theta_{s,eq}$	$0.4510^{+0.0057}_{-0.0057}$	χ_{CMB}^2	$2780.9 (\nu: 17.3)$

$$\bar{\chi}_{\text{eff}}^2 = 2798.67; \Delta\bar{\chi}_{\text{eff}}^2 = 0.96; R - 1 = 0.03223$$

19.15 base_yhe_plikHM_TTTEEE_lowl_lowE_post_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_b h^2$	$0.02231^{+0.00051}_{-0.00050}$	$\Omega_m h^2$	$0.1430^{+0.0028}_{-0.0028}$	$100\theta_{\text{eq}}$	$0.813^{+0.013}_{-0.012}$
$\Omega_c h^2$	$0.1200^{+0.0030}_{-0.0030}$	$\Omega_m h^3$	$0.0961^{+0.0013}_{-0.0014}$	$100\theta_{\text{s,eq}}$	$0.4494^{+0.0065}_{-0.0064}$
$100\theta_{\text{MC}}$	$1.0407^{+0.0014}_{-0.0014}$	σ_8	$0.810^{+0.018}_{-0.015}$	$H(0.15)$	$72.6^{+1.4}_{-1.3}$
τ	$0.055^{+0.019}_{-0.014}$	S_8	$0.832^{+0.032}_{-0.033}$	$D_{\text{M}}(0.15)$	645^{+13}_{-14}
Y_{P}	$0.239^{+0.031}_{-0.034}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.456^{+0.017}_{-0.018}$	$H(0.38)$	$82.8^{+1.1}_{-1.0}$
$\ln(10^{10} A_{\text{s}})$	$3.044^{+0.042}_{-0.030}$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.608^{+0.016}_{-0.017}$	$D_{\text{M}}(0.38)$	1536^{+27}_{-28}
n_{s}	$0.963^{+0.018}_{-0.017}$	$\sigma_8/h^{0.5}$	$0.988^{+0.023}_{-0.023}$	$H(0.51)$	$89.52^{+0.92}_{-0.88}$
y_{cal}	$1.0005^{+0.0062}_{-0.0064}$	$r_{\text{drag}} h$	$99.0^{+2.6}_{-2.5}$	$D_{\text{M}}(0.51)$	1989^{+33}_{-33}
A_{217}^{CIB}	46^{+20}_{-20}	$\langle d^2 \rangle^{1/2}$	$2.451^{+0.059}_{-0.059}$	$H(0.61)$	$95.18^{+0.79}_{-0.77}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	< 9.50	$D_{\text{M}}(0.61)$	2314^{+35}_{-36}
A_{143}^{tSZ}	> 1.04	$10^9 A_{\text{s}}$	$2.099^{+0.090}_{-0.061}$	$H(2.33)$	$236.5^{+1.8}_{-1.8}$
A_{100}^{PS}	257^{+70}_{-70}	$10^9 A_{\text{s}} e^{-2\tau}$	$1.880^{+0.029}_{-0.030}$	$D_{\text{M}}(2.33)$	5769^{+40}_{-39}
A_{143}^{PS}	45^{+20}_{-20}	D_{40}	1236^{+38}_{-38}	$f\sigma_8(0.15)$	$0.460^{+0.016}_{-0.017}$
$A_{143 \times 217}^{\text{PS}}$	42^{+20}_{-20}	D_{220}	5735^{+100}_{-99}	$\sigma_8(0.15)$	$0.748^{+0.017}_{-0.014}$
A_{217}^{PS}	115^{+20}_{-30}	D_{810}	2538^{+34}_{-33}	$f\sigma_8(0.38)$	$0.477^{+0.013}_{-0.014}$
A^{kSZ}	—	D_{1420}	818^{+12}_{-12}	$\sigma_8(0.38)$	$0.663^{+0.016}_{-0.012}$
A_{100}^{dustTT}	$8.9^{+4.7}_{-4.5}$	D_{2000}	$231.3^{+4.8}_{-4.8}$	$f\sigma_8(0.51)$	$0.475^{+0.012}_{-0.012}$
A_{143}^{dustTT}	$10.8^{+4.7}_{-4.7}$	$n_{\text{s},0.002}$	$0.963^{+0.018}_{-0.017}$	$\sigma_8(0.51)$	$0.620^{+0.015}_{-0.012}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6^{+8.2}_{-8.2}$	Y_{P}	$0.239^{+0.031}_{-0.034}$	$f\sigma_8(0.61)$	$0.470^{+0.011}_{-0.011}$
A_{217}^{dustTT}	94^{+20}_{-20}	$Y_{\text{P}}^{\text{BBN}}$	$0.240^{+0.031}_{-0.034}$	$\sigma_8(0.61)$	$0.590^{+0.015}_{-0.011}$
