

Planck 2018 Results: Cosmological Parameter Test 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
pliklike	Plik_lite high- ℓ <i>Planck</i> nuisance-marginalized power spectrum likelihood (based on plik , $30 \leq \ell \leq 2508$).
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.
CookeDH	A Gaussian prior $\Omega_b h^2 = 0.0222 \pm 0.0005$ (conservative, motivated by Cooke et al. 2017).
theta	A Gaussian prior $100\theta_{\text{MC}} = 1.0409 \pm 0.0006$ (acoustic scale from <i>Planck</i> CMB without LCDM assumption).

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 $\chi^2_{\text{eff}} = -2\log(\text{likelihood})$ 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 $\bar{\chi}^2_{\text{eff}}$. The tables also give the χ^2_{eff} 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
$A_{\text{L}}^{\phi\phi}$	Aphi phi	1	Amplitude of the lensing reconstruction power relative to the physical value
$A_{\text{L}}^{\text{fid}}$	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
$\Omega_{\text{m}} h^2$	omegamh2	...	Total matter density today (incl. massive neutrinos)
$\Omega_{\text{m}} h^3$	omegamh3	...	$h \times$ total matter density today
σ_8	sigma8	...	RMS matter fluctuations today in linear theory
S_8	S8	...	$\sigma_8(\Omega_{\text{m}}/0.3)^{0.5}$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	s8omegamp5	...	$\sigma_8 \Omega_{\text{m}}^{0.5}$ constrained by low-redshift lensing
$\sigma_8 \Omega_{\text{m}}^{0.25}$	s8omegamp25	...	$\sigma_8 \Omega_{\text{m}}^{0.25}$ 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
$Y_{\text{P}}^{\text{BBN}}$	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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2 Baseline model

2.1 base_pliklite_TT_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022060	0.02206 ± 0.00022 (-0.3σ)	D_{220}	5717.6	5717 ± 41 $(+0.1\sigma)$	$H(0.38)$	82.22	82.24 ± 0.57 (-0.5σ)
$\Omega_{\text{c}}h^2$	0.12181	0.1217 ± 0.0022 $(+0.6\sigma)$	D_{810}	2536.5	2537 ± 14 $(+0.0\sigma)$	$D_{\text{M}}(0.38)$	1550.9	1550 ± 16 $(+0.5\sigma)$
$100\theta_{\text{MC}}$	1.040631	1.04064 ± 0.00047 (-0.3σ)	D_{1420}	813.1	813.2 ± 5.1 (-0.3σ)	$H(0.51)$	89.095	$89.12^{+0.41}_{-0.46}$ (-0.5σ)
τ	0.0518	0.0519 ± 0.0079 (-0.1σ)	D_{2000}	229.03	229.1 ± 1.8 (-0.3σ)	$D_{\text{M}}(0.51)$	2006.4	2006 ± 19 $(+0.5\sigma)$
$\ln(10^{10}A_{\text{s}})$	3.0428	3.043 ± 0.016 $(+0.1\sigma)$	$n_{\text{s},0.002}$	0.9586	0.9590 ± 0.0059 (-0.7σ)	$H(0.61)$	94.837	$94.85^{+0.32}_{-0.37}$ (-0.5σ)
n_{s}	0.9586	0.9590 ± 0.0059 (-0.7σ)	Y_{P}	0.245267	$0.24526^{+0.00011}_{-0.000090}$ (-0.3σ)	$D_{\text{M}}(0.61)$	2332.6	2332 ± 20 $(+0.5\sigma)$
y_{cal}	1.00020	1.0003 ± 0.0025 (-0.0σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246593	$0.24659^{+0.00011}_{-0.000090}$ (-0.3σ)	$H(2.33)$	237.42	237.4 ± 1.3 $(+0.5\sigma)$
H_0	66.37	66.41 ± 0.94 (-0.6σ)	$10^5\text{D}/\text{H}$	2.6448	2.645 ± 0.042 $(+0.3\sigma)$	$D_{\text{M}}(2.33)$	5784.6	5784 ± 16 $(+0.4\sigma)$
Ω_{Λ}	0.6720	0.672 ± 0.014 (-0.6σ)	Age/Gyr	13.8446	13.844 ± 0.036 $(+0.4\sigma)$	$f\sigma_8(0.15)$	0.4703	0.470 ± 0.013 $(+0.5\sigma)$
Ω_{m}	0.3280	0.328 ± 0.014 $(+0.6\sigma)$	z_*	1090.474	1090.47 ± 0.41 $(+0.5\sigma)$	$\sigma_8(0.15)$	0.7519	0.7517 ± 0.0076 $(+0.3\sigma)$
$\Omega_{\text{m}}h^2$	0.14452	0.1445 ± 0.0021 $(+0.6\sigma)$	r_*	144.20	144.22 ± 0.50 (-0.5σ)	$f\sigma_8(0.38)$	0.4850	0.4846 ± 0.0098 $(+0.5\sigma)$
$\Omega_{\text{m}}h^3$	0.095924	0.09591 ± 0.00046 $(+0.0\sigma)$	$100\theta_*$	1.040848	1.04085 ± 0.00046 (-0.3σ)	$\sigma_8(0.38)$	0.6648	0.6646 ± 0.0061 $(+0.2\sigma)$
σ_8	0.8155	0.8152 ± 0.0091 $(+0.4\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8542	13.856 ± 0.046 (-0.5σ)	$f\sigma_8(0.51)$	0.4816	0.4813 ± 0.0084 $(+0.5\sigma)$
S_8	0.8528	0.852 ± 0.025 $(+0.6\sigma)$	z_{drag}	1059.361	1059.34 ± 0.45 (-0.2σ)	$\sigma_8(0.51)$	0.6214	0.6213 ± 0.0055 $(+0.2\sigma)$
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4671	0.467 ± 0.014 $(+0.6\sigma)$	r_{drag}	146.958	146.98 ± 0.50 (-0.5σ)	$f\sigma_8(0.61)$	0.4753	0.4750 ± 0.0074 $(+0.5\sigma)$
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6172	0.617 ± 0.012 $(+0.5\sigma)$	k_{D}	0.14076	0.14074 ± 0.00054 $(+0.4\sigma)$	$\sigma_8(0.61)$	0.5908	0.5907 ± 0.0051 $(+0.2\sigma)$
$\sigma_8/h^{0.5}$	1.0010	1.001 ± 0.016 $(+0.5\sigma)$	$100\theta_{\text{D}}$	0.161094	0.16110 ± 0.00026 $(+0.2\sigma)$	$f\sigma_8(2.33)$	0.29726	0.2972 ± 0.0025 $(+0.1\sigma)$
$r_{\text{drag}}h$	97.54	97.6 ± 1.6 (-0.6σ)	z_{eq}	3438	3437 ± 50 $(+0.6\sigma)$	$\sigma_8(2.33)$	0.30577	0.3058 ± 0.0027 (-0.1σ)
$\langle d^2 \rangle^{1/2}$	2.4773	2.476 ± 0.040 $(+0.6\sigma)$	k_{eq}	0.010494	0.01049 ± 0.00015 $(+0.6\sigma)$	$\chi_{\text{PLIK_LITE}}^2$	204.22	209.2 ± 3.3 (-0.1σ)
z_{re}	7.52	7.51 ± 0.82 (-0.0σ)	$100\theta_{\text{eq}}$	0.8059	0.8063 ± 0.0091 (-0.6σ)	χ_{small}^2	395.91	397.0 ± 1.8 $(+0.0\sigma)$
$10^9 A_{\text{s}}$	2.0963	2.096 ± 0.034 $(+0.1\sigma)$	$100\theta_{\text{s,eq}}$	0.44573	0.4459 ± 0.0047 (-0.6σ)	χ_{prior}^2	0.01	1.0 ± 1.4 (-0.0σ)
$10^9 A_{\text{s}}e^{-2\tau}$	1.8898	1.890 ± 0.014 $(+0.4\sigma)$	$H(0.15)$	71.83	71.86 ± 0.80 (-0.5σ)	χ_{CMB}^2	600.13	606.2 ± 3.5 (-6.8σ)
D_{40}	1243.5	1243 ± 16 $(+0.6\sigma)$	$D_{\text{M}}(0.15)$	652.0	651.8 ± 8.2 $(+0.6\sigma)$			

Best-fit $\chi_{\text{eff}}^2 = 600.14$; $\bar{\chi}_{\text{eff}}^2 = 607.24$; $R - 1 = 0.00710$

χ_{eff}^2 : CMB - plik_lite_v22: 204.22 simall_100x143_offlike5_EE_Aplanck_B: 395.91

2.2 base_pliklite_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022123	0.02213 ± 0.00022	D_{220}	5713.3	5713 ± 41	$H(0.38)$	82.53	82.54 ± 0.56
$\Omega_c h^2$	0.12052	0.1206 ± 0.0021	D_{810}	2536.2	2536 ± 14	$D_M(0.38)$	1541.6	1542 ± 16
$100\theta_{MC}$	1.040759	1.04077 ± 0.00047	D_{1420}	814.5	814.5 ± 5.1	$H(0.51)$	89.332	89.34 ± 0.44
τ	0.0519	0.0524 ± 0.0080	D_{2000}	229.55	229.6 ± 1.8	$D_M(0.51)$	1995.7	1996 ± 18
$\ln(10^{10} A_s)$	3.0396	3.041 ± 0.016	$n_{s,0.002}$	0.9628	0.9629 ± 0.0057	$H(0.61)$	95.011	95.02 ± 0.35
n_s	0.9628	0.9629 ± 0.0057	Y_P	0.245294	$0.24529^{+0.00010}_{-0.000083}$	$D_M(0.61)$	2321.1	2321 ± 20
y_{cal}	1.00045	1.0003 ± 0.0025	Y_P^{BBN}	0.246620	$0.24662^{+0.00010}_{-0.000083}$	$H(2.33)$	236.64	236.7 ± 1.3
H_0	66.92	66.91 ± 0.91	$10^5 D/H$	2.6326	2.632 ± 0.041	$D_M(2.33)$	5777.4	5777 ± 16
Ω_Λ	0.6800	$0.680^{+0.014}_{-0.012}$	Age/Gyr	13.8293	13.828 ± 0.036	$f\sigma_8(0.15)$	0.4628	0.463 ± 0.012
Ω_m	0.3200	$0.320^{+0.012}_{-0.014}$	z_*	1090.281	1090.28 ± 0.40	$\sigma_8(0.15)$	0.7488	0.7492 ± 0.0076
$\Omega_m h^2$	0.14329	0.1434 ± 0.0020	r_*	144.486	144.47 ± 0.48	$f\sigma_8(0.38)$	0.4792	0.4796 ± 0.0096
$\Omega_m h^3$	0.095882	0.09590 ± 0.00045	$100\theta_*$	1.040969	1.04098 ± 0.00047	$\sigma_8(0.38)$	0.6628	0.6631 ± 0.0060
σ_8	0.8112	0.8117 ± 0.0090	$D_M(z_*)/\text{Gpc}$	13.8799	13.878 ± 0.044	$f\sigma_8(0.51)$	0.4768	0.4771 ± 0.0082
S_8	0.8378	0.839 ± 0.024	z_{drag}	1059.399	1059.42 ± 0.45	$\sigma_8(0.51)$	0.6199	0.6202 ± 0.0055
$\sigma_8 \Omega_m^{0.5}$	0.4589	0.459 ± 0.013	r_{drag}	147.230	147.21 ± 0.48	$f\sigma_8(0.61)$	0.4711	0.4714 ± 0.0073
$\sigma_8 \Omega_m^{0.25}$	0.6101	0.611 ± 0.012	k_D	0.14053	0.14055 ± 0.00052	$\sigma_8(0.61)$	0.5896	0.5899 ± 0.0051
$\sigma_8/h^{0.5}$	0.9917	0.992 ± 0.016	$100\theta_D$	0.161062	0.16106 ± 0.00026	$f\sigma_8(2.33)$	0.29695	0.2971 ± 0.0025
$r_{drag} h$	98.52	98.5 ± 1.6	z_{eq}	3408.7	3410 ± 48	$\sigma_8(2.33)$	0.30578	0.3059 ± 0.0026
$\langle d^2 \rangle^{1/2}$	2.4513	2.453 ± 0.038	k_{eq}	0.010404	0.01041 ± 0.00015	$\chi^2_{PLIK_LITE}$	204.83	209.7 ± 3.6
z_{re}	7.49	7.52 ± 0.82	$100\theta_{eq}$	0.8113	0.8112 ± 0.0089	χ^2_{small}	395.85	397.0 ± 1.7
$10^9 A_s$	2.0896	2.092 ± 0.034	$100\theta_{s,eq}$	0.44854	0.4485 ± 0.0046	χ^2_{lowl}	23.71	23.9 ± 1.3
$10^9 A_s e^{-2\tau}$	1.8837	1.884 ± 0.014	$H(0.15)$	72.28	72.28 ± 0.78	χ^2_{prior}	0.03	1.0 ± 1.4
D_{40}	1232.9	1233 ± 15	$D_M(0.15)$	647.3	647.4 ± 7.9	χ^2_{CMB}	624.39	630.5 ± 3.5

Best-fit $\chi^2_{eff} = 624.42$; $\bar{\chi}^2_{eff} = 631.57$; $R - 1 = 0.00689$

χ^2_{eff} : CMB - plik_lite_v22: 204.83 small_100x143_offlike5_EE_Aplanck_B: 395.85 commander_dx12_v3_2_29: 23.71

2.3 base_pliklite_TT_lowl_lmax801_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022532	0.02256 ± 0.00043 (+2.0 σ)	D_{220}	5739.0	5738 ± 43 (+0.6 σ)	$H(0.38)$	84.49	84.5 ± 1.3 (+3.5 σ)
$\Omega_{\mathrm{c}}h^2$	0.11430	0.1144 ± 0.0034 (−3.0 σ)	D_{810}	2525.0	2526 ± 17 (−0.7 σ)	$D_{\mathrm{M}}(0.38)$	1489.6	1490 ± 32 (−3.3 σ)
$100\theta_{\mathrm{MC}}$	1.04226	1.0422 ± 0.0015 (+3.0 σ)	D_{1420}	814.8	815.4 ± 9.1 (+0.2 σ)	$H(0.51)$	90.88	90.9 ± 1.1 (+3.6 σ)
τ	0.0520	0.0513 ± 0.0088 (−0.1 σ)	D_{2000}	229.86	230.2 ± 3.6 (+0.3 σ)	$D_{\mathrm{M}}(0.51)$	1934.5	1935 ± 38 (−3.3 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0232	3.022 ± 0.018 (−1.1 σ)	$n_{\mathrm{s},0.002}$	0.9753	0.976 ± 0.012 (+2.3 σ)	$H(0.61)$	96.25	$96.28^{+0.86}_{-0.97}$ (+3.6 σ)
n_{s}	0.9753	0.976 ± 0.012 (+2.3 σ)	Y_{P}	0.245456	0.24547 ± 0.00018 (+1.8 σ)	$D_{\mathrm{M}}(0.61)$	2255.1	2256 ± 41 (−3.3 σ)
y_{cal}	1.00007	1.0001 ± 0.0025 (−0.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246783	0.24679 ± 0.00018 (+1.8 σ)	$H(2.33)$	233.10	233.2 ± 1.8 (−2.8 σ)
H_0	70.00	70.0 ± 1.9 (+3.4 σ)	$10^5 D/H$	2.556	2.554 ± 0.079 (−1.9 σ)	$D_{\mathrm{M}}(2.33)$	5724.5	5724 ± 41 (−3.3 σ)
Ω_{Λ}	0.7194	$0.718^{+0.023}_{-0.019}$ (+3.0 σ)	Age/Gyr	13.715	13.714 ± 0.091 (−3.2 σ)	$f\sigma_8(0.15)$	0.4232	0.423 ± 0.021 (−3.3 σ)
Ω_{m}	0.2806	$0.282^{+0.019}_{-0.023}$ (−3.0 σ)	z_*	1089.22	1089.21 ± 0.78 (−2.7 σ)	$\sigma_8(0.15)$	0.7297	0.729 ± 0.011 (−2.7 σ)
$\Omega_{\mathrm{m}}h^2$	0.13748	0.1376 ± 0.0031 (−2.9 σ)	r_*	145.80	145.77 ± 0.68 (+2.7 σ)	$f\sigma_8(0.38)$	0.4477	0.448 ± 0.017 (−3.3 σ)
$\Omega_{\mathrm{m}}h^3$	0.09623	0.09624 ± 0.00089 (+0.7 σ)	$100\theta_*$	1.04244	1.0424 ± 0.0015 (+3.0 σ)	$\sigma_8(0.38)$	0.6503	0.6496 ± 0.0078 (−2.2 σ)
σ_8	0.7864	0.786 ± 0.013 (−2.9 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.987	13.985 ± 0.057 (+2.4 σ)	$f\sigma_8(0.51)$	0.4499	0.450 ± 0.014 (−3.3 σ)
S_8	0.7605	$0.761^{+0.037}_{-0.042}$ (−3.2 σ)	z_{drag}	1059.89	1059.95 ± 0.82 (+1.2 σ)	$\sigma_8(0.51)$	0.6100	0.6094 ± 0.0068 (−2.0 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4166	$0.417^{+0.021}_{-0.023}$ (−3.2 σ)	r_{drag}	148.44	148.40 ± 0.63 (+2.5 σ)	$f\sigma_8(0.61)$	0.4476	0.447 ± 0.012 (−3.3 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5723	0.572 ± 0.019 (−3.3 σ)	k_{D}	0.13957	0.13962 ± 0.00063 (−1.8 σ)	$\sigma_8(0.61)$	0.5813	0.5807 ± 0.0062 (−1.8 σ)
$\sigma_8/h^{0.5}$	0.9399	0.940 ± 0.027 (−3.3 σ)	$100\theta_{\mathrm{D}}$	0.160932	$0.16090^{+0.00042}_{-0.00047}$ (−0.6 σ)	$f\sigma_8(2.33)$	0.29440	0.2941 ± 0.0030 (−1.2 σ)
$r_{\mathrm{drag}}h$	103.90	103.9 ± 3.2 (+3.3 σ)	z_{eq}	3270	3272 ± 74 (−2.9 σ)	$\sigma_8(2.33)$	0.30499	0.3047 ± 0.0032 (−0.5 σ)
$\langle d^2 \rangle^{1/2}$	2.339	2.338 ± 0.066 (−3.0 σ)	k_{eq}	0.009980	0.00999 ± 0.00022 (−2.9 σ)	$\chi^2_{\mathrm{PLIK_LITE}}$	73.83	78.6 ± 3.5 (−36.9 σ)
z_{re}	7.33	$7.22^{+0.90}_{-0.75}$ (−0.4 σ)	$100\theta_{\mathrm{eq}}$	0.8393	0.839 ± 0.016 (+3.2 σ)	χ^2_{small}	395.64	396.8 ± 1.5 (−0.1 σ)
$10^9 A_{\mathrm{s}}$	2.0556	2.054 ± 0.037 (−1.1 σ)	$100\theta_{\mathrm{s,eq}}$	0.4629	0.4628 ± 0.0080 (+3.1 σ)	χ^2_{lowl}	21.40	21.7 ± 1.7 (−1.6 σ)
$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8525	1.853 ± 0.017 (−2.2 σ)	$H(0.15)$	74.94	75.0 ± 1.7 (+3.4 σ)	χ^2_{prior}	0.001	0.99 ± 1.4 (−0.0 σ)
D_{40}	1204.1	1203 ± 26 (−2.0 σ)	$D_{\mathrm{M}}(0.15)$	621.5	622 ± 16 (−3.2 σ)	χ^2_{CMB}	490.88	497.1 ± 3.6 (−37.6 σ)

Best-fit $\chi^2_{\mathrm{eff}} = 490.88$; $\bar{\chi}^2_{\mathrm{eff}} = 498.06$; $R - 1 = 0.00608$

χ^2_{eff} : CMB - plik_lite_v22: 73.83 small_100x143_offlike5_EE_Aplanck_B: 395.64 commander_dx12_v3_2_29: 21.40

2.4 base_pliklite_TT_lowl_lmin802_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.021676	0.02166 ± 0.00037 (-2.2σ)	D_{220}	5551	5551 ± 110 (-3.9σ)	$H(0.38)$	80.94	80.99 ± 0.76 (-2.8σ)
$\Omega_c h^2$	0.12731	0.1271 ± 0.0034 $(+3.1\sigma)$	D_{810}	2533.9	2534 ± 16 (-0.1σ)	$D_M(0.38)$	1589.9	1589 ± 24 $(+3.0\sigma)$
$100\theta_{MC}$	1.04038	1.04040 ± 0.00054 (-0.8σ)	D_{1420}	815.7	815.9 ± 5.3 $(+0.3\sigma)$	$H(0.51)$	88.16	88.19 ± 0.57 (-2.6σ)
τ	0.0478	0.0475 ± 0.0083 (-0.6σ)	D_{2000}	230.59	230.6 ± 2.1 $(+0.6\sigma)$	$D_M(0.51)$	2051.4	2050 ± 27 $(+3.0\sigma)$
$\ln(10^{10} A_s)$	3.0393	3.038 ± 0.018 (-0.1σ)	$n_{s,0.002}$	0.9643	0.9650 ± 0.0091 $(+0.4\sigma)$	$H(0.61)$	94.155	$94.18^{+0.41}_{-0.47}$ (-2.4σ)
n_s	0.9643	0.9650 ± 0.0091 $(+0.4\sigma)$	Y_P	0.245074	$0.24508^{+0.00016}_{-0.00018}$ (-2.2σ)	$D_M(0.61)$	2380.6	2379 ± 29 $(+2.9\sigma)$
y_{cal}	0.99996	1.0001 ± 0.0025 (-0.1σ)	Y_P^{BBN}	0.246399	$0.24640^{+0.00016}_{-0.00018}$ (-2.2σ)	$H(2.33)$	240.66	240.5 ± 2.2 $(+3.0\sigma)$
H_0	64.14	64.2 ± 1.3 (-2.9σ)	$10^5 D/H$	2.720	2.724 ± 0.074 $(+2.2\sigma)$	$D_M(2.33)$	5814.2	5814 ± 22 $(+2.3\sigma)$
Ω_Λ	0.6363	$0.637^{+0.024}_{-0.021}$ (-3.3σ)	Age/Gyr	13.910	13.909 ± 0.052 $(+2.2\sigma)$	$f\sigma_8(0.15)$	0.5024	0.501 ± 0.020 $(+3.1\sigma)$
Ω_m	0.3637	$0.363^{+0.021}_{-0.024}$ $(+3.3\sigma)$	z_*	1091.47	1091.47 ± 0.66 $(+3.0\sigma)$	$\sigma_8(0.15)$	0.7651	0.7644 ± 0.0094 $(+2.0\sigma)$
$\Omega_m h^2$	0.14964	0.1495 ± 0.0033 $(+3.1\sigma)$	r_*	143.10	143.16 ± 0.81 (-2.7σ)	$f\sigma_8(0.38)$	0.5091	0.508 ± 0.014 $(+3.0\sigma)$
$\Omega_m h^3$	0.09598	0.09593 ± 0.00079 $(+0.1\sigma)$	$100\theta_*$	1.04063	1.04065 ± 0.00053 (-0.7σ)	$\sigma_8(0.38)$	0.6728	0.6723 ± 0.0069 $(+1.5\sigma)$
σ_8	0.8335	0.833 ± 0.012 $(+2.3\sigma)$	$D_M(z_*)/\text{Gpc}$	13.752	13.757 ± 0.076 (-2.7σ)	$f\sigma_8(0.51)$	0.5016	0.501 ± 0.012 $(+2.9\sigma)$
S_8	0.9177	0.916 ± 0.040 $(+3.2\sigma)$	z_{drag}	1058.83	1058.79 ± 0.83 (-1.4σ)	$\sigma_8(0.51)$	0.6275	0.6270 ± 0.0060 $(+1.2\sigma)$
$\sigma_8 \Omega_m^{0.5}$	0.5027	0.502 ± 0.022 $(+3.2\sigma)$	r_{drag}	145.96	146.03 ± 0.84 (-2.5σ)	$f\sigma_8(0.61)$	0.4924	0.492 ± 0.010 $(+2.8\sigma)$
$\sigma_8 \Omega_m^{0.25}$	0.6473	0.646 ± 0.018 $(+3.0\sigma)$	k_D	0.14150	0.14141 ± 0.00099 $(+1.7\sigma)$	$\sigma_8(0.61)$	0.5957	0.5953 ± 0.0055 $(+1.1\sigma)$
$\sigma_8/h^{0.5}$	1.0407	1.039 ± 0.024 $(+2.9\sigma)$	$100\theta_D$	0.16145	0.16149 ± 0.00051 $(+1.7\sigma)$	$f\sigma_8(2.33)$	0.29845	0.2983 ± 0.0026 $(+0.5\sigma)$
$r_{drag} h$	93.63	93.8 ± 2.4 (-2.9σ)	z_{eq}	3560	3556 ± 80 $(+3.1\sigma)$	$\sigma_8(2.33)$	0.30573	0.3056 ± 0.0028 (-0.1σ)
$\langle d^2 \rangle^{1/2}$	2.5188	2.515 ± 0.050 $(+1.6\sigma)$	k_{eq}	0.010867	0.01085 ± 0.00024 $(+3.1\sigma)$	$\chi^2_{PLIK_LITE}$	124.65	129.3 ± 3.7 (-22.6σ)
z_{re}	7.26	$7.20^{+0.92}_{-0.79}$ (-0.4σ)	$100\theta_{eq}$	0.7840	0.785 ± 0.013 (-3.0σ)	χ^2_{small}	395.78	397.0 ± 1.6 $(+0.0\sigma)$
$10^9 A_s$	2.0891	2.088 ± 0.037 (-0.1σ)	$100\theta_{s,eq}$	0.4345	0.4350 ± 0.0070 (-2.9σ)	χ^2_{lowl}	22.78	23.1 ± 2.2 (-0.6σ)
$10^9 A_s e^{-2\tau}$	1.8985	1.898 ± 0.018 $(+1.0\sigma)$	$H(0.15)$	69.96	70.0 ± 1.1 (-2.9σ)	χ^2_{prior}	0.000	0.99 ± 1.4 (-0.0σ)
D_{40}	1213.5	1212 ± 31 (-1.3σ)	$D_M(0.15)$	672.0	672 ± 12 $(+3.0\sigma)$	χ^2_{CMB}	543.21	549.3 ± 3.5 (-22.9σ)

Best-fit $\chi^2_{eff} = 543.21$; $\bar{\chi}^2_{eff} = 550.33$; $R - 1 = 0.01246$

χ^2_{eff} : CMB - plik_lite_v22: 124.65 simall_100x143_offlike5_EE_Aplanck_B: 395.78 commander_dx12_v3.2_29: 22.78

2.5 base_pliklite_TT_lmax801_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02220	0.02211 ± 0.00051 (-0.1σ)	D_{220}	5736.4	5733 ± 44 $(+0.5\sigma)$	$H(0.38)$	83.40	$83.2^{+1.4}_{-1.6}$ $(+1.1\sigma)$
$\Omega_c h^2$	0.11738	0.1182 ± 0.0042 (-1.1σ)	D_{810}	2522.0	2520 ± 17 (-1.2σ)	$D_M(0.38)$	1517.3	1525 ± 39 (-1.1σ)
$100\theta_{MC}$	1.04154	1.0413 ± 0.0016 $(+1.1\sigma)$	D_{1420}	808.9	807 ± 11 (-1.5σ)	$H(0.51)$	90.00	$89.8^{+1.1}_{-1.3}$ $(+1.1\sigma)$
τ	0.0499	0.0498 ± 0.0085 (-0.3σ)	D_{2000}	227.38	226.6 ± 4.2 (-1.7σ)	$D_M(0.51)$	1967.3	1976 ± 46 (-1.1σ)
$\ln(10^{10} A_s)$	3.0256	3.027 ± 0.018 (-0.8σ)	$n_{s,0.002}$	0.9633	0.960 ± 0.016 (-0.4σ)	$H(0.61)$	95.52	$95.37^{+0.90}_{-1.1}$ $(+1.0\sigma)$
n_s	0.9633	0.960 ± 0.016 (-0.4σ)	Y_P	0.245327	0.24528 ± 0.00022 (-0.2σ)	$D_M(0.61)$	2291	2300 ± 50 (-1.1σ)
y_{cal}	1.00013	1.0000 ± 0.0025 (-0.1σ)	Y_P^{BBN}	0.246653	0.24660 ± 0.00022 (-0.2σ)	$H(2.33)$	234.72	235.2 ± 2.3 (-1.2σ)
H_0	68.35	67.9 ± 2.2 $(+1.1\sigma)$	$10^5 D/H$	2.618	2.637 ± 0.097 $(+0.1\sigma)$	$D_M(2.33)$	5756.5	5765^{+49}_{-44} (-0.8σ)
Ω_Λ	0.6999	$0.693^{+0.031}_{-0.026}$ $(+1.0\sigma)$	Age/Gyr	13.785	13.80 ± 0.10 (-0.7σ)	$f\sigma_8(0.15)$	0.4413	0.446 ± 0.025 (-1.4σ)
Ω_m	0.3001	$0.307^{+0.026}_{-0.031}$ (-1.0σ)	z_*	1089.90	1090.10 ± 0.98 (-0.4σ)	$\sigma_8(0.15)$	0.7363	0.737 ± 0.011 (-1.6σ)
$\Omega_m h^2$	0.14023	0.1410 ± 0.0038 (-1.2σ)	r_*	145.24	145.10 ± 0.80 $(+1.3\sigma)$	$f\sigma_8(0.38)$	0.4618	0.465 ± 0.019 (-1.5σ)
$\Omega_m h^3$	0.09585	0.09569 ± 0.00096 (-0.5σ)	$100\theta_*$	1.04174	1.0415 ± 0.0016 $(+1.1\sigma)$	$\sigma_8(0.38)$	0.6539	0.6542 ± 0.0076 (-1.5σ)
σ_8	0.7956	0.797 ± 0.014 (-1.6σ)	$D_M(z_*)/\text{Gpc}$	13.942	13.932 ± 0.067 $(+1.2\sigma)$	$f\sigma_8(0.51)$	0.4617	0.464 ± 0.016 (-1.5σ)
S_8	0.796	0.806 ± 0.050 (-1.3σ)	z_{drag}	1059.36	1059.20 ± 0.94 (-0.5σ)	$\sigma_8(0.51)$	0.6125	0.6125 ± 0.0065 (-1.4σ)
$\sigma_8 \Omega_m^{0.5}$	0.4359	0.442 ± 0.027 (-1.3σ)	r_{drag}	147.98	147.87 ± 0.72 $(+1.4\sigma)$	$f\sigma_8(0.61)$	0.4577	0.460 ± 0.014 (-1.6σ)
$\sigma_8 \Omega_m^{0.25}$	0.5889	0.593 ± 0.023 (-1.5σ)	k_D	0.13981	0.13984 ± 0.00065 (-1.4σ)	$\sigma_8(0.61)$	0.5831	0.5830 ± 0.0059 (-1.3σ)
$\sigma_8/h^{0.5}$	0.9623	0.968 ± 0.032 (-1.5σ)	$100\theta_D$	0.16117	0.16125 ± 0.00052 $(+0.8\sigma)$	$f\sigma_8(2.33)$	0.29445	0.2942 ± 0.0028 (-1.1σ)
$r_{drag} h$	101.15	100.5 ± 3.7 $(+1.2\sigma)$	z_{eq}	3336	3353 ± 91 (-1.2σ)	$\sigma_8(2.33)$	0.30408	0.3036 ± 0.0033 (-0.9σ)
$\langle d^2 \rangle^{1/2}$	2.400	2.417 ± 0.083 (-0.9σ)	k_{eq}	0.010181	0.01023 ± 0.00028 (-1.2σ)	$\chi^2_{PLIK_LITE}$	72.81	77.9 ± 3.2 (-37.0σ)
z_{re}	7.23	$7.22^{+0.87}_{-0.78}$ (-0.4σ)	$100\theta_{eq}$	0.8254	0.822 ± 0.019 $(+1.2\sigma)$	χ^2_{small}	395.67	396.8 ± 1.5 (-0.1σ)
$10^9 A_s$	2.0606	2.063 ± 0.036 (-0.8σ)	$100\theta_{s,eq}$	0.4558	0.4542 ± 0.0094 $(+1.3\sigma)$	χ^2_{prior}	0.003	1.0 ± 1.4 (-0.0σ)
$10^9 A_s e^{-2\tau}$	1.8647	1.868 ± 0.020 (-1.2σ)	$H(0.15)$	73.51	73.2 ± 2.0 $(+1.1\sigma)$	χ^2_{CMB}	468.48	474.7 ± 3.6 (-43.9σ)
D_{40}	1229.5	1236 ± 35 $(+0.2\sigma)$	$D_M(0.15)$	635.1	639 ± 19 (-1.0σ)			

Best-fit $\chi^2_{eff} = 468.48$; $\bar{\chi}^2_{eff} = 475.76$; $R - 1 = 0.00856$

χ^2_{eff} : CMB - plik_lite_v22: 72.81 small_100x143_offlike5_EE_Aplanck_B: 395.67

2.6 base_pliklite_TT_lmin802_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.021927	0.02190 ± 0.00039 (-1.1σ)	D_{220}	5717	5707 ± 130 (-0.1σ)	$H(0.38)$	81.12	81.05 ± 0.76 (-2.7σ)
$\Omega_c h^2$	0.12771	0.1281 ± 0.0035 $(+3.6\sigma)$	D_{810}	2548.9	2548 ± 17 $(+0.8\sigma)$	$D_M(0.38)$	1586.4	1589 ± 24 $(+3.0\sigma)$
$100\theta_{MC}$	1.04059	1.04054 ± 0.00053 (-0.5σ)	D_{1420}	814.5	814.2 ± 5.5 (-0.1σ)	$H(0.51)$	88.35	$88.31^{+0.54}_{-0.60}$ (-2.4σ)
τ	0.0474	$0.0472^{+0.0079}_{-0.0071}$ (-0.7σ)	D_{2000}	229.66	229.6 ± 2.2 $(+0.0\sigma)$	$D_M(0.51)$	2047.0	2050 ± 27 $(+2.9\sigma)$
$\ln(10^{10} A_s)$	3.0501	$3.050^{+0.018}_{-0.016}$ $(+0.6\sigma)$	$n_{s,0.002}$	0.9474	0.948 ± 0.012 (-2.7σ)	$H(0.61)$	94.360	94.33 ± 0.45 (-2.0σ)
n_s	0.9474	0.948 ± 0.012 (-2.7σ)	Y_P	0.245203	0.24518 ± 0.00017 (-1.1σ)	$D_M(0.61)$	2375.3	2378 ± 29 $(+2.9\sigma)$
y_{cal}	1.00005	1.0000 ± 0.0025 (-0.1σ)	Y_P^{BBN}	0.246529	0.24651 ± 0.00017 (-1.1σ)	$H(2.33)$	241.18	241.4 ± 2.2 $(+3.7\sigma)$
H_0	64.28	64.1 ± 1.3 (-3.0σ)	$10^5 D/H$	2.670	2.677 ± 0.076 $(+1.1\sigma)$	$D_M(2.33)$	5801.6	5803 ± 23 $(+1.6\sigma)$
Ω_Λ	0.6363	$0.633^{+0.024}_{-0.022}$ (-3.6σ)	Age/Gyr	13.880	13.884 ± 0.053 $(+1.5\sigma)$	$f\sigma_8(0.15)$	0.5023	0.504 ± 0.020 $(+3.4\sigma)$
Ω_m	0.3637	$0.367^{+0.022}_{-0.024}$ $(+3.6\sigma)$	z_*	1091.16	1091.24 ± 0.67 $(+2.4\sigma)$	$\sigma_8(0.15)$	0.7649	$0.7653^{+0.0096}_{-0.0086}$ $(+2.1\sigma)$
$\Omega_m h^2$	0.15028	0.1506 ± 0.0034 $(+3.7\sigma)$	r_*	142.82	142.75 ± 0.83 (-3.6σ)	$f\sigma_8(0.38)$	0.5089	0.510 ± 0.014 $(+3.2\sigma)$
$\Omega_m h^3$	0.09661	0.09659 ± 0.00086 $(+1.5\sigma)$	$100\theta_*$	1.04080	1.04076 ± 0.00052 (-0.5σ)	$\sigma_8(0.38)$	0.6726	$0.6727^{+0.0070}_{-0.0061}$ $(+1.6\sigma)$
σ_8	0.8333	0.834 ± 0.012 $(+2.5\sigma)$	$D_M(z_*)/\text{Gpc}$	13.722	13.716 ± 0.078 (-3.7σ)	$f\sigma_8(0.51)$	0.5014	0.502 ± 0.012 $(+3.1\sigma)$
S_8	0.9174	0.922 ± 0.040 $(+3.4\sigma)$	z_{drag}	1059.47	1059.41 ± 0.88 (-0.0σ)	$\sigma_8(0.51)$	0.6273	$0.6273^{+0.0061}_{-0.0053}$ $(+1.3\sigma)$
$\sigma_8 \Omega_m^{0.5}$	0.5025	0.505 ± 0.022 $(+3.4\sigma)$	r_{drag}	145.59	145.53 ± 0.87 (-3.5σ)	$f\sigma_8(0.61)$	0.4922	0.493 ± 0.010 $(+3.0\sigma)$
$\sigma_8 \Omega_m^{0.25}$	0.6471	0.649 ± 0.018 $(+3.2\sigma)$	k_D	0.14211	0.1421 ± 0.0011 $(+3.1\sigma)$	$\sigma_8(0.61)$	0.5955	$0.5954^{+0.0055}_{-0.0049}$ $(+1.1\sigma)$
$\sigma_8/h^{0.5}$	1.0393	1.042 ± 0.024 $(+3.1\sigma)$	$100\theta_D$	0.16111	0.16114 ± 0.00053 $(+0.3\sigma)$	$f\sigma_8(2.33)$	0.29836	0.2982 ± 0.0025 $(+0.5\sigma)$
$r_{drag} h$	93.59	93.4 ± 2.4 (-3.2σ)	z_{eq}	3576	3584 ± 81 $(+3.7\sigma)$	$\sigma_8(2.33)$	0.30564	0.3055 ± 0.0026 (-0.2σ)
$\langle d^2 \rangle^{1/2}$	2.568	2.571 ± 0.057 $(+3.1\sigma)$	k_{eq}	0.010914	0.01094 ± 0.00025 $(+3.7\sigma)$	$\chi^2_{PLIK_LITE}$	122.70	127.6 ± 3.1 (-23.1σ)
z_{re}	7.16	$7.12^{+0.90}_{-0.70}$ (-0.5σ)	$100\theta_{eq}$	0.7823	0.781 ± 0.014 (-3.4σ)	χ^2_{simall}	395.74	396.9 ± 1.5 (-0.1σ)
$10^9 A_s$	2.1117	2.111 ± 0.037 $(+0.6\sigma)$	$100\theta_{s,eq}$	0.4335	0.4328 ± 0.0070 (-3.4σ)	χ^2_{prior}	0.000	0.99 ± 1.4 (-0.0σ)
$10^9 A_s e^{-2\tau}$	1.9207	1.921 ± 0.021 $(+2.7\sigma)$	$H(0.15)$	70.11	70.0 ± 1.1 (-2.9σ)	χ^2_{CMB}	518.44	524.5 ± 3.4 (-29.9σ)
D_{40}	1273.7	1273 ± 43 $(+2.6\sigma)$	$D_M(0.15)$	670.5	672 ± 12 $(+3.1\sigma)$			

Best-fit $\chi^2_{eff} = 518.44$; $\bar{\chi}^2_{eff} = 525.46$; $R - 1 = 0.00494$

χ^2_{eff} : CMB - plik_lite_v22: 122.70 simall_100x143_offlike5_EE_Aplanck_B: 395.74

2.7 base_pliklite_TT_lowl_lmax999_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022557	0.02257 ± 0.00040 (+2.1 σ)	D_{220}	5730.3	5728 ± 43 (+0.4 σ)	$H(0.38)$	83.81	83.9 ± 1.1 (+2.4 σ)
$\Omega_c h^2$	0.11539	0.1153 ± 0.0032 (−2.5 σ)	D_{810}	2531.7	2532 ± 15 (−0.3 σ)	$D_M(0.38)$	1506.0	1505 ± 29 (−2.4 σ)
$100\theta_{MC}$	1.04056	1.04064 ± 0.00099 (−0.3 σ)	D_{1420}	818.3	818.9 ± 8.2 (+0.9 σ)	$H(0.51)$	90.30	90.38 ± 0.93 (+2.4 σ)
τ	0.0505	0.0513 ± 0.0089 (−0.1 σ)	D_{2000}	231.19	231.5 ± 3.2 (+1.1 σ)	$D_M(0.51)$	1954.2	1952 ± 34 (−2.4 σ)
$\ln(10^{10} A_s)$	3.0242	$3.026^{+0.018}_{-0.016}$ (−0.9 σ)	$n_{s,0.002}$	0.9765	0.978 ± 0.012 (+2.6 σ)	$H(0.61)$	95.74	$95.82^{+0.73}_{-0.82}$ (+2.3 σ)
n_s	0.9765	0.978 ± 0.012 (+2.6 σ)	Y_P	0.245465	$0.24547^{+0.00015}_{-0.00017}$ (+1.9 σ)	$D_M(0.61)$	2276.7	2275 ± 37 (−2.4 σ)
y_{cal}	0.99991	0.99998 ± 0.0025 (−0.1 σ)	Y_P^{BBN}	0.246792	$0.24680^{+0.00015}_{-0.00017}$ (+1.9 σ)	$H(2.33)$	233.67	233.6 ± 1.8 (−2.4 σ)
H_0	69.04	69.1 ± 1.7 (+2.4 σ)	$10^5 D/H$	2.552	2.550 ± 0.072 (−2.0 σ)	$D_M(2.33)$	5748.5	5746 ± 35 (−1.9 σ)
Ω_Λ	0.7092	$0.710^{+0.021}_{-0.019}$ (+2.3 σ)	Age/Gyr	13.768	13.763 ± 0.077 (−1.8 σ)	$f\sigma_8(0.15)$	0.4318	0.431 ± 0.019 (−2.6 σ)
Ω_m	0.2908	$0.290^{+0.019}_{-0.021}$ (−2.3 σ)	z_*	1089.28	1089.26 ± 0.73 (−2.5 σ)	$\sigma_8(0.15)$	0.7317	0.732 ± 0.010 (−2.3 σ)
$\Omega_m h^2$	0.13860	0.1385 ± 0.0029 (−2.4 σ)	r_*	145.49	145.52 ± 0.65 (+2.2 σ)	$f\sigma_8(0.38)$	0.4542	0.454 ± 0.015 (−2.7 σ)
$\Omega_m h^3$	0.09569	0.09571 ± 0.00074 (−0.4 σ)	$100\theta_*$	1.04074	1.04081 ± 0.00097 (−0.4 σ)	$\sigma_8(0.38)$	0.6509	0.6511 ± 0.0075 (−2.0 σ)
σ_8	0.7897	0.790 ± 0.012 (−2.4 σ)	$D_M(z_*)/\text{Gpc}$	13.980	13.981 ± 0.057 (+2.3 σ)	$f\sigma_8(0.51)$	0.4553	0.455 ± 0.013 (−2.7 σ)
S_8	0.7774	0.777 ± 0.037 (−2.6 σ)	z_{drag}	1060.05	1060.06 ± 0.75 (+1.4 σ)	$\sigma_8(0.51)$	0.6101	0.6103 ± 0.0066 (−1.8 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4258	0.426 ± 0.020 (−2.6 σ)	r_{drag}	148.11	148.14 ± 0.60 (+1.9 σ)	$f\sigma_8(0.61)$	0.4521	0.452 ± 0.011 (−2.7 σ)
$\sigma_8 \Omega_m^{0.25}$	0.5799	0.580 ± 0.018 (−2.6 σ)	k_D	0.13993	0.13991 ± 0.00058 (−1.2 σ)	$\sigma_8(0.61)$	0.5811	0.5813 ± 0.0061 (−1.7 σ)
$\sigma_8/h^{0.5}$	0.9504	0.950 ± 0.025 (−2.6 σ)	$100\theta_D$	0.160599	0.16061 ± 0.00037 (−1.7 σ)	$f\sigma_8(2.33)$	0.29385	0.2940 ± 0.0029 (−1.2 σ)
$r_{drag} h$	102.26	102.4 ± 2.9 (+2.4 σ)	z_{eq}	3297	3294 ± 70 (−2.4 σ)	$\sigma_8(2.33)$	0.30390	0.3041 ± 0.0032 (−0.7 σ)
$\langle d^2 \rangle^{1/2}$	2.353	2.351 ± 0.062 (−2.7 σ)	k_{eq}	0.010062	0.01005 ± 0.00021 (−2.4 σ)	$\chi^2_{PLIK_LITE}$	86.07	90.8 ± 3.3 (−33.4 σ)
z_{re}	7.18	$7.22^{+0.90}_{-0.75}$ (−0.4 σ)	$100\theta_{eq}$	0.8329	0.834 ± 0.015 (+2.6 σ)	χ^2_{small}	395.66	396.8 ± 1.6 (−0.1 σ)
$10^9 A_s$	2.0578	2.061 ± 0.037 (−0.9 σ)	$100\theta_{s,eq}$	0.4595	0.4599 ± 0.0074 (+2.5 σ)	χ^2_{lowl}	21.23	21.5 ± 1.5 (−1.8 σ)
$10^9 A_s e^{-2\tau}$	1.8600	1.860 ± 0.016 (−1.8 σ)	$H(0.15)$	74.09	74.2 ± 1.5 (+2.4 σ)	χ^2_{prior}	0.001	1.0 ± 1.4 (−0.0 σ)
D_{40}	1200.6	1199 ± 25 (−2.2 σ)	$D_M(0.15)$	629.4	629 ± 14 (−2.3 σ)	χ^2_{CMB}	502.96	509.1 ± 3.6 (−34.2 σ)

Best-fit $\chi^2_{eff} = 502.96$; $\bar{\chi}^2_{eff} = 510.14$; $R - 1 = 0.00740$

χ^2_{eff} : CMB - plik_lite_v22: 86.06 small_100x143_offlike5_EE_Aplanck_B: 395.67 commander_dx12_v3_2_29: 21.23

2.8 base_pliklite_TT_lowl_lmin1000_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.021231	0.02125 ± 0.00043 (-4.1σ)	D_{220}	5302	5305 ± 140 (-9.8σ)	$H(0.38)$	80.67	80.70 ± 0.80 (-3.3σ)
$\Omega_{\text{c}}h^2$	0.12756	0.1277 ± 0.0035 $(+3.4\sigma)$	D_{810}	2506.4	2507 ± 19 (-2.1σ)	$D_{\text{M}}(0.38)$	1596.6	1597 ± 25 $(+3.5\sigma)$
$100\theta_{\text{MC}}$	1.04075	1.04078 ± 0.00059 $(+0.0\sigma)$	D_{1420}	814.5	814.6 ± 5.6 $(+0.0\sigma)$	$H(0.51)$	87.90	87.93 ± 0.61 (-3.2σ)
τ	0.0502	0.0494 ± 0.0088 (-0.4σ)	D_{2000}	230.89	231.0 ± 2.2 $(+0.8\sigma)$	$D_{\text{M}}(0.51)$	2059.6	2059 ± 29 $(+3.5\sigma)$
$\ln(10^{10}A_{\text{s}})$	3.0268	$3.026^{+0.019}_{-0.017}$ (-0.9σ)	$n_{\text{s},0.002}$	0.9867	0.987 ± 0.013 $(+4.2\sigma)$	$H(0.61)$	93.902	93.94 ± 0.48 (-3.1σ)
n_{s}	0.9867	0.987 ± 0.013 $(+4.2\sigma)$	Y_{P}	0.244888	0.24489 ± 0.00019 (-4.2σ)	$D_{\text{M}}(0.61)$	2389.7	2389 ± 31 $(+3.5\sigma)$
y_{cal}	0.99998	1.0001 ± 0.0025 (-0.1σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246213	0.24622 ± 0.00019 (-4.2σ)	$H(2.33)$	240.42	240.5 ± 2.2 $(+3.0\sigma)$
H_0	63.82	63.8 ± 1.4 (-3.4σ)	$10^5 D/H$	2.812	2.810 ± 0.090 $(+4.3\sigma)$	$D_{\text{M}}(2.33)$	5829.0	5828 ± 25 $(+3.1\sigma)$
Ω_{Λ}	0.6331	$0.632^{+0.026}_{-0.022}$ (-3.6σ)	Age/Gyr	13.945	13.942 ± 0.058 $(+3.1\sigma)$	$f\sigma_8(0.15)$	0.5069	0.507 ± 0.020 $(+3.6\sigma)$
Ω_{m}	0.3669	$0.368^{+0.022}_{-0.026}$ $(+3.6\sigma)$	z_*	1092.11	1092.10 ± 0.77 $(+4.5\sigma)$	$\sigma_8(0.15)$	0.7689	$0.768^{+0.010}_{-0.0090}$ $(+2.5\sigma)$
$\Omega_{\text{m}}h^2$	0.14943	0.1496 ± 0.0034 $(+3.1\sigma)$	r_*	143.37	143.34 ± 0.84 (-2.4σ)	$f\sigma_8(0.38)$	0.5129	0.513 ± 0.015 $(+3.4\sigma)$
$\Omega_{\text{m}}h^3$	0.09537	0.09542 ± 0.00088 (-1.1σ)	$100\theta_*$	1.04104	1.04107 ± 0.00058 $(+0.2\sigma)$	$\sigma_8(0.38)$	0.6758	$0.6752^{+0.0073}_{-0.0065}$ $(+2.0\sigma)$
σ_8	0.8379	0.837 ± 0.012 $(+2.8\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.772	13.769 ± 0.078 (-2.5σ)	$f\sigma_8(0.51)$	0.5049	0.505 ± 0.012 $(+3.3\sigma)$
S_8	0.9266	0.927 ± 0.042 $(+3.7\sigma)$	z_{drag}	1057.80	1057.84 ± 0.97 (-3.5σ)	$\sigma_8(0.51)$	0.6301	$0.6295^{+0.0063}_{-0.0057}$ $(+1.7\sigma)$
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.5075	0.508 ± 0.023 $(+3.7\sigma)$	r_{drag}	146.40	146.36 ± 0.88 (-1.8σ)	$f\sigma_8(0.61)$	0.4955	0.495 ± 0.011 $(+3.2\sigma)$
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6521	0.652 ± 0.019 $(+3.5\sigma)$	k_{D}	0.14065	0.1407 ± 0.0011 $(+0.3\sigma)$	$\sigma_8(0.61)$	0.5981	0.5976 ± 0.0057 $(+1.5\sigma)$
$\sigma_8/h^{0.5}$	1.0488	1.048 ± 0.025 $(+3.5\sigma)$	$100\theta_{\text{D}}$	0.16219	0.16218 ± 0.00062 $(+4.3\sigma)$	$f\sigma_8(2.33)$	0.29956	0.2993 ± 0.0028 $(+0.9\sigma)$
$r_{\text{drag}}h$	93.43	93.4 ± 2.5 (-3.2σ)	z_{eq}	3556	3559 ± 82 $(+3.1\sigma)$	$\sigma_8(2.33)$	0.30676	0.3065 ± 0.0029 $(+0.2\sigma)$
$\langle d^2 \rangle^{1/2}$	2.465	2.464 ± 0.055 $(+0.3\sigma)$	k_{eq}	0.010852	0.01086 ± 0.00025 $(+3.1\sigma)$	$\chi_{\text{PLIK_LITE}}^2$	109.92	114.0 ± 2.9 (-26.9σ)
z_{re}	7.62	$7.50^{+0.95}_{-0.79}$ (-0.0σ)	$100\theta_{\text{eq}}$	0.7839	0.784 ± 0.014 (-3.1σ)	χ_{small}^2	395.94	397.1 ± 1.7 $(+0.1\sigma)$
$10^9 A_{\text{s}}$	2.0631	2.061 ± 0.039 (-0.9σ)	$100\theta_{\text{s,eq}}$	0.4348	0.4347 ± 0.0072 (-3.0σ)	χ_{lowl}^2	19.98	20.9 ± 1.3 (-2.3σ)
$10^9 A_{\text{s}}e^{-2\tau}$	1.8660	1.867 ± 0.022 (-1.2σ)	$H(0.15)$	69.66	69.7 ± 1.2 (-3.3σ)	χ_{prior}^2	0.000	0.99 ± 1.4 (-0.0σ)
D_{40}	1133.8	1135 ± 43 (-6.4σ)	$D_{\text{M}}(0.15)$	675.2	675 ± 13 $(+3.5\sigma)$	χ_{CMB}^2	525.84	532.1 ± 3.7 (-27.8σ)

Best-fit $\chi_{\text{eff}}^2 = 525.84$; $\bar{\chi}_{\text{eff}}^2 = 533.05$; $R - 1 = 0.01046$

χ_{eff}^2 : CMB - plik_lite_v22: 109.92 simall_100x143_offlike5_EE_Aplanck_B: 395.94 commander_dx12_v3.2_29: 19.98

2.9 base_pliklite_TT_lmax999_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022247	0.02225 ± 0.00043 (+0.5 σ)	D_{220}	5727.8	5726 ± 42 (+0.3 σ)	$H(0.38)$	82.81	82.8 ± 1.3 (+0.5 σ)
$\Omega_c h^2$	0.11832	0.1184 ± 0.0039 (−1.1 σ)	D_{810}	2529.8	2529 ± 15 (−0.5 σ)	$D_M(0.38)$	1532.3	1532 ± 34 (−0.6 σ)
$100\theta_{MC}$	1.03991	1.0399 ± 0.0011 (−1.8 σ)	D_{1420}	813.1	812.8 ± 8.8 (−0.3 σ)	$H(0.51)$	89.49	$89.53^{+0.95}_{-1.1}$ (+0.4 σ)
τ	0.0502	0.0494 ± 0.0087 (−0.4 σ)	D_{2000}	229.06	229.0 ± 3.4 (−0.3 σ)	$D_M(0.51)$	1985.2	1985 ± 40 (−0.6 σ)
$\ln(10^{10} A_s)$	3.0300	3.028 ± 0.018 (−0.8 σ)	$n_{s,0.002}$	0.9656	0.966 ± 0.014 (+0.5 σ)	$H(0.61)$	95.08	$95.12^{+0.77}_{-0.90}$ (+0.3 σ)
n_s	0.9656	0.966 ± 0.014 (+0.5 σ)	Y_P	0.245345	$0.24534^{+0.00020}_{-0.00017}$ (+0.5 σ)	$D_M(0.61)$	2310.2	2310 ± 44 (−0.6 σ)
y_{cal}	1.00008	0.99996 ± 0.0025 (−0.1 σ)	Y_P^{BBN}	0.246672	$0.24666^{+0.00020}_{-0.00017}$ (+0.5 σ)	$H(2.33)$	235.23	235.3 ± 2.2 (−1.1 σ)
H_0	67.51	67.5 ± 2.0 (+0.7 σ)	$10^5 D/H$	2.609	2.611 ± 0.082 (−0.5 σ)	$D_M(2.33)$	5777.9	5777 ± 39 (−0.0 σ)
Ω_Λ	0.6901	$0.689^{+0.028}_{-0.023}$ (+0.7 σ)	Age/Gyr	13.833	13.832 ± 0.086 (+0.1 σ)	$f\sigma_8(0.15)$	0.4498	0.450 ± 0.023 (−1.1 σ)
Ω_m	0.3099	$0.311^{+0.023}_{-0.028}$ (−0.7 σ)	z_*	1089.93	1089.94 ± 0.86 (−0.8 σ)	$\sigma_8(0.15)$	0.7391	$0.738^{+0.011}_{-0.0098}$ (−1.5 σ)
$\Omega_m h^2$	0.14121	0.1413 ± 0.0036 (−1.1 σ)	r_*	144.96	144.96 ± 0.77 (+1.0 σ)	$f\sigma_8(0.38)$	0.4682	0.468 ± 0.018 (−1.2 σ)
$\Omega_m h^3$	0.09533	0.09532 ± 0.00076 (−1.3 σ)	$100\theta_*$	1.04011	1.0401 ± 0.0010 (−1.8 σ)	$\sigma_8(0.38)$	0.6553	$0.6543^{+0.0078}_{-0.0070}$ (−1.5 σ)
σ_8	0.7996	0.799 ± 0.014 (−1.5 σ)	$D_M(z_*)/\text{Gpc}$	13.937	13.937 ± 0.066 (+1.3 σ)	$f\sigma_8(0.51)$	0.4670	0.466 ± 0.015 (−1.3 σ)
S_8	0.8127	0.813 ± 0.046 (−1.1 σ)	z_{drag}	1059.51	1059.53 ± 0.79 (+0.2 σ)	$\sigma_8(0.51)$	0.6133	$0.6124^{+0.0067}_{-0.0061}$ (−1.4 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4451	0.445 ± 0.025 (−1.1 σ)	r_{drag}	147.68	147.67 ± 0.70 (+1.0 σ)	$f\sigma_8(0.61)$	0.4623	0.462 ± 0.013 (−1.4 σ)
$\sigma_8 \Omega_m^{0.25}$	0.5966	0.596 ± 0.021 (−1.2 σ)	k_D	0.14016	0.14015 ± 0.00062 (−0.8 σ)	$\sigma_8(0.61)$	0.5836	0.5828 ± 0.0059 (−1.4 σ)
$\sigma_8/h^{0.5}$	0.9732	0.972 ± 0.029 (−1.2 σ)	$100\theta_D$	0.160827	0.16084 ± 0.00041 (−0.8 σ)	$f\sigma_8(2.33)$	0.29434	0.2939 ± 0.0029 (−1.3 σ)
$r_{drag} h$	99.69	99.7 ± 3.3 (+0.8 σ)	z_{eq}	3359	3360 ± 85 (−1.1 σ)	$\sigma_8(2.33)$	0.30352	0.3031 ± 0.0032 (−1.1 σ)
$\langle d^2 \rangle^{1/2}$	2.414	2.413 ± 0.076 (−1.1 σ)	k_{eq}	0.010252	0.01026 ± 0.00026 (−1.1 σ)	$\chi^2_{PLIK_LITE}$	85.32	90.3 ± 3.1 (−33.6 σ)
z_{re}	7.25	$7.15^{+0.92}_{-0.77}$ (−0.5 σ)	$100\theta_{eq}$	0.8199	0.820 ± 0.017 (+1.0 σ)	χ^2_{small}	395.66	396.9 ± 1.6 (−0.1 σ)
$10^9 A_s$	2.0698	2.067 ± 0.037 (−0.7 σ)	$100\theta_{s,eq}$	0.4529	0.4530 ± 0.0087 (+1.0 σ)	χ^2_{prior}	0.00	1.0 ± 1.5 (−0.0 σ)
$10^9 A_s e^{-2\tau}$	1.8722	1.872 ± 0.019 (−0.9 σ)	$H(0.15)$	72.76	72.8 ± 1.7 (+0.6 σ)	χ^2_{CMB}	480.98	487.1 ± 3.5 (−40.4 σ)
D_{40}	1224.6	1225 ± 31 (−0.6 σ)	$D_M(0.15)$	642.3	643 ± 17 (−0.6 σ)			

Best-fit $\chi^2_{eff} = 480.98$; $\bar{\chi}^2_{eff} = 488.16$; $R - 1 = 0.00680$

χ^2_{eff} : CMB - plik_lite_v22: 85.32 small_100x143_offlike5_EE_Aplanck_B: 395.66

2.10 base_pliklite_TT_lmin1000_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02119	0.02119 ± 0.00081 (-4.3σ)	D_{220}	5277	5290 ± 400 (-10.2σ)	$H(0.38)$	80.60	80.66 ± 0.90 (-3.4σ)
$\Omega_{\mathrm{c}}h^2$	0.12779	0.1276 ± 0.0036 $(+3.4\sigma)$	D_{810}	2504.6	2505 ± 44 (-2.3σ)	$D_{\mathrm{M}}(0.38)$	1598.6	1597 ± 27 $(+3.5\sigma)$
$100\theta_{\mathrm{MC}}$	1.04076	1.04075 ± 0.00059 (-0.0σ)	D_{1420}	814.7	814.6 ± 5.5 $(+0.0\sigma)$	$H(0.51)$	87.84	87.89 ± 0.75 (-3.3σ)
τ	0.0493	0.0493 ± 0.0088 (-0.4σ)	D_{2000}	231.06	231.0 ± 2.4 $(+0.8\sigma)$	$D_{\mathrm{M}}(0.51)$	2062.0	2060 ± 31 $(+3.5\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	3.0239	$3.023^{+0.033}_{-0.029}$ (-1.1σ)	$n_{\mathrm{s},0.002}$	0.9890	$0.990^{+0.038}_{-0.043}$ $(+4.8\sigma)$	$H(0.61)$	93.86	93.90 ± 0.67 (-3.2σ)
n_{s}	0.9890	$0.990^{+0.038}_{-0.043}$ $(+4.8\sigma)$	Y_{P}	0.244871	0.24487 ± 0.00037 (-4.5σ)	$D_{\mathrm{M}}(0.61)$	2392.2	2390 ± 33 $(+3.5\sigma)$
y_{cal}	1.00002	1.0001 ± 0.0025 (-0.1σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246196	0.24619 ± 0.00037 (-4.5σ)	$H(2.33)$	240.54	240.4 ± 2.5 $(+2.9\sigma)$
H_0	63.71	63.8 ± 1.4 (-3.4σ)	$10^5 D/H$	2.821	$2.83^{+0.16}_{-0.18}$ $(+4.8\sigma)$	$D_{\mathrm{M}}(2.33)$	5831.1	5830 ± 38 $(+3.3\sigma)$
Ω_{Λ}	0.6314	$0.632^{+0.026}_{-0.022}$ (-3.6σ)	Age/Gyr	13.950	13.948 ± 0.090 $(+3.3\sigma)$	$f\sigma_8(0.15)$	0.5081	0.507 ± 0.020 $(+3.6\sigma)$
Ω_{m}	0.3686	$0.368^{+0.022}_{-0.026}$ $(+3.6\sigma)$	z_*	1092.19	1092.2 ± 1.2 $(+4.8\sigma)$	$\sigma_8(0.15)$	0.7690	0.7685 ± 0.0098 $(+2.6\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.14962	0.1495 ± 0.0037 $(+3.1\sigma)$	r_*	143.35	143.4 ± 1.1 (-2.2σ)	$f\sigma_8(0.38)$	0.5137	0.513 ± 0.015 $(+3.5\sigma)$
$\Omega_{\mathrm{m}}h^3$	0.09533	0.0953 ± 0.0016 (-1.3σ)	$100\theta_*$	1.04105	1.04105 ± 0.00057 $(+0.2\sigma)$	$\sigma_8(0.38)$	0.6757	0.6754 ± 0.0073 $(+2.0\sigma)$
σ_8	0.8382	0.838 ± 0.012 $(+2.9\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.769	13.77 ± 0.10 (-2.4σ)	$f\sigma_8(0.51)$	0.5055	0.505 ± 0.012 $(+3.4\sigma)$
S_8	0.9290	0.928 ± 0.042 $(+3.7\sigma)$	z_{drag}	1057.72	1057.7 ± 2.0 (-3.9σ)	$\sigma_8(0.51)$	0.6300	0.6297 ± 0.0064 $(+1.7\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.5089	0.508 ± 0.023 $(+3.7\sigma)$	r_{drag}	146.38	146.4 ± 1.3 (-1.6σ)	$f\sigma_8(0.61)$	0.4959	0.495 ± 0.011 $(+3.3\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6531	0.652 ± 0.019 $(+3.5\sigma)$	k_{D}	0.14062	0.1406 ± 0.0019 $(+0.0\sigma)$	$\sigma_8(0.61)$	0.5980	0.5978 ± 0.0059 $(+1.5\sigma)$
$\sigma_8/h^{0.5}$	1.0501	1.049 ± 0.026 $(+3.5\sigma)$	$100\theta_{\mathrm{D}}$	0.16225	$0.1623^{+0.0012}_{-0.0013}$ $(+4.7\sigma)$	$f\sigma_8(2.33)$	0.29942	0.2994 ± 0.0028 $(+0.9\sigma)$
$r_{\mathrm{drag}}h$	93.27	93.4 ± 2.5 (-3.2σ)	z_{eq}	3560	3556 ± 89 $(+3.1\sigma)$	$\sigma_8(2.33)$	0.30657	0.3066 ± 0.0030 $(+0.3\sigma)$
$\langle d^2 \rangle^{1/2}$	2.460	2.46 ± 0.12 $(+0.2\sigma)$	k_{eq}	0.010866	0.01085 ± 0.00027 $(+3.1\sigma)$	$\chi^2_{\mathrm{PLIK_LITE}}$	109.91	114.8 ± 3.0 (-26.7σ)
z_{re}	7.54	7.5 ± 1.0 (-0.0σ)	$100\theta_{\mathrm{eq}}$	0.7831	0.784 ± 0.014 (-3.1σ)	χ^2_{simall}	395.95	397.2 ± 1.6 $(+0.1\sigma)$
$10^9 A_{\mathrm{s}}$	2.057	2.057 ± 0.064 (-1.0σ)	$100\theta_{\mathrm{s,eq}}$	0.4344	0.4349 ± 0.0077 (-3.0σ)	χ^2_{prior}	0.00	1.0 ± 1.4 (-0.0σ)
$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.864	1.864 ± 0.057 (-1.4σ)	$H(0.15)$	69.57	69.6 ± 1.2 (-3.4σ)	χ^2_{CMB}	505.86	512.0 ± 3.4 (-33.4σ)
D_{40}	1126	1132^{+120}_{-140} (-6.6σ)	$D_{\mathrm{M}}(0.15)$	676.2	676 ± 14 $(+3.6\sigma)$			

Best-fit $\chi^2_{\mathrm{eff}} = 505.86$; $\bar{\chi}^2_{\mathrm{eff}} = 513.01$; $R - 1 = 0.00760$

χ^2_{eff} : CMB - plik_lite_v22: 109.91 simall.100x143_offlike5_EE_Aplanck_B: 395.95

2.11 base_pliklite_TT_lmin802_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022035	0.02204 ± 0.00038 (-0.4σ)	D_{220}	5729	5732 ± 120 $(+0.5\sigma)$	$H(0.38)$	82.23	82.24 ± 0.61 (-0.5σ)
$\Omega_c h^2$	0.12203	0.1221 ± 0.0021 $(+0.7\sigma)$	D_{810}	2539.5	2541 ± 16 $(+0.3\sigma)$	$D_M(0.38)$	1550.9	1551 ± 17 $(+0.6\sigma)$
$100\theta_{MC}$	1.04088	1.04089 ± 0.00052 $(+0.2\sigma)$	D_{1420}	813.4	813.9 ± 5.5 (-0.1σ)	$H(0.51)$	89.111	89.13 ± 0.50 (-0.5σ)
τ	0.0481	0.0474 ± 0.0081 (-0.6σ)	D_{2000}	228.93	229.1 ± 2.1 (-0.3σ)	$D_M(0.51)$	2006.4	2006 ± 20 $(+0.6\sigma)$
$\ln(10^{10} A_s)$	3.0371	3.036 ± 0.016 (-0.3σ)	$n_{s,0.002}$	0.9570	0.9573 ± 0.0098 (-1.0σ)	$H(0.61)$	94.859	94.88 ± 0.43 (-0.4σ)
n_s	0.9570	0.9573 ± 0.0098 (-1.0σ)	Y_P	0.245255	$0.24525^{+0.00019}_{-0.00015}$ (-0.5σ)	$D_M(0.61)$	2332.5	2332 ± 21 $(+0.6\sigma)$
y_{cal}	0.99969	0.9999 ± 0.0025 (-0.2σ)	Y_P^{BBN}	0.246581	$0.24657^{+0.00019}_{-0.00015}$ (-0.5σ)	$H(2.33)$	237.56	237.6 ± 1.3 $(+0.7\sigma)$
H_0	66.36	66.37 ± 0.95 (-0.6σ)	$10^5 D/H$	2.650	$2.649^{+0.069}_{-0.077}$ $(+0.4\sigma)$	$D_M(2.33)$	5783.0	5782 ± 22 $(+0.3\sigma)$
Ω_Λ	0.6714	0.671 ± 0.014 (-0.6σ)	Age/Gyr	13.8407	13.839 ± 0.051 $(+0.3\sigma)$	$f\sigma_8(0.15)$	0.4696	0.469 ± 0.012 $(+0.5\sigma)$
Ω_m	0.3286	0.329 ± 0.014 $(+0.6\sigma)$	z_*	1090.53	1090.52 ± 0.58 $(+0.6\sigma)$	$\sigma_8(0.15)$	0.7503	0.7498 ± 0.0065 $(+0.1\sigma)$
$\Omega_m h^2$	0.14471	0.1447 ± 0.0020 $(+0.7\sigma)$	r_*	144.17	144.16 ± 0.53 (-0.7σ)	$f\sigma_8(0.38)$	0.4841	0.4839 ± 0.0088 $(+0.4\sigma)$
$\Omega_m h^3$	0.09603	0.09605 ± 0.00079 $(+0.3\sigma)$	$100\theta_*$	1.04109	1.04110 ± 0.00051 $(+0.3\sigma)$	$\sigma_8(0.38)$	0.6632	0.6628 ± 0.0053 (-0.1σ)
σ_8	0.8137	0.8133 ± 0.0078 $(+0.2\sigma)$	$D_M(z_*)/\text{Gpc}$	13.848	13.846 ± 0.050 (-0.7σ)	$f\sigma_8(0.51)$	0.4807	0.4804 ± 0.0074 $(+0.4\sigma)$
S_8	0.8516	0.851 ± 0.023 $(+0.5\sigma)$	z_{drag}	1059.28	1059.32 ± 0.86 (-0.2σ)	$\sigma_8(0.51)$	0.61992	0.6195 ± 0.0049 (-0.1σ)
$\sigma_8 \Omega_m^{0.5}$	0.4665	0.466 ± 0.013 $(+0.5\sigma)$	r_{drag}	146.93	146.92 ± 0.59 (-0.6σ)	$f\sigma_8(0.61)$	0.4744	0.4741 ± 0.0065 $(+0.4\sigma)$
$\sigma_8 \Omega_m^{0.25}$	0.6161	0.616 ± 0.011 $(+0.4\sigma)$	k_D	0.14077	0.14079 ± 0.00080 $(+0.5\sigma)$	$\sigma_8(0.61)$	0.58940	0.5890 ± 0.0046 (-0.2σ)
$\sigma_8/h^{0.5}$	0.9989	0.998 ± 0.015 $(+0.4\sigma)$	$100\theta_D$	0.16116	$0.16116^{+0.00048}_{-0.00053}$ $(+0.4\sigma)$	$f\sigma_8(2.33)$	0.29652	0.2963 ± 0.0024 (-0.3σ)
$r_{drag} h$	97.51	97.5 ± 1.6 (-0.6σ)	z_{eq}	3442.6	3443 ± 48 $(+0.7\sigma)$	$\sigma_8(2.33)$	0.30500	0.3048 ± 0.0026 (-0.4σ)
$\langle d^2 \rangle^{1/2}$	2.4750	2.473 ± 0.030 $(+0.5\sigma)$	k_{eq}	0.010507	0.01051 ± 0.00015 $(+0.7\sigma)$	$\chi^2_{lensing}$	9.95	10.8 ± 2.2
z_{re}	7.14	$7.02^{+0.89}_{-0.72}$ (-0.6σ)	$100\theta_{eq}$	0.8052	0.8052 ± 0.0087 (-0.7σ)	$\chi^2_{PLIK_LITE}$	126.19	130.3 ± 3.3 (-22.3σ)
$10^9 A_s$	2.0844	2.083 ± 0.033 (-0.3σ)	$100\theta_{s,eq}$	0.44541	0.4454 ± 0.0045 (-0.7σ)	χ^2_{small}	395.71	396.8 ± 1.5 (-0.1σ)
$10^9 A_s e^{-2\tau}$	1.8932	1.894 ± 0.015 $(+0.7\sigma)$	$H(0.15)$	71.82	71.83 ± 0.82 (-0.6σ)	χ^2_{prior}	0.016	0.98 ± 1.4 (-0.0σ)
D_{40}	1248.3	1249 ± 35 $(+1.0\sigma)$	$D_M(0.15)$	652.0	652.0 ± 8.4 $(+0.6\sigma)$	χ^2_{CMB}	531.85	537.9 ± 3.5 (-26.1σ)

Best-fit $\chi^2_{eff} = 531.86$; $\bar{\chi}^2_{eff} = 538.89$; $R - 1 = 0.00835$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 9.95 plik_lite_v22: 126.19 simall_100x143_offlike5_EE_Aplanck_B: 395.71

2.12 base_pliklite_TT_lmin1000_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.021730	0.02173 ± 0.00050 (-1.8σ)	D_{220}	5531	5532 ± 200 (-4.4σ)	$H(0.38)$	81.79	81.80 ± 0.76 (-1.3σ)
$\Omega_c h^2$	0.12350	0.1236 ± 0.0025 $(+1.4\sigma)$	D_{810}	2523.0	2522 ± 21 (-1.0σ)	$D_M(0.38)$	1563.2	1563 ± 21 $(+1.4\sigma)$
$100\theta_{MC}$	1.04106	1.04110 ± 0.00057 $(+0.7\sigma)$	D_{1420}	814.4	814.2 ± 5.5 (-0.1σ)	$H(0.51)$	88.76	88.78 ± 0.63 (-1.3σ)
τ	0.0493	0.0494 ± 0.0086 (-0.4σ)	D_{2000}	230.04	230.0 ± 2.3 $(+0.2\sigma)$	$D_M(0.51)$	2020.8	2021 ± 25 $(+1.4\sigma)$
$\ln(10^{10} A_s)$	3.0299	3.030 ± 0.017 (-0.6σ)	$n_{s,0.002}$	0.9730	0.973 ± 0.016 $(+1.8\sigma)$	$H(0.61)$	94.57	94.60 ± 0.53 (-1.2σ)
n_s	0.9730	0.973 ± 0.016 $(+1.8\sigma)$	Y_P	0.245100	0.24511 ± 0.00022 (-1.9σ)	$D_M(0.61)$	2348.1	2348 ± 27 $(+1.4\sigma)$
y_{cal}	1.00006	0.99998 ± 0.0025 (-0.1σ)	Y_P^{BBN}	0.246425	0.24644 ± 0.00022 (-1.9σ)	$H(2.33)$	238.25	238.3 ± 1.4 $(+1.3\sigma)$
H_0	65.67	65.7 ± 1.2 (-1.3σ)	$10^5 D/H$	2.709	$2.711^{+0.091}_{-0.10}$ $(+1.9\sigma)$	$D_M(2.33)$	5796.6	5796 ± 28 $(+1.2\sigma)$
Ω_Λ	0.6618	$0.661^{+0.018}_{-0.015}$ (-1.4σ)	Age/Gyr	13.871	13.870 ± 0.064 $(+1.1\sigma)$	$f\sigma_8(0.15)$	0.4801	0.480 ± 0.015 $(+1.4\sigma)$
Ω_m	0.3382	$0.339^{+0.015}_{-0.018}$ $(+1.4\sigma)$	z_*	1091.06	$1091.07^{+0.73}_{-0.82}$ $(+2.0\sigma)$	$\sigma_8(0.15)$	0.7566	0.7567 ± 0.0082 $(+1.0\sigma)$
$\Omega_m h^2$	0.14587	0.1459 ± 0.0023 $(+1.3\sigma)$	r_*	144.02	144.00 ± 0.56 (-1.0σ)	$f\sigma_8(0.38)$	0.4926	0.493 ± 0.011 $(+1.4\sigma)$
$\Omega_m h^3$	0.09580	0.09583 ± 0.00094 (-0.2σ)	$100\theta_*$	1.04131	1.04134 ± 0.00055 $(+0.8\sigma)$	$\sigma_8(0.38)$	0.6678	0.6679 ± 0.0065 $(+0.8\sigma)$
σ_8	0.8216	0.822 ± 0.010 $(+1.1\sigma)$	$D_M(z_*)/\text{Gpc}$	13.831	13.829 ± 0.053 (-1.1σ)	$f\sigma_8(0.51)$	0.4880	0.4881 ± 0.0095 $(+1.3\sigma)$
S_8	0.8724	0.873 ± 0.030 $(+1.4\sigma)$	z_{drag}	1058.67	1058.7 ± 1.1 (-1.6σ)	$\sigma_8(0.51)$	0.6238	0.6238 ± 0.0058 $(+0.7\sigma)$
$\sigma_8 \Omega_m^{0.5}$	0.4778	0.478 ± 0.016 $(+1.4\sigma)$	r_{drag}	146.89	146.87 ± 0.62 (-0.7σ)	$f\sigma_8(0.61)$	0.4809	0.4809 ± 0.0083 $(+1.3\sigma)$
$\sigma_8 \Omega_m^{0.25}$	0.6266	0.627 ± 0.014 $(+1.4\sigma)$	k_D	0.14057	0.14058 ± 0.00090 $(+0.1\sigma)$	$\sigma_8(0.61)$	0.5929	0.5929 ± 0.0054 $(+0.6\sigma)$
$\sigma_8/h^{0.5}$	1.0138	1.014 ± 0.020 $(+1.4\sigma)$	$100\theta_D$	0.16159	$0.16160^{+0.00063}_{-0.00070}$ $(+2.1\sigma)$	$f\sigma_8(2.33)$	0.29791	0.2979 ± 0.0027 $(+0.3\sigma)$
$r_{drag} h$	96.47	96.5 ± 1.9 (-1.3σ)	z_{eq}	3471	3472 ± 54 $(+1.3\sigma)$	$\sigma_8(2.33)$	0.30605	0.3061 ± 0.0028 $(+0.1\sigma)$
$\langle d^2 \rangle^{1/2}$	2.4508	2.452 ± 0.034 (-0.0σ)	k_{eq}	0.010592	0.01060 ± 0.00017 $(+1.3\sigma)$	$\chi^2_{lensing}$	10.93	12.3 ± 2.6
z_{re}	7.35	$7.34^{+0.93}_{-0.83}$ (-0.2σ)	$100\theta_{eq}$	0.7997	0.7996 ± 0.0099 (-1.3σ)	$\chi^2_{PLIK_LITE}$	112.04	115.7 ± 3.4 (-26.4σ)
$10^9 A_s$	2.0696	2.070 ± 0.035 (-0.6σ)	$100\theta_{s,eq}$	0.4427	0.4427 ± 0.0050 (-1.3σ)	χ^2_{small}	395.75	396.9 ± 1.5 (-0.0σ)
$10^9 A_s e^{-2\tau}$	1.8754	1.875 ± 0.021 (-0.6σ)	$H(0.15)$	71.23	71.2 ± 1.0 (-1.3σ)	χ^2_{prior}	0.001	0.99 ± 1.4 (-0.0σ)
D_{40}	1189	1190 ± 58 (-2.8σ)	$D_M(0.15)$	658.2	658 ± 10 $(+1.4\sigma)$	χ^2_{CMB}	518.72	524.9 ± 3.5 (-29.8σ)

Best-fit $\chi^2_{eff} = 518.72$; $\bar{\chi}^2_{eff} = 525.89$; $R - 1 = 0.00625$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 10.93 plik_lite_v22: 112.04 simall_100x143_offlike5_EE_Aplanck_B: 395.75

2.13 base_pliklite_TT_lowl_lmax801_lowE_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02217 \pm 0.00035 \quad (+0.2\sigma)$	D_{810}	$2528 \pm 16 \quad (-0.6\sigma)$	$H(0.51)$	$89.56 \pm 0.62 \quad (+0.5\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1188 \pm 0.0020 \quad (-0.9\sigma)$	D_{1420}	$811.3 \pm 8.8 \quad (-0.6\sigma)$	$D_{\mathrm{M}}(0.51)$	$1985 \pm 22 \quad (-0.6\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0406 \pm 0.0012 \quad (-0.3\sigma)$	D_{2000}	$228.4 \pm 3.4 \quad (-0.7\sigma)$	$H(0.61)$	$95.16 \pm 0.53 \quad (+0.4\sigma)$
τ	$0.0525 \pm 0.0083 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9631 \pm 0.0095 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2309 \pm 24 \quad (-0.6\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.035 \pm 0.016 \quad (-0.3\sigma)$	Y_{P}	$0.24530^{+0.00017}_{-0.00013} \quad (+0.1\sigma)$	$H(2.33)$	$235.5 \pm 1.1 \quad (-0.9\sigma)$
n_{s}	$0.9631 \pm 0.0095 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24663^{+0.00017}_{-0.00013} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5773 \pm 26 \quad (-0.2\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (+0.0\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.626 \pm 0.067 \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.453 \pm 0.011 \quad (-0.9\sigma)$
H_0	$67.5 \pm 1.1 \quad (+0.7\sigma)$	Age/Gyr	$13.822 \pm 0.060 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.7425 \pm 0.0061 \quad (-0.9\sigma)$
Ω_{Λ}	$0.689 \pm 0.013 \quad (+0.7\sigma)$	z_*	$1090.08 \pm 0.58 \quad (-0.5\sigma)$	$f\sigma_8(0.38)$	$0.4708^{+0.0083}_{-0.0075} \quad (-0.9\sigma)$
Ω_{m}	$0.311 \pm 0.013 \quad (-0.7\sigma)$	r_*	$144.90 \pm 0.42 \quad (+0.9\sigma)$	$\sigma_8(0.38)$	$0.6582 \pm 0.0054 \quad (-0.8\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1416 \pm 0.0018 \quad (-0.9\sigma)$	$100\theta_*$	$1.0408 \pm 0.0012 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4695^{+0.0069}_{-0.0062} \quad (-0.9\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09559^{+0.00084}_{-0.00076} \quad (-0.7\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.922 \pm 0.041 \quad (+1.0\sigma)$	$\sigma_8(0.51)$	$0.6160 \pm 0.0052 \quad (-0.8\sigma)$
σ_8	$0.8035 \pm 0.0069 \quad (-0.9\sigma)$	z_{drag}	$1059.37 \pm 0.74 \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4646^{+0.0060}_{-0.0054} \quad (-0.9\sigma)$
S_8	$0.818 \pm 0.021 \quad (-0.9\sigma)$	r_{drag}	$147.64 \pm 0.43 \quad (+0.9\sigma)$	$\sigma_8(0.61)$	$0.5862 \pm 0.0050 \quad (-0.7\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.448 \pm 0.012 \quad (-0.9\sigma)$	k_{D}	$0.14013 \pm 0.00056 \quad (-0.8\sigma)$	$f\sigma_8(2.33)$	$0.2956 \pm 0.0027 \quad (-0.6\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.5999 \pm 0.0095 \quad (-0.9\sigma)$	$100\theta_{\mathrm{D}}$	$0.16104 \pm 0.00046 \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3048 \pm 0.0032 \quad (-0.4\sigma)$
$\sigma_8/h^{0.5}$	$0.978 \pm 0.013 \quad (-0.9\sigma)$	z_{eq}	$3369 \pm 43 \quad (-0.9\sigma)$	$\chi^2_{\mathrm{lensing}}$	10.1 ± 1.8
$r_{\mathrm{drag}}h$	$99.7 \pm 1.7 \quad (+0.7\sigma)$	k_{eq}	$0.01028 \pm 0.00013 \quad (-0.9\sigma)$	$\chi^2_{\mathrm{PLIK_LITE}}$	$77.6 \pm 3.2 \quad (-37.1\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.429 \pm 0.036 \quad (-0.6\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8186 \pm 0.0086 \quad (+0.8\sigma)$	χ^2_{small}	$396.9 \pm 1.6 \quad (-0.0\sigma)$
z_{re}	$7.49^{+0.84}_{-0.75} \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4523 \pm 0.0044 \quad (+0.8\sigma)$	χ^2_{lowl}	$23.8 \pm 1.9 \quad (-0.1\sigma)$
10^9A_{s}	$2.081 \pm 0.033 \quad (-0.3\sigma)$	$H(0.15)$	$72.78 \pm 0.94 \quad (+0.6\sigma)$	χ^2_{prior}	$1.0 \pm 1.4 \quad (-0.0\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.874 \pm 0.012 \quad (-0.8\sigma)$	$D_{\mathrm{M}}(0.15)$	$642.3 \pm 9.3 \quad (-0.6\sigma)$	χ^2_{CMB}	$508.4 \pm 3.6 \quad (-34.4\sigma)$
D_{40}	$1231 \pm 20 \quad (-0.1\sigma)$	$H(0.38)$	$82.86 \pm 0.73 \quad (+0.6\sigma)$		
D_{220}	$5727 \pm 42 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1532 \pm 19 \quad (-0.6\sigma)$		

$\bar{\chi}^2_{\mathrm{eff}} = 509.37; R - 1 = 0.00696$

2.14 base_pliklite_TT_lowl_lmax801_lowE_lensing_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02221 \pm 0.00029 \quad (+0.4\sigma)$	D_{1420}	$812.4 \pm 7.7 \quad (-0.4\sigma)$	$H(0.61)$	$95.30 \pm 0.34 \quad (+0.8\sigma)$
$\Omega_{\text{c}}h^2$	$0.1183 \pm 0.0013 \quad (-1.1\sigma)$	D_{2000}	$228.8 \pm 2.9 \quad (-0.4\sigma)$	$D_{\text{M}}(0.61)$	$2302 \pm 14 \quad (-1.0\sigma)$
$100\theta_{\text{MC}}$	$1.0409 \pm 0.0010 \quad (+0.3\sigma)$	$n_{\text{s},0.002}$	$0.9648 \pm 0.0074 \quad (+0.3\sigma)$	$H(2.33)$	$235.29 \pm 0.81 \quad (-1.1\sigma)$
τ	$0.0534 \pm 0.0073 \quad (+0.1\sigma)$	Y_{P}	$0.24532^{+0.00013}_{-0.00010} \quad (+0.4\sigma)$	$D_{\text{M}}(2.33)$	$5766 \pm 18 \quad (-0.7\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.037 \pm 0.015 \quad (-0.2\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.24665^{+0.00013}_{-0.00010} \quad (+0.4\sigma)$	$f\sigma_{\text{s}}(0.15)$	$0.4498 \pm 0.0068 \quad (-1.1\sigma)$
n_{s}	$0.9648 \pm 0.0074 \quad (+0.3\sigma)$	$10^5D/\text{H}$	$2.616 \pm 0.054 \quad (-0.4\sigma)$	$\sigma_{\text{s}}(0.15)$	$0.7425 \pm 0.0061 \quad (-0.9\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.1\sigma)$	Age/Gyr	$13.806 \pm 0.042 \quad (-0.6\sigma)$	$f\sigma_{\text{s}}(0.38)$	$0.4690 \pm 0.0056 \quad (-1.1\sigma)$
H_0	$67.82 \pm 0.61 \quad (+1.0\sigma)$	z_*	$1089.97 \pm 0.42 \quad (-0.8\sigma)$	$\sigma_{\text{s}}(0.38)$	$0.6586 \pm 0.0053 \quad (-0.7\sigma)$
Ω_{Λ}	$0.6929 \pm 0.0074 \quad (+1.0\sigma)$	r_*	$144.99 \pm 0.32 \quad (+1.1\sigma)$	$f\sigma_{\text{s}}(0.51)$	$0.4681 \pm 0.0050 \quad (-1.1\sigma)$
Ω_{m}	$0.3071 \pm 0.0074 \quad (-1.0\sigma)$	$100\theta_*$	$1.0411 \pm 0.0010 \quad (+0.3\sigma)$	$\sigma_{\text{s}}(0.51)$	$0.6166 \pm 0.0050 \quad (-0.7\sigma)$
$\Omega_{\text{m}}h^2$	$0.1412 \pm 0.0012 \quad (-1.1\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.926 \pm 0.037 \quad (+1.1\sigma)$	$f\sigma_{\text{s}}(0.61)$	$0.4636 \pm 0.0046 \quad (-1.1\sigma)$
$\Omega_{\text{m}}h^3$	$0.09574 \pm 0.00072 \quad (-0.4\sigma)$	z_{drag}	$1059.45 \pm 0.64 \quad (+0.1\sigma)$	$\sigma_{\text{s}}(0.61)$	$0.5868 \pm 0.0048 \quad (-0.6\sigma)$
σ_{s}	$0.8030 \pm 0.0067 \quad (-1.0\sigma)$	r_{drag}	$147.71 \pm 0.37 \quad (+1.0\sigma)$	$f\sigma_{\text{s}}(2.33)$	$0.2961 \pm 0.0025 \quad (-0.4\sigma)$
S_{s}	$0.812 \pm 0.013 \quad (-1.1\sigma)$	k_{D}	$0.14009 \pm 0.00054 \quad (-0.9\sigma)$	$\sigma_{\text{s}}(2.33)$	$0.3054 \pm 0.0027 \quad (-0.2\sigma)$
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.5}$	$0.4450 \pm 0.0072 \quad (-1.1\sigma)$	$100\theta_{\text{D}}$	$0.16103 \pm 0.00042 \quad (-0.1\sigma)$	χ_{lensing}^2	10.2 ± 1.6
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.25}$	$0.5977 \pm 0.0068 \quad (-1.1\sigma)$	z_{eq}	$3358 \pm 28 \quad (-1.1\sigma)$	$\chi_{\text{PLIK_LITE}}^2$	$77.3 \pm 3.1 \quad (-37.2\sigma)$
$\sigma_{\text{s}}/h^{0.5}$	$0.9751 \pm 0.0098 \quad (-1.1\sigma)$	k_{eq}	$0.010250 \pm 0.000087 \quad (-1.1\sigma)$	χ_{small}^2	$396.8 \pm 1.5 \quad (-0.1\sigma)$
$r_{\text{drag}}h$	$100.18 \pm 0.96 \quad (+1.0\sigma)$	$100\theta_{\text{eq}}$	$0.8208 \pm 0.0052 \quad (+1.1\sigma)$	χ_{lowl}^2	$23.4 \pm 1.5 \quad (-0.3\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.421 \pm 0.027 \quad (-0.8\sigma)$	$100\theta_{\text{s,eq}}$	$0.4534 \pm 0.0027 \quad (+1.1\sigma)$	$\chi_{6\text{DF}}^2$	0.043 ± 0.060
z_{re}	$7.58 \pm 0.74 \quad (+0.1\sigma)$	$H(0.15)$	$73.04 \pm 0.54 \quad (+1.0\sigma)$	χ_{MGS}^2	1.59 ± 0.57
10^9A_{s}	$2.084 \pm 0.030 \quad (-0.2\sigma)$	$D_{\text{M}}(0.15)$	$639.6 \pm 5.2 \quad (-1.0\sigma)$	χ_{DR12BAO}^2	4.3 ± 1.3
$10^9A_{\text{s}}e^{-2\tau}$	$1.873 \pm 0.011 \quad (-0.8\sigma)$	$H(0.38)$	$83.06 \pm 0.43 \quad (+0.9\sigma)$	χ_{prior}^2	$1.0 \pm 1.5 \quad (+0.0\sigma)$
D_{40}	$1229 \pm 17 \quad (-0.3\sigma)$	$D_{\text{M}}(0.38)$	$1527 \pm 11 \quad (-1.0\sigma)$	χ_{CMB}^2	$507.7 \pm 3.4 \quad (-34.6\sigma)$
D_{220}	$5731 \pm 40 \quad (+0.4\sigma)$	$H(0.51)$	$89.72 \pm 0.38 \quad (+0.9\sigma)$	χ_{BAO}^2	5.9 ± 1.1
D_{810}	$2530 \pm 16 \quad (-0.5\sigma)$	$D_{\text{M}}(0.51)$	$1978 \pm 13 \quad (-1.0\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 514.67$; $R - 1 = 0.00627$

2.15 base_pliklite_TT_lowl_lmax801_lowE_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02223 \pm 0.00029 \quad (+0.5\sigma)$	D_{1420}	$811.0 \pm 7.9 \quad (-0.7\sigma)$	$H(0.61)$	$95.42 \pm 0.36 \quad (+1.1\sigma)$
$\Omega_{\text{c}}h^2$	$0.1175 \pm 0.0014 \quad (-1.5\sigma)$	D_{2000}	$228.2 \pm 3.0 \quad (-0.8\sigma)$	$D_{\text{M}}(0.61)$	$2295 \pm 15 \quad (-1.3\sigma)$
$100\theta_{\text{MC}}$	$1.0411 \pm 0.0011 \quad (+0.6\sigma)$	$n_{\text{s},0.002}$	$0.9659 \pm 0.0075 \quad (+0.5\sigma)$	$H(2.33)$	$234.79 \pm 0.88 \quad (-1.5\sigma)$
τ	$0.0491^{+0.0086}_{-0.0075} \quad (-0.4\sigma)$	Y_{P}	$0.24533^{+0.00013}_{-0.00010} \quad (+0.4\sigma)$	$D_{\text{M}}(2.33)$	$5762 \pm 19 \quad (-1.0\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.024^{+0.018}_{-0.016} \quad (-1.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.24666^{+0.00013}_{-0.00010} \quad (+0.4\sigma)$	$f\sigma_{\text{s}}(0.15)$	$0.4426 \pm 0.0085 \quad (-1.7\sigma)$
n_{s}	$0.9659 \pm 0.0075 \quad (+0.5\sigma)$	$10^5D/H$	$2.613 \pm 0.054 \quad (-0.5\sigma)$	$\sigma_{\text{s}}(0.15)$	$0.7362 \pm 0.0079 \quad (-1.7\sigma)$
y_{cal}	$1.0001 \pm 0.0025 \quad (-0.1\sigma)$	Age/Gyr	$13.796 \pm 0.044 \quad (-0.9\sigma)$	$f\sigma_{\text{s}}(0.38)$	$0.4627 \pm 0.0073 \quad (-1.8\sigma)$
H_0	$68.18 \pm 0.66 \quad (+1.4\sigma)$	z_*	$1089.88 \pm 0.42 \quad (-1.0\sigma)$	$\sigma_{\text{s}}(0.38)$	$0.6536 \pm 0.0067 \quad (-1.6\sigma)$
Ω_{Λ}	$0.6978 \pm 0.0080 \quad (+1.4\sigma)$	r_*	$145.19 \pm 0.35 \quad (+1.5\sigma)$	$f\sigma_{\text{s}}(0.51)$	$0.4624 \pm 0.0066 \quad (-1.8\sigma)$
Ω_{m}	$0.3022 \pm 0.0080 \quad (-1.4\sigma)$	$100\theta_*$	$1.0413 \pm 0.0011 \quad (+0.6\sigma)$	$\sigma_{\text{s}}(0.51)$	$0.6121 \pm 0.0062 \quad (-1.5\sigma)$
$\Omega_{\text{m}}h^2$	$0.1404 \pm 0.0013 \quad (-1.5\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.943 \pm 0.039 \quad (+1.5\sigma)$	$f\sigma_{\text{s}}(0.61)$	$0.4582 \pm 0.0061 \quad (-1.8\sigma)$
$\Omega_{\text{m}}h^3$	$0.09571 \pm 0.00074 \quad (-0.4\sigma)$	z_{drag}	$1059.43 \pm 0.64 \quad (+0.0\sigma)$	$\sigma_{\text{s}}(0.61)$	$0.5827 \pm 0.0059 \quad (-1.4\sigma)$
σ_{s}	$0.7957 \pm 0.0088 \quad (-1.8\sigma)$	r_{drag}	$147.91 \pm 0.40 \quad (+1.5\sigma)$	$f\sigma_{\text{s}}(2.33)$	$0.2942 \pm 0.0030 \quad (-1.2\sigma)$
S_{s}	$0.799 \pm 0.016 \quad (-1.7\sigma)$	k_{D}	$0.13989 \pm 0.00056 \quad (-1.3\sigma)$	$\sigma_{\text{s}}(2.33)$	$0.3037 \pm 0.0031 \quad (-0.8\sigma)$
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.5}$	$0.4374 \pm 0.0090 \quad (-1.7\sigma)$	$100\theta_{\text{D}}$	$0.16106 \pm 0.00043 \quad (+0.0\sigma)$	$\chi_{\text{PLIK_LITE}}^2$	$77.2 \pm 3.0 \quad (-37.3\sigma)$
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.25}$	$0.5899 \pm 0.0089 \quad (-1.8\sigma)$	z_{eq}	$3339 \pm 31 \quad (-1.5\sigma)$	χ_{simall}^2	$396.9 \pm 1.7 \quad (-0.1\sigma)$
$\sigma_{\text{s}}/h^{0.5}$	$0.964 \pm 0.013 \quad (-1.8\sigma)$	k_{eq}	$0.010192 \pm 0.000096 \quad (-1.5\sigma)$	χ_{lowl}^2	$23.0 \pm 1.4 \quad (-0.7\sigma)$
$r_{\text{drag}}h$	$100.8 \pm 1.1 \quad (+1.5\sigma)$	$100\theta_{\text{eq}}$	$0.8245 \pm 0.0058 \quad (+1.5\sigma)$	$\chi_{6\text{DF}}^2$	0.054 ± 0.077
$\langle d^2 \rangle^{1/2}$	$2.396 \pm 0.033 \quad (-1.5\sigma)$	$100\theta_{\text{s,eq}}$	$0.4553 \pm 0.0030 \quad (+1.5\sigma)$	χ_{MGS}^2	2.00 ± 0.68
z_{re}	$7.10^{+0.94}_{-0.73} \quad (-0.5\sigma)$	$H(0.15)$	$73.35 \pm 0.59 \quad (+1.4\sigma)$	χ_{DR12BAO}^2	4.1 ± 1.1
10^9A_{s}	$2.058 \pm 0.037 \quad (-1.0\sigma)$	$D_{\text{M}}(0.15)$	$636.6 \pm 5.6 \quad (-1.4\sigma)$	χ_{prior}^2	$1.0 \pm 1.4 \quad (-0.0\sigma)$
$10^9A_{\text{s}}e^{-2\tau}$	$1.866 \pm 0.012 \quad (-1.3\sigma)$	$H(0.38)$	$83.28 \pm 0.47 \quad (+1.3\sigma)$	χ_{CMB}^2	$497.0 \pm 3.3 \quad (-37.6\sigma)$
D_{40}	$1223 \pm 18 \quad (-0.7\sigma)$	$D_{\text{M}}(0.38)$	$1521 \pm 12 \quad (-1.3\sigma)$	χ_{BAO}^2	6.2 ± 1.4
D_{220}	$5724 \pm 42 \quad (+0.3\sigma)$	$H(0.51)$	$89.89 \pm 0.40 \quad (+1.2\sigma)$		
D_{810}	$2524 \pm 16 \quad (-0.9\sigma)$	$D_{\text{M}}(0.51)$	$1971 \pm 14 \quad (-1.3\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 504.24; R - 1 = 0.00957$

2.16 base_pliklite_TT_lmax801_lowE_lensing_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02208 \pm 0.00029 \quad (-0.2\sigma)$	D_{1420}	$807.6 \pm 8.1 \quad (-1.4\sigma)$	$H(0.61)$	$95.21 \pm 0.34 \quad (+0.5\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1189 \pm 0.0013 \quad (-0.8\sigma)$	D_{2000}	$226.9 \pm 3.1 \quad (-1.5\sigma)$	$D_{\mathrm{M}}(0.61)$	$2307 \pm 14 \quad (-0.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0412 \pm 0.0010 \quad (+0.8\sigma)$	$n_{\mathrm{s},0.002}$	$0.9589 \pm 0.0080 \quad (-0.7\sigma)$	$H(2.33)$	$235.57 \pm 0.82 \quad (-0.9\sigma)$
τ	$0.0532 \pm 0.0075 \quad (+0.1\sigma)$	Y_{P}	$0.24527^{+0.00014}_{-0.00012} \quad (-0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5770 \pm 18 \quad (-0.4\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.036 \pm 0.015 \quad (-0.3\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24659^{+0.00014}_{-0.00012} \quad (-0.2\sigma)$	$f\sigma_{\mathrm{s}}(0.15)$	$0.4523 \pm 0.0067 \quad (-0.9\sigma)$
n_{s}	$0.9589 \pm 0.0080 \quad (-0.7\sigma)$	$10^5 D/H$	$2.641 \pm 0.055 \quad (+0.2\sigma)$	$\sigma_{\mathrm{s}}(0.15)$	$0.7429 \pm 0.0060 \quad (-0.8\sigma)$
y_{cal}	$1.0003 \pm 0.0025 \quad (+0.0\sigma)$	Age/Gyr	$13.815 \pm 0.042 \quad (-0.4\sigma)$	$f\sigma_{\mathrm{s}}(0.38)$	$0.4708 \pm 0.0055 \quad (-0.9\sigma)$
H_0	$67.59 \pm 0.61 \quad (+0.7\sigma)$	z_*	$1090.19 \pm 0.43 \quad (-0.2\sigma)$	$\sigma_{\mathrm{s}}(0.38)$	$0.6587 \pm 0.0053 \quad (-0.7\sigma)$
Ω_{Λ}	$0.6899 \pm 0.0076 \quad (+0.8\sigma)$	r_*	$144.94 \pm 0.32 \quad (+1.0\sigma)$	$f\sigma_{\mathrm{s}}(0.51)$	$0.4695 \pm 0.0049 \quad (-0.9\sigma)$
Ω_{m}	$0.3101 \pm 0.0076 \quad (-0.8\sigma)$	$100\theta_*$	$1.0414 \pm 0.0010 \quad (+0.8\sigma)$	$\sigma_{\mathrm{s}}(0.51)$	$0.6165 \pm 0.0050 \quad (-0.7\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1416 \pm 0.0012 \quad (-0.9\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.918 \pm 0.037 \quad (+0.9\sigma)$	$f\sigma_{\mathrm{s}}(0.61)$	$0.4647 \pm 0.0045 \quad (-0.9\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09572 \pm 0.00071 \quad (-0.4\sigma)$	z_{drag}	$1059.19 \pm 0.64 \quad (-0.5\sigma)$	$\sigma_{\mathrm{s}}(0.61)$	$0.5867 \pm 0.0048 \quad (-0.6\sigma)$
σ_{s}	$0.8038 \pm 0.0066 \quad (-0.9\sigma)$	r_{drag}	$147.71 \pm 0.37 \quad (+1.0\sigma)$	$f\sigma_{\mathrm{s}}(2.33)$	$0.2959 \pm 0.0025 \quad (-0.5\sigma)$
S_{s}	$0.817 \pm 0.013 \quad (-0.9\sigma)$	k_{D}	$0.13999 \pm 0.00053 \quad (-1.1\sigma)$	$\sigma_{\mathrm{s}}(2.33)$	$0.3051 \pm 0.0027 \quad (-0.3\sigma)$
$\sigma_{\mathrm{s}} \Omega_{\mathrm{m}}^{0.5}$	$0.4476 \pm 0.0072 \quad (-0.9\sigma)$	$100\theta_{\mathrm{D}}$	$0.16124 \pm 0.00043 \quad (+0.7\sigma)$	$\chi_{\mathrm{lensing}}^2$	9.9 ± 1.4
$\sigma_{\mathrm{s}} \Omega_{\mathrm{m}}^{0.25}$	$0.5998 \pm 0.0068 \quad (-0.9\sigma)$	z_{eq}	$3369 \pm 29 \quad (-0.9\sigma)$	$\chi_{\mathrm{PLIK_LITE}}^2$	$76.6 \pm 2.8 \quad (-37.4\sigma)$
$\sigma_{\mathrm{s}}/h^{0.5}$	$0.9778 \pm 0.0096 \quad (-0.9\sigma)$	k_{eq}	$0.010282 \pm 0.000088 \quad (-0.9\sigma)$	χ_{small}^2	$396.9 \pm 1.7 \quad (-0.0\sigma)$
$r_{\mathrm{drag}} h$	$99.84 \pm 0.97 \quad (+0.8\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8187 \pm 0.0053 \quad (+0.8\sigma)$	$\chi_{6\mathrm{DF}}^2$	0.057 ± 0.075
$\langle d^2 \rangle^{1/2}$	$2.439 \pm 0.029 \quad (-0.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4524 \pm 0.0027 \quad (+0.9\sigma)$	χ_{MGS}^2	1.40 ± 0.55
z_{re}	$7.60 \pm 0.76 \quad (+0.1\sigma)$	$H(0.15)$	$72.85 \pm 0.54 \quad (+0.7\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	4.7 ± 1.6
$10^9 A_{\mathrm{s}}$	$2.083 \pm 0.031 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$641.6 \pm 5.3 \quad (-0.7\sigma)$	χ_{prior}^2	$1.0 \pm 1.4 \quad (-0.0\sigma)$
$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.873 \pm 0.011 \quad (-0.8\sigma)$	$H(0.38)$	$82.92 \pm 0.43 \quad (+0.7\sigma)$	χ_{CMB}^2	$483.5 \pm 3.4 \quad (-41.4\sigma)$
D_{40}	$1242 \pm 19 \quad (+0.6\sigma)$	$D_{\mathrm{M}}(0.38)$	$1530 \pm 11 \quad (-0.7\sigma)$	χ_{BAO}^2	6.1 ± 1.3
D_{220}	$5738 \pm 41 \quad (+0.6\sigma)$	$H(0.51)$	$89.61 \pm 0.38 \quad (+0.6\sigma)$		
D_{810}	$2523 \pm 16 \quad (-0.9\sigma)$	$D_{\mathrm{M}}(0.51)$	$1983 \pm 13 \quad (-0.7\sigma)$		
$\bar{\chi}_{\mathrm{eff}}^2 = 490.62; R - 1 = 0.01318$					

2.17 base_pliklite_TT_lowl_lmax801_lowE_lensing_BAO_theta

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02222 \pm 0.00029 \quad (+0.4\sigma)$	D_{1420}	$812.4 \pm 7.8 \quad (-0.4\sigma)$	$H(0.61)$	$95.30 \pm 0.29 \quad (+0.8\sigma)$
$\Omega_{\text{c}}h^2$	$0.1183 \pm 0.0012 \quad (-1.1\sigma)$	D_{2000}	$228.8 \pm 3.0 \quad (-0.4\sigma)$	$D_{\text{M}}(0.61)$	$2302 \pm 13 \quad (-1.0\sigma)$
$100\theta_{\text{MC}}$	$1.04089 \pm 0.00053 \quad (+0.3\sigma)$	$n_{\text{s},0.002}$	$0.9647 \pm 0.0073 \quad (+0.3\sigma)$	$H(2.33)$	$235.29 \pm 0.77 \quad (-1.1\sigma)$
τ	$0.0535 \pm 0.0074 \quad (+0.1\sigma)$	Y_{P}	$0.24533^{+0.00013}_{-0.00010} \quad (+0.4\sigma)$	$D_{\text{M}}(2.33)$	$5766 \pm 15 \quad (-0.7\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.037 \pm 0.015 \quad (-0.2\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.24665^{+0.00013}_{-0.00010} \quad (+0.4\sigma)$	$f\sigma_{\text{s}}(0.15)$	$0.4498 \pm 0.0068 \quad (-1.1\sigma)$
n_{s}	$0.9647 \pm 0.0073 \quad (+0.3\sigma)$	$10^5D/H$	$2.615 \pm 0.054 \quad (-0.4\sigma)$	$\sigma_{\text{s}}(0.15)$	$0.7424 \pm 0.0059 \quad (-0.9\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.1\sigma)$	Age/Gyr	$13.806 \pm 0.035 \quad (-0.6\sigma)$	$f\sigma_{\text{s}}(0.38)$	$0.4689 \pm 0.0056 \quad (-1.1\sigma)$
H_0	$67.82 \pm 0.58 \quad (+1.0\sigma)$	z_*	$1089.96 \pm 0.42 \quad (-0.8\sigma)$	$\sigma_{\text{s}}(0.38)$	$0.6586 \pm 0.0052 \quad (-0.7\sigma)$
Ω_{Λ}	$0.6930 \pm 0.0074 \quad (+1.0\sigma)$	r_*	$144.99 \pm 0.32 \quad (+1.1\sigma)$	$f\sigma_{\text{s}}(0.51)$	$0.4681 \pm 0.0050 \quad (-1.1\sigma)$
Ω_{m}	$0.3070 \pm 0.0074 \quad (-1.0\sigma)$	$100\theta_*$	$1.04109 \pm 0.00053 \quad (+0.3\sigma)$	$\sigma_{\text{s}}(0.51)$	$0.6165 \pm 0.0048 \quad (-0.7\sigma)$
$\Omega_{\text{m}}h^2$	$0.1412 \pm 0.0012 \quad (-1.1\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.926 \pm 0.032 \quad (+1.1\sigma)$	$f\sigma_{\text{s}}(0.61)$	$0.4635 \pm 0.0046 \quad (-1.1\sigma)$
$\Omega_{\text{m}}h^3$	$0.09574 \pm 0.00056 \quad (-0.4\sigma)$	z_{drag}	$1059.47 \pm 0.64 \quad (+0.1\sigma)$	$\sigma_{\text{s}}(0.61)$	$0.5868 \pm 0.0046 \quad (-0.6\sigma)$
σ_{s}	$0.8030 \pm 0.0066 \quad (-1.0\sigma)$	r_{drag}	$147.71 \pm 0.37 \quad (+1.0\sigma)$	$f\sigma_{\text{s}}(2.33)$	$0.2961 \pm 0.0024 \quad (-0.4\sigma)$
S_{s}	$0.812 \pm 0.013 \quad (-1.1\sigma)$	k_{D}	$0.14010 \pm 0.00054 \quad (-0.9\sigma)$	$\sigma_{\text{s}}(2.33)$	$0.3054 \pm 0.0025 \quad (-0.2\sigma)$
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.5}$	$0.4449 \pm 0.0073 \quad (-1.1\sigma)$	$100\theta_{\text{D}}$	$0.16102 \pm 0.00040 \quad (-0.1\sigma)$	χ_{lensing}^2	10.1 ± 1.6
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.25}$	$0.5977 \pm 0.0069 \quad (-1.1\sigma)$	z_{eq}	$3358 \pm 28 \quad (-1.1\sigma)$	$\chi_{\text{PLIK_LITE}}^2$	$76.6 \pm 2.7 \quad (-37.4\sigma)$
$\sigma_{\text{s}}/h^{0.5}$	$0.9750 \pm 0.0098 \quad (-1.1\sigma)$	k_{eq}	$0.010249 \pm 0.000085 \quad (-1.1\sigma)$	χ_{simall}^2	$396.9 \pm 1.5 \quad (-0.1\sigma)$
$r_{\text{drag}}h$	$100.18 \pm 0.94 \quad (+1.0\sigma)$	$100\theta_{\text{eq}}$	$0.8209 \pm 0.0052 \quad (+1.1\sigma)$	χ_{lowl}^2	$23.4 \pm 1.4 \quad (-0.3\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.421 \pm 0.027 \quad (-0.8\sigma)$	$100\theta_{\text{s,eq}}$	$0.4534 \pm 0.0027 \quad (+1.1\sigma)$	$\chi_{6\text{DF}}^2$	0.040 ± 0.057
z_{re}	$7.59^{+0.77}_{-0.70} \quad (+0.1\sigma)$	$H(0.15)$	$73.05 \pm 0.51 \quad (+1.0\sigma)$	χ_{MGS}^2	1.59 ± 0.55
10^9A_{s}	$2.084 \pm 0.031 \quad (-0.2\sigma)$	$D_{\text{M}}(0.15)$	$639.6 \pm 5.0 \quad (-1.0\sigma)$	χ_{DR12BAO}^2	4.3 ± 1.2
$10^9A_{\text{s}}e^{-2\tau}$	$1.872 \pm 0.011 \quad (-0.8\sigma)$	$H(0.38)$	$83.07 \pm 0.39 \quad (+0.9\sigma)$	χ_{prior}^2	$1.8 \pm 1.9 \quad (+0.6\sigma)$
D_{40}	$1229 \pm 17 \quad (-0.3\sigma)$	$D_{\text{M}}(0.38)$	$1526 \pm 10 \quad (-1.0\sigma)$	χ_{CMB}^2	$507.0 \pm 3.0 \quad (-34.8\sigma)$
D_{220}	$5731 \pm 40 \quad (+0.4\sigma)$	$H(0.51)$	$89.73 \pm 0.34 \quad (+0.9\sigma)$	χ_{BAO}^2	5.89 ± 0.98
D_{810}	$2530 \pm 16 \quad (-0.5\sigma)$	$D_{\text{M}}(0.51)$	$1978 \pm 12 \quad (-1.0\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 514.75$; $R - 1 = 0.00579$

2.18 base_pliklite_TEEE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022494	0.02250 ± 0.00021 (+1.7 σ)	D_{220}	5717	5721 ± 52 (+0.2 σ)	$H(0.38)$	83.24	83.28 ± 0.51 (+1.3 σ)
$\Omega_{\text{c}}h^2$	0.11851	0.1185 ± 0.0018 (−1.0 σ)	D_{810}	2529.6	2529 ± 20 (−0.5 σ)	$D_{\text{M}}(0.38)$	1522.9	1522 ± 14 (−1.2 σ)
$100\theta_{\text{MC}}$	1.040940	1.04097 ± 0.00044 (+0.4 σ)	D_{1420}	815.8	815.5 ± 9.1 (+0.2 σ)	$H(0.51)$	89.913	89.94 ± 0.41 (+1.4 σ)
τ	0.0507	0.0509 ± 0.0081 (−0.2 σ)	D_{2000}	230.53	230.4 ± 3.3 (+0.5 σ)	$D_{\text{M}}(0.51)$	1973.5	1973 ± 16 (−1.3 σ)
$\ln(10^{10}A_{\text{s}})$	3.0297	3.030 ± 0.018 (−0.7 σ)	$n_{\text{s},0.002}$	0.9691	0.9688 ± 0.0088 (+1.0 σ)	$H(0.61)$	95.496	95.52 ± 0.33 (+1.4 σ)
n_{s}	0.9691	0.9688 ± 0.0088 (+1.0 σ)	Y_{P}	0.245442	0.245444 ± 0.000082 (+1.6 σ)	$D_{\text{M}}(0.61)$	2297.1	2296 ± 17 (−1.3 σ)
y_{cal}	1.00013	1.0002 ± 0.0025 (−0.1 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246769	0.246771 ± 0.000083 (+1.6 σ)	$H(2.33)$	235.70	235.7 ± 1.1 (−0.8 σ)
H_0	67.99	68.03 ± 0.81 (+1.2 σ)	$10^5\text{D}/\text{H}$	2.5629	2.562 ± 0.038 (−1.7 σ)	$D_{\text{M}}(2.33)$	5754.6	5753 ± 15 (−1.5 σ)
Ω_{Λ}	0.6935	0.694 ± 0.011 (+1.1 σ)	Age/Gyr	13.7782	13.776 ± 0.034 (−1.5 σ)	$f\sigma_8(0.15)$	0.4484	0.448 ± 0.011 (−1.3 σ)
Ω_{m}	0.3065	0.306 ± 0.011 (−1.1 σ)	z_*	1089.636	1089.62 ± 0.37 (−1.6 σ)	$\sigma_8(0.15)$	0.7407	0.7405 ± 0.0085 (−1.1 σ)
$\Omega_{\text{m}}h^2$	0.14165	0.1416 ± 0.0017 (−0.9 σ)	r_*	144.722	144.73 ± 0.40 (+0.5 σ)	$f\sigma_8(0.38)$	0.4676	0.4673 ± 0.0091 (−1.3 σ)
$\Omega_{\text{m}}h^3$	0.096302	0.09632 ± 0.00041 (+0.9 σ)	$100\theta_*$	1.041105	1.04114 ± 0.00043 (+0.3 σ)	$\sigma_8(0.38)$	0.6571	0.6570 ± 0.0071 (−1.0 σ)
σ_8	0.8011	0.8008 ± 0.0098 (−1.2 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9008	13.901 ± 0.037 (+0.5 σ)	$f\sigma_8(0.51)$	0.4669	0.4665 ± 0.0080 (−1.3 σ)
S_8	0.8097	0.809 ± 0.021 (−1.2 σ)	z_{drag}	1060.123	1060.13 ± 0.43 (+1.6 σ)	$\sigma_8(0.51)$	0.6152	0.6151 ± 0.0065 (−0.9 σ)
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4435	0.443 ± 0.012 (−1.2 σ)	r_{drag}	147.347	147.36 ± 0.40 (+0.3 σ)	$f\sigma_8(0.61)$	0.4623	0.4621 ± 0.0073 (−1.3 σ)
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5960	0.596 ± 0.011 (−1.3 σ)	k_{D}	0.140691	0.14069 ± 0.00044 (+0.3 σ)	$\sigma_8(0.61)$	0.5855	0.5854 ± 0.0061 (−0.9 σ)
$\sigma_8/h^{0.5}$	0.9715	0.971 ± 0.016 (−1.3 σ)	$100\theta_{\text{D}}$	0.160637	0.16064 ± 0.00025 (−1.6 σ)	$f\sigma_8(2.33)$	0.29542	0.2954 ± 0.0030 (−0.7 σ)
$r_{\text{drag}}h$	100.18	100.3 ± 1.4 (+1.1 σ)	z_{eq}	3369.6	3368 ± 40 (−0.9 σ)	$\sigma_8(2.33)$	0.30479	0.3048 ± 0.0031 (−0.4 σ)
$\langle d^2 \rangle^{1/2}$	2.4040	2.405 ± 0.038 (−1.3 σ)	k_{eq}	0.010284	0.01028 ± 0.00012 (−0.9 σ)	$\chi_{\text{PLIK_LITE}}^2$	378.30	383.3 ± 3.1 (+48.8 σ)
z_{re}	7.26	$7.26^{+0.85}_{-0.74}$ (−0.3 σ)	$100\theta_{\text{eq}}$	0.8195	0.8199 ± 0.0077 (+1.0 σ)	χ_{simall}^2	395.66	396.8 ± 1.5 (−0.1 σ)
10^9A_{s}	2.0691	2.070 ± 0.038 (−0.6 σ)	$100\theta_{\text{s,eq}}$	0.45254	0.4527 ± 0.0039 (+0.9 σ)	χ_{prior}^2	0.003	0.97 ± 1.4 (−0.0 σ)
$10^9A_{\text{s}}e^{-2\tau}$	1.8696	1.869 ± 0.016 (−1.1 σ)	$H(0.15)$	73.22	73.26 ± 0.70 (+1.3 σ)	χ_{CMB}^2	773.97	780.0 ± 3.5 (+42.1 σ)
D_{40}	1216.1	1218 ± 22 (−1.0 σ)	$D_{\text{M}}(0.15)$	638.0	637.7 ± 6.9 (−1.2 σ)			

Best-fit $\chi_{\text{eff}}^2 = 773.97$; $\bar{\chi}_{\text{eff}}^2 = 780.98$; $R - 1 = 0.00966$

χ_{eff}^2 : CMB - plik_lite_v22: 378.30 simall_100x143_offlike5_EE_Aplanck_B: 395.67

2.19 base_pliklite_TEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022547	0.02255 ± 0.00021 (+1.9 σ)	D_{220}	5702	5704 ± 51 (−0.2 σ)	$H(0.38)$	83.43	83.45 ± 0.51 (+1.6 σ)
$\Omega_{\text{c}}h^2$	0.11788	0.1179 ± 0.0017 (−1.3 σ)	D_{810}	2530.8	2531 ± 20 (−0.4 σ)	$D_{\text{M}}(0.38)$	1517.9	1518 ± 14 (−1.5 σ)
$100\theta_{\text{MC}}$	1.041001	1.04103 ± 0.00044 (+0.5 σ)	D_{1420}	818.1	818.0 ± 8.7 (+0.7 σ)	$H(0.51)$	90.056	$90.08^{+0.39}_{-0.43}$ (+1.7 σ)
τ	0.0512	0.0511 ± 0.0083 (−0.2 σ)	D_{2000}	231.49	231.5 ± 3.1 (+1.0 σ)	$D_{\text{M}}(0.51)$	1967.7	1967 ± 16 (−1.5 σ)
$\ln(10^{10}A_{\text{s}})$	3.0289	3.029 ± 0.019 (−0.7 σ)	$n_{\text{s},0.002}$	0.9738	0.9737 ± 0.0080 (+1.9 σ)	$H(0.61)$	95.608	$95.63^{+0.31}_{-0.35}$ (+1.7 σ)
n_{s}	0.9738	0.9737 ± 0.0080 (+1.9 σ)	Y_{P}	0.245461	0.245462 ± 0.000083 (+1.8 σ)	$D_{\text{M}}(0.61)$	2290.9	2290 ± 17 (−1.6 σ)
y_{cal}	0.99996	1.0001 ± 0.0025 (−0.1 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246788	0.246789 ± 0.000083 (+1.8 σ)	$H(2.33)$	235.35	235.3 ± 1.0 (−1.1 σ)
H_0	68.28	68.30 ± 0.80 (+1.5 σ)	$10^5\text{D}/\text{H}$	2.5537	2.554 ± 0.038 (−1.9 σ)	$D_{\text{M}}(2.33)$	5749.9	5749 ± 15 (−1.7 σ)
Ω_{Λ}	0.6974	0.697 ± 0.010 (+1.4 σ)	Age/Gyr	13.7680	13.767 ± 0.034 (−1.7 σ)	$f\sigma_8(0.15)$	0.4452	0.445 ± 0.011 (−1.5 σ)
Ω_{m}	0.3026	0.303 ± 0.010 (−1.4 σ)	z_*	1089.513	1089.51 ± 0.37 (−1.9 σ)	$\sigma_8(0.15)$	0.7400	0.7398 ± 0.0086 (−1.2 σ)
$\Omega_{\text{m}}h^2$	0.14107	0.1410 ± 0.0016 (−1.2 σ)	r_*	144.846	144.85 ± 0.39 (+0.8 σ)	$f\sigma_8(0.38)$	0.4653	0.4650 ± 0.0091 (−1.5 σ)
$\Omega_{\text{m}}h^3$	0.096321	0.09633 ± 0.00042 (+0.9 σ)	$100\theta_*$	1.041173	1.04120 ± 0.00043 (+0.5 σ)	$\sigma_8(0.38)$	0.6569	0.6567 ± 0.0072 (−1.1 σ)
σ_8	0.7999	0.7996 ± 0.0099 (−1.3 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9118	13.912 ± 0.036 (+0.8 σ)	$f\sigma_8(0.51)$	0.4649	0.4647 ± 0.0081 (−1.5 σ)
S_8	0.8033	0.803 ± 0.021 (−1.5 σ)	z_{drag}	1060.200	1060.19 ± 0.43 (+1.7 σ)	$\sigma_8(0.51)$	0.6152	0.6150 ± 0.0066 (−0.9 σ)
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4400	0.440 ± 0.012 (−1.5 σ)	r_{drag}	147.457	147.46 ± 0.39 (+0.5 σ)	$f\sigma_8(0.61)$	0.4608	0.4605 ± 0.0073 (−1.5 σ)
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5932	0.593 ± 0.011 (−1.5 σ)	k_{D}	0.140613	0.14061 ± 0.00044 (+0.1 σ)	$\sigma_8(0.61)$	0.5856	0.5854 ± 0.0062 (−0.9 σ)
$\sigma_8/h^{0.5}$	0.9680	0.968 ± 0.016 (−1.5 σ)	$100\theta_{\text{D}}$	0.160598	0.16060 ± 0.00025 (−1.7 σ)	$f\sigma_8(2.33)$	0.29562	0.2955 ± 0.0030 (−0.6 σ)
$r_{\text{drag}}h$	100.68	100.7 ± 1.4 (+1.4 σ)	z_{eq}	3355.7	3355 ± 39 (−1.2 σ)	$\sigma_8(2.33)$	0.30516	0.3051 ± 0.0031 (−0.3 σ)
$\langle d^2 \rangle^{1/2}$	2.3872	2.387 ± 0.036 (−1.7 σ)	k_{eq}	0.010242	0.01024 ± 0.00012 (−1.2 σ)	$\chi_{\text{PLIK_LITE}}^2$	378.69	383.5 ± 3.3 (+48.8 σ)
z_{re}	7.29	$7.25^{+0.88}_{-0.76}$ (−0.3 σ)	$100\theta_{\text{eq}}$	0.8223	0.8225 ± 0.0075 (+1.3 σ)	χ_{simall}^2	395.67	396.8 ± 1.6 (−0.1 σ)
10^9A_{s}	2.0675	2.067 ± 0.038 (−0.7 σ)	$100\theta_{\text{s,eq}}$	0.45393	0.4540 ± 0.0039 (+1.2 σ)	χ_{lowl}^2	21.55	21.8 ± 1.2 (−1.6 σ)
$10^9A_{\text{s}}e^{-2\tau}$	1.8664	1.866 ± 0.016 (−1.3 σ)	$H(0.15)$	73.47	73.49 ± 0.69 (+1.6 σ)	χ_{prior}^2	0.00	0.99 ± 1.4 (−0.0 σ)
D_{40}	1204.4	1205 ± 19 (−1.8 σ)	$D_{\text{M}}(0.15)$	635.6	635.4 ± 6.7 (−1.5 σ)	χ_{CMB}^2	795.90	802.1 ± 3.5 (+48.3 σ)

Best-fit $\chi_{\text{eff}}^2 = 795.90$; $\bar{\chi}_{\text{eff}}^2 = 803.07$; $R - 1 = 0.00946$

χ_{eff}^2 : CMB - plik_lite_v22: 378.69 simall_100x143_offlike5_EE_Aplanck_B: 395.67 commander_dx12_v3.2_29: 21.55

2.20 base_pliklite_TEEE_lowl_lmax801_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022120	0.02217 ± 0.00031 (+0.2 σ)	D_{220}	5668	5673 ± 55 (−1.0 σ)	$H(0.38)$	82.80	82.92 ± 0.70 (+0.7 σ)
$\Omega_{\mathrm{c}}h^2$	0.11871	0.1185 ± 0.0020 (−1.0 σ)	D_{810}	2491.2	2494 ± 26 (−3.0 σ)	$D_{\mathrm{M}}(0.38)$	1532.9	1530 ± 18 (−0.7 σ)
$100\theta_{\mathrm{MC}}$	1.04051	1.04061 ± 0.00074 (−0.3 σ)	D_{1420}	797.6	799 ± 13 (−3.0 σ)	$H(0.51)$	89.50	89.60 ± 0.58 (+0.6 σ)
τ	0.0497	0.0496 ± 0.0081 (−0.3 σ)	D_{2000}	223.94	224.6 ± 4.6 (−2.8 σ)	$D_{\mathrm{M}}(0.51)$	1985.8	1982 ± 22 (−0.7 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0160	3.016 ± 0.019 (−1.5 σ)	$n_{\mathrm{s},0.002}$	0.9590	0.960 ± 0.011 (−0.4 σ)	$H(0.61)$	95.096	95.19 ± 0.49 (+0.5 σ)
n_{s}	0.9590	0.960 ± 0.011 (−0.4 σ)	Y_{P}	0.245293	$0.24530^{+0.00015}_{-0.00011}$ (+0.1 σ)	$D_{\mathrm{M}}(0.61)$	2310.8	2307 ± 24 (−0.7 σ)
y_{cal}	0.99998	1.0001 ± 0.0025 (−0.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246619	$0.24663^{+0.00015}_{-0.00012}$ (+0.1 σ)	$H(2.33)$	235.42	235.3 ± 1.1 (−1.1 σ)
H_0	67.46	67.6 ± 1.1 (+0.8 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.633	2.625 ± 0.059 (−0.2 σ)	$D_{\mathrm{M}}(2.33)$	5776.6	5772 ± 24 (−0.3 σ)
Ω_{Λ}	0.6892	$0.691^{+0.014}_{-0.013}$ (+0.9 σ)	Age/Gyr	13.830	13.821 ± 0.054 (−0.2 σ)	$f\sigma_8(0.15)$	0.4475	0.446 ± 0.013 (−1.4 σ)
Ω_{m}	0.3108	$0.309^{+0.013}_{-0.014}$ (−0.9 σ)	z_*	1090.12	1090.05 ± 0.53 (−0.6 σ)	$\sigma_8(0.15)$	0.7342	0.7339 ± 0.0092 (−2.0 σ)
$\Omega_{\mathrm{m}}h^2$	0.14148	0.1413 ± 0.0018 (−1.0 σ)	r_*	144.957	144.98 ± 0.41 (+1.1 σ)	$f\sigma_8(0.38)$	0.4656	0.465 ± 0.010 (−1.6 σ)
$\Omega_{\mathrm{m}}h^3$	0.09544	0.09554 ± 0.00066 (−0.8 σ)	$100\theta_*$	1.04072	1.04082 ± 0.00072 (−0.3 σ)	$\sigma_8(0.38)$	0.6508	0.6508 ± 0.0077 (−2.0 σ)
σ_8	0.7944	0.794 ± 0.011 (−2.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.9286	13.930 ± 0.039 (+1.2 σ)	$f\sigma_8(0.51)$	0.4643	0.4635 ± 0.0090 (−1.7 σ)
S_8	0.8087	0.806 ± 0.025 (−1.4 σ)	z_{drag}	1059.25	1059.35 ± 0.64 (−0.1 σ)	$\sigma_8(0.51)$	0.6091	0.6092 ± 0.0071 (−2.0 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4429	0.442 ± 0.014 (−1.4 σ)	r_{drag}	147.714	147.72 ± 0.41 (+1.1 σ)	$f\sigma_8(0.61)$	0.4595	0.4588 ± 0.0081 (−1.7 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5932	0.592 ± 0.013 (−1.6 σ)	k_{D}	0.140020	0.14004 ± 0.00049 (−1.0 σ)	$\sigma_8(0.61)$	0.5796	0.5797 ± 0.0067 (−2.0 σ)
$\sigma_8/h^{0.5}$	0.9672	0.966 ± 0.018 (−1.7 σ)	$100\theta_{\mathrm{D}}$	0.161085	0.16105 ± 0.00035 (−0.0 σ)	$f\sigma_8(2.33)$	0.29227	0.2924 ± 0.0033 (−1.9 σ)
$r_{\mathrm{drag}}h$	99.65	99.9 ± 1.7 (+0.9 σ)	z_{eq}	3365.4	3361 ± 44 (−1.0 σ)	$\sigma_8(2.33)$	0.30134	0.3016 ± 0.0035 (−1.7 σ)
$\langle d^2 \rangle^{1/2}$	2.4133	2.408 ± 0.043 (−1.2 σ)	k_{eq}	0.010272	0.01026 ± 0.00013 (−1.0 σ)	$\chi_{\mathrm{PLIK_LITE}}^2$	170.31	175.3 ± 3.7 (−9.7 σ)
z_{re}	7.24	$7.19^{+0.86}_{-0.77}$ (−0.4 σ)	$100\theta_{\mathrm{eq}}$	0.8189	0.8200 ± 0.0087 (+1.0 σ)	χ_{small}^2	395.67	396.8 ± 1.4 (−0.1 σ)
10^9A_{s}	2.0410	2.042 ± 0.039 (−1.5 σ)	$100\theta_{\mathrm{s,eq}}$	0.45249	0.4530 ± 0.0044 (+1.0 σ)	χ_{lowl}^2	23.35	23.4 ± 2.0 (−0.3 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8477	1.849 ± 0.018 (−2.6 σ)	$H(0.15)$	72.72	72.87 ± 0.92 (+0.8 σ)	χ_{prior}^2	0.000	0.97 ± 1.4 (−0.0 σ)
D_{40}	1224.0	1222 ± 23 (−0.7 σ)	$D_{\mathrm{M}}(0.15)$	642.7	641.4 ± 9.0 (−0.8 σ)	χ_{CMB}^2	589.33	595.5 ± 3.6 (−9.9 σ)

Best-fit $\chi_{\mathrm{eff}}^2 = 589.33$; $\bar{\chi}_{\mathrm{eff}}^2 = 596.42$; $R - 1 = 0.00651$

χ_{eff}^2 : CMB - plik_lite_v22: 170.31 small_100x143_offlike5_EE_Aplanck_B: 395.67 commander_dx12_v3.2_29: 23.35

2.21 base_pliklite_TEEE_lowl_lmin802_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022949	0.02299 ± 0.00032 (+4.0 σ)	D_{220}	5550	5560 ± 130 (−3.7 σ)	$H(0.38)$	81.82	$82.1^{+1.0}_{-1.3}$ (−0.9 σ)
$\Omega_{\mathrm{c}}h^2$	0.1278	0.1271 ± 0.0064 (+3.1 σ)	D_{810}	2581.4	2578 ± 31 (+3.1 σ)	$D_{\mathrm{M}}(0.38)$	1570.6	1565 ± 38 (+1.5 σ)
$100\theta_{\mathrm{MC}}$	1.04031	1.04036 ± 0.00067 (−0.9 σ)	D_{1420}	850.0	849 ± 14 (+6.8 σ)	$H(0.51)$	89.04	$89.23^{+0.67}_{-0.93}$ (−0.2 σ)
τ	0.0519	0.0515 ± 0.0087 (−0.1 σ)	D_{2000}	245.1	244.7 ± 5.7 (+8.5 σ)	$D_{\mathrm{M}}(0.51)$	2027.3	2021 ± 44 (+1.4 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0561	3.053 ± 0.023 (+0.8 σ)	$n_{\mathrm{s},0.002}$	0.9930	0.993 ± 0.014 (+5.3 σ)	$H(0.61)$	95.05	$95.20^{+0.42}_{-0.64}$ (+0.5 σ)
n_{s}	0.9930	0.993 ± 0.014 (+5.3 σ)	Y_{P}	0.245625	$0.24565^{+0.00013}_{-0.00015}$ (+3.8 σ)	$D_{\mathrm{M}}(0.61)$	2353.3	2346 ± 46 (+1.3 σ)
y_{cal}	1.00006	0.9999 ± 0.0024 (−0.2 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246952	$0.24698^{+0.00013}_{-0.00015}$ (+3.8 σ)	$H(2.33)$	242.17	241.8 ± 4.2 (+4.0 σ)
H_0	65.03	65.4 ± 2.3 (−1.7 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.482	2.475 ± 0.056 (−3.8 σ)	$D_{\mathrm{M}}(2.33)$	5761.2	5756^{+24}_{-20} (−1.3 σ)
Ω_{Λ}	0.6421	$0.645^{+0.043}_{-0.036}$ (−2.6 σ)	Age/Gyr	13.7840	$13.773^{+0.052}_{-0.046}$ (−1.5 σ)	$f\sigma_8(0.15)$	0.5065	0.502 ± 0.038 (+3.1 σ)
Ω_{m}	0.3579	$0.355^{+0.036}_{-0.043}$ (+2.6 σ)	z_*	1089.86	1089.75 ± 0.69 (−1.3 σ)	$\sigma_8(0.15)$	0.7772	$0.774^{+0.021}_{-0.018}$ (+3.2 σ)
$\Omega_{\mathrm{m}}h^2$	0.1513	0.1507 ± 0.0064 (+3.7 σ)	r_*	142.05	142.2 ± 1.6 (−4.7 σ)	$f\sigma_8(0.38)$	0.5146	0.510 ± 0.029 (+3.2 σ)
$\Omega_{\mathrm{m}}h^3$	0.09842	0.0984 ± 0.0011 (+5.5 σ)	$100\theta_*$	1.04043	1.04047 ± 0.00068 (−1.1 σ)	$\sigma_8(0.38)$	0.6840	$0.681^{+0.015}_{-0.012}$ (+3.0 σ)
σ_8	0.8460	$0.842^{+0.026}_{-0.023}$ (+3.3 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.653	13.67 ± 0.15 (−4.7 σ)	$f\sigma_8(0.51)$	0.5077	$0.504^{+0.026}_{-0.023}$ (+3.2 σ)
S_8	0.924	0.915 ± 0.076 (+3.2 σ)	z_{drag}	1061.80	1061.85 ± 0.82 (+5.4 σ)	$\sigma_8(0.51)$	0.6381	$0.636^{+0.012}_{-0.010}$ (+2.8 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.5061	0.501 ± 0.042 (+3.2 σ)	r_{drag}	144.47	144.6 ± 1.6 (−5.4 σ)	$f\sigma_8(0.61)$	0.4988	$0.495^{+0.023}_{-0.020}$ (+3.2 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6544	0.649 ± 0.036 (+3.3 σ)	k_{D}	0.14413	0.1440 ± 0.0018 (+6.6 σ)	$\sigma_8(0.61)$	0.6059	$0.604^{+0.011}_{-0.0093}$ (+2.7 σ)
$\sigma_8/h^{0.5}$	1.0491	1.042 ± 0.048 (+3.1 σ)	$100\theta_{\mathrm{D}}$	0.159651	0.15964 ± 0.00048 (−5.5 σ)	$f\sigma_8(2.33)$	0.30377	$0.3029^{+0.0044}_{-0.0039}$ (+2.3 σ)
$r_{\mathrm{drag}}h$	93.95	$94.6^{+4.0}_{-4.6}$ (−2.4 σ)	z_{eq}	3601	3586 ± 150 (+3.7 σ)	$\sigma_8(2.33)$	0.31137	0.3107 ± 0.0037 (+1.8 σ)
$\langle d^2 \rangle^{1/2}$	2.478	2.467 ± 0.086 (+0.4 σ)	k_{eq}	0.010991	0.01094 ± 0.00047 (+3.7 σ)	$\chi^2_{\mathrm{PLIK_LITE}}$	197.94	202.2 ± 2.9 (−2.1 σ)
z_{re}	7.42	$7.33^{+0.91}_{-0.78}$ (−0.2 σ)	$100\theta_{\mathrm{eq}}$	0.7807	$0.784^{+0.024}_{-0.027}$ (−3.0 σ)	χ^2_{small}	395.78	396.9 ± 1.5 (−0.0 σ)
10^9A_{s}	2.1244	2.119 ± 0.048 (+0.8 σ)	$100\theta_{\mathrm{s,eq}}$	0.4319	$0.434^{+0.012}_{-0.014}$ (−3.2 σ)	χ^2_{lowl}	20.20	21.1 ± 1.3 (−2.1 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.9151	1.911 ± 0.035 (+2.0 σ)	$H(0.15)$	70.84	$71.1^{+1.7}_{-2.0}$ (−1.5 σ)	χ^2_{prior}	0.001	0.9 ± 1.3 (−0.1 σ)
D_{40}	1161.4	1162 ± 41 (−4.6 σ)	$D_{\mathrm{M}}(0.15)$	663.2	661 ± 20 (+1.7 σ)	χ^2_{CMB}	613.92	620.2 ± 3.6 (−2.9 σ)

Best-fit $\chi^2_{\mathrm{eff}} = 613.92$; $\bar{\chi}^2_{\mathrm{eff}} = 621.09$; $R - 1 = 0.00536$

χ^2_{eff} : CMB - plik_lite_v22: 197.94 small_100x143_offlike5_EE_Aplanck_B: 395.78 commander_dx12_v3.2_29: 20.20

2.22 base_pliklite_TEEE_lmax801_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.021977	0.02196 ± 0.00031 (-0.8σ)	D_{220}	5696	5691 ± 55 (-0.5σ)	$H(0.38)$	82.42	82.38 ± 0.71 (-0.3σ)
$\Omega_{\mathrm{c}}h^2$	0.11988	0.1200 ± 0.0021 (-0.3σ)	D_{810}	2477.6	2477 ± 27 (-4.3σ)	$D_{\mathrm{M}}(0.38)$	1543.3	1545 ± 19 $(+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	1.04031	1.04028 ± 0.00076 (-1.0σ)	D_{1420}	787.8	788 ± 13 (-5.3σ)	$H(0.51)$	89.19	89.16 ± 0.58 (-0.4σ)
τ	0.0496	0.0490 ± 0.0080 (-0.4σ)	D_{2000}	220.28	220.2 ± 4.9 (-5.3σ)	$D_{\mathrm{M}}(0.51)$	1998.0	2000 ± 23 $(+0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	3.0157	3.014 ± 0.019 (-1.6σ)	$n_{\mathrm{s},0.002}$	0.9463	0.946 ± 0.013 (-2.9σ)	$H(0.61)$	94.846	94.83 ± 0.49 (-0.6σ)
n_{s}	0.9463	0.946 ± 0.013 (-2.9σ)	Y_{P}	0.245228	$0.24521^{+0.00016}_{-0.00014}$ (-0.8σ)	$D_{\mathrm{M}}(0.61)$	2324.0	2326 ± 24 $(+0.2\sigma)$
y_{cal}	1.00016	1.0000 ± 0.0025 (-0.1σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246554	$0.24654^{+0.00016}_{-0.00014}$ (-0.8σ)	$H(2.33)$	236.03	236.1 ± 1.2 (-0.5σ)
H_0	66.87	66.8 ± 1.1 (-0.1σ)	$10^5\mathrm{D}/\mathrm{H}$	2.661	2.665 ± 0.061 $(+0.8\sigma)$	$D_{\mathrm{M}}(2.33)$	5788.1	5789 ± 24 $(+0.8\sigma)$
Ω_{Λ}	0.6813	$0.680^{+0.015}_{-0.014}$ $(+0.0\sigma)$	Age/Gyr	13.855	13.858 ± 0.055 $(+0.8\sigma)$	$f\sigma_{\mathrm{s}}(0.15)$	0.4526	0.453 ± 0.013 (-0.8σ)
Ω_{m}	0.3187	0.320 ± 0.014 (-0.0σ)	z_{*}	1090.41	1090.46 ± 0.55 $(+0.4\sigma)$	$\sigma_{\mathrm{s}}(0.15)$	0.7337	0.7335 ± 0.0092 (-2.1σ)
$\Omega_{\mathrm{m}}h^2$	0.14250	0.1426 ± 0.0019 (-0.4σ)	r_{*}	144.762	144.74 ± 0.43 $(+0.6\sigma)$	$f\sigma_{\mathrm{s}}(0.38)$	0.4690	0.469 ± 0.010 (-1.1σ)
$\Omega_{\mathrm{m}}h^3$	0.09529	0.09526 ± 0.00067 (-1.4σ)	$100\theta_{*}$	1.04053	1.04050 ± 0.00074 (-1.0σ)	$\sigma_{\mathrm{s}}(0.38)$	0.6496	0.6493 ± 0.0077 (-2.3σ)
σ_{s}	0.7948	0.795 ± 0.011 (-1.9σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.9123	13.911 ± 0.040 $(+0.7\sigma)$	$f\sigma_{\mathrm{s}}(0.51)$	0.4668	0.4669 ± 0.0090 (-1.2σ)
S_{s}	0.8192	0.821 ± 0.026 (-0.8σ)	z_{drag}	1059.02	1058.97 ± 0.65 (-1.0σ)	$\sigma_{\mathrm{s}}(0.51)$	0.6076	0.6073 ± 0.0071 (-2.4σ)
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.5}$	0.4487	0.449 ± 0.014 (-0.8σ)	r_{drag}	147.562	147.55 ± 0.42 $(+0.7\sigma)$	$f\sigma_{\mathrm{s}}(0.61)$	0.4614	0.4614 ± 0.0081 (-1.4σ)
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.25}$	0.5972	0.598 ± 0.013 (-1.1σ)	k_{D}	0.14006	0.14006 ± 0.00050 (-0.9σ)	$\sigma_{\mathrm{s}}(0.61)$	0.5780	0.5776 ± 0.0067 (-2.4σ)
$\sigma_{\mathrm{s}}/h^{0.5}$	0.9720	0.972 ± 0.018 (-1.2σ)	$100\theta_{\mathrm{D}}$	0.161221	0.16125 ± 0.00036 $(+0.7\sigma)$	$f\sigma_{\mathrm{s}}(2.33)$	0.29116	0.2909 ± 0.0034 (-2.4σ)
$r_{\mathrm{drag}}h$	98.67	98.6 ± 1.8 $(+0.0\sigma)$	z_{eq}	3390.0	3393 ± 46 (-0.4σ)	$\sigma_{\mathrm{s}}(2.33)$	0.29987	0.2996 ± 0.0036 (-2.4σ)
$\langle d^2 \rangle^{1/2}$	2.4512	2.452 ± 0.047 (-0.0σ)	k_{eq}	0.010346	0.01036 ± 0.00014 (-0.4σ)	$\chi_{\mathrm{PLIK_LITE}}^2$	169.07	174.0 ± 3.2 (-10.0σ)
z_{re}	7.27	$7.19^{+0.88}_{-0.77}$ (-0.4σ)	$100\theta_{\mathrm{eq}}$	0.8139	0.8134 ± 0.0090 $(+0.3\sigma)$	χ_{simall}^2	395.68	396.8 ± 1.6 (-0.1σ)
$10^9 A_{\mathrm{s}}$	2.0404	2.038 ± 0.039 (-1.6σ)	$100\theta_{\mathrm{s,eq}}$	0.44999	0.4497 ± 0.0046 $(+0.3\sigma)$	χ_{prior}^2	0.00	1.0 ± 1.4 (-0.0σ)
$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8477	1.848 ± 0.018 (-2.6σ)	$H(0.15)$	72.21	72.16 ± 0.94 (-0.2σ)	χ_{CMB}^2	564.75	570.8 ± 3.5 (-16.8σ)
D_{40}	1252.7	1253 ± 27 $(+1.3\sigma)$	$D_{\mathrm{M}}(0.15)$	647.8	648.5 ± 9.5 $(+0.1\sigma)$			

Best-fit $\chi_{\mathrm{eff}}^2 = 564.75$; $\bar{\chi}_{\mathrm{eff}}^2 = 571.87$; $R - 1 = 0.00805$

χ_{eff}^2 : CMB - plik_lite_v22: 169.07 simall_100x143_offlike5_EE_Aplanck_B: 395.68

2.23 base_pliklite_TEEE_lmin802_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022924	0.02292 ± 0.00034 (+3.6 σ)	D_{220}	5776	5753 ± 340 (+1.0 σ)	$H(0.38)$	82.00	$81.99^{+0.99}_{-1.3}$ (−1.0 σ)
$\Omega_c h^2$	0.1266	0.1271 ± 0.0063 (+3.1 σ)	D_{810}	2591.5	2588 ± 34 (+3.8 σ)	$D_M(0.38)$	1564.5	1567 ± 37 (+1.6 σ)
$100\theta_{MC}$	1.04041	1.04039 ± 0.00067 (−0.8 σ)	D_{1420}	840.5	841 ± 19 (+5.2 σ)	$H(0.51)$	89.15	$89.17^{+0.64}_{-0.91}$ (−0.4 σ)
τ	0.0488	0.0488 ± 0.0092 (−0.4 σ)	D_{2000}	240.1	240.6 ± 8.9 (+6.2 σ)	$D_M(0.51)$	2020.4	2023^{+44}_{-40} (+1.5 σ)
$\ln(10^{10} A_s)$	3.0613	3.059 ± 0.025 (+1.2 σ)	$n_{s,0.002}$	0.9665	0.969 ± 0.041 (+1.1 σ)	$H(0.61)$	95.11	$95.14^{+0.40}_{-0.61}$ (+0.3 σ)
n_s	0.9665	0.969 ± 0.041 (+1.1 σ)	Y_P	0.245613	$0.24562^{+0.00014}_{-0.00016}$ (+3.4 σ)	$D_M(0.61)$	2346.1	2348^{+47}_{-42} (+1.4 σ)
y_{cal}	1.00008	0.99999 ± 0.0025 (−0.1 σ)	Y_P^{BBN}	0.246940	$0.24694^{+0.00014}_{-0.00016}$ (+3.4 σ)	$H(2.33)$	241.43	241.7 ± 4.1 (+4.0 σ)
H_0	65.40	$65.3^{+2.1}_{-2.3}$ (−1.8 σ)	$10^5 D/H$	2.486	2.489 ± 0.059 (−3.5 σ)	$D_M(2.33)$	5759.4	5759^{+24}_{-19} (−1.1 σ)
Ω_Λ	0.6488	$0.644^{+0.041}_{-0.036}$ (−2.7 σ)	Age/Gyr	13.7805	$13.781^{+0.051}_{-0.045}$ (−1.3 σ)	$f\sigma_8(0.15)$	0.4970	0.500 ± 0.037 (+3.0 σ)
Ω_m	0.3512	$0.356^{+0.036}_{-0.041}$ (+2.7 σ)	z_*	1089.80	1089.85 ± 0.67 (−1.1 σ)	$\sigma_8(0.15)$	0.7693	$0.770^{+0.021}_{-0.019}$ (+2.7 σ)
$\Omega_m h^2$	0.1502	0.1507 ± 0.0063 (+3.7 σ)	r_*	142.34	142.3 ± 1.6 (−4.6 σ)	$f\sigma_8(0.38)$	0.5066	0.508 ± 0.029 (+3.0 σ)
$\Omega_m h^3$	0.09824	0.0983 ± 0.0011 (+5.2 σ)	$100\theta_*$	1.04052	1.04050 ± 0.00067 (−1.0 σ)	$\sigma_8(0.38)$	0.6777	$0.678^{+0.016}_{-0.014}$ (+2.4 σ)
σ_8	0.8368	$0.838^{+0.027}_{-0.024}$ (+2.9 σ)	$D_M(z_*)/\text{Gpc}$	13.680	13.67 ± 0.14 (−4.7 σ)	$f\sigma_8(0.51)$	0.5005	$0.501^{+0.026}_{-0.023}$ (+2.9 σ)
S_8	0.905	0.912 ± 0.075 (+3.0 σ)	z_{drag}	1061.69	1061.68 ± 0.87 (+5.0 σ)	$\sigma_8(0.51)$	0.6325	$0.632^{+0.013}_{-0.012}$ (+2.2 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4959	0.499 ± 0.041 (+3.0 σ)	r_{drag}	144.77	144.7 ± 1.6 (−5.3 σ)	$f\sigma_8(0.61)$	0.4922	$0.493^{+0.023}_{-0.020}$ (+2.9 σ)
$\sigma_8 \Omega_m^{0.25}$	0.6442	0.647 ± 0.036 (+3.0 σ)	k_D	0.14378	0.1439 ± 0.0018 (+6.4 σ)	$\sigma_8(0.61)$	0.6008	$0.601^{+0.012}_{-0.011}$ (+2.1 σ)
$\sigma_8/h^{0.5}$	1.0348	1.037 ± 0.048 (+2.8 σ)	$100\theta_D$	0.15973	0.15974 ± 0.00052 (−5.1 σ)	$f\sigma_8(2.33)$	0.30143	0.3012 ± 0.0049 (+1.6 σ)
$r_{drag} h$	94.68	$94.5^{+3.9}_{-4.5}$ (−2.5 σ)	z_{eq}	3574	3586 ± 150 (+3.7 σ)	$\sigma_8(2.33)$	0.30920	0.3090 ± 0.0045 (+1.2 σ)
$\langle d^2 \rangle^{1/2}$	2.526	2.53 ± 0.12 (+1.9 σ)	k_{eq}	0.010909	0.01094 ± 0.00046 (+3.7 σ)	$\chi^2_{PLIK_LITE}$	197.57	202.4 ± 3.1 (−2.0 σ)
z_{re}	7.09	7.06 ± 0.96 (−0.6 σ)	$100\theta_{eq}$	0.7851	$0.784^{+0.023}_{-0.027}$ (−3.1 σ)	χ^2_{small}	395.67	397.0 ± 1.5 (−0.0 σ)
$10^9 A_s$	2.135	2.132 ± 0.053 (+1.2 σ)	$100\theta_{s,eq}$	0.4342	$0.434^{+0.012}_{-0.014}$ (−3.2 σ)	χ^2_{prior}	0.00	1.0 ± 1.4 (−0.0 σ)
$10^9 A_s e^{-2\tau}$	1.9368	1.934 ± 0.048 (+3.6 σ)	$H(0.15)$	71.13	$71.1^{+1.6}_{-1.9}$ (−1.6 σ)	χ^2_{CMB}	593.24	599.4 ± 3.5 (−8.8 σ)
D_{40}	1245	1242^{+120}_{-140} (+0.6 σ)	$D_M(0.15)$	660.0	661 ± 20 (+1.8 σ)			

Best-fit $\chi^2_{eff} = 593.24$; $\bar{\chi}^2_{eff} = 600.40$; $R - 1 = 0.00658$

χ^2_{eff} : CMB - plik_lite_v22: 197.56 small_100x143_offlike5_EE_Aplanck_B: 395.67

2.24 base_pliklite_TEEE_lowl_lmax999_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022523	0.02251 ± 0.00023 (+1.8 σ)	D_{220}	5706	5706 ± 53 (−0.2 σ)	$H(0.38)$	83.44	83.41 ± 0.57 (+1.6 σ)
$\Omega_{\text{c}}h^2$	0.11745	0.1176 ± 0.0019 (−1.4 σ)	D_{810}	2521.0	2522 ± 22 (−1.0 σ)	$D_{\text{M}}(0.38)$	1517.0	1518 ± 15 (−1.5 σ)
$100\theta_{\text{MC}}$	1.04082	1.04080 ± 0.00052 (+0.1 σ)	D_{1420}	813.4	813.8 ± 9.8 (−0.1 σ)	$H(0.51)$	90.051	90.03 ± 0.46 (+1.6 σ)
τ	0.0510	0.0510 ± 0.0082 (−0.2 σ)	D_{2000}	229.76	229.9 ± 3.5 (+0.2 σ)	$D_{\text{M}}(0.51)$	1966.8	1968 ± 18 (−1.5 σ)
$\ln(10^{10}A_{\text{s}})$	3.0252	3.026 ± 0.019 (−0.9 σ)	$n_{\text{s},0.002}$	0.9708	0.9709 ± 0.0090 (+1.4 σ)	$H(0.61)$	95.586	95.57 ± 0.38 (+1.6 σ)
n_{s}	0.9708	0.9709 ± 0.0090 (+1.4 σ)	Y_{P}	0.245453	0.245448 ± 0.000089 (+1.7 σ)	$D_{\text{M}}(0.61)$	2289.9	2291 ± 19 (−1.5 σ)
y_{cal}	1.00002	1.0002 ± 0.0025 (−0.1 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246779	0.246775 ± 0.000090 (+1.7 σ)	$H(2.33)$	235.02	235.1 ± 1.1 (−1.3 σ)
H_0	68.35	68.30 ± 0.88 (+1.5 σ)	$10^5D/H$	2.5579	2.560 ± 0.041 (−1.7 σ)	$D_{\text{M}}(2.33)$	5752.1	5753 ± 17 (−1.5 σ)
Ω_{Λ}	0.6990	0.698 ± 0.011 (+1.4 σ)	Age/Gyr	13.7738	13.776 ± 0.038 (−1.5 σ)	$f\sigma_8(0.15)$	0.4420	0.443 ± 0.012 (−1.7 σ)
Ω_{m}	0.3010	0.302 ± 0.011 (−1.4 σ)	z_*	1089.505	1089.53 ± 0.40 (−1.9 σ)	$\sigma_8(0.15)$	0.7365	0.7370 ± 0.0089 (−1.6 σ)
$\Omega_{\text{m}}h^2$	0.14062	0.1407 ± 0.0017 (−1.3 σ)	r_*	144.976	144.95 ± 0.41 (+1.0 σ)	$f\sigma_8(0.38)$	0.4623	0.4630 ± 0.0097 (−1.7 σ)
$\Omega_{\text{m}}h^3$	0.096116	0.09611 ± 0.00045 (+0.5 σ)	$100\theta_*$	1.04100	1.04097 ± 0.00051 (−0.0 σ)	$\sigma_8(0.38)$	0.6540	0.6543 ± 0.0074 (−1.5 σ)
σ_8	0.7959	0.797 ± 0.010 (−1.7 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9266	13.925 ± 0.038 (+1.1 σ)	$f\sigma_8(0.51)$	0.4622	0.4627 ± 0.0085 (−1.7 σ)
S_8	0.7972	0.799 ± 0.023 (−1.6 σ)	z_{drag}	1060.123	1060.09 ± 0.46 (+1.5 σ)	$\sigma_8(0.51)$	0.6125	0.6128 ± 0.0067 (−1.3 σ)
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4367	0.438 ± 0.012 (−1.6 σ)	r_{drag}	147.597	147.58 ± 0.40 (+0.8 σ)	$f\sigma_8(0.61)$	0.4581	0.4586 ± 0.0078 (−1.8 σ)
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5895	0.590 ± 0.012 (−1.7 σ)	k_{D}	0.140447	0.14046 ± 0.00044 (−0.2 σ)	$\sigma_8(0.61)$	0.5831	0.5834 ± 0.0063 (−1.3 σ)
$\sigma_8/h^{0.5}$	0.9627	0.964 ± 0.017 (−1.8 σ)	$100\theta_{\text{D}}$	0.160617	0.16062 ± 0.00026 (−1.7 σ)	$f\sigma_8(2.33)$	0.29444	0.2945 ± 0.0031 (−1.0 σ)
$r_{\text{drag}}h$	100.89	100.8 ± 1.5 (+1.4 σ)	z_{eq}	3344.9	3348 ± 41 (−1.3 σ)	$\sigma_8(2.33)$	0.30402	0.3041 ± 0.0032 (−0.7 σ)
$\langle d^2 \rangle^{1/2}$	2.3849	2.387 ± 0.039 (−1.7 σ)	k_{eq}	0.010209	0.01022 ± 0.00013 (−1.3 σ)	$\chi_{\text{PLIK_LITE}}^2$	199.92	204.6 ± 3.3 (−1.4 σ)
z_{re}	7.27	$7.25^{+0.89}_{-0.74}$ (−0.3 σ)	$100\theta_{\text{eq}}$	0.8240	0.8236 ± 0.0081 (+1.4 σ)	χ_{simall}^2	395.65	396.8 ± 1.4 (−0.1 σ)
10^9A_{s}	2.0597	2.061 ± 0.038 (−0.9 σ)	$100\theta_{\text{s,eq}}$	0.45486	0.4546 ± 0.0041 (+1.4 σ)	χ_{lowl}^2	21.84	22.1 ± 1.4 (−1.4 σ)
$10^9A_{\text{s}}e^{-2\tau}$	1.8599	1.861 ± 0.017 (−1.7 σ)	$H(0.15)$	73.52	73.48 ± 0.76 (+1.5 σ)	χ_{prior}^2	0.00	1.0 ± 1.4 (+0.0 σ)
D_{40}	1208.8	1209 ± 21 (−1.6 σ)	$D_{\text{M}}(0.15)$	635.0	635.5 ± 7.4 (−1.5 σ)	χ_{CMB}^2	617.42	623.5 ± 3.5 (−2.0 σ)

Best-fit $\chi_{\text{eff}}^2 = 617.42$; $\bar{\chi}_{\text{eff}}^2 = 624.54$; $R - 1 = 0.00925$

χ_{eff}^2 : CMB - plik_lite_v22: 199.92 simall_100x143_offlike5_EE_Aplanck_B: 395.65 commander_dx12_v3.2_29: 21.84

2.25 base_pliklite_TEEE_lowl_lmin1000_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02312	0.02309 ± 0.00064 (+4.5 σ)	D_{220}	5568	5572 ± 160 (−3.4 σ)	$H(0.38)$	82.21	$82.4^{+1.0}_{-1.3}$ (−0.2 σ)
$\Omega_{\mathrm{c}}h^2$	0.1275	0.1267 ± 0.0071 (+3.0 σ)	D_{810}	2589	2585 ± 53 (+3.6 σ)	$D_{\mathrm{M}}(0.38)$	1560.8	1556 ± 39 (+0.9 σ)
$100\theta_{\mathrm{MC}}$	1.04118	1.04125 ± 0.00087 (+1.0 σ)	D_{1420}	854.2	852 ± 23 (+7.4 σ)	$H(0.51)$	89.40	$89.57^{+0.72}_{-0.95}$ (+0.5 σ)
τ	0.0516	0.0514 ± 0.0089 (−0.1 σ)	D_{2000}	246.7	246.0 ± 9.3 (+9.2 σ)	$D_{\mathrm{M}}(0.51)$	2015.5	2009^{+46}_{-41} (+0.7 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0573	3.054 ± 0.029 (+0.8 σ)	$n_{\mathrm{s},0.002}$	0.9953	0.996 ± 0.014 (+5.7 σ)	$H(0.61)$	95.38	$95.51^{+0.55}_{-0.67}$ (+1.4 σ)
n_{s}	0.9953	0.996 ± 0.014 (+5.7 σ)	Y_{P}	0.245707	0.24569 ± 0.00026 (+4.2 σ)	$D_{\mathrm{M}}(0.61)$	2340.3	2334^{+49}_{-43} (+0.6 σ)
y_{cal}	0.99998	1.0000 ± 0.0025 (−0.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.247034	0.24701 ± 0.00026 (+4.2 σ)	$H(2.33)$	242.26	241.7 ± 4.8 (+4.0 σ)
H_0	65.53	$65.9^{+2.2}_{-2.5}$ (−1.1 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.453	$2.46^{+0.11}_{-0.12}$ (−4.1 σ)	$D_{\mathrm{M}}(2.33)$	5742.7	5739 ± 30 (−2.3 σ)
Ω_{Λ}	0.6478	$0.651^{+0.043}_{-0.038}$ (−2.2 σ)	Age/Gyr	13.741	13.735 ± 0.068 (−2.6 σ)	$f\sigma_8(0.15)$	0.5036	0.499 ± 0.041 (+2.9 σ)
Ω_{m}	0.3522	$0.349^{+0.038}_{-0.043}$ (+2.2 σ)	z_*	1089.64	1089.61 ± 0.81 (−1.7 σ)	$\sigma_8(0.15)$	0.7786	$0.775^{+0.025}_{-0.021}$ (+3.4 σ)
$\Omega_{\mathrm{m}}h^2$	0.1513	0.1505 ± 0.0073 (+3.6 σ)	r_*	141.98	$142.2^{+1.8}_{-2.0}$ (−4.7 σ)	$f\sigma_8(0.38)$	0.5132	$0.509^{+0.034}_{-0.030}$ (+3.0 σ)
$\Omega_{\mathrm{m}}h^3$	0.09914	0.0990 ± 0.0019 (+6.8 σ)	$100\theta_*$	1.04127	1.04135 ± 0.00088 (+0.8 σ)	$\sigma_8(0.38)$	0.6858	$0.683^{+0.018}_{-0.015}$ (+3.3 σ)
σ_8	0.8470	$0.843^{+0.031}_{-0.027}$ (+3.4 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.636	$13.66^{+0.17}_{-0.19}$ (−5.0 σ)	$f\sigma_8(0.51)$	0.5068	$0.503^{+0.029}_{-0.025}$ (+3.1 σ)
S_8	0.918	0.909 ± 0.083 (+2.9 σ)	z_{drag}	1062.18	1062.0 ± 1.7 (+5.8 σ)	$\sigma_8(0.51)$	0.6400	$0.637^{+0.015}_{-0.013}$ (+3.2 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.5027	0.498 ± 0.045 (+2.9 σ)	r_{drag}	144.35	$144.6^{+2.0}_{-2.2}$ (−5.4 σ)	$f\sigma_8(0.61)$	0.4984	$0.494^{+0.026}_{-0.022}$ (+3.2 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6525	0.647 ± 0.041 (+3.1 σ)	k_{D}	0.14438	0.1441 ± 0.0026 (+6.8 σ)	$\sigma_8(0.61)$	0.6079	$0.606^{+0.014}_{-0.012}$ (+3.1 σ)
$\sigma_8/h^{0.5}$	1.046	1.039 ± 0.053 (+2.9 σ)	$100\theta_{\mathrm{D}}$	0.15957	$0.15967^{+0.00090}_{-0.0010}$ (−5.3 σ)	$f\sigma_8(2.33)$	0.3049	0.3040 ± 0.0056 (+2.7 σ)
$r_{\mathrm{drag}}h$	94.60	$95.3^{+4.2}_{-5.0}$ (−2.0 σ)	z_{eq}	3600	3581 ± 170 (+3.6 σ)	$\sigma_8(2.33)$	0.31278	0.3121 ± 0.0050 (+2.3 σ)
$\langle d^2 \rangle^{1/2}$	2.470	2.458 ± 0.094 (+0.1 σ)	k_{eq}	0.01099	0.01093 ± 0.00053 (+3.6 σ)	$\chi^2_{\mathrm{PLIK_LITE}}$	173.37	177.4 ± 2.8 (−9.1 σ)
z_{re}	7.36	$7.30^{+0.91}_{-0.81}$ (−0.3 σ)	$100\theta_{\mathrm{eq}}$	0.7820	$0.786^{+0.025}_{-0.030}$ (−2.8 σ)	χ^2_{small}	395.77	396.9 ± 1.6 (−0.0 σ)
10^9A_{s}	2.127	2.121 ± 0.062 (+0.8 σ)	$100\theta_{\mathrm{s,eq}}$	0.4325	$0.435^{+0.013}_{-0.016}$ (−3.0 σ)	χ^2_{lowl}	20.19	21.1 ± 1.3 (−2.1 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.9184	1.914 ± 0.050 (+2.2 σ)	$H(0.15)$	71.30	$71.6^{+1.7}_{-2.1}$ (−0.9 σ)	χ^2_{prior}	0.000	0.98 ± 1.4 (−0.0 σ)
D_{40}	1160.5	1160 ± 44 (−4.7 σ)	$D_{\mathrm{M}}(0.15)$	658.6	656 ± 20 (+1.1 σ)	χ^2_{CMB}	589.33	595.4 ± 3.5 (−9.9 σ)

Best-fit $\chi^2_{\mathrm{eff}} = 589.33$; $\bar{\chi}^2_{\mathrm{eff}} = 596.42$; $R - 1 = 0.00497$

χ^2_{eff} : CMB - plik_lite_v22: 173.37 small_100x143_offlike5_EE_Aplanck_B: 395.77 commander_dx12_v3.2_29: 20.19

2.26 base_pliklite_TEEE_lmax999_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022411	0.02244 ± 0.00024 (+1.4 σ)	D_{220}	5727	5725 ± 53 (+0.3 σ)	$H(0.38)$	83.09	83.17 ± 0.58 (+1.1 σ)
$\Omega_{\text{c}}h^2$	0.11858	0.1184 ± 0.0019 (−1.0 σ)	D_{810}	2514.8	2515 ± 22 (−1.5 σ)	$D_{\text{M}}(0.38)$	1526.4	1525 ± 15 (−1.1 σ)
$100\theta_{\text{MC}}$	1.04066	1.04071 ± 0.00050 (−0.1 σ)	D_{1420}	807.6	808 ± 10 (−1.2 σ)	$H(0.51)$	89.771	89.84 ± 0.46 (+1.1 σ)
τ	0.0512	0.0507 ± 0.0081 (−0.2 σ)	D_{2000}	227.56	227.8 ± 3.7 (−1.0 σ)	$D_{\text{M}}(0.51)$	1977.8	1976 ± 18 (−1.1 σ)
$\ln(10^{10}A_{\text{s}})$	3.0272	3.026 ± 0.018 (−0.9 σ)	$n_{\text{s},0.002}$	0.9620	0.963 ± 0.010 (+0.0 σ)	$H(0.61)$	95.361	95.42 ± 0.38 (+1.1 σ)
n_{s}	0.9620	0.963 ± 0.010 (+0.0 σ)	Y_{P}	0.245412	0.245418 ± 0.000093 (+1.3 σ)	$D_{\text{M}}(0.61)$	2301.9	2300 ± 20 (−1.1 σ)
y_{cal}	1.00019	1.0001 ± 0.0025 (−0.1 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246738	0.246745 ± 0.000093 (+1.3 σ)	$H(2.33)$	235.64	235.6 ± 1.1 (−0.9 σ)
H_0	67.80	67.90 ± 0.90 (+1.1 σ)	$10^5\text{D}/\text{H}$	2.5778	2.574 ± 0.043 (−1.4 σ)	$D_{\text{M}}(2.33)$	5761.9	5759 ± 17 (−1.1 σ)
Ω_{Λ}	0.6919	$0.693^{+0.012}_{-0.011}$ (+1.0 σ)	Age/Gyr	13.7952	13.790 ± 0.039 (−1.1 σ)	$f\sigma_8(0.15)$	0.4479	0.447 ± 0.012 (−1.4 σ)
Ω_{m}	0.3081	0.307 ± 0.012 (−1.0 σ)	z_*	1089.743	1089.70 ± 0.42 (−1.4 σ)	$\sigma_8(0.15)$	0.7379	0.7372 ± 0.0088 (−1.6 σ)
$\Omega_{\text{m}}h^2$	0.14163	0.1415 ± 0.0018 (−0.9 σ)	r_*	144.768	144.79 ± 0.42 (+0.7 σ)	$f\sigma_8(0.38)$	0.4667	0.4657 ± 0.0098 (−1.4 σ)
$\Omega_{\text{m}}h^3$	0.096028	0.09607 ± 0.00046 (+0.4 σ)	$100\theta_*$	1.040837	1.04089 ± 0.00049 (−0.2 σ)	$\sigma_8(0.38)$	0.6545	0.6540 ± 0.0073 (−1.5 σ)
σ_8	0.7982	0.797 ± 0.010 (−1.6 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9088	13.910 ± 0.039 (+0.7 σ)	$f\sigma_8(0.51)$	0.4657	0.4648 ± 0.0086 (−1.5 σ)
S_8	0.8090	0.807 ± 0.023 (−1.3 σ)	z_{drag}	1059.933	1059.98 ± 0.47 (+1.3 σ)	$\sigma_8(0.51)$	0.6127	0.6122 ± 0.0067 (−1.5 σ)
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4431	0.442 ± 0.013 (−1.3 σ)	r_{drag}	147.422	147.44 ± 0.41 (+0.5 σ)	$f\sigma_8(0.61)$	0.4611	0.4603 ± 0.0078 (−1.5 σ)
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5947	0.594 ± 0.012 (−1.5 σ)	k_{D}	0.140548	0.14055 ± 0.00045 (−0.0 σ)	$\sigma_8(0.61)$	0.5830	0.5827 ± 0.0063 (−1.4 σ)
$\sigma_8/h^{0.5}$	0.9694	0.968 ± 0.017 (−1.5 σ)	$100\theta_{\text{D}}$	0.160707	0.16069 ± 0.00027 (−1.4 σ)	$f\sigma_8(2.33)$	0.29411	0.2940 ± 0.0031 (−1.2 σ)
$r_{\text{drag}}h$	99.95	100.1 ± 1.5 (+1.0 σ)	z_{eq}	3369.2	3366 ± 43 (−0.9 σ)	$\sigma_8(2.33)$	0.30336	0.3033 ± 0.0032 (−1.0 σ)
$\langle d^2 \rangle^{1/2}$	2.4170	2.411 ± 0.042 (−1.1 σ)	k_{eq}	0.010283	0.01027 ± 0.00013 (−0.9 σ)	$\chi^2_{\text{PLIK_LITE}}$	199.29	204.2 ± 3.1 (−1.6 σ)
z_{re}	7.33	$7.25^{+0.87}_{-0.77}$ (−0.3 σ)	$100\theta_{\text{eq}}$	0.8191	0.8199 ± 0.0083 (+1.0 σ)	χ^2_{simall}	395.68	396.8 ± 1.5 (−0.1 σ)
10^9A_{s}	2.0639	2.061 ± 0.038 (−0.9 σ)	$100\theta_{\text{s,eq}}$	0.45240	0.4528 ± 0.0043 (+0.9 σ)	χ^2_{prior}	0.01	1.0 ± 1.4 (−0.0 σ)
$10^9A_{\text{s}}e^{-2\tau}$	1.8630	1.862 ± 0.016 (−1.6 σ)	$H(0.15)$	73.04	73.14 ± 0.78 (+1.1 σ)	χ^2_{CMB}	594.97	601.0 ± 3.5 (−8.3 σ)
D_{40}	1229.4	1227 ± 24 (−0.4 σ)	$D_{\text{M}}(0.15)$	639.7	638.9 ± 7.7 (−1.1 σ)			

Best-fit $\chi^2_{\text{eff}} = 594.98$; $\bar{\chi}^2_{\text{eff}} = 601.99$; $R - 1 = 0.01020$

χ^2_{eff} : CMB - plik_lite_v22: 199.29 simall_100x143_offlike5_EE_Aplanck_B: 395.68

2.27 base_pliklite_TEEE_lmin1000_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02320	0.02316 ± 0.00066 (+4.8 σ)	D_{220}	6096	5965 ± 580 (+6.1 σ)	$H(0.38)$	82.21	$82.4^{+1.0}_{-1.3}$ (−0.3 σ)
$\Omega_{\mathrm{c}}h^2$	0.1280	0.1274 ± 0.0070 (+3.3 σ)	D_{810}	2649	2629 ± 80 (+6.7 σ)	$D_{\mathrm{M}}(0.38)$	1561.7	1558^{+40}_{-36} (+1.0 σ)
$100\theta_{\mathrm{MC}}$	1.04124	1.04128 ± 0.00087 (+1.1 σ)	D_{1420}	849.2	849 ± 25 (+6.8 σ)	$H(0.51)$	89.43	$89.56^{+0.69}_{-0.95}$ (+0.5 σ)
τ	0.0463	$0.0479^{+0.0082}_{-0.0097}$ (−0.6 σ)	D_{2000}	241.7	243 ± 11 (+7.4 σ)	$D_{\mathrm{M}}(0.51)$	2016.4	2012^{+46}_{-41} (+0.9 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0882	3.077 ± 0.043 (+2.3 σ)	$n_{\mathrm{s},0.002}$	0.941	$0.958^{+0.055}_{-0.062}$ (−0.9 σ)	$H(0.61)$	95.43	$95.53^{+0.54}_{-0.67}$ (+1.5 σ)
n_{s}	0.941	$0.958^{+0.055}_{-0.062}$ (−0.9 σ)	Y_{P}	0.245747	$0.24571^{+0.00028}_{-0.00025}$ (+4.4 σ)	$D_{\mathrm{M}}(0.61)$	2341.0	2336^{+49}_{-42} (+0.7 σ)
y_{cal}	0.99997	1.0000 ± 0.0025 (−0.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.247074	$0.24704^{+0.00028}_{-0.00025}$ (+4.4 σ)	$H(2.33)$	242.69	242.2 ± 4.8 (+4.3 σ)
H_0	65.46	$65.7^{+2.1}_{-2.5}$ (−1.3 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.438	$2.45^{+0.10}_{-0.12}$ (−4.4 σ)	$D_{\mathrm{M}}(2.33)$	5739.2	5737 ± 30 (−2.5 σ)
Ω_{Λ}	0.6455	$0.648^{+0.043}_{-0.039}$ (−2.4 σ)	Age/Gyr	13.732	13.729 ± 0.070 (−2.7 σ)	$f\sigma_8(0.15)$	0.5034	0.500 ± 0.041 (+3.0 σ)
Ω_{m}	0.3545	$0.352^{+0.039}_{-0.043}$ (+2.4 σ)	z_*	1089.58	1089.58 ± 0.82 (−1.7 σ)	$\sigma_8(0.15)$	0.7759	$0.774^{+0.025}_{-0.022}$ (+3.3 σ)
$\Omega_{\mathrm{m}}h^2$	0.1519	0.1512 ± 0.0073 (+3.9 σ)	r_*	141.79	142.0 ± 1.9 (−5.1 σ)	$f\sigma_8(0.38)$	0.5124	$0.510^{+0.034}_{-0.031}$ (+3.1 σ)
$\Omega_{\mathrm{m}}h^3$	0.09942	0.0992 ± 0.0019 (+7.4 σ)	$100\theta_*$	1.04132	1.04137 ± 0.00088 (+0.8 σ)	$\sigma_8(0.38)$	0.6832	$0.682^{+0.019}_{-0.016}$ (+3.1 σ)
σ_8	0.8443	$0.842^{+0.031}_{-0.028}$ (+3.4 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.617	13.64 ± 0.18 (−5.4 σ)	$f\sigma_8(0.51)$	0.5058	$0.503^{+0.029}_{-0.026}$ (+3.2 σ)
S_8	0.918	0.913 ± 0.083 (+3.1 σ)	z_{drag}	1062.41	1062.2 ± 1.7 (+6.3 σ)	$\sigma_8(0.51)$	0.6375	$0.637^{+0.016}_{-0.014}$ (+3.0 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.5027	0.500 ± 0.045 (+3.1 σ)	r_{drag}	144.13	144.4 ± 2.1 (−5.9 σ)	$f\sigma_8(0.61)$	0.4972	$0.495^{+0.026}_{-0.022}$ (+3.2 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6515	0.649 ± 0.041 (+3.2 σ)	k_{D}	0.14469	0.1444 ± 0.0026 (+7.4 σ)	$\sigma_8(0.61)$	0.6055	$0.605^{+0.014}_{-0.013}$ (+2.9 σ)
$\sigma_8/h^{0.5}$	1.044	1.040 ± 0.053 (+2.9 σ)	$100\theta_{\mathrm{D}}$	0.15945	$0.15957^{+0.00089}_{-0.0010}$ (−5.7 σ)	$f\sigma_8(2.33)$	0.3036	0.3034 ± 0.0059 (+2.5 σ)
$r_{\mathrm{drag}}h$	94.34	$95.0^{+4.1}_{-4.9}$ (−2.2 σ)	z_{eq}	3614	3597 ± 170 (+3.9 σ)	$\sigma_8(2.33)$	0.3114	0.3114 ± 0.0053 (+2.1 σ)
$\langle d^2 \rangle^{1/2}$	2.621	2.57 ± 0.18 (+3.2 σ)	k_{eq}	0.01103	0.01098 ± 0.00053 (+3.9 σ)	$\chi^2_{\mathrm{PLIK_LITE}}$	172.72	177.6 ± 3.1 (−9.0 σ)
z_{re}	6.79	6.9 ± 1.0 (−0.7 σ)	$100\theta_{\mathrm{eq}}$	0.7800	$0.784^{+0.025}_{-0.030}$ (−3.1 σ)	χ^2_{small}	395.70	397.0 ± 1.6 (+0.0 σ)
10^9A_{s}	2.194	2.172 ± 0.094 (+2.3 σ)	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4314	$0.433^{+0.013}_{-0.016}$ (−3.3 σ)	χ^2_{prior}	0.000	0.99 ± 1.5 (−0.0 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	2.000	1.974 ± 0.097 (+6.5 σ)	$H(0.15)$	71.25	$71.5^{+1.7}_{-2.1}$ (−1.0 σ)	χ^2_{CMB}	568.42	574.6 ± 3.6 (−15.8 σ)
D_{40}	1354	1311^{+200}_{-200} (+5.0 σ)	$D_{\mathrm{M}}(0.15)$	659.2	657 ± 20 (+1.2 σ)			

Best-fit $\chi^2_{\mathrm{eff}} = 568.42$; $\bar{\chi}^2_{\mathrm{eff}} = 575.62$; $R - 1 = 0.00526$

χ^2_{eff} : CMB - plik_lite_v22: 172.72 small_100x143_offlike5_EE_Aplanck_B: 395.70

2.28 base_pliklite_TEEE_lmin802_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022875	0.02290 ± 0.00033 (+3.5 σ)	D_{220}	5824	5853 ± 230 (+3.4 σ)	$H(0.38)$	83.43	83.48 ± 0.67 (+1.7 σ)
$\Omega_{\mathrm{c}}h^2$	0.11913	0.1190 ± 0.0029 (−0.8 σ)	D_{810}	2563.2	2563 ± 22 (+1.9 σ)	$D_{\mathrm{M}}(0.38)$	1520.0	1519 ± 19 (−1.5 σ)
$100\theta_{\mathrm{MC}}$	1.04096	1.04091 ± 0.00057 (+0.3 σ)	D_{1420}	828.0	827 ± 15 (+2.4 σ)	$H(0.51)$	90.13	90.17 ± 0.51 (+1.9 σ)
τ	0.0488	0.0489 ± 0.0090 (−0.4 σ)	D_{2000}	234.8	234.2 ± 6.5 (+2.6 σ)	$D_{\mathrm{M}}(0.51)$	1969.7	1968 ± 22 (−1.5 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0402	$3.041^{+0.017}_{-0.015}$ (+0.0 σ)	$n_{\mathrm{s},0.002}$	0.9679	0.965 ± 0.027 (+0.4 σ)	$H(0.61)$	95.736	95.77 ± 0.41 (+2.1 σ)
n_{s}	0.9679	0.965 ± 0.027 (+0.4 σ)	Y_{P}	0.245589	$0.24561^{+0.00013}_{-0.00015}$ (+3.3 σ)	$D_{\mathrm{M}}(0.61)$	2292.5	2291 ± 23 (−1.5 σ)
y_{cal}	1.00002	0.9999 ± 0.0025 (−0.2 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246917	$0.24693^{+0.00013}_{-0.00015}$ (+3.3 σ)	$H(2.33)$	236.50	236.4 ± 1.9 (−0.2 σ)
H_0	68.09	68.2 ± 1.1 (+1.4 σ)	$10^5D/H$	2.495	2.492 ± 0.058 (−3.4 σ)	$D_{\mathrm{M}}(2.33)$	5739.6	5738 ± 18 (−2.4 σ)
Ω_{Λ}	0.6923	$0.693^{+0.017}_{-0.015}$ (+1.0 σ)	Age/Gyr	13.7418	13.740 ± 0.041 (−2.5 σ)	$f\sigma_8(0.15)$	0.4516	0.450 ± 0.017 (−1.1 σ)
Ω_{m}	0.3077	$0.307^{+0.015}_{-0.017}$ (−1.0 σ)	z_*	1089.224	1089.19 ± 0.48 (−2.7 σ)	$\sigma_8(0.15)$	0.7446	0.743 ± 0.012 (−0.8 σ)
$\Omega_{\mathrm{m}}h^2$	0.14265	0.1425 ± 0.0029 (−0.4 σ)	r_*	144.27	144.31 ± 0.77 (−0.3 σ)	$f\sigma_8(0.38)$	0.4707	0.469 ± 0.014 (−1.1 σ)
$\Omega_{\mathrm{m}}h^3$	0.09713	0.09711 ± 0.00077 (+2.7 σ)	$100\theta_*$	1.04109	1.04104 ± 0.00057 (+0.1 σ)	$\sigma_8(0.38)$	0.6605	0.6594 ± 0.0096 (−0.6 σ)
σ_8	0.8054	0.804 ± 0.014 (−0.9 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.858	13.862 ± 0.072 (−0.4 σ)	$f\sigma_8(0.51)$	0.4698	0.469 ± 0.012 (−1.0 σ)
S_8	0.8157	0.813 ± 0.032 (−1.1 σ)	z_{drag}	1061.04	1061.06 ± 0.77 (+3.7 σ)	$\sigma_8(0.51)$	0.6183	0.6173 ± 0.0087 (−0.5 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4468	0.445 ± 0.018 (−1.1 σ)	r_{drag}	146.76	146.79 ± 0.82 (−0.9 σ)	$f\sigma_8(0.61)$	0.4651	0.464 ± 0.011 (−1.0 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5999	0.598 ± 0.017 (−1.0 σ)	k_{D}	0.14159	0.1416 ± 0.0010 (+2.0 σ)	$\sigma_8(0.61)$	0.5884	0.5875 ± 0.0081 (−0.5 σ)
$\sigma_8/h^{0.5}$	0.9761	0.974 ± 0.023 (−1.1 σ)	$100\theta_{\mathrm{D}}$	0.160109	0.16009 ± 0.00046 (−3.7 σ)	$f\sigma_8(2.33)$	0.29682	0.2964 ± 0.0039 (−0.3 σ)
$r_{\mathrm{drag}}h$	99.93	100.1 ± 2.1 (+1.0 σ)	z_{eq}	3394	3390 ± 68 (−0.4 σ)	$\sigma_8(2.33)$	0.30618	0.3058 ± 0.0039 (−0.0 σ)
$\langle d^2 \rangle^{1/2}$	2.422	2.428 ± 0.052 (−0.7 σ)	k_{eq}	0.010357	0.01035 ± 0.00021 (−0.4 σ)	$\chi^2_{\mathrm{lensing}}$	8.55	9.9 ± 1.9
z_{re}	6.99	$6.97^{+0.98}_{-0.79}$ (−0.7 σ)	$100\theta_{\mathrm{eq}}$	0.8163	0.817 ± 0.012 (+0.7 σ)	$\chi^2_{\mathrm{PLIK_LITE}}$	199.49	203.1 ± 2.7 (−1.9 σ)
10^9A_{s}	2.0910	2.093 ± 0.035 (+0.0 σ)	$100\theta_{\mathrm{s,eq}}$	0.4506	0.4510 ± 0.0065 (+0.6 σ)	χ^2_{small}	395.67	396.9 ± 1.6 (−0.1 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8966	1.897 ± 0.021 (+1.0 σ)	$H(0.15)$	73.35	73.42 ± 0.95 (+1.5 σ)	χ^2_{prior}	0.000	0.98 ± 1.4 (−0.0 σ)
D_{40}	1238	1249^{+79}_{-89} (+1.1 σ)	$D_{\mathrm{M}}(0.15)$	637.0	636.4 ± 9.4 (−1.4 σ)	χ^2_{CMB}	603.72	609.9 ± 3.5 (−5.8 σ)

Best-fit $\chi^2_{\mathrm{eff}} = 603.72$; $\bar{\chi}^2_{\mathrm{eff}} = 610.86$; $R - 1 = 0.00613$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.55 plik_lite_v22: 199.49 small_100x143_offlike5_EE_Aplanck_B: 395.68

2.29 base_pliklite_TEEE_lmin1000_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02276	0.02277 ± 0.00058 (+3.0 σ)	D_{220}	5873	5866 ± 260 (+3.7 σ)	$H(0.38)$	83.68	83.68 ± 0.91 (+2.0 σ)
$\Omega_{\mathrm{c}}h^2$	0.11842	0.1186 ± 0.0034 (−1.0 σ)	D_{810}	2569.3	2567 ± 30 (+2.3 σ)	$D_{\mathrm{M}}(0.38)$	1513.3	1514 ± 24 (−1.8 σ)
$100\theta_{\mathrm{MC}}$	1.04170	1.04169 ± 0.00083 (+1.9 σ)	D_{1420}	827.0	827 ± 18 (+2.4 σ)	$H(0.51)$	90.32	90.34 ± 0.74 (+2.3 σ)
τ	0.0500	0.0488 ± 0.0094 (−0.5 σ)	D_{2000}	233.8	233.9 ± 8.0 (+2.4 σ)	$D_{\mathrm{M}}(0.51)$	1961.8	1962 ± 28 (−1.8 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0454	3.042 ± 0.018 (+0.1 σ)	$n_{\mathrm{s},0.002}$	0.9634	0.964 ± 0.030 (+0.2 σ)	$H(0.61)$	95.89	95.91 ± 0.63 (+2.5 σ)
n_{s}	0.9634	0.964 ± 0.030 (+0.2 σ)	Y_{P}	0.245539	$0.24555^{+0.00025}_{-0.00023}$ (+2.8 σ)	$D_{\mathrm{M}}(0.61)$	2284.0	2284 ± 31 (−1.9 σ)
y_{cal}	1.00004	0.9999 ± 0.0025 (−0.2 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246866	$0.24688^{+0.00025}_{-0.00023}$ (+2.8 σ)	$H(2.33)$	235.98	236.1 ± 2.3 (−0.5 σ)
H_0	68.49	68.5 ± 1.4 (+1.7 σ)	$10^5 D/H$	2.516	$2.517^{+0.095}_{-0.11}$ (−2.8 σ)	$D_{\mathrm{M}}(2.33)$	5733.4	5733 ± 30 (−2.7 σ)
Ω_{Λ}	0.6977	$0.697^{+0.020}_{-0.018}$ (+1.3 σ)	Age/Gyr	13.729	13.727 ± 0.069 (−2.8 σ)	$f\sigma_8(0.15)$	0.4478	0.448 ± 0.020 (−1.3 σ)
Ω_{m}	0.3023	$0.303^{+0.018}_{-0.020}$ (−1.3 σ)	z_*	1089.30	1089.32 ± 0.78 (−2.4 σ)	$\sigma_8(0.15)$	0.7447	0.744 ± 0.013 (−0.7 σ)
$\Omega_{\mathrm{m}}h^2$	0.14183	0.1420 ± 0.0034 (−0.7 σ)	r_*	144.54	144.51 ± 0.96 (+0.1 σ)	$f\sigma_8(0.38)$	0.4681	0.468 ± 0.016 (−1.2 σ)
$\Omega_{\mathrm{m}}h^3$	0.09714	0.0972 ± 0.0012 (+2.8 σ)	$100\theta_*$	1.04184	1.04183 ± 0.00083 (+1.8 σ)	$\sigma_8(0.38)$	0.6611	0.660 ± 0.011 (−0.5 σ)
σ_8	0.8049	0.804 ± 0.016 (−0.9 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.874	13.870 ± 0.090 (−0.2 σ)	$f\sigma_8(0.51)$	0.4678	0.467 ± 0.014 (−1.2 σ)
S_8	0.8080	0.809 ± 0.038 (−1.3 σ)	z_{drag}	1060.73	1060.7 ± 1.3 (+2.9 σ)	$\sigma_8(0.51)$	0.6191	0.6182 ± 0.0095 (−0.4 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4425	0.443 ± 0.021 (−1.3 σ)	r_{drag}	147.08	147.0 ± 1.1 (−0.4 σ)	$f\sigma_8(0.61)$	0.4636	0.463 ± 0.013 (−1.1 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5968	0.597 ± 0.019 (−1.2 σ)	k_{D}	0.14117	0.1412 ± 0.0014 (+1.3 σ)	$\sigma_8(0.61)$	0.5893	0.5885 ± 0.0089 (−0.3 σ)
$\sigma_8/h^{0.5}$	0.9725	0.972 ± 0.026 (−1.3 σ)	$100\theta_{\mathrm{D}}$	0.16040	$0.16041^{+0.00072}_{-0.00082}$ (−2.5 σ)	$f\sigma_8(2.33)$	0.29751	0.2970 ± 0.0043 (−0.0 σ)
$r_{\mathrm{drag}}h$	100.74	100.7 ± 2.6 (+1.4 σ)	z_{eq}	3374	3378 ± 82 (−0.7 σ)	$\sigma_8(2.33)$	0.30714	0.3067 ± 0.0043 (+0.3 σ)
$\langle d^2 \rangle^{1/2}$	2.430	2.426 ± 0.057 (−0.7 σ)	k_{eq}	0.010297	0.01031 ± 0.00025 (−0.7 σ)	$\chi_{\mathrm{lensing}}^2$	8.41	10.1 ± 2.0
z_{re}	7.13	$6.97^{+1.0}_{-0.81}$ (−0.7 σ)	$100\theta_{\mathrm{eq}}$	0.8201	0.820 ± 0.015 (+1.0 σ)	$\chi_{\mathrm{PLIK_LITE}}^2$	174.85	178.2 ± 2.7 (−8.8 σ)
$10^9 A_{\mathrm{s}}$	2.1019	2.095 ± 0.038 (+0.1 σ)	$100\theta_{\mathrm{s,eq}}$	0.4527	0.4525 ± 0.0078 (+0.9 σ)	χ_{small}^2	395.64	396.9 ± 1.7 (−0.0 σ)
$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.9020	1.900 ± 0.024 (+1.2 σ)	$H(0.15)$	73.69	73.7 ± 1.2 (+1.8 σ)	χ_{prior}^2	0.000	1.0 ± 1.4 (−0.0 σ)
D_{40}	1255	1255^{+86}_{-97} (+1.4 σ)	$D_{\mathrm{M}}(0.15)$	633.6	634 ± 12 (−1.7 σ)	χ_{CMB}^2	578.90	585.3 ± 3.6 (−12.8 σ)

Best-fit $\chi_{\mathrm{eff}}^2 = 578.90$; $\bar{\chi}_{\mathrm{eff}}^2 = 586.25$; $R - 1 = 0.00913$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.41 plik_lite_v22: 174.85 small_100x143_offlike5_EE_Aplanck_B: 395.64

2.30 base_pliklite_TEEE_lowl_lmax801_lowE_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02212 \pm 0.00031 \quad (-0.0\sigma)$	D_{810}	$2511 \pm 24 \quad (-1.8\sigma)$	$H(0.51)$	$89.29^{+0.49}_{-0.56} \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1200 \pm 0.0017 \quad (-0.3\sigma)$	D_{1420}	$805 \pm 12 \quad (-1.8\sigma)$	$D_{\mathrm{M}}(0.51)$	$1996 \pm 20 \quad (-0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04034 \pm 0.00074 \quad (-0.9\sigma)$	D_{2000}	$226.6 \pm 4.4 \quad (-1.7\sigma)$	$H(0.61)$	$94.96^{+0.43}_{-0.48} \quad (-0.2\sigma)$
τ	$0.0532 \pm 0.0075 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.960 \pm 0.011 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.61)$	$2321 \pm 22 \quad (+0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.032 \pm 0.015 \quad (-0.5\sigma)$	Y_{P}	$0.24528^{+0.00015}_{-0.00012} \quad (-0.1\sigma)$	$H(2.33)$	$236.28 \pm 0.93 \quad (-0.3\sigma)$
n_{s}	$0.960 \pm 0.011 \quad (-0.5\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24661^{+0.00015}_{-0.00012} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5782 \pm 23 \quad (+0.3\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (+0.1\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.634 \pm 0.058 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4586 \pm 0.0091 \quad (-0.4\sigma)$
H_0	$66.95 \pm 0.94 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.840 \pm 0.052 \quad (+0.3\sigma)$	$\sigma_8(0.15)$	$0.7436 \pm 0.0060 \quad (-0.7\sigma)$
Ω_{Λ}	$0.681 \pm 0.012 \quad (+0.1\sigma)$	z_*	$1090.24 \pm 0.51 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4752 \pm 0.0069 \quad (-0.5\sigma)$
Ω_{m}	$0.319 \pm 0.012 \quad (-0.1\sigma)$	r_*	$144.62 \pm 0.33 \quad (+0.3\sigma)$	$\sigma_8(0.38)$	$0.6584 \pm 0.0055 \quad (-0.8\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1428 \pm 0.0015 \quad (-0.3\sigma)$	$100\theta_*$	$1.04055 \pm 0.00072 \quad (-0.9\sigma)$	$f\sigma_8(0.51)$	$0.4730 \pm 0.0058 \quad (-0.5\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09559 \pm 0.00067 \quad (-0.7\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.898 \pm 0.032 \quad (+0.4\sigma)$	$\sigma_8(0.51)$	$0.6158 \pm 0.0052 \quad (-0.8\sigma)$
σ_8	$0.8054 \pm 0.0067 \quad (-0.7\sigma)$	z_{drag}	$1059.36 \pm 0.63 \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4675 \pm 0.0051 \quad (-0.5\sigma)$
S_8	$0.830 \pm 0.018 \quad (-0.4\sigma)$	r_{drag}	$147.36 \pm 0.33 \quad (+0.3\sigma)$	$\sigma_8(0.61)$	$0.5858 \pm 0.0051 \quad (-0.8\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.455 \pm 0.010 \quad (-0.4\sigma)$	k_{D}	$0.14038 \pm 0.00044 \quad (-0.3\sigma)$	$f\sigma_8(2.33)$	$0.2951 \pm 0.0028 \quad (-0.8\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6052 \pm 0.0084 \quad (-0.5\sigma)$	$100\theta_{\mathrm{D}}$	$0.16102 \pm 0.00034 \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3039 \pm 0.0031 \quad (-0.8\sigma)$
$\sigma_8/h^{0.5}$	$0.984 \pm 0.012 \quad (-0.5\sigma)$	z_{eq}	$3397 \pm 36 \quad (-0.3\sigma)$	$\chi_{\mathrm{lensing}}^2$	10.4 ± 1.8
$r_{\mathrm{drag}}h$	$98.7 \pm 1.5 \quad (+0.1\sigma)$	k_{eq}	$0.01037 \pm 0.00011 \quad (-0.3\sigma)$	$\chi_{\mathrm{PLIK_LITE}}^2$	$175.3 \pm 3.7 \quad (-9.7\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.444 \pm 0.036 \quad (-0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8132 \pm 0.0072 \quad (+0.2\sigma)$	χ_{small}^2	$396.9 \pm 1.7 \quad (-0.0\sigma)$
z_{re}	$7.60 \pm 0.76 \quad (+0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4495 \pm 0.0036 \quad (+0.2\sigma)$	χ_{lowl}^2	$23.9 \pm 2.1 \quad (+0.1\sigma)$
10^9A_{s}	$2.075^{+0.029}_{-0.032} \quad (-0.5\sigma)$	$H(0.15)$	$72.30^{+0.77}_{-0.86} \quad (+0.0\sigma)$	χ_{prior}^2	$1.0 \pm 1.4 \quad (-0.0\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.865 \pm 0.014 \quad (-1.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$647.1 \pm 8.2 \quad (-0.0\sigma)$	χ_{CMB}^2	$606.5 \pm 3.6 \quad (-6.8\sigma)$
D_{40}	$1229 \pm 23 \quad (-0.2\sigma)$	$H(0.38)$	$82.52^{+0.59}_{-0.67} \quad (-0.0\sigma)$		
D_{220}	$5684 \pm 55 \quad (-0.7\sigma)$	$D_{\mathrm{M}}(0.38)$	$1542 \pm 17 \quad (-0.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 607.52; R - 1 = 0.00832$

2.31 base_pliklite_TEEE_lowl_lmax801_lowE_lensing_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02230 \pm 0.00024 \quad (+0.8\sigma)$	D_{1420}	$810 \pm 10 \quad (-0.8\sigma)$	$H(0.61)$	$95.27 \pm 0.31 \quad (+0.7\sigma)$
$\Omega_{\text{c}}h^2$	$0.1188 \pm 0.0011 \quad (-0.8\sigma)$	D_{2000}	$228.6 \pm 3.7 \quad (-0.6\sigma)$	$D_{\text{M}}(0.61)$	$2306 \pm 13 \quad (-0.8\sigma)$
$100\theta_{\text{MC}}$	$1.04070 \pm 0.00062 \quad (-0.2\sigma)$	$n_{\text{s},0.002}$	$0.9659 \pm 0.0092 \quad (+0.5\sigma)$	$H(2.33)$	$235.70 \pm 0.65 \quad (-0.8\sigma)$
τ	$0.0555 \pm 0.0073 \quad (+0.4\sigma)$	Y_{P}	$0.24536^{+0.00010}_{-0.000087} \quad (+0.7\sigma)$	$D_{\text{M}}(2.33)$	$5767 \pm 16 \quad (-0.6\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.037 \pm 0.015 \quad (-0.2\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.24669^{+0.00011}_{-0.000087} \quad (+0.7\sigma)$	$f\sigma_{\text{s}}(0.15)$	$0.4528 \pm 0.0062 \quad (-0.9\sigma)$
n_{s}	$0.9659 \pm 0.0092 \quad (+0.5\sigma)$	$10^5\text{D}/\text{H}$	$2.600 \pm 0.045 \quad (-0.8\sigma)$	$\sigma_{\text{s}}(0.15)$	$0.7438 \pm 0.0062 \quad (-0.7\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.1\sigma)$	Age/Gyr	$13.807 \pm 0.037 \quad (-0.6\sigma)$	$f\sigma_{\text{s}}(0.38)$	$0.4713 \pm 0.0052 \quad (-0.9\sigma)$
H_0	$67.63 \pm 0.57 \quad (+0.8\sigma)$	z_*	$1089.91 \pm 0.35 \quad (-0.9\sigma)$	$\sigma_{\text{s}}(0.38)$	$0.6595 \pm 0.0055 \quad (-0.6\sigma)$
Ω_{Λ}	$0.6899 \pm 0.0069 \quad (+0.8\sigma)$	r_*	$144.79 \pm 0.26 \quad (+0.7\sigma)$	$f\sigma_{\text{s}}(0.51)$	$0.4701 \pm 0.0047 \quad (-0.9\sigma)$
Ω_{m}	$0.3101 \pm 0.0069 \quad (-0.8\sigma)$	$100\theta_*$	$1.04089 \pm 0.00062 \quad (-0.2\sigma)$	$\sigma_{\text{s}}(0.51)$	$0.6172 \pm 0.0052 \quad (-0.5\sigma)$
$\Omega_{\text{m}}h^2$	$0.14178 \pm 0.00099 \quad (-0.8\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.910 \pm 0.028 \quad (+0.7\sigma)$	$f\sigma_{\text{s}}(0.61)$	$0.4653 \pm 0.0044 \quad (-0.8\sigma)$
$\Omega_{\text{m}}h^3$	$0.09588 \pm 0.00058 \quad (-0.0\sigma)$	z_{drag}	$1059.68 \pm 0.53 \quad (+0.6\sigma)$	$\sigma_{\text{s}}(0.61)$	$0.5874 \pm 0.0050 \quad (-0.5\sigma)$
σ_{s}	$0.8048 \pm 0.0067 \quad (-0.8\sigma)$	r_{drag}	$147.48 \pm 0.30 \quad (+0.6\sigma)$	$f\sigma_{\text{s}}(2.33)$	$0.2962 \pm 0.0026 \quad (-0.3\sigma)$
S_{s}	$0.818 \pm 0.012 \quad (-0.9\sigma)$	k_{D}	$0.14040 \pm 0.00043 \quad (-0.3\sigma)$	$\sigma_{\text{s}}(2.33)$	$0.3054 \pm 0.0028 \quad (-0.2\sigma)$
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.5}$	$0.4481 \pm 0.0067 \quad (-0.9\sigma)$	$100\theta_{\text{D}}$	$0.16087 \pm 0.00030 \quad (-0.7\sigma)$	χ_{lensing}^2	10.7 ± 2.0
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.25}$	$0.6005 \pm 0.0064 \quad (-0.9\sigma)$	z_{eq}	$3373 \pm 24 \quad (-0.8\sigma)$	$\chi_{\text{PLIK_LITE}}^2$	$175.6 \pm 3.6 \quad (-9.6\sigma)$
$\sigma_{\text{s}}/h^{0.5}$	$0.9786 \pm 0.0095 \quad (-0.9\sigma)$	k_{eq}	$0.010294 \pm 0.000072 \quad (-0.8\sigma)$	χ_{simall}^2	$397.1 \pm 1.8 \quad (+0.1\sigma)$
$r_{\text{drag}}h$	$99.74 \pm 0.88 \quad (+0.8\sigma)$	$100\theta_{\text{eq}}$	$0.8183 \pm 0.0045 \quad (+0.8\sigma)$	χ_{lowl}^2	$23.0 \pm 1.6 \quad (-0.7\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.425 \pm 0.028 \quad (-0.7\sigma)$	$100\theta_{\text{s,eq}}$	$0.4520 \pm 0.0023 \quad (+0.8\sigma)$	$\chi_{6\text{DF}}^2$	0.056 ± 0.072
z_{re}	$7.78 \pm 0.73 \quad (+0.3\sigma)$	$H(0.15)$	$72.89 \pm 0.50 \quad (+0.8\sigma)$	χ_{MGS}^2	1.33 ± 0.49
$10^9 A_{\text{s}}$	$2.085 \pm 0.031 \quad (-0.2\sigma)$	$D_{\text{M}}(0.15)$	$641.2 \pm 4.9 \quad (-0.8\sigma)$	χ_{DR12BAO}^2	4.8 ± 1.6
$10^9 A_{\text{s}}e^{-2\tau}$	$1.865 \pm 0.013 \quad (-1.3\sigma)$	$H(0.38)$	$82.97 \pm 0.40 \quad (+0.8\sigma)$	χ_{prior}^2	$1.0 \pm 1.5 \quad (+0.0\sigma)$
D_{40}	$1221 \pm 21 \quad (-0.8\sigma)$	$D_{\text{M}}(0.38)$	$1529 \pm 10 \quad (-0.8\sigma)$	χ_{CMB}^2	$606.4 \pm 3.3 \quad (-6.8\sigma)$
D_{220}	$5697 \pm 53 \quad (-0.4\sigma)$	$H(0.51)$	$89.66 \pm 0.35 \quad (+0.7\sigma)$	χ_{BAO}^2	6.2 ± 1.3
D_{810}	$2520 \pm 21 \quad (-1.2\sigma)$	$D_{\text{M}}(0.51)$	$1982 \pm 12 \quad (-0.8\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 613.65; R - 1 = 0.01414$

2.32 base_pliklite_TEEE_lowl_lmax801_lowE_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02221 \pm 0.00025 \quad (+0.4\sigma)$	D_{1420}	$800 \pm 12 \quad (-2.9\sigma)$	$H(0.61)$	$95.27 \pm 0.33 \quad (+0.7\sigma)$
$\Omega_{\text{c}}h^2$	$0.1181 \pm 0.0012 \quad (-1.2\sigma)$	D_{2000}	$224.8 \pm 4.4 \quad (-2.7\sigma)$	$D_{\text{M}}(0.61)$	$2302 \pm 14 \quad (-1.0\sigma)$
$100\theta_{\text{MC}}$	$1.04072 \pm 0.00063 \quad (-0.1\sigma)$	$n_{\text{s},0.002}$	$0.9616 \pm 0.0098 \quad (-0.2\sigma)$	$H(2.33)$	$235.10 \pm 0.75 \quad (-1.3\sigma)$
τ	$0.0498^{+0.0083}_{-0.0073} \quad (-0.3\sigma)$	Y_{P}	$0.24532^{+0.00011}_{-0.000094} \quad (+0.4\sigma)$	$D_{\text{M}}(2.33)$	$5768 \pm 17 \quad (-0.5\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.016 \pm 0.019 \quad (-1.5\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.24665^{+0.00011}_{-0.000094} \quad (+0.4\sigma)$	$f\sigma_{\text{s}}(0.15)$	$0.4435 \pm 0.0084 \quad (-1.6\sigma)$
n_{s}	$0.9616 \pm 0.0098 \quad (-0.2\sigma)$	$10^5\text{D}/\text{H}$	$2.617 \pm 0.047 \quad (-0.4\sigma)$	$\sigma_{\text{s}}(0.15)$	$0.7330 \pm 0.0088 \quad (-2.1\sigma)$
y_{cal}	$1.0001 \pm 0.0025 \quad (-0.1\sigma)$	Age/Gyr	$13.811 \pm 0.039 \quad (-0.5\sigma)$	$f\sigma_{\text{s}}(0.38)$	$0.4626 \pm 0.0073 \quad (-1.8\sigma)$
H_0	$67.84 \pm 0.62 \quad (+1.0\sigma)$	z_*	$1089.95 \pm 0.37 \quad (-0.8\sigma)$	$\sigma_{\text{s}}(0.38)$	$0.6503 \pm 0.0077 \quad (-2.1\sigma)$
Ω_{Λ}	$0.6938 \pm 0.0076 \quad (+1.1\sigma)$	r_*	$145.06 \pm 0.31 \quad (+1.2\sigma)$	$f\sigma_{\text{s}}(0.51)$	$0.4618 \pm 0.0068 \quad (-1.9\sigma)$
Ω_{m}	$0.3062 \pm 0.0076 \quad (-1.1\sigma)$	$100\theta_*$	$1.04092 \pm 0.00062 \quad (-0.1\sigma)$	$\sigma_{\text{s}}(0.51)$	$0.6088 \pm 0.0071 \quad (-2.1\sigma)$
$\Omega_{\text{m}}h^2$	$0.1409 \pm 0.0011 \quad (-1.2\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.936 \pm 0.032 \quad (+1.3\sigma)$	$f\sigma_{\text{s}}(0.61)$	$0.4574 \pm 0.0064 \quad (-1.9\sigma)$
$\Omega_{\text{m}}h^3$	$0.09560 \pm 0.00062 \quad (-0.7\sigma)$	z_{drag}	$1059.42 \pm 0.56 \quad (+0.0\sigma)$	$\sigma_{\text{s}}(0.61)$	$0.5794 \pm 0.0068 \quad (-2.0\sigma)$
σ_{s}	$0.7926 \pm 0.0098 \quad (-2.1\sigma)$	r_{drag}	$147.79 \pm 0.35 \quad (+1.2\sigma)$	$f\sigma_{\text{s}}(2.33)$	$0.2924 \pm 0.0034 \quad (-1.9\sigma)$
S_{s}	$0.801 \pm 0.016 \quad (-1.6\sigma)$	k_{D}	$0.14001 \pm 0.00049 \quad (-1.0\sigma)$	$\sigma_{\text{s}}(2.33)$	$0.3017 \pm 0.0036 \quad (-1.6\sigma)$
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.5}$	$0.4386 \pm 0.0088 \quad (-1.6\sigma)$	$100\theta_{\text{D}}$	$0.16102 \pm 0.00031 \quad (-0.2\sigma)$	$\chi_{\text{PLIK_LITE}}^2$	$174.9 \pm 3.3 \quad (-9.8\sigma)$
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.25}$	$0.5896 \pm 0.0091 \quad (-1.8\sigma)$	z_{eq}	$3352 \pm 27 \quad (-1.2\sigma)$	χ_{simall}^2	$396.8 \pm 1.5 \quad (-0.1\sigma)$
$\sigma_{\text{s}}/h^{0.5}$	$0.962 \pm 0.013 \quad (-1.9\sigma)$	k_{eq}	$0.010230 \pm 0.000083 \quad (-1.2\sigma)$	χ_{lowl}^2	$23.1 \pm 1.7 \quad (-0.5\sigma)$
$r_{\text{drag}}h$	$100.27 \pm 0.99 \quad (+1.1\sigma)$	$100\theta_{\text{eq}}$	$0.8218 \pm 0.0052 \quad (+1.2\sigma)$	$\chi_{6\text{DF}}^2$	0.043 ± 0.063
$\langle d^2 \rangle^{1/2}$	$2.400 \pm 0.031 \quad (-1.4\sigma)$	$100\theta_{\text{s,eq}}$	$0.4539 \pm 0.0027 \quad (+1.2\sigma)$	χ_{MGS}^2	1.64 ± 0.59
z_{re}	$7.19^{+0.90}_{-0.73} \quad (-0.4\sigma)$	$H(0.15)$	$73.06 \pm 0.55 \quad (+1.0\sigma)$	χ_{DR12BAO}^2	4.3 ± 1.3
10^9A_{s}	$2.040 \pm 0.040 \quad (-1.5\sigma)$	$D_{\text{M}}(0.15)$	$639.4 \pm 5.3 \quad (-1.0\sigma)$	χ_{prior}^2	$0.96 \pm 1.4 \quad (-0.0\sigma)$
$10^9A_{\text{s}}e^{-2\tau}$	$1.847 \pm 0.017 \quad (-2.7\sigma)$	$H(0.38)$	$83.06 \pm 0.43 \quad (+0.9\sigma)$	χ_{CMB}^2	$594.9 \pm 3.4 \quad (-10.1\sigma)$
D_{40}	$1220 \pm 21 \quad (-0.9\sigma)$	$D_{\text{M}}(0.38)$	$1526 \pm 11 \quad (-1.0\sigma)$	χ_{BAO}^2	6.0 ± 1.1
D_{220}	$5675 \pm 54 \quad (-0.9\sigma)$	$H(0.51)$	$89.71 \pm 0.37 \quad (+0.8\sigma)$		
D_{810}	$2494 \pm 26 \quad (-3.0\sigma)$	$D_{\text{M}}(0.51)$	$1978 \pm 13 \quad (-1.0\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 601.80$; $R - 1 = 0.00740$

2.33 base_pliklite_TEEE_lmax801_lowE_lensing_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02221 \pm 0.00024 \quad (+0.4\sigma)$	D_{1420}	$803 \pm 11 \quad (-2.3\sigma)$	$H(0.61)$	$95.14 \pm 0.32 \quad (+0.3\sigma)$
$\Omega_{\text{c}}h^2$	$0.1193 \pm 0.0011 \quad (-0.6\sigma)$	D_{2000}	$225.7 \pm 4.1 \quad (-2.2\sigma)$	$D_{\text{M}}(0.61)$	$2312 \pm 14 \quad (-0.5\sigma)$
$100\theta_{\text{MC}}$	$1.04060 \pm 0.00063 \quad (-0.4\sigma)$	$n_{\text{s},0.002}$	$0.957 \pm 0.010 \quad (-1.0\sigma)$	$H(2.33)$	$235.90 \pm 0.67 \quad (-0.6\sigma)$
τ	$0.0558 \pm 0.0075 \quad (+0.4\sigma)$	Y_{P}	$0.24533^{+0.00011}_{-0.000088} \quad (+0.4\sigma)$	$D_{\text{M}}(2.33)$	$5773 \pm 16 \quad (-0.3\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.036 \pm 0.015 \quad (-0.3\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.24665^{+0.00011}_{-0.000089} \quad (+0.4\sigma)$	$f\sigma_{\text{s}}(0.15)$	$0.4541 \pm 0.0063 \quad (-0.8\sigma)$
n_{s}	$0.957 \pm 0.010 \quad (-1.0\sigma)$	$10^5D/H$	$2.616 \pm 0.046 \quad (-0.4\sigma)$	$\sigma_{\text{s}}(0.15)$	$0.7423 \pm 0.0063 \quad (-0.9\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (+0.2\sigma)$	Age/Gyr	$13.820 \pm 0.038 \quad (-0.2\sigma)$	$f\sigma_{\text{s}}(0.38)$	$0.4719 \pm 0.0052 \quad (-0.8\sigma)$
H_0	$67.37 \pm 0.59 \quad (+0.5\sigma)$	z_*	$1090.06 \pm 0.36 \quad (-0.5\sigma)$	$\sigma_{\text{s}}(0.38)$	$0.6578 \pm 0.0056 \quad (-0.9\sigma)$
Ω_{Λ}	$0.6867 \pm 0.0073 \quad (+0.6\sigma)$	r_*	$144.74 \pm 0.26 \quad (+0.6\sigma)$	$f\sigma_{\text{s}}(0.51)$	$0.4703 \pm 0.0047 \quad (-0.8\sigma)$
Ω_{m}	$0.3133 \pm 0.0073 \quad (-0.6\sigma)$	$100\theta_*$	$1.04080 \pm 0.00062 \quad (-0.4\sigma)$	$\sigma_{\text{s}}(0.51)$	$0.6155 \pm 0.0053 \quad (-0.8\sigma)$
$\Omega_{\text{m}}h^2$	$0.1421 \pm 0.0010 \quad (-0.6\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.906 \pm 0.028 \quad (+0.6\sigma)$	$f\sigma_{\text{s}}(0.61)$	$0.4652 \pm 0.0044 \quad (-0.9\sigma)$
$\Omega_{\text{m}}h^3$	$0.09576 \pm 0.00059 \quad (-0.3\sigma)$	z_{drag}	$1059.52 \pm 0.53 \quad (+0.2\sigma)$	$\sigma_{\text{s}}(0.61)$	$0.5857 \pm 0.0051 \quad (-0.8\sigma)$
σ_{s}	$0.8035 \pm 0.0068 \quad (-0.9\sigma)$	r_{drag}	$147.46 \pm 0.30 \quad (+0.5\sigma)$	$f\sigma_{\text{s}}(2.33)$	$0.2952 \pm 0.0027 \quad (-0.7\sigma)$
S_{s}	$0.821 \pm 0.012 \quad (-0.7\sigma)$	k_{D}	$0.14036 \pm 0.00043 \quad (-0.4\sigma)$	$\sigma_{\text{s}}(2.33)$	$0.3043 \pm 0.0029 \quad (-0.6\sigma)$
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.5}$	$0.4497 \pm 0.0068 \quad (-0.7\sigma)$	$100\theta_{\text{D}}$	$0.16096 \pm 0.00030 \quad (-0.4\sigma)$	χ_{lensing}^2	10.7 ± 2.1
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.25}$	$0.6011 \pm 0.0064 \quad (-0.8\sigma)$	z_{eq}	$3381 \pm 25 \quad (-0.6\sigma)$	$\chi_{\text{PLIK_LITE}}^2$	$174.1 \pm 3.3 \quad (-10.0\sigma)$
$\sigma_{\text{s}}/h^{0.5}$	$0.9790 \pm 0.0095 \quad (-0.8\sigma)$	k_{eq}	$0.010320 \pm 0.000075 \quad (-0.6\sigma)$	χ_{simall}^2	$397.4 \pm 2.2 \quad (+0.3\sigma)$
$r_{\text{drag}}h$	$99.34 \pm 0.91 \quad (+0.5\sigma)$	$100\theta_{\text{eq}}$	$0.8164 \pm 0.0047 \quad (+0.6\sigma)$	$\chi_{6\text{DF}}^2$	0.090 ± 0.099
$\langle d^2 \rangle^{1/2}$	$2.447 \pm 0.031 \quad (-0.2\sigma)$	$100\theta_{\text{s,eq}}$	$0.4511 \pm 0.0024 \quad (+0.6\sigma)$	χ_{MGS}^2	1.12 ± 0.47
z_{re}	$7.84 \pm 0.75 \quad (+0.4\sigma)$	$H(0.15)$	$72.66 \pm 0.52 \quad (+0.5\sigma)$	χ_{DR12BAO}^2	5.6 ± 2.0
10^9A_{s}	$2.083 \pm 0.032 \quad (-0.3\sigma)$	$D_{\text{M}}(0.15)$	$643.4 \pm 5.1 \quad (-0.5\sigma)$	χ_{prior}^2	$1.1 \pm 1.5 \quad (+0.1\sigma)$
$10^9A_{\text{s}}e^{-2\tau}$	$1.863 \pm 0.014 \quad (-1.5\sigma)$	$H(0.38)$	$82.79 \pm 0.41 \quad (+0.4\sigma)$	χ_{CMB}^2	$582.3 \pm 3.6 \quad (-13.6\sigma)$
D_{40}	$1241 \pm 24 \quad (+0.5\sigma)$	$D_{\text{M}}(0.38)$	$1534 \pm 11 \quad (-0.5\sigma)$	χ_{BAO}^2	6.8 ± 1.7
D_{220}	$5720 \pm 54 \quad (+0.2\sigma)$	$H(0.51)$	$89.52 \pm 0.36 \quad (+0.4\sigma)$		
D_{810}	$2508 \pm 23 \quad (-2.1\sigma)$	$D_{\text{M}}(0.51)$	$1987 \pm 13 \quad (-0.5\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 590.18; R - 1 = 0.00643$

2.34 base_pliklite_TEEE_lowl_lmax801_lowE_lensing_BAO_theta

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}} h^2$	$0.02231 \pm 0.00023 \quad (+0.9\sigma)$	D_{1420}	$811 \pm 10 \quad (-0.8\sigma)$	$H(0.61)$	$95.30 \pm 0.27 \quad (+0.8\sigma)$
$\Omega_{\text{c}} h^2$	$0.1188 \pm 0.0011 \quad (-0.9\sigma)$	D_{2000}	$228.7 \pm 3.7 \quad (-0.5\sigma)$	$D_{\text{M}}(0.61)$	$2305 \pm 12 \quad (-0.8\sigma)$
$100\theta_{\text{MC}}$	$1.04079 \pm 0.00044 \quad (+0.0\sigma)$	$n_{\text{s},0.002}$	$0.9660 \pm 0.0090 \quad (+0.5\sigma)$	$H(2.33)$	$235.70 \pm 0.65 \quad (-0.8\sigma)$
τ	$0.0555 \pm 0.0073 \quad (+0.4\sigma)$	Y_{P}	$0.245368^{+0.000098}_{-0.000085} \quad (+0.8\sigma)$	$D_{\text{M}}(2.33)$	$5765 \pm 14 \quad (-0.7\sigma)$
$\ln(10^{10} A_{\text{s}})$	$3.037 \pm 0.015 \quad (-0.2\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246695^{+0.000098}_{-0.000085} \quad (+0.8\sigma)$	$f\sigma_{\text{s}}(0.15)$	$0.4524 \pm 0.0061 \quad (-0.9\sigma)$
n_{s}	$0.9660 \pm 0.0090 \quad (+0.5\sigma)$	$10^5 D/\text{H}$	$2.597 \pm 0.043 \quad (-0.8\sigma)$	$\sigma_{\text{s}}(0.15)$	$0.7438 \pm 0.0060 \quad (-0.7\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.1\sigma)$	Age/Gyr	$13.802 \pm 0.032 \quad (-0.7\sigma)$	$f\sigma_{\text{s}}(0.38)$	$0.4710 \pm 0.0051 \quad (-0.9\sigma)$
H_0	$67.69 \pm 0.54 \quad (+0.8\sigma)$	z_*	$1089.89 \pm 0.34 \quad (-1.0\sigma)$	$\sigma_{\text{s}}(0.38)$	$0.6596 \pm 0.0053 \quad (-0.6\sigma)$
Ω_{Λ}	$0.6905 \pm 0.0067 \quad (+0.8\sigma)$	r_*	$144.79 \pm 0.26 \quad (+0.7\sigma)$	$f\sigma_{\text{s}}(0.51)$	$0.4699 \pm 0.0046 \quad (-0.9\sigma)$
Ω_{m}	$0.3095 \pm 0.0067 \quad (-0.8\sigma)$	$100\theta_*$	$1.04098 \pm 0.00043 \quad (-0.0\sigma)$	$\sigma_{\text{s}}(0.51)$	$0.6173 \pm 0.0050 \quad (-0.5\sigma)$
$\Omega_{\text{m}} h^2$	$0.1418 \pm 0.0010 \quad (-0.8\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.909 \pm 0.026 \quad (+0.7\sigma)$	$f\sigma_{\text{s}}(0.61)$	$0.4651 \pm 0.0043 \quad (-0.9\sigma)$
$\Omega_{\text{m}} h^3$	$0.09595 \pm 0.00049 \quad (+0.1\sigma)$	z_{drag}	$1059.71 \pm 0.51 \quad (+0.7\sigma)$	$\sigma_{\text{s}}(0.61)$	$0.5875 \pm 0.0048 \quad (-0.5\sigma)$
σ_{s}	$0.8047 \pm 0.0066 \quad (-0.8\sigma)$	r_{drag}	$147.47 \pm 0.29 \quad (+0.5\sigma)$	$f\sigma_{\text{s}}(2.33)$	$0.2963 \pm 0.0025 \quad (-0.3\sigma)$
S_{s}	$0.817 \pm 0.012 \quad (-0.9\sigma)$	k_{D}	$0.14042 \pm 0.00042 \quad (-0.3\sigma)$	$\sigma_{\text{s}}(2.33)$	$0.3056 \pm 0.0027 \quad (-0.1\sigma)$
$\sigma_{\text{s}} \Omega_{\text{m}}^{0.5}$	$0.4477 \pm 0.0066 \quad (-0.9\sigma)$	$100\theta_{\text{D}}$	$0.16086 \pm 0.00029 \quad (-0.8\sigma)$	χ_{lensing}^2	10.7 ± 2.0
$\sigma_{\text{s}} \Omega_{\text{m}}^{0.25}$	$0.6002 \pm 0.0063 \quad (-0.9\sigma)$	z_{eq}	$3372 \pm 24 \quad (-0.8\sigma)$	$\chi_{\text{PLIK_LITE}}^2$	$175.2 \pm 3.4 \quad (-9.7\sigma)$
$\sigma_{\text{s}}/h^{0.5}$	$0.9782 \pm 0.0092 \quad (-0.9\sigma)$	k_{eq}	$0.010292 \pm 0.000073 \quad (-0.8\sigma)$	χ_{simall}^2	$397.1 \pm 1.8 \quad (+0.1\sigma)$
$r_{\text{drag}} h$	$99.82 \pm 0.85 \quad (+0.8\sigma)$	$100\theta_{\text{eq}}$	$0.8185 \pm 0.0045 \quad (+0.8\sigma)$	χ_{lowl}^2	$23.0 \pm 1.6 \quad (-0.7\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.424 \pm 0.027 \quad (-0.8\sigma)$	$100\theta_{\text{s,eq}}$	$0.4521 \pm 0.0023 \quad (+0.8\sigma)$	$\chi_{6\text{DF}}^2$	0.049 ± 0.063
z_{re}	$7.78 \pm 0.73 \quad (+0.3\sigma)$	$H(0.15)$	$72.94 \pm 0.47 \quad (+0.8\sigma)$	χ_{MGS}^2	1.37 ± 0.48
$10^9 A_{\text{s}}$	$2.085 \pm 0.030 \quad (-0.2\sigma)$	$D_{\text{M}}(0.15)$	$640.7 \pm 4.6 \quad (-0.8\sigma)$	χ_{DR12BAO}^2	4.6 ± 1.4
$10^9 A_{\text{s}} e^{-2\tau}$	$1.866 \pm 0.013 \quad (-1.3\sigma)$	$H(0.38)$	$83.01 \pm 0.37 \quad (+0.8\sigma)$	χ_{prior}^2	$1.6 \pm 1.6 \quad (+0.4\sigma)$
D_{40}	$1221 \pm 21 \quad (-0.8\sigma)$	$D_{\text{M}}(0.38)$	$1528.4 \pm 9.4 \quad (-0.8\sigma)$	χ_{CMB}^2	$606.0 \pm 3.1 \quad (-6.9\sigma)$
D_{220}	$5699 \pm 51 \quad (-0.3\sigma)$	$H(0.51)$	$89.70 \pm 0.31 \quad (+0.8\sigma)$	χ_{BAO}^2	6.1 ± 1.1
D_{810}	$2520 \pm 21 \quad (-1.2\sigma)$	$D_{\text{M}}(0.51)$	$1980 \pm 11 \quad (-0.8\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 613.65$; $R - 1 = 0.00924$

2.35 base_pliklite_TTTEEE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022324	0.02233 ± 0.00015 (+0.9 σ)	D_{220}	5738.7	5737 ± 39 (+0.6 σ)	$H(0.38)$	82.640	82.68 ± 0.38 (+0.2 σ)
$\Omega_{\mathrm{c}}h^2$	0.12087	0.1207 ± 0.0014 (+0.1 σ)	D_{810}	2539.7	2540 ± 13 (+0.3 σ)	$D_{\mathrm{M}}(0.38)$	1539.9	1539 ± 11 (−0.2 σ)
$100\theta_{\mathrm{MC}}$	1.040818	1.04083 ± 0.00031 (+0.1 σ)	D_{1420}	816.28	816.6 ± 4.7 (+0.4 σ)	$H(0.51)$	89.454	89.48 ± 0.30 (+0.3 σ)
τ	0.0538	0.0544 ± 0.0079 (+0.3 σ)	D_{2000}	230.48	230.6 ± 1.6 (+0.6 σ)	$D_{\mathrm{M}}(0.51)$	1993.3	1992 ± 12 (−0.2 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0454	3.046 ± 0.016 (+0.4 σ)	$n_{\mathrm{s},0.002}$	0.96191	0.9627 ± 0.0044 (−0.0 σ)	$H(0.61)$	95.148	95.17 ± 0.24 (+0.4 σ)
n_{s}	0.96191	0.9627 ± 0.0044 (−0.0 σ)	Y_{P}	0.245377	$0.245377^{+0.000063}_{-0.000056}$ (+0.9 σ)	$D_{\mathrm{M}}(0.61)$	2318.4	2317 ± 13 (−0.2 σ)
y_{cal}	1.00051	1.0006 ± 0.0025 (+0.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246704	$0.246703^{+0.000064}_{-0.000057}$ (+0.9 σ)	$H(2.33)$	237.08	236.99 ± 0.84 (+0.2 σ)
H_0	66.98	67.04 ± 0.62 (+0.1 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.5941	2.594 ± 0.028 (−0.9 σ)	$D_{\mathrm{M}}(2.33)$	5768.9	5768 ± 11 (−0.6 σ)
Ω_{Λ}	0.6794	0.6801 ± 0.0087 (+0.0 σ)	Age/Gyr	13.8087	13.807 ± 0.024 (−0.6 σ)	$f\sigma_8(0.15)$	0.4645	0.4641 ± 0.0083 (+0.1 σ)
Ω_{m}	0.3206	0.3199 ± 0.0087 (−0.0 σ)	z_*	1090.052	1090.04 ± 0.28 (−0.6 σ)	$\sigma_8(0.15)$	0.7510	0.7511 ± 0.0065 (+0.3 σ)
$\Omega_{\mathrm{m}}h^2$	0.14384	0.1437 ± 0.0013 (+0.2 σ)	r_*	144.243	144.28 ± 0.31 (−0.4 σ)	$f\sigma_8(0.38)$	0.4809	0.4806 ± 0.0068 (+0.1 σ)
$\Omega_{\mathrm{m}}h^3$	0.096341	0.09633 ± 0.00029 (+0.9 σ)	$100\theta_*$	1.041005	1.04102 ± 0.00031 (+0.1 σ)	$\sigma_8(0.38)$	0.6647	0.6649 ± 0.0055 (+0.3 σ)
σ_8	0.8136	0.8137 ± 0.0074 (+0.2 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8562	13.859 ± 0.029 (−0.4 σ)	$f\sigma_8(0.51)$	0.4784	0.4782 ± 0.0060 (+0.1 σ)
S_8	0.8411	0.840 ± 0.016 (+0.1 σ)	z_{drag}	1059.895	1059.89 ± 0.30 (+1.1 σ)	$\sigma_8(0.51)$	0.6216	0.6219 ± 0.0051 (+0.3 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4607	0.4602 ± 0.0090 (+0.1 σ)	r_{drag}	146.914	146.95 ± 0.30 (−0.5 σ)	$f\sigma_8(0.61)$	0.4727	0.4725 ± 0.0054 (+0.2 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6123	0.6119 ± 0.0083 (+0.1 σ)	k_{D}	0.141019	0.14099 ± 0.00032 (+0.8 σ)	$\sigma_8(0.61)$	0.59124	0.5915 ± 0.0048 (+0.3 σ)
$\sigma_8/h^{0.5}$	0.9942	0.994 ± 0.012 (+0.1 σ)	$100\theta_{\mathrm{D}}$	0.160779	0.16078 ± 0.00018 (−1.1 σ)	$f\sigma_8(2.33)$	0.29775	0.2979 ± 0.0024 (+0.3 σ)
$r_{\mathrm{drag}}h$	98.40	98.5 ± 1.1 (+0.0 σ)	z_{eq}	3421.8	3419 ± 32 (+0.2 σ)	$\sigma_8(2.33)$	0.30658	0.3068 ± 0.0026 (+0.3 σ)
$\langle d^2 \rangle^{1/2}$	2.4620	2.460 ± 0.029 (+0.2 σ)	k_{eq}	0.010444	0.010434 ± 0.000096 (+0.2 σ)	$\chi^2_{\mathrm{PLIK_LITE}}$	583.69	588.6 ± 3.4 (+106.5 σ)
z_{re}	7.65	7.69 ± 0.80 (+0.2 σ)	$100\theta_{\mathrm{eq}}$	0.8096	0.8103 ± 0.0059 (−0.1 σ)	χ^2_{simall}	396.05	397.2 ± 2.0 (+0.1 σ)
10^9A_{s}	2.1018	2.104 ± 0.034 (+0.4 σ)	$100\theta_{\mathrm{s,eq}}$	0.44749	0.4478 ± 0.0030 (−0.1 σ)	χ^2_{prior}	0.04	1.0 ± 1.5 (+0.0 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8876	1.887 ± 0.012 (+0.2 σ)	$H(0.15)$	72.36	72.41 ± 0.53 (+0.2 σ)	χ^2_{CMB}	979.73	985.8 ± 3.5 (+100.1 σ)
D_{40}	1238.9	1238 ± 13 (+0.3 σ)	$D_{\mathrm{M}}(0.15)$	646.6	646.1 ± 5.3 (−0.2 σ)			

Best-fit $\chi^2_{\mathrm{eff}} = 979.77$; $\bar{\chi}^2_{\mathrm{eff}} = 986.87$; $R - 1 = 0.00781$

χ^2_{eff} : CMB - plik_lite_v22: 583.69 simall_100x143_offlike5_EE_Aplanck_B: 396.05

2.36 base_pliklite_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022354	0.02235 ± 0.00015 (+1.0 σ)	D_{220}	5730.6	5732 ± 39 (+0.5 σ)	$H(0.38)$	82.827	82.80 ± 0.38 (+0.5 σ)
$\Omega_{\text{c}}h^2$	0.12008	0.1202 ± 0.0014 (−0.2 σ)	D_{810}	2539.4	2540 ± 14 (+0.3 σ)	$D_{\text{M}}(0.38)$	1534.5	1535 ± 10 (−0.4 σ)
$100\theta_{\text{MC}}$	1.040883	1.04088 ± 0.00031 (+0.2 σ)	D_{1420}	817.29	817.3 ± 4.8 (+0.6 σ)	$H(0.51)$	89.593	89.57 ± 0.30 (+0.5 σ)
τ	0.0542	$0.0544^{+0.0071}_{-0.0079}$ (+0.3 σ)	D_{2000}	230.88	230.9 ± 1.6 (+0.7 σ)	$D_{\text{M}}(0.51)$	1987.1	1988 ± 12 (−0.4 σ)
$\ln(10^{10}A_{\text{s}})$	3.0441	3.045 ± 0.016 (+0.3 σ)	$n_{\text{s},0.002}$	0.96513	0.9648 ± 0.0043 (+0.3 σ)	$H(0.61)$	95.249	95.24 ± 0.24 (+0.6 σ)
n_{s}	0.96513	0.9648 ± 0.0043 (+0.3 σ)	Y_{P}	0.245389	$0.245386^{+0.000063}_{-0.000054}$ (+1.0 σ)	$D_{\text{M}}(0.61)$	2311.6	2313 ± 13 (−0.4 σ)
y_{cal}	1.00060	1.0007 ± 0.0025 (+0.1 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246716	$0.246713^{+0.000063}_{-0.000054}$ (+1.0 σ)	$H(2.33)$	236.60	236.70 ± 0.81 (+0.0 σ)
H_0	67.30	67.25 ± 0.61 (+0.4 σ)	$10^5\text{D}/\text{H}$	2.5884	2.589 ± 0.028 (−1.0 σ)	$D_{\text{M}}(2.33)$	5764.9	5765 ± 11 (−0.7 σ)
Ω_{Λ}	0.6841	0.6831 ± 0.0084 (+0.3 σ)	Age/Gyr	13.8003	13.801 ± 0.024 (−0.8 σ)	$f\sigma_8(0.15)$	0.4603	0.4613 ± 0.0082 (−0.2 σ)
Ω_{m}	0.3159	0.3169 ± 0.0084 (−0.3 σ)	z_*	1089.948	1089.96 ± 0.28 (−0.8 σ)	$\sigma_8(0.15)$	0.7494	0.7500 ± 0.0065 (+0.1 σ)
$\Omega_{\text{m}}h^2$	0.14308	0.1432 ± 0.0013 (−0.1 σ)	r_*	144.422	144.38 ± 0.30 (−0.2 σ)	$f\sigma_8(0.38)$	0.4777	0.4785 ± 0.0067 (−0.1 σ)
$\Omega_{\text{m}}h^3$	0.096296	0.09631 ± 0.00029 (+0.9 σ)	$100\theta_*$	1.041074	1.04107 ± 0.00031 (+0.2 σ)	$\sigma_8(0.38)$	0.6638	0.6643 ± 0.0055 (+0.2 σ)
σ_8	0.8115	0.8122 ± 0.0074 (+0.1 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8724	13.869 ± 0.028 (−0.2 σ)	$f\sigma_8(0.51)$	0.4758	0.4765 ± 0.0059 (−0.1 σ)
S_8	0.8327	0.835 ± 0.016 (−0.2 σ)	z_{drag}	1059.895	1059.91 ± 0.30 (+1.1 σ)	$\sigma_8(0.51)$	0.6210	0.6214 ± 0.0051 (+0.2 σ)
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4561	0.4572 ± 0.0088 (−0.2 σ)	r_{drag}	147.089	147.05 ± 0.30 (−0.3 σ)	$f\sigma_8(0.61)$	0.4704	0.4711 ± 0.0054 (−0.1 σ)
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6084	0.6094 ± 0.0082 (−0.1 σ)	k_{D}	0.140860	0.14090 ± 0.00032 (+0.7 σ)	$\sigma_8(0.61)$	0.59081	0.5911 ± 0.0048 (+0.2 σ)
$\sigma_8/h^{0.5}$	0.9892	0.991 ± 0.012 (−0.1 σ)	$100\theta_{\text{D}}$	0.160772	0.16077 ± 0.00018 (−1.1 σ)	$f\sigma_8(2.33)$	0.29771	0.2978 ± 0.0024 (+0.3 σ)
$r_{\text{drag}}h$	98.99	98.9 ± 1.1 (+0.2 σ)	z_{eq}	3403.8	3407 ± 31 (−0.1 σ)	$\sigma_8(2.33)$	0.30674	0.3068 ± 0.0025 (+0.4 σ)
$\langle d^2 \rangle^{1/2}$	2.4460	2.450 ± 0.028 (−0.1 σ)	k_{eq}	0.010389	0.010400 ± 0.000094 (−0.1 σ)	$\chi_{\text{PLIK_LITE}}^2$	584.03	588.8 ± 3.5 (+106.5 σ)
z_{re}	7.68	7.68 ± 0.78 (+0.2 σ)	$100\theta_{\text{eq}}$	0.8130	0.8123 ± 0.0058 (+0.1 σ)	χ_{simall}^2	396.06	397.1 ± 2.0 (+0.1 σ)
10^9A_{s}	2.0992	$2.102^{+0.030}_{-0.035}$ (+0.3 σ)	$100\theta_{\text{s,eq}}$	0.44921	0.4489 ± 0.0030 (+0.1 σ)	χ_{lowl}^2	23.38	23.56 ± 0.97 (−0.2 σ)
$10^9A_{\text{s}}e^{-2\tau}$	1.8835	1.884 ± 0.012 (+0.0 σ)	$H(0.15)$	72.63	72.59 ± 0.52 (+0.4 σ)	χ_{prior}^2	0.06	1.1 ± 1.5 (+0.0 σ)
D_{40}	1230.6	1232 ± 13 (−0.1 σ)	$D_{\text{M}}(0.15)$	643.8	644.3 ± 5.2 (−0.4 σ)	χ_{CMB}^2	1003.47	1009.5 ± 3.5 (+106.8 σ)

Best-fit $\chi_{\text{eff}}^2 = 1003.53$; $\bar{\chi}_{\text{eff}}^2 = 1010.59$; $R - 1 = 0.00680$

χ_{eff}^2 : CMB - plik_lite_v22: 584.03 simall_100x143_offlike5_EE_Aplanck_B: 396.06 commander_dx12_v3_2_29: 23.39

2.37 base_pliklite_TTTEEE_lowl_lmax801_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022417	0.02242 ± 0.00024 (+1.4 σ)	D_{220}	5723.8	5729 ± 40 (+0.4 σ)	$H(0.38)$	83.13	83.16 ± 0.59 (+1.1 σ)
$\Omega_{\mathrm{c}}h^2$	0.11868	0.1187 ± 0.0018 (−0.9 σ)	D_{810}	2530.6	2532 ± 15 (−0.3 σ)	$D_{\mathrm{M}}(0.38)$	1525.7	1525 ± 16 (−1.1 σ)
$100\theta_{\mathrm{MC}}$	1.04084	1.04088 ± 0.00061 (+0.2 σ)	D_{1420}	815.1	815.4 ± 6.9 (+0.2 σ)	$H(0.51)$	89.808	89.84 ± 0.49 (+1.1 σ)
τ	0.0516	0.0509 ± 0.0084 (−0.2 σ)	D_{2000}	230.12	230.2 ± 2.5 (+0.3 σ)	$D_{\mathrm{M}}(0.51)$	1977.0	1976 ± 18 (−1.1 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0328	3.032 ± 0.018 (−0.5 σ)	$n_{\mathrm{s},0.002}$	0.9673	0.9672 ± 0.0073 (+0.7 σ)	$H(0.61)$	95.400	95.43 ± 0.40 (+1.2 σ)
n_{s}	0.9673	0.9672 ± 0.0073 (+0.7 σ)	Y_{P}	0.245414	$0.245413^{+0.000095}_{-0.000086}$ (+1.3 σ)	$D_{\mathrm{M}}(0.61)$	2300.9	2300 ± 20 (−1.1 σ)
y_{cal}	0.99998	1.0002 ± 0.0025 (−0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246741	$0.246740^{+0.000095}_{-0.000087}$ (+1.3 σ)	$H(2.33)$	235.73	235.7 ± 1.0 (−0.8 σ)
H_0	67.83	67.87 ± 0.91 (+1.0 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.5767	2.576 ± 0.044 (−1.3 σ)	$D_{\mathrm{M}}(2.33)$	5759.6	5758 ± 19 (−1.1 σ)
Ω_{Λ}	0.6919	0.692 ± 0.012 (+1.0 σ)	Age/Gyr	13.7896	13.787 ± 0.043 (−1.1 σ)	$f\sigma_8(0.15)$	0.4503	0.450 ± 0.011 (−1.1 σ)
Ω_{m}	0.3081	0.308 ± 0.012 (−1.0 σ)	z_*	1089.745	1089.74 ± 0.43 (−1.4 σ)	$\sigma_8(0.15)$	0.7419	0.7414 ± 0.0078 (−1.0 σ)
$\Omega_{\mathrm{m}}h^2$	0.14174	0.1417 ± 0.0016 (−0.8 σ)	r_*	144.737	144.74 ± 0.36 (+0.6 σ)	$f\sigma_8(0.38)$	0.4692	0.4687 ± 0.0090 (−1.1 σ)
$\Omega_{\mathrm{m}}h^3$	0.096143	0.09617 ± 0.00047 (+0.6 σ)	$100\theta_*$	1.04102	1.04106 ± 0.00060 (+0.2 σ)	$\sigma_8(0.38)$	0.6580	0.6576 ± 0.0064 (−0.9 σ)
σ_8	0.8026	0.8020 ± 0.0091 (−1.1 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.9034	13.903 ± 0.033 (+0.6 σ)	$f\sigma_8(0.51)$	0.4682	0.4678 ± 0.0079 (−1.1 σ)
S_8	0.8133	0.813 ± 0.022 (−1.1 σ)	z_{drag}	1059.933	1059.96 ± 0.46 (+1.2 σ)	$\sigma_8(0.51)$	0.6160	0.6156 ± 0.0059 (−0.8 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4455	0.445 ± 0.012 (−1.1 σ)	r_{drag}	147.390	147.39 ± 0.34 (+0.4 σ)	$f\sigma_8(0.61)$	0.4636	0.4631 ± 0.0071 (−1.1 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5979	0.597 ± 0.011 (−1.1 σ)	k_{D}	0.140589	0.14059 ± 0.00035 (+0.1 σ)	$\sigma_8(0.61)$	0.5862	0.5858 ± 0.0055 (−0.8 σ)
$\sigma_8/h^{0.5}$	0.9745	0.974 ± 0.016 (−1.2 σ)	$100\theta_{\mathrm{D}}$	0.160723	0.16072 ± 0.00025 (−1.3 σ)	$f\sigma_8(2.33)$	0.29571	0.2955 ± 0.0027 (−0.6 σ)
$r_{\mathrm{drag}}h$	99.97	100.0 ± 1.5 (+0.9 σ)	z_{eq}	3371.8	3371 ± 39 (−0.8 σ)	$\sigma_8(2.33)$	0.30501	0.3049 ± 0.0029 (−0.4 σ)
$\langle d^2 \rangle^{1/2}$	2.4137	2.413 ± 0.039 (−1.1 σ)	k_{eq}	0.010291	0.01029 ± 0.00012 (−0.8 σ)	$\chi_{\mathrm{PLIK_LITE}}^2$	250.49	255.3 ± 3.4 (+12.8 σ)
z_{re}	7.37	$7.27^{+0.89}_{-0.76}$ (−0.3 σ)	$100\theta_{\mathrm{eq}}$	0.8188	0.8190 ± 0.0077 (+0.9 σ)	χ_{small}^2	395.69	396.8 ± 1.6 (−0.1 σ)
10^9A_{s}	2.0754	2.074 ± 0.036 (−0.5 σ)	$100\theta_{\mathrm{s,eq}}$	0.45224	0.4523 ± 0.0039 (+0.9 σ)	χ_{lowl}^2	22.72	22.9 ± 1.3 (−0.7 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8721	1.873 ± 0.013 (−0.8 σ)	$H(0.15)$	73.07	73.11 ± 0.79 (+1.1 σ)	χ_{prior}^2	0.00	1.0 ± 1.4 (−0.0 σ)
D_{40}	1221.4	1223 ± 17 (−0.7 σ)	$D_{\mathrm{M}}(0.15)$	639.4	639.2 ± 7.7 (−1.0 σ)	χ_{CMB}^2	668.91	675.1 ± 3.5 (+12.5 σ)

Best-fit $\chi_{\mathrm{eff}}^2 = 668.91$; $\bar{\chi}_{\mathrm{eff}}^2 = 676.09$; $R - 1 = 0.00582$

χ_{eff}^2 : CMB - plik_lite_v22: 250.50 simall_100x143_offlike5_EE_Aplanck_B: 395.69 commander_dx12_v3.2_29: 22.72

2.38 base_pliklite_TTTEEE_lowl_lmin802_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022289	0.02229 ± 0.00024 (+0.8 σ)	D_{220}	5695	5689 ± 92 (−0.6 σ)	$H(0.38)$	82.01	81.99 ± 0.62 (−1.0 σ)
$\Omega_{\mathrm{c}}h^2$	0.12424	0.1245 ± 0.0029 (+1.9 σ)	D_{810}	2544.7	2544 ± 15 (+0.6 σ)	$D_{\mathrm{M}}(0.38)$	1559.7	1561 ± 19 (+1.2 σ)
$100\theta_{\mathrm{MC}}$	1.040774	1.04077 ± 0.00038 (−0.0 σ)	D_{1420}	819.19	819.2 ± 5.0 (+0.9 σ)	$H(0.51)$	89.024	$89.02^{+0.42}_{-0.48}$ (−0.7 σ)
τ	0.0498	0.0498 ± 0.0078 (−0.3 σ)	D_{2000}	231.87	231.9 ± 1.9 (+1.3 σ)	$D_{\mathrm{M}}(0.51)$	2016.0	2017 ± 22 (+1.2 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0439	3.044 ± 0.016 (+0.2 σ)	$n_{\mathrm{s},0.002}$	0.9612	0.9615 ± 0.0089 (−0.2 σ)	$H(0.61)$	94.872	$94.87^{+0.30}_{-0.36}$ (−0.4 σ)
n_{s}	0.9612	0.9615 ± 0.0089 (−0.2 σ)	Y_{P}	0.245363	$0.24536^{+0.00010}_{-0.000088}$ (+0.7 σ)	$D_{\mathrm{M}}(0.61)$	2342.3	2344 ± 23 (+1.1 σ)
y_{cal}	1.00035	1.0002 ± 0.0025 (−0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246689	$0.24669^{+0.00010}_{-0.000089}$ (+0.7 σ)	$H(2.33)$	239.26	239.4 ± 1.9 (+2.2 σ)
H_0	65.79	65.7 ± 1.1 (−1.3 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.6008	2.601 ± 0.044 (−0.7 σ)	$D_{\mathrm{M}}(2.33)$	5777.8	5778 ± 15 (+0.0 σ)
Ω_{Λ}	0.6600	0.658 ± 0.018 (−1.6 σ)	Age/Gyr	13.8261	13.826 ± 0.034 (−0.1 σ)	$f\sigma_8(0.15)$	0.4823	0.484 ± 0.016 (+1.7 σ)
Ω_{m}	0.3400	0.342 ± 0.018 (+1.6 σ)	z_*	1090.389	1090.41 ± 0.44 (+0.3 σ)	$\sigma_8(0.15)$	0.7581	0.7585 ± 0.0087 (+1.2 σ)
$\Omega_{\mathrm{m}}h^2$	0.14717	0.1474 ± 0.0029 (+2.0 σ)	r_*	143.41	143.36 ± 0.71 (−2.3 σ)	$f\sigma_8(0.38)$	0.4944	0.495 ± 0.013 (+1.6 σ)
$\Omega_{\mathrm{m}}h^3$	0.09682	0.09686 ± 0.00056 (+2.1 σ)	$100\theta_*$	1.040957	1.04095 ± 0.00038 (−0.1 σ)	$\sigma_8(0.38)$	0.6690	0.6692 ± 0.0066 (+1.0 σ)
σ_8	0.8235	0.824 ± 0.011 (+1.4 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.777	13.772 ± 0.066 (−2.4 σ)	$f\sigma_8(0.51)$	0.4896	0.490 ± 0.011 (+1.6 σ)
S_8	0.8767	0.880 ± 0.033 (+1.7 σ)	z_{drag}	1060.05	1060.07 ± 0.53 (+1.5 σ)	$\sigma_8(0.51)$	0.6248	0.6249 ± 0.0058 (+0.9 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4802	0.482 ± 0.018 (+1.7 σ)	r_{drag}	146.08	146.02 ± 0.73 (−2.5 σ)	$f\sigma_8(0.61)$	0.4823	0.4828 ± 0.0092 (+1.6 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6288	0.630 ± 0.016 (+1.6 σ)	k_{D}	0.14188	0.14195 ± 0.00081 (+2.7 σ)	$\sigma_8(0.61)$	0.5938	0.5938 ± 0.0053 (+0.8 σ)
$\sigma_8/h^{0.5}$	1.0153	1.017 ± 0.021 (+1.5 σ)	$100\theta_{\mathrm{D}}$	0.160719	0.16071 ± 0.00031 (−1.3 σ)	$f\sigma_8(2.33)$	0.29831	0.2983 ± 0.0025 (+0.5 σ)
$r_{\mathrm{drag}}h$	96.10	96.0 ± 2.0 (−1.6 σ)	z_{eq}	3502	3507 ± 69 (+2.0 σ)	$\sigma_8(2.33)$	0.30640	0.3063 ± 0.0026 (+0.2 σ)
$\langle d^2 \rangle^{1/2}$	2.4949	2.497 ± 0.045 (+1.1 σ)	k_{eq}	0.010687	0.01070 ± 0.00021 (+2.0 σ)	$\chi_{\mathrm{PLIK_LITE}}^2$	328.11	332.9 ± 3.8 (+34.6 σ)
z_{re}	7.30	$7.27^{+0.83}_{-0.75}$ (−0.3 σ)	$100\theta_{\mathrm{eq}}$	0.7957	0.795 ± 0.012 (−1.8 σ)	χ_{small}^2	395.73	396.8 ± 1.5 (−0.1 σ)
10^9A_{s}	2.0987	2.099 ± 0.034 (+0.2 σ)	$100\theta_{\mathrm{s,eq}}$	0.4403	0.4398 ± 0.0062 (−1.9 σ)	χ_{lowl}^2	24.16	24.4 ± 2.5 (+0.5 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8996	1.900 ± 0.017 (+1.1 σ)	$H(0.15)$	71.38	71.33 ± 0.92 (−1.2 σ)	χ_{prior}^2	0.020	0.97 ± 1.4 (−0.0 σ)
D_{40}	1237.1	1236^{+28}_{-31} (+0.2 σ)	$D_{\mathrm{M}}(0.15)$	656.9	657.6 ± 9.8 (+1.3 σ)	χ_{CMB}^2	748.00	754.1 ± 3.5 (+34.8 σ)

Best-fit $\chi_{\mathrm{eff}}^2 = 748.02$; $\bar{\chi}_{\mathrm{eff}}^2 = 755.12$; $R - 1 = 0.00710$

χ_{eff}^2 : CMB - plik_lite_v22: 328.11 simall.100x143_offlike5_EE_Aplanck_B: 395.73 commander_dx12_v3.2_29: 24.16

2.39 base_pliklite_TTTEEE_lmax801_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022268	0.02230 ± 0.00024 (+0.8 σ)	D_{220}	5736.1	5733 ± 41 (+0.5 σ)	$H(0.38)$	82.72	82.81 ± 0.61 (+0.5 σ)
$\Omega_{\mathrm{c}}h^2$	0.11997	0.1198 ± 0.0019 (−0.4 σ)	D_{810}	2528.2	2529 ± 15 (−0.5 σ)	$D_{\mathrm{M}}(0.38)$	1536.8	1535 ± 16 (−0.4 σ)
$100\theta_{\mathrm{MC}}$	1.04065	1.04072 ± 0.00062 (−0.1 σ)	D_{1420}	811.1	811.9 ± 7.0 (−0.5 σ)	$H(0.51)$	89.481	89.56 ± 0.50 (+0.5 σ)
τ	0.0506	0.0511 ± 0.0081 (−0.2 σ)	D_{2000}	228.48	228.8 ± 2.5 (−0.4 σ)	$D_{\mathrm{M}}(0.51)$	1990.0	1987 ± 19 (−0.5 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0339	3.034 ± 0.017 (−0.4 σ)	$n_{\mathrm{s},0.002}$	0.9600	0.9615 ± 0.0078 (−0.2 σ)	$H(0.61)$	95.136	95.20 ± 0.41 (+0.5 σ)
n_{s}	0.9600	0.9615 ± 0.0078 (−0.2 σ)	Y_{P}	0.245354	$0.24536^{+0.00010}_{-0.000090}$ (+0.7 σ)	$D_{\mathrm{M}}(0.61)$	2314.9	2312 ± 21 (−0.5 σ)
y_{cal}	1.00032	1.0002 ± 0.0025 (−0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246680	$0.24669^{+0.00010}_{-0.000091}$ (+0.7 σ)	$H(2.33)$	236.41	236.3 ± 1.1 (−0.3 σ)
H_0	67.19	67.32 ± 0.95 (+0.4 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.6049	2.600 ± 0.045 (−0.8 σ)	$D_{\mathrm{M}}(2.33)$	5771.4	5769 ± 19 (−0.5 σ)
Ω_{Λ}	0.6835	0.685 ± 0.012 (+0.4 σ)	Age/Gyr	13.8158	13.810 ± 0.044 (−0.5 σ)	$f\sigma_8(0.15)$	0.4573	0.456 ± 0.012 (−0.6 σ)
Ω_{m}	0.3165	0.315 ± 0.012 (−0.4 σ)	z_*	1090.045	1089.99 ± 0.45 (−0.7 σ)	$\sigma_8(0.15)$	0.7439	0.7438 ± 0.0076 (−0.7 σ)
$\Omega_{\mathrm{m}}h^2$	0.14288	0.1427 ± 0.0017 (−0.3 σ)	r_*	144.518	144.55 ± 0.37 (+0.2 σ)	$f\sigma_8(0.38)$	0.4744	0.4737 ± 0.0093 (−0.6 σ)
$\Omega_{\mathrm{m}}h^3$	0.096001	0.09605 ± 0.00047 (+0.3 σ)	$100\theta_*$	1.04084	1.04091 ± 0.00061 (−0.1 σ)	$\sigma_8(0.38)$	0.6588	0.6589 ± 0.0062 (−0.7 σ)
σ_8	0.8055	0.8053 ± 0.0090 (−0.7 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8847	13.887 ± 0.034 (+0.2 σ)	$f\sigma_8(0.51)$	0.4725	0.4719 ± 0.0080 (−0.6 σ)
S_8	0.8274	0.825 ± 0.023 (−0.6 σ)	z_{drag}	1059.704	1059.75 ± 0.47 (+0.7 σ)	$\sigma_8(0.51)$	0.6163	0.6165 ± 0.0057 (−0.7 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4532	0.452 ± 0.013 (−0.6 σ)	r_{drag}	147.213	147.24 ± 0.34 (+0.1 σ)	$f\sigma_8(0.61)$	0.4671	0.4666 ± 0.0071 (−0.7 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6042	0.603 ± 0.011 (−0.6 σ)	k_{D}	0.140659	0.14065 ± 0.00035 (+0.2 σ)	$\sigma_8(0.61)$	0.5863	0.5865 ± 0.0053 (−0.7 σ)
$\sigma_8/h^{0.5}$	0.9827	0.982 ± 0.016 (−0.7 σ)	$100\theta_{\mathrm{D}}$	0.160860	0.16084 ± 0.00026 (−0.8 σ)	$f\sigma_8(2.33)$	0.29543	0.2956 ± 0.0027 (−0.6 σ)
$r_{\mathrm{drag}}h$	98.91	99.1 ± 1.6 (+0.4 σ)	z_{eq}	3399.0	3395 ± 41 (−0.3 σ)	$\sigma_8(2.33)$	0.30436	0.3046 ± 0.0028 (−0.5 σ)
$\langle d^2 \rangle^{1/2}$	2.4437	2.439 ± 0.041 (−0.4 σ)	k_{eq}	0.010374	0.01036 ± 0.00013 (−0.3 σ)	$\chi_{\mathrm{PLIK_LITE}}^2$	249.86	254.8 ± 3.2 (+12.7 σ)
z_{re}	7.32	7.34 ± 0.84 (−0.2 σ)	$100\theta_{\mathrm{eq}}$	0.8134	0.8143 ± 0.0081 (+0.4 σ)	χ_{small}^2	395.69	396.9 ± 1.6 (−0.1 σ)
10^9A_{s}	2.0777	2.079 ± 0.035 (−0.4 σ)	$100\theta_{\mathrm{s,eq}}$	0.44949	0.4500 ± 0.0041 (+0.3 σ)	χ_{prior}^2	0.02	1.0 ± 1.5 (+0.0 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8777	1.877 ± 0.013 (−0.5 σ)	$H(0.15)$	72.52	72.63 ± 0.82 (+0.5 σ)	χ_{CMB}^2	645.55	651.7 ± 3.5 (+6.0 σ)
D_{40}	1238.8	1236 ± 19 (+0.2 σ)	$D_{\mathrm{M}}(0.15)$	644.9	643.9 ± 8.2 (−0.4 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 645.57$; $\bar{\chi}_{\mathrm{eff}}^2 = 652.72$; $R - 1 = 0.00977$

χ_{eff}^2 : CMB - plik_lite_v22: 249.86 simall_100x143_offlike5_EE_Aplanck_B: 395.69

2.40 base_pliklite_TTTEEE_lmin802_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022378	0.02236 ± 0.00024 (+1.1 σ)	D_{220}	5828	5820 ± 110 (+2.6 σ)	$H(0.38)$	81.91	$81.87^{+0.55}_{-0.64}$ (-1.2 σ)
$\Omega_c h^2$	0.12524	0.1255 ± 0.0029 (+2.3 σ)	D_{810}	2555.4	2555 ± 16 (+1.4 σ)	$D_M(0.38)$	1563.6	1565 ± 19 (+1.5 σ)
$100\theta_{MC}$	1.040798	1.04077 ± 0.00038 (-0.0 σ)	D_{1420}	816.3	816.5 ± 5.2 (+0.4 σ)	$H(0.51)$	88.987	$88.96^{+0.40}_{-0.47}$ (-0.9 σ)
τ	0.0491	0.0485 ± 0.0079 (-0.5 σ)	D_{2000}	230.32	230.4 ± 2.0 (+0.5 σ)	$D_M(0.51)$	2020.3	2022 ± 22 (+1.4 σ)
$\ln(10^{10} A_s)$	3.0532	3.052 ± 0.016 (+0.7 σ)	$n_{s,0.002}$	0.9449	0.945 ± 0.011 (-3.1 σ)	$H(0.61)$	94.879	$94.86^{+0.29}_{-0.35}$ (-0.5 σ)
n_s	0.9449	0.945 ± 0.011 (-3.1 σ)	Y_P	0.245399	$0.24539^{+0.00010}_{-0.000088}$ (+1.0 σ)	$D_M(0.61)$	2346.6	2349 ± 23 (+1.4 σ)
y_{cal}	1.00012	1.0002 ± 0.0025 (-0.1 σ)	Y_P^{BBN}	0.246725	$0.24671^{+0.00010}_{-0.000088}$ (+1.0 σ)	$H(2.33)$	240.01	240.1 ± 1.9 (+2.7 σ)
H_0	65.53	65.4 ± 1.1 (-1.6 σ)	$10^5 D/H$	2.5840	2.588 ± 0.044 (-1.1 σ)	$D_M(2.33)$	5775.5	5777 ± 15 (-0.0 σ)
Ω_Λ	0.6548	0.653 ± 0.018 (-2.0 σ)	Age/Gyr	13.8199	13.823 ± 0.034 (-0.2 σ)	$f\sigma_8(0.15)$	0.4864	0.488 ± 0.016 (+2.0 σ)
Ω_m	0.3452	0.347 ± 0.018 (+2.0 σ)	z_*	1090.363	1090.41 ± 0.44 (+0.3 σ)	$\sigma_8(0.15)$	0.7591	0.7592 ± 0.0084 (+1.3 σ)
$\Omega_m h^2$	0.14826	0.1485 ± 0.0029 (+2.6 σ)	r_*	143.10	143.05 ± 0.70 (-3.0 σ)	$f\sigma_8(0.38)$	0.4973	0.498 ± 0.012 (+1.9 σ)
$\Omega_m h^3$	0.09716	0.09715 ± 0.00056 (+2.8 σ)	$100\theta_*$	1.040969	1.04094 ± 0.00038 (-0.1 σ)	$\sigma_8(0.38)$	0.6694	0.6692 ± 0.0063 (+1.0 σ)
σ_8	0.8251	0.825 ± 0.010 (+1.5 σ)	$D_M(z_*)/\text{Gpc}$	13.746	13.743 ± 0.066 (-3.1 σ)	$f\sigma_8(0.51)$	0.4919	$0.492^{+0.011}_{-0.0096}$ (+1.9 σ)
S_8	0.8851	0.888 ± 0.032 (+2.0 σ)	z_{drag}	1060.31	1060.30 ± 0.54 (+2.0 σ)	$\sigma_8(0.51)$	0.6250	0.6248 ± 0.0056 (+0.8 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4848	0.486 ± 0.018 (+2.0 σ)	r_{drag}	145.72	145.69 ± 0.72 (-3.2 σ)	$f\sigma_8(0.61)$	0.4842	$0.4846^{+0.0092}_{-0.0083}$ (+1.8 σ)
$\sigma_8 \Omega_m^{0.25}$	0.6325	0.633 ± 0.015 (+1.9 σ)	k_D	0.14233	0.14236 ± 0.00082 (+3.5 σ)	$\sigma_8(0.61)$	0.5938	0.5936 ± 0.0051 (+0.7 σ)
$\sigma_8/h^{0.5}$	1.0192	1.020 ± 0.020 (+1.7 σ)	$100\theta_D$	0.160569	0.16059 ± 0.00032 (-1.8 σ)	$f\sigma_8(2.33)$	0.29811	0.2980 ± 0.0025 (+0.3 σ)
$r_{drag} h$	95.50	95.4 ± 2.0 (-2.0 σ)	z_{eq}	3528	3533 ± 68 (+2.6 σ)	$\sigma_8(2.33)$	0.30601	0.3058 ± 0.0026 (-0.0 σ)
$\langle d^2 \rangle^{1/2}$	2.5485	2.549 ± 0.049 (+2.5 σ)	k_{eq}	0.010767	0.01078 ± 0.00021 (+2.6 σ)	$\chi^2_{PLIK_LITE}$	325.82	330.8 ± 3.2 (+34.0 σ)
z_{re}	7.22	$7.14^{+0.84}_{-0.75}$ (-0.5 σ)	$100\theta_{eq}$	0.7916	0.791 ± 0.012 (-2.3 σ)	χ^2_{small}	395.75	396.9 ± 1.5 (-0.1 σ)
$10^9 A_s$	2.1183	2.116 ± 0.034 (+0.7 σ)	$100\theta_{s,eq}$	0.4380	0.4376 ± 0.0061 (-2.4 σ)	χ^2_{prior}	0.00	1.0 ± 1.4 (-0.0 σ)
$10^9 A_s e^{-2\tau}$	1.9200	1.920 ± 0.019 (+2.7 σ)	$H(0.15)$	71.19	$71.12^{+0.84}_{-0.94}$ (-1.5 σ)	χ^2_{CMB}	721.57	727.7 ± 3.5 (+27.4 σ)
D_{40}	1292.0	1291 ± 37 (+3.7 σ)	$D_M(0.15)$	659.1	660.0 ± 9.7 (+1.6 σ)			

Best-fit $\chi^2_{eff} = 721.58$; $\bar{\chi}^2_{eff} = 728.69$; $R - 1 = 0.00563$

χ^2_{eff} : CMB - plik_lite_v22: 325.82 small_100x143_offlike5_EE_Aplanck_B: 395.75

2.41 base_pliklite_TTTEEE_lowl_lmax999_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022555	0.02255 ± 0.00019 (+2.0 σ)	D_{220}	5734.3	5735 ± 39 (+0.5 σ)	$H(0.38)$	83.29	83.30 ± 0.51 (+1.4 σ)
$\Omega_{\text{c}}h^2$	0.11818	0.1181 ± 0.0017 (−1.2 σ)	D_{810}	2537.7	2539 ± 14 (+0.2 σ)	$D_{\text{M}}(0.38)$	1521.5	1521 ± 13 (−1.3 σ)
$100\theta_{\text{MC}}$	1.040700	1.04068 ± 0.00043 (−0.2 σ)	D_{1420}	819.3	819.8 ± 5.7 (+1.0 σ)	$H(0.51)$	89.944	89.95 ± 0.41 (+1.4 σ)
τ	0.0525	0.0519 ± 0.0081 (−0.1 σ)	D_{2000}	231.74	231.9 ± 2.0 (+1.3 σ)	$D_{\text{M}}(0.51)$	1971.9	1972 ± 16 (−1.3 σ)
$\ln(10^{10}A_{\text{s}})$	3.0358	3.035 ± 0.017 (−0.4 σ)	$n_{\text{s},0.002}$	0.9709	0.9714 ± 0.0063 (+1.5 σ)	$H(0.61)$	95.514	95.52 ± 0.33 (+1.4 σ)
n_{s}	0.9709	0.9714 ± 0.0063 (+1.5 σ)	Y_{P}	0.245464	0.245464 ± 0.000076 (+1.8 σ)	$D_{\text{M}}(0.61)$	2295.4	2295 ± 17 (−1.3 σ)
y_{cal}	1.00014	1.0003 ± 0.0025 (−0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246791	0.246791 ± 0.000076 (+1.8 σ)	$H(2.33)$	235.52	235.48 ± 0.95 (−0.9 σ)
H_0	68.07	68.10 ± 0.79 (+1.3 σ)	$10^5\text{D}/\text{H}$	2.5522	2.553 ± 0.035 (−1.9 σ)	$D_{\text{M}}(2.33)$	5754.2	5754 ± 15 (−1.4 σ)
Ω_{Λ}	0.6949	0.695 ± 0.010 (+1.2 σ)	Age/Gyr	13.7777	13.778 ± 0.034 (−1.4 σ)	$f\sigma_8(0.15)$	0.4483	0.448 ± 0.010 (−1.3 σ)
Ω_{m}	0.3051	0.305 ± 0.010 (−1.2 σ)	z_*	1089.530	1089.53 ± 0.36 (−1.9 σ)	$\sigma_8(0.15)$	0.7422	0.7417 ± 0.0074 (−1.0 σ)
$\Omega_{\text{m}}h^2$	0.14138	0.1413 ± 0.0015 (−1.0 σ)	r_*	144.760	144.78 ± 0.34 (+0.6 σ)	$f\sigma_8(0.38)$	0.4679	0.4674 ± 0.0083 (−1.3 σ)
$\Omega_{\text{m}}h^3$	0.096245	0.09622 ± 0.00036 (+0.7 σ)	$100\theta_*$	1.040864	1.04085 ± 0.00042 (−0.3 σ)	$\sigma_8(0.38)$	0.6586	0.6582 ± 0.0061 (−0.8 σ)
σ_8	0.8025	0.8019 ± 0.0086 (−1.1 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9077	13.910 ± 0.032 (+0.7 σ)	$f\sigma_8(0.51)$	0.4673	0.4668 ± 0.0073 (−1.3 σ)
S_8	0.8093	0.808 ± 0.020 (−1.3 σ)	z_{drag}	1060.238	1060.22 ± 0.38 (+1.8 σ)	$\sigma_8(0.51)$	0.6166	0.6162 ± 0.0056 (−0.7 σ)
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4433	0.443 ± 0.011 (−1.3 σ)	r_{drag}	147.367	147.39 ± 0.33 (+0.4 σ)	$f\sigma_8(0.61)$	0.4628	0.4624 ± 0.0066 (−1.2 σ)
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5964	0.596 ± 0.010 (−1.3 σ)	k_{D}	0.140715	0.14069 ± 0.00034 (+0.3 σ)	$\sigma_8(0.61)$	0.5869	0.5865 ± 0.0053 (−0.7 σ)
$\sigma_8/h^{0.5}$	0.9726	0.972 ± 0.014 (−1.3 σ)	$100\theta_{\text{D}}$	0.160529	0.16053 ± 0.00021 (−2.0 σ)	$f\sigma_8(2.33)$	0.29617	0.2960 ± 0.0026 (−0.4 σ)
$r_{\text{drag}}h$	100.32	100.4 ± 1.3 (+1.2 σ)	z_{eq}	3363.2	3362 ± 37 (−1.0 σ)	$\sigma_8(2.33)$	0.30562	0.3055 ± 0.0027 (−0.2 σ)
$\langle d^2 \rangle^{1/2}$	2.4048	2.402 ± 0.036 (−1.3 σ)	k_{eq}	0.010265	0.01026 ± 0.00011 (−1.0 σ)	$\chi_{\text{PLIK_LITE}}^2$	287.19	292.2 ± 3.4 (+23.2 σ)
z_{re}	7.43	$7.34^{+0.85}_{-0.74}$ (−0.2 σ)	$100\theta_{\text{eq}}$	0.8207	0.8210 ± 0.0072 (+1.1 σ)	χ_{simall}^2	395.74	396.8 ± 1.5 (−0.1 σ)
10^9A_{s}	2.0818	2.080 ± 0.035 (−0.4 σ)	$100\theta_{\text{s,eq}}$	0.45309	0.4533 ± 0.0036 (+1.1 σ)	χ_{lowl}^2	22.21	22.3 ± 1.1 (−1.2 σ)
$10^9A_{\text{s}}e^{-2\tau}$	1.8741	1.875 ± 0.012 (−0.7 σ)	$H(0.15)$	73.29	73.31 ± 0.68 (+1.3 σ)	χ_{prior}^2	0.00	1.0 ± 1.4 (−0.0 σ)
D_{40}	1216.1	1215 ± 16 (−1.2 σ)	$D_{\text{M}}(0.15)$	637.3	637.2 ± 6.7 (−1.3 σ)	χ_{CMB}^2	705.14	711.2 ± 3.6 (+22.7 σ)

Best-fit $\chi_{\text{eff}}^2 = 705.14$; $\bar{\chi}_{\text{eff}}^2 = 712.24$; $R - 1 = 0.00674$

χ_{eff}^2 : CMB - plik_lite_v22: 287.19 simall_100x143_offlike5_EE_Aplanck_B: 395.74 commander_dx12_v3_2_29: 22.21

2.42 base_pliklite_TTTEEE_lowl_lmin1000_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.021833	0.02184 ± 0.00031 (-1.3σ)	D_{220}	5469	5476 ± 130 (-5.7σ)	$H(0.38)$	81.66	$81.68^{+0.61}_{-0.70}$ (-1.5σ)
$\Omega_{\mathrm{c}}h^2$	0.12486	0.1249 ± 0.0030 $(+2.1\sigma)$	D_{810}	2522.1	2522 ± 19 (-1.0σ)	$D_{\mathrm{M}}(0.38)$	1568.5	1569 ± 20 $(+1.7\sigma)$
$100\theta_{\mathrm{MC}}$	1.041160	1.04118 ± 0.00047 $(+0.9\sigma)$	D_{1420}	818.2	817.7 ± 5.2 $(+0.6\sigma)$	$H(0.51)$	88.713	$88.73^{+0.45}_{-0.53}$ (-1.4σ)
τ	0.0519	0.0512 ± 0.0084 (-0.1σ)	D_{2000}	232.13	232.0 ± 2.0 $(+1.3\sigma)$	$D_{\mathrm{M}}(0.51)$	2026.5	2027 ± 23 $(+1.7\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	3.0344	3.033 ± 0.018 (-0.5σ)	$n_{\mathrm{s},0.002}$	0.9797	0.979 ± 0.012 $(+2.8\sigma)$	$H(0.61)$	94.586	$94.61^{+0.35}_{-0.41}$ (-1.2σ)
n_{s}	0.9797	0.979 ± 0.012 $(+2.8\sigma)$	Y_{P}	0.245154	0.24516 ± 0.00014 (-1.4σ)	$D_{\mathrm{M}}(0.61)$	2353.8	2354 ± 25 $(+1.6\sigma)$
y_{cal}	1.00039	1.0002 ± 0.0025 (-0.0σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246480	0.24648 ± 0.00014 (-1.4σ)	$H(2.33)$	239.26	239.3 ± 1.9 $(+2.1\sigma)$
H_0	65.33	65.3 ± 1.2 (-1.7σ)	$10^5\mathrm{D}/\mathrm{H}$	2.689	2.688 ± 0.060 $(+1.4\sigma)$	$D_{\mathrm{M}}(2.33)$	5793.4	5793 ± 18 $(+1.0\sigma)$
Ω_{Λ}	0.6548	0.654 ± 0.019 (-1.9σ)	Age/Gyr	13.8627	13.861 ± 0.041 $(+0.9\sigma)$	$f\sigma_8(0.15)$	0.4889	0.489 ± 0.017 $(+2.1\sigma)$
Ω_{m}	0.3452	0.346 ± 0.019 $(+1.9\sigma)$	z_*	1091.04	1091.04 ± 0.54 $(+1.9\sigma)$	$\sigma_8(0.15)$	0.7630	0.7622 ± 0.0089 $(+1.7\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.14734	0.1474 ± 0.0030 $(+2.0\sigma)$	r_*	143.60	143.58 ± 0.75 (-1.9σ)	$f\sigma_8(0.38)$	0.4998	0.499 ± 0.013 $(+2.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	0.09626	0.09629 ± 0.00068 $(+0.9\sigma)$	$100\theta_*$	1.041398	1.04141 ± 0.00047 $(+0.9\sigma)$	$\sigma_8(0.38)$	0.6728	0.6721 ± 0.0067 $(+1.5\sigma)$
σ_8	0.8293	0.829 ± 0.011 $(+1.9\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.789	13.787 ± 0.070 (-2.1σ)	$f\sigma_8(0.51)$	0.4944	0.494 ± 0.011 $(+2.0\sigma)$
S_8	0.8896	0.890 ± 0.034 $(+2.1\sigma)$	z_{drag}	1059.02	1059.05 ± 0.70 (-0.8σ)	$\sigma_8(0.51)$	0.6282	0.6275 ± 0.0059 $(+1.3\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4872	0.487 ± 0.019 $(+2.1\sigma)$	r_{drag}	146.42	146.40 ± 0.78 (-1.7σ)	$f\sigma_8(0.61)$	0.4867	0.4862 ± 0.0094 $(+2.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6357	0.635 ± 0.016 $(+2.1\sigma)$	k_{D}	0.14115	0.14117 ± 0.00091 $(+1.2\sigma)$	$\sigma_8(0.61)$	0.5968	0.5962 ± 0.0055 $(+1.2\sigma)$
$\sigma_8/h^{0.5}$	1.0260	1.025 ± 0.021 $(+2.0\sigma)$	$100\theta_{\mathrm{D}}$	0.161413	0.16141 ± 0.00043 $(+1.4\sigma)$	$f\sigma_8(2.33)$	0.29965	0.2993 ± 0.0026 $(+0.9\sigma)$
$r_{\mathrm{drag}}h$	95.66	95.7 ± 2.1 (-1.8σ)	z_{eq}	3506	3508 ± 71 $(+2.0\sigma)$	$\sigma_8(2.33)$	0.30759	0.3072 ± 0.0027 $(+0.5\sigma)$
$\langle d^2 \rangle^{1/2}$	2.4556	2.457 ± 0.050 $(+0.1\sigma)$	k_{eq}	0.010699	0.01071 ± 0.00022 $(+2.0\sigma)$	$\chi_{\mathrm{PLIK_LITE}}^2$	288.98	293.1 ± 3.0 $(+23.4\sigma)$
z_{re}	7.63	$7.53^{+0.89}_{-0.81}$ $(+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	0.7941	0.794 ± 0.012 (-1.9σ)	χ_{small}^2	395.87	397.0 ± 1.6 $(+0.0\sigma)$
$10^9 A_{\mathrm{s}}$	2.0789	2.077 ± 0.037 (-0.5σ)	$100\theta_{\mathrm{s,eq}}$	0.4397	0.4397 ± 0.0064 (-1.9σ)	χ_{lowl}^2	20.37	21.2 ± 1.6 (-2.0σ)
$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8738	1.874 ± 0.021 (-0.7σ)	$H(0.15)$	70.97	70.98 ± 0.97 (-1.7σ)	χ_{prior}^2	0.02	1.0 ± 1.4 (-0.0σ)
D_{40}	1168.8	1172 ± 41 (-4.0σ)	$D_{\mathrm{M}}(0.15)$	661.1	661 ± 10 $(+1.7\sigma)$	χ_{CMB}^2	705.22	711.3 ± 3.4 $(+22.8\sigma)$

Best-fit $\chi_{\mathrm{eff}}^2 = 705.24$; $\bar{\chi}_{\mathrm{eff}}^2 = 712.34$; $R - 1 = 0.00975$

χ_{eff}^2 : CMB - plik_lite_v22: 288.98 simall_100x143_offlike5_EE_Aplanck_B: 395.87 commander_dx12_v3.2_29: 20.36

2.43 base_pliklite_TTTEEE_lmax999_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022496	0.02249 ± 0.00020 (+1.7 σ)	D_{220}	5741.2	5739 ± 40 (+0.6 σ)	$H(0.38)$	83.08	83.07 ± 0.52 (+0.9 σ)
$\Omega_{\text{c}}h^2$	0.11888	0.1189 ± 0.0017 (−0.8 σ)	D_{810}	2537.3	2537 ± 14 (+0.1 σ)	$D_{\text{M}}(0.38)$	1527.2	1528 ± 14 (−0.9 σ)
$100\theta_{\text{MC}}$	1.040577	1.04056 ± 0.00044 (−0.4 σ)	D_{1420}	817.7	817.8 ± 5.9 (+0.7 σ)	$H(0.51)$	89.776	89.77 ± 0.41 (+1.0 σ)
τ	0.0515	0.0520 ± 0.0081 (−0.0 σ)	D_{2000}	231.09	231.1 ± 2.1 (+0.9 σ)	$D_{\text{M}}(0.51)$	1978.7	1979 ± 16 (−0.9 σ)
$\ln(10^{10}A_{\text{s}})$	3.0356	3.037 ± 0.017 (−0.2 σ)	$n_{\text{s},0.002}$	0.9675	0.9677 ± 0.0066 (+0.8 σ)	$H(0.61)$	95.381	95.38 ± 0.34 (+1.0 σ)
n_{s}	0.9675	0.9677 ± 0.0066 (+0.8 σ)	Y_{P}	0.245443	0.245438 ± 0.000076 (+1.5 σ)	$D_{\text{M}}(0.61)$	2302.7	2303 ± 18 (−0.9 σ)
y_{cal}	1.00018	1.0002 ± 0.0025 (−0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246770	0.246765 ± 0.000076 (+1.5 σ)	$H(2.33)$	235.92	235.92 ± 0.99 (−0.6 σ)
H_0	67.74	67.72 ± 0.81 (+0.9 σ)	$10^5\text{D}/\text{H}$	2.5626	2.565 ± 0.036 (−1.6 σ)	$D_{\text{M}}(2.33)$	5760.0	5760 ± 15 (−1.0 σ)
Ω_{Λ}	0.6905	0.690 ± 0.011 (+0.8 σ)	Age/Gyr	13.7902	13.792 ± 0.034 (−1.0 σ)	$f\sigma_8(0.15)$	0.4520	0.452 ± 0.011 (−0.9 σ)
Ω_{m}	0.3095	0.310 ± 0.011 (−0.8 σ)	z_*	1089.664	1089.68 ± 0.37 (−1.5 σ)	$\sigma_8(0.15)$	0.7430	0.7434 ± 0.0075 (−0.8 σ)
$\Omega_{\text{m}}h^2$	0.14202	0.1420 ± 0.0016 (−0.7 σ)	r_*	144.624	144.63 ± 0.36 (+0.3 σ)	$f\sigma_8(0.38)$	0.4706	0.4709 ± 0.0086 (−0.9 σ)
$\Omega_{\text{m}}h^3$	0.096203	0.09618 ± 0.00036 (+0.6 σ)	$100\theta_*$	1.040752	1.04074 ± 0.00043 (−0.5 σ)	$\sigma_8(0.38)$	0.6588	0.6592 ± 0.0062 (−0.7 σ)
σ_8	0.8039	0.8043 ± 0.0087 (−0.8 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8961	13.897 ± 0.033 (+0.4 σ)	$f\sigma_8(0.51)$	0.4694	0.4697 ± 0.0075 (−0.9 σ)
S_8	0.8166	0.817 ± 0.021 (−0.9 σ)	z_{drag}	1060.162	1060.13 ± 0.37 (+1.6 σ)	$\sigma_8(0.51)$	0.6167	0.6170 ± 0.0057 (−0.6 σ)
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4472	0.448 ± 0.011 (−0.9 σ)	r_{drag}	147.245	147.25 ± 0.34 (+0.1 σ)	$f\sigma_8(0.61)$	0.4646	0.4649 ± 0.0067 (−0.9 σ)
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5996	0.600 ± 0.010 (−0.9 σ)	k_{D}	0.140799	0.14078 ± 0.00034 (+0.4 σ)	$\sigma_8(0.61)$	0.5868	0.5871 ± 0.0053 (−0.5 σ)
$\sigma_8/h^{0.5}$	0.9767	0.977 ± 0.015 (−0.9 σ)	$100\theta_{\text{D}}$	0.160568	0.16058 ± 0.00021 (−1.8 σ)	$f\sigma_8(2.33)$	0.29595	0.2961 ± 0.0026 (−0.4 σ)
$r_{\text{drag}}h$	99.74	99.7 ± 1.4 (+0.8 σ)	z_{eq}	3378.5	3379 ± 38 (−0.7 σ)	$\sigma_8(2.33)$	0.30520	0.3053 ± 0.0027 (−0.2 σ)
$\langle d^2 \rangle^{1/2}$	2.4190	2.420 ± 0.037 (−0.9 σ)	k_{eq}	0.010312	0.01031 ± 0.00012 (−0.7 σ)	$\chi_{\text{PLIK_LITE}}^2$	286.97	292.0 ± 3.2 (+23.1 σ)
z_{re}	7.35	7.38 ± 0.84 (−0.2 σ)	$100\theta_{\text{eq}}$	0.8176	0.8176 ± 0.0074 (+0.7 σ)	χ_{simall}^2	395.69	396.8 ± 1.6 (−0.1 σ)
10^9A_{s}	2.0814	2.084 ± 0.035 (−0.2 σ)	$100\theta_{\text{s,eq}}$	0.45154	0.4515 ± 0.0038 (+0.7 σ)	χ_{prior}^2	0.01	1.0 ± 1.5 (+0.0 σ)
$10^9A_{\text{s}}e^{-2\tau}$	1.8775	1.878 ± 0.013 (−0.5 σ)	$H(0.15)$	73.00	72.99 ± 0.70 (+0.9 σ)	χ_{CMB}^2	682.66	688.9 ± 3.5 (+16.4 σ)
D_{40}	1224.3	1224 ± 17 (−0.6 σ)	$D_{\text{M}}(0.15)$	640.2	640.4 ± 6.9 (−0.9 σ)			

Best-fit $\chi_{\text{eff}}^2 = 682.67$; $\bar{\chi}_{\text{eff}}^2 = 689.92$; $R - 1 = 0.01023$

χ_{eff}^2 : CMB - plik_lite_v22: 286.97 simall_100x143_offlike5_EE_Aplanck_B: 395.69

2.44 base_pliklite_TTTEE_lmin1000_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022123	0.02210 ± 0.00039 (-0.1σ)	D_{220}	5718	5727 ± 240 $(+0.4\sigma)$	$H(0.38)$	81.68	81.71 ± 0.66 (-1.5σ)
$\Omega_{\mathrm{c}}h^2$	0.12599	0.1258 ± 0.0030 $(+2.5\sigma)$	D_{810}	2547.3	2548 ± 27 $(+0.8\sigma)$	$D_{\mathrm{M}}(0.38)$	1570.3	1569 ± 20 $(+1.8\sigma)$
$100\theta_{\mathrm{MC}}$	1.041093	1.04112 ± 0.00048 $(+0.7\sigma)$	D_{1420}	816.5	816.1 ± 5.3 $(+0.3\sigma)$	$H(0.51)$	88.790	$88.82^{+0.47}_{-0.52}$ (-1.2σ)
τ	0.0486	0.0484 ± 0.0081 (-0.5σ)	D_{2000}	230.58	230.4 ± 2.3 $(+0.4\sigma)$	$D_{\mathrm{M}}(0.51)$	2028.1	2027 ± 23 $(+1.7\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	3.0475	3.047 ± 0.020 $(+0.4\sigma)$	$n_{\mathrm{s},0.002}$	0.9529	0.953 ± 0.023 (-1.8σ)	$H(0.61)$	94.714	$94.73^{+0.37}_{-0.42}$ (-0.8σ)
n_{s}	0.9529	0.953 ± 0.023 (-1.8σ)	Y_{P}	0.245294	$0.24527^{+0.00019}_{-0.00015}$ (-0.2σ)	$D_{\mathrm{M}}(0.61)$	2355.0	2354 ± 25 $(+1.7\sigma)$
y_{cal}	1.00007	1.0001 ± 0.0025 (-0.1σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246620	$0.24660^{+0.00019}_{-0.00015}$ (-0.2σ)	$H(2.33)$	240.28	240.2 ± 2.0 $(+2.7\sigma)$
H_0	65.17	65.2 ± 1.1 (-1.8σ)	$10^5\mathrm{D}/\mathrm{H}$	2.633	2.638 ± 0.074 $(+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	5783.9	5784 ± 20 $(+0.4\sigma)$
Ω_{Λ}	0.6498	0.650 ± 0.019 (-2.2σ)	Age/Gyr	13.8393	13.839 ± 0.047 $(+0.3\sigma)$	$f\sigma_8(0.15)$	0.4916	0.491 ± 0.017 $(+2.2\sigma)$
Ω_{m}	0.3502	0.350 ± 0.019 $(+2.2\sigma)$	z_*	1090.76	1090.77 ± 0.59 $(+1.2\sigma)$	$\sigma_8(0.15)$	0.7620	0.7613 ± 0.0088 $(+1.6\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.14876	0.1486 ± 0.0030 $(+2.6\sigma)$	r_*	143.10	143.16 ± 0.78 (-2.7σ)	$f\sigma_8(0.38)$	0.5014	0.500 ± 0.013 $(+2.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	0.09695	0.09691 ± 0.00085 $(+2.2\sigma)$	$100\theta_*$	1.041291	1.04133 ± 0.00047 $(+0.7\sigma)$	$\sigma_8(0.38)$	0.6714	0.6709 ± 0.0067 $(+1.3\sigma)$
σ_8	0.8287	0.828 ± 0.011 $(+1.8\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.742	13.747 ± 0.073 (-3.0σ)	$f\sigma_8(0.51)$	0.4954	0.495 ± 0.011 $(+2.1\sigma)$
S_8	0.8954	0.894 ± 0.034 $(+2.3\sigma)$	z_{drag}	1059.78	1059.73 ± 0.91 $(+0.7\sigma)$	$\sigma_8(0.51)$	0.6267	0.6262 ± 0.0059 $(+1.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4905	0.490 ± 0.019 $(+2.3\sigma)$	r_{drag}	145.81	145.88 ± 0.85 (-2.8σ)	$f\sigma_8(0.61)$	0.4873	$0.4865^{+0.0096}_{-0.0087}$ $(+2.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6375	0.637 ± 0.016 $(+2.2\sigma)$	k_{D}	0.14203	0.1419 ± 0.0011 $(+2.7\sigma)$	$\sigma_8(0.61)$	0.5953	0.5948 ± 0.0054 $(+1.0\sigma)$
$\sigma_8/h^{0.5}$	1.0266	1.025 ± 0.021 $(+2.0\sigma)$	$100\theta_{\mathrm{D}}$	0.16095	0.16100 ± 0.00055 (-0.2σ)	$f\sigma_8(2.33)$	0.29868	0.2985 ± 0.0026 $(+0.6\sigma)$
$r_{\mathrm{drag}}h$	95.03	95.2 ± 2.1 (-2.1σ)	z_{eq}	3540	3536 ± 72 $(+2.6\sigma)$	$\sigma_8(2.33)$	0.30641	0.3063 ± 0.0027 $(+0.1\sigma)$
$\langle d^2 \rangle^{1/2}$	2.534	2.534 ± 0.075 $(+2.1\sigma)$	k_{eq}	0.010803	0.01079 ± 0.00022 $(+2.6\sigma)$	$\chi_{\mathrm{PLIK_LITE}}^2$	287.60	292.6 ± 3.2 $(+23.3\sigma)$
z_{re}	7.23	7.18 ± 0.88 (-0.4σ)	$100\theta_{\mathrm{eq}}$	0.7892	0.790 ± 0.012 (-2.4σ)	χ_{small}^2	395.72	396.9 ± 1.5 (-0.1σ)
10^9A_{s}	2.1063	2.106 ± 0.042 $(+0.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	0.4369	0.4374 ± 0.0064 (-2.4σ)	χ_{prior}^2	0.001	0.98 ± 1.4 (-0.0σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.9112	1.912 ± 0.035 $(+2.0\sigma)$	$H(0.15)$	70.87	70.93 ± 0.96 (-1.7σ)	χ_{CMB}^2	683.33	689.5 ± 3.5 $(+16.6\sigma)$
D_{40}	1260	1265^{+77}_{-88} $(+2.0\sigma)$	$D_{\mathrm{M}}(0.15)$	662.4	662 ± 10 $(+1.8\sigma)$			

Best-fit $\chi_{\mathrm{eff}}^2 = 683.33$; $\bar{\chi}_{\mathrm{eff}}^2 = 690.47$; $R - 1 = 0.00812$

χ_{eff}^2 : CMB - plik_lite_v22: 287.60 simall_100x143_offlike5_EE_Aplanck_B: 395.72

2.45 base_pliklite_TTTEEE_lmin802_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022427	0.02242 ± 0.00023 (+1.4 σ)	D_{220}	5823	5820 ± 99 (+2.6 σ)	$H(0.38)$	82.666	82.69 ± 0.49 (+0.3 σ)
$\Omega_c h^2$	0.12141	0.1213 ± 0.0020 (+0.4 σ)	D_{810}	2548.8	2547 ± 15 (+0.8 σ)	$D_M(0.38)$	1540.2	1540 ± 14 (−0.1 σ)
$100\theta_{MC}$	1.040985	1.04099 ± 0.00037 (+0.5 σ)	D_{1420}	816.0	815.6 ± 5.1 (+0.2 σ)	$H(0.51)$	89.508	89.53 ± 0.38 (+0.4 σ)
τ	0.0480	0.0482 ± 0.0080 (−0.5 σ)	D_{2000}	230.00	229.9 ± 2.0 (+0.1 σ)	$D_M(0.51)$	1993.4	1993 ± 16 (−0.2 σ)
$\ln(10^{10} A_s)$	3.0407	3.040 ± 0.015 (−0.0 σ)	$n_{s,0.002}$	0.9529	0.9531 ± 0.0090 (−1.7 σ)	$H(0.61)$	95.223	95.24 ± 0.30 (+0.6 σ)
n_s	0.9529	0.9531 ± 0.0090 (−1.7 σ)	Y_P	0.245418	0.245413 ± 0.000092 (+1.3 σ)	$D_M(0.61)$	2318.2	2318 ± 17 (−0.2 σ)
y_{cal}	1.00007	0.9999 ± 0.0025 (−0.2 σ)	Y_P^{BBN}	0.246744	0.246740 ± 0.000092 (+1.3 σ)	$H(2.33)$	237.56	237.5 ± 1.3 (+0.6 σ)
H_0	66.93	66.97 ± 0.82 (+0.1 σ)	$10^5 D/H$	2.5749	2.577 ± 0.043 (−1.3 σ)	$D_M(2.33)$	5763.5	5763 ± 14 (−0.9 σ)
Ω_Λ	0.6775	$0.678^{+0.013}_{-0.011}$ (−0.1 σ)	Age/Gyr	13.7953	13.795 ± 0.031 (−0.9 σ)	$f\sigma_8(0.15)$	0.4640	0.463 ± 0.011 (+0.0 σ)
Ω_m	0.3225	$0.322^{+0.011}_{-0.013}$ (+0.1 σ)	z_*	1089.971	1089.97 ± 0.38 (−0.8 σ)	$\sigma_8(0.15)$	0.7479	0.7475 ± 0.0064 (−0.2 σ)
$\Omega_m h^2$	0.14449	0.1444 ± 0.0019 (+0.5 σ)	r_*	144.025	144.05 ± 0.49 (−0.9 σ)	$f\sigma_8(0.38)$	0.4798	0.4794 ± 0.0082 (−0.0 σ)
$\Omega_m h^3$	0.096709	0.09669 ± 0.00048 (+1.7 σ)	$100\theta_*$	1.041164	1.04117 ± 0.00037 (+0.4 σ)	$\sigma_8(0.38)$	0.6618	0.6615 ± 0.0053 (−0.3 σ)
σ_8	0.8105	0.8101 ± 0.0076 (−0.2 σ)	$D_M(z_*)/\text{Gpc}$	13.8331	13.835 ± 0.046 (−1.0 σ)	$f\sigma_8(0.51)$	0.4771	0.4767 ± 0.0070 (−0.1 σ)
S_8	0.8404	0.840 ± 0.021 (+0.0 σ)	z_{drag}	1060.16	1060.15 ± 0.51 (+1.6 σ)	$\sigma_8(0.51)$	0.61881	0.6186 ± 0.0049 (−0.3 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4603	0.460 ± 0.012 (+0.0 σ)	r_{drag}	146.66	146.68 ± 0.51 (−1.1 σ)	$f\sigma_8(0.61)$	0.4713	0.4709 ± 0.0062 (−0.1 σ)
$\sigma_8 \Omega_m^{0.25}$	0.6108	0.610 ± 0.010 (−0.0 σ)	k_D	0.14137	0.14134 ± 0.00060 (+1.5 σ)	$\sigma_8(0.61)$	0.58851	0.5883 ± 0.0046 (−0.3 σ)
$\sigma_8/h^{0.5}$	0.9907	0.990 ± 0.014 (−0.1 σ)	$100\theta_D$	0.160645	0.16066 ± 0.00030 (−1.5 σ)	$f\sigma_8(2.33)$	0.29630	0.2962 ± 0.0023 (−0.3 σ)
$r_{drag} h$	98.16	98.2 ± 1.5 (−0.2 σ)	z_{eq}	3437.4	3435 ± 46 (+0.5 σ)	$\sigma_8(2.33)$	0.30501	0.3049 ± 0.0025 (−0.4 σ)
$\langle d^2 \rangle^{1/2}$	2.4784	2.477 ± 0.028 (+0.6 σ)	k_{eq}	0.010491	0.01049 ± 0.00014 (+0.5 σ)	$\chi^2_{lensing}$	9.57	10.3 ± 2.0
z_{re}	7.03	$7.03^{+0.85}_{-0.74}$ (−0.6 σ)	$100\theta_{eq}$	0.8073	0.8077 ± 0.0084 (−0.4 σ)	$\chi^2_{PLIK_LITE}$	328.28	332.6 ± 3.2 (+34.5 σ)
$10^9 A_s$	2.0920	2.092 ± 0.032 (−0.0 σ)	$100\theta_{s,eq}$	0.44621	0.4464 ± 0.0043 (−0.4 σ)	χ^2_{small}	395.66	396.7 ± 1.4 (−0.1 σ)
$10^9 A_s e^{-2\tau}$	1.9006	1.899 ± 0.014 (+1.1 σ)	$H(0.15)$	72.34	72.37 ± 0.70 (+0.1 σ)	χ^2_{prior}	0.00	1.0 ± 1.4 (−0.0 σ)
D_{40}	1269.3	1269 ± 31 (+2.3 σ)	$D_M(0.15)$	646.9	646.7 ± 7.1 (−0.1 σ)	χ^2_{CMB}	733.50	739.6 ± 3.5 (+30.7 σ)

Best-fit $\chi^2_{eff} = 733.50$; $\bar{\chi}^2_{eff} = 740.62$; $R - 1 = 0.01169$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb_consext8: 9.56 plik_lite_v22: 328.27 simall_100x143_offlike5_EE_Aplanck_B: 395.66

2.46 base_pliklite_TTTEE_lmin1000_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022103	0.02212 ± 0.00033 (-0.0σ)	D_{220}	5675	5686^{+150}_{-170} (-0.6σ)	$H(0.38)$	82.37	$82.38^{+0.53}_{-0.60}$ (-0.3σ)
$\Omega_c h^2$	0.12222	0.1223 ± 0.0022 $(+0.8\sigma)$	D_{810}	2537.0	2537 ± 19 $(+0.1\sigma)$	$D_M(0.38)$	1547.9	1548 ± 16 $(+0.4\sigma)$
$100\theta_{MC}$	1.041333	1.04132 ± 0.00046 $(+1.2\sigma)$	D_{1420}	816.1	815.6 ± 5.2 $(+0.2\sigma)$	$H(0.51)$	89.254	$89.27^{+0.43}_{-0.48}$ (-0.2σ)
τ	0.0492	0.0491 ± 0.0082 (-0.4σ)	D_{2000}	230.36	230.2 ± 2.1 $(+0.3\sigma)$	$D_M(0.51)$	2002.7	2003 ± 19 $(+0.4\sigma)$
$\ln(10^{10} A_s)$	3.0361	3.036 ± 0.015 (-0.3σ)	$n_{s,0.002}$	0.9640	0.963 ± 0.014 (-0.0σ)	$H(0.61)$	95.003	$95.02^{+0.35}_{-0.40}$ (-0.0σ)
n_s	0.9640	0.963 ± 0.014 (-0.0σ)	Y_P	0.245285	$0.24528^{+0.00016}_{-0.00013}$ (-0.1σ)	$D_M(0.61)$	2328.3	2328 ± 20 $(+0.4\sigma)$
y_{cal}	1.00013	1.0000 ± 0.0025 (-0.1σ)	Y_P^{BBN}	0.246611	$0.24661^{+0.00016}_{-0.00013}$ (-0.1σ)	$H(2.33)$	237.80	237.9 ± 1.3 $(+0.9\sigma)$
H_0	66.50	66.50 ± 0.93 (-0.4σ)	$10^5 D/H$	2.637	2.634 ± 0.063 $(+0.1\sigma)$	$D_M(2.33)$	5774.6	5774 ± 19 (-0.2σ)
Ω_Λ	0.6722	0.672 ± 0.013 (-0.6σ)	Age/Gyr	13.8208	13.819 ± 0.043 (-0.2σ)	$f\sigma_8(0.15)$	0.4705	0.471 ± 0.012 $(+0.6\sigma)$
Ω_m	0.3278	0.328 ± 0.013 $(+0.6\sigma)$	z_*	1090.45	1090.44 ± 0.52 $(+0.4\sigma)$	$\sigma_8(0.15)$	0.7527	0.7524 ± 0.0075 $(+0.4\sigma)$
$\Omega_m h^2$	0.14497	0.1450 ± 0.0021 $(+0.9\sigma)$	r_*	144.06	144.04 ± 0.53 (-0.9σ)	$f\sigma_8(0.38)$	0.4853	0.4853 ± 0.0096 $(+0.6\sigma)$
$\Omega_m h^3$	0.09641	0.09644 ± 0.00066 $(+1.2\sigma)$	$100\theta_*$	1.041546	1.04153 ± 0.00045 $(+1.2\sigma)$	$\sigma_8(0.38)$	0.6654	0.6652 ± 0.0060 $(+0.3\sigma)$
σ_8	0.8163	0.8160 ± 0.0089 $(+0.5\sigma)$	$D_M(z_*)/\text{Gpc}$	13.832	13.830 ± 0.050 (-1.1σ)	$f\sigma_8(0.51)$	0.4820	0.4819 ± 0.0082 $(+0.6\sigma)$
S_8	0.8532	0.854 ± 0.024 $(+0.6\sigma)$	z_{drag}	1059.47	1059.52 ± 0.74 $(+0.2\sigma)$	$\sigma_8(0.51)$	0.6220	0.6218 ± 0.0054 $(+0.3\sigma)$
$\sigma_8 \Omega_m^{0.5}$	0.4673	0.468 ± 0.013 $(+0.6\sigma)$	r_{drag}	146.81	146.77 ± 0.56 (-0.9σ)	$f\sigma_8(0.61)$	0.4757	0.4756 ± 0.0072 $(+0.6\sigma)$
$\sigma_8 \Omega_m^{0.25}$	0.6176	0.618 ± 0.012 $(+0.6\sigma)$	k_D	0.14096	0.14100 ± 0.00072 $(+0.9\sigma)$	$\sigma_8(0.61)$	0.5914	0.5912 ± 0.0051 $(+0.3\sigma)$
$\sigma_8/h^{0.5}$	1.0009	1.001 ± 0.016 $(+0.5\sigma)$	$100\theta_D$	0.161129	0.16111 ± 0.00044 $(+0.2\sigma)$	$f\sigma_8(2.33)$	0.29757	0.2974 ± 0.0025 $(+0.1\sigma)$
$r_{drag} h$	97.63	97.6 ± 1.6 (-0.6σ)	z_{eq}	3448.9	3451 ± 50 $(+0.9\sigma)$	$\sigma_8(2.33)$	0.30610	0.3060 ± 0.0027 $(+0.0\sigma)$
$\langle d^2 \rangle^{1/2}$	2.4599	2.463 ± 0.032 $(+0.3\sigma)$	k_{eq}	0.010526	0.01053 ± 0.00015 $(+0.9\sigma)$	$\chi^2_{lensing}$	9.76	10.9 ± 2.0
z_{re}	7.24	$7.21^{+0.88}_{-0.77}$ (-0.4σ)	$100\theta_{eq}$	0.8047	0.8045 ± 0.0089 (-0.8σ)	$\chi^2_{PLIK