A_{100}^{dustTE}	$0.113^{+0.10}_{-0.092}$	Age/Gyr	$13.810^{+0.092}_{-0.091}$	$f\sigma_8(2.33)$	$0.2972^{+0.0078}_{-0.0059}$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134^{+0.074}_{-0.076}$	z_*	$1089.8^{+1.1}_{-1.0}$	$\sigma_8(2.33)$	$0.3062^{+0.0084}_{-0.0064}$
$A_{100 \times 217}^{\text{dustTE}}$	$0.48^{+0.21}_{-0.21}$	r_*	$144.50^{+0.74}_{-0.72}$	f_{2000}^{143}	29^{+8}_{-8}
A_{143}^{dustTE}	$0.22^{+0.13}_{-0.14}$	$100\theta_*$	$1.04104^{+0.00085}_{-0.00083}$	$f_{2000}^{143 \times 217}$	32^{+6}_{-6}
$A_{143 \times 217}^{\text{dustTE}}$	$0.67^{+0.20}_{-0.20}$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.880^{+0.071}_{-0.069}$	f_{2000}^{217}	$106.5^{+5.7}_{-5.1}$
A_{217}^{dustTE}	$2.08^{+0.68}_{-0.68}$	z_{drag}	$1059.6^{+1.9}_{-2.0}$	χ_{lensing}^2	$9.17 (\nu: 0.2)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	r_{drag}	$147.18^{+0.78}_{-0.76}$	χ_{simall}^2	$396.9 (\nu: 1.6)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	k_{D}	$0.14097^{+0.00099}_{-0.0010}$	χ_{lowl}^2	$24.0 (\nu: 0.9)$
H_0	$67.2^{+1.6}_{-1.5}$	$100\theta_{\text{D}}$	$0.1606^{+0.0012}_{-0.0012}$	χ_{plik}^2	$2359.5 (\nu: 17.0)$
Ω_{Λ}	$0.684^{+0.020}_{-0.021}$	z_{eq}	3401^{+68}_{-67}	χ_{prior}^2	$11.5 (\nu: 10.2)$
Ω_{m}	$0.316^{+0.021}_{-0.020}$	k_{eq}	$0.01038^{+0.00021}_{-0.00020}$	χ_{CMB}^2	$2789.6 (\nu: 17.6)$

$$\bar{\chi}_{\text{eff}}^2 = 2801.11; \Delta \bar{\chi}_{\text{eff}}^2 = 0.60; R - 1 = 0.01737$$

19.16 base_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	99% limits	Parameter	99% limits	Parameter	99% limits
$\Omega_{\mathrm{b}}h^2$	$0.02239^{+0.00045}_{-0.00045}$	σ_8	$0.810^{+0.019}_{-0.016}$	$H(0.38)$	$83.01^{+0.87}_{-0.85}$
$\Omega_{\mathrm{c}}h^2$	$0.1193^{+0.0024}_{-0.0023}$	S_8	$0.825^{+0.027}_{-0.027}$	$D_{\mathrm{M}}(0.38)$	1529^{+22}_{-22}
$100\theta_{\mathrm{MC}}$	$1.0409^{+0.0013}_{-0.0013}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.452^{+0.015}_{-0.015}$	$H(0.51)$	$89.72^{+0.76}_{-0.75}$
τ	$0.057^{+0.019}_{-0.015}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.605^{+0.015}_{-0.015}$	$D_{\mathrm{M}}(0.51)$	1981^{+26}_{-26}
Y_{P}	$0.242^{+0.030}_{-0.031}$	$\sigma_8/h^{0.5}$	$0.985^{+0.022}_{-0.021}$	$H(0.61)$	$95.34^{+0.67}_{-0.66}$
$\ln(10^{10}A_{\mathrm{s}})$	$3.047^{+0.043}_{-0.032}$	$r_{\mathrm{drag}}h$	$99.6^{+2.0}_{-1.9}$	$D_{\mathrm{M}}(0.61)$	2305^{+28}_{-28}
n_{s}	$0.965^{+0.016}_{-0.015}$	$\langle d^2 \rangle^{1/2}$	$2.441^{+0.055}_{-0.053}$	$H(2.33)$	$236.1^{+1.6}_{-1.4}$
y_{cal}	$1.0007^{+0.0062}_{-0.0066}$	z_{re}	< 9.66	$D_{\mathrm{M}}(2.33)$	5762^{+35}_{-34}
A_{217}^{CIB}	46^{+20}_{-20}	$10^9 A_{\mathrm{s}}$	$2.106^{+0.092}_{-0.067}$	$f\sigma_8(0.15)$	$0.456^{+0.014}_{-0.014}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.879^{+0.029}_{-0.029}$	$\sigma_8(0.15)$	$0.748^{+0.018}_{-0.015}$
A_{143}^{tSZ}	> 1.02	D_{40}	1231^{+36}_{-35}	$f\sigma_8(0.38)$	$0.475^{+0.012}_{-0.012}$
A_{100}^{PS}	257^{+70}_{-70}	D_{220}	5740^{+100}_{-98}	$\sigma_8(0.38)$	$0.663^{+0.016}_{-0.013}$
A_{143}^{PS}	45^{+20}_{-20}	D_{810}	2539^{+34}_{-33}	$f\sigma_8(0.51)$	$0.473^{+0.011}_{-0.011}$
$A_{143 \times 217}^{\mathrm{PS}}$	42^{+20}_{-20}	D_{1420}	818^{+12}_{-12}	$\sigma_8(0.51)$	$0.621^{+0.015}_{-0.012}$
A_{217}^{PS}	115^{+20}_{-30}	D_{2000}	$231.4^{+4.7}_{-4.8}$	$f\sigma_8(0.61)$	$0.469^{+0.011}_{-0.010}$
A^{kSZ}	—	$n_{\mathrm{s},0.002}$	$0.965^{+0.016}_{-0.015}$	$\sigma_8(0.61)$	$0.591^{+0.015}_{-0.012}$
$A_{100}^{\mathrm{dust}TT}$	$8.9^{+4.7}_{-4.5}$	Y_{P}	$0.242^{+0.030}_{-0.031}$	$f\sigma_8(2.33)$	$0.2979^{+0.0076}_{-0.0061}$
$A_{143}^{\mathrm{dust}TT}$	$10.9^{+4.8}_{-4.6}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.243^{+0.030}_{-0.031}$	$\sigma_8(2.33)$	$0.3071^{+0.0080}_{-0.0064}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.6^{+8.1}_{-8.2}$	Age/Gyr	$13.793^{+0.081}_{-0.079}$	f_{2000}^{143}	29^{+8}_{-7}
$A_{217}^{\mathrm{dust}TT}$	94^{+20}_{-20}	z_*	$1089.7^{+1.1}_{-1.0}$	$f_{2000}^{143 \times 217}$	32^{+6}_{-5}
$A_{100}^{\mathrm{dust}TE}$	$0.112^{+0.098}_{-0.091}$	r_*	$144.62^{+0.65}_{-0.66}$	f_{2000}^{217}	$106.5^{+5.8}_{-5.2}$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.134^{+0.074}_{-0.076}$	$100\theta_*$	$1.04115^{+0.00081}_{-0.00078}$	$\chi_{\mathrm{lensing}}^2$	$9.05 (\nu: 0.2)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.48^{+0.21}_{-0.22}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.890^{+0.063}_{-0.064}$	χ_{simall}^2	$397.3 (\nu: 2.1)$
$A_{143}^{\mathrm{dust}TE}$	$0.22^{+0.14}_{-0.14}$	z_{drag}	$1059.8^{+1.9}_{-1.9}$	χ_{lowl}^2	$23.5 (\nu: 0.7)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.67^{+0.20}_{-0.20}$	r_{drag}	$147.27^{+0.73}_{-0.71}$	χ_{plik}^2	$2359.9 (\nu: 17.3)$
$A_{217}^{\mathrm{dust}TE}$	$2.08^{+0.67}_{-0.68}$	k_{D}	$0.14082^{+0.00093}_{-0.00092}$	$\chi_{6\mathrm{DF}}^2$	$0.058 (\nu: 0.0)$
c_{100}	$0.9997^{+0.0016}_{-0.0016}$	$100\theta_{\mathrm{D}}$	$0.1606^{+0.0012}_{-0.0011}$	χ_{MGS}^2	$1.23 (\nu: 0.1)$
c_{217}	$0.9982^{+0.0016}_{-0.0016}$	z_{eq}	3385^{+56}_{-53}	$\chi_{\mathrm{DR12BAO}}^2$	$4.9 (\nu: 1.0)$
H_0	$67.6^{+1.3}_{-1.2}$	k_{eq}	$0.01033^{+0.00017}_{-0.00016}$	χ_{prior}^2	$11.6 (\nu: 10.2)$
Ω_{Λ}	$0.689^{+0.015}_{-0.016}$	$100\theta_{\mathrm{eq}}$	$0.8164^{+0.0099}_{-0.010}$	χ_{CMB}^2	$2789.7 (\nu: 17.6)$
Ω_{m}	$0.311^{+0.016}_{-0.015}$	$100\theta_{\mathrm{s,eq}}$	$0.4510^{+0.0051}_{-0.0053}$	χ_{BAO}^2	$6.2 (\nu: 0.7)$
$\Omega_{\mathrm{m}}h^2$	$0.1423^{+0.0023}_{-0.0022}$	$H(0.15)$	$72.9^{+1.1}_{-1.1}$		
$\Omega_{\mathrm{m}}h^3$	$0.0962^{+0.0013}_{-0.0013}$	$D_{\mathrm{M}}(0.15)$	641^{+11}_{-11}		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2807.47; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.75; R - 1 = 0.03003$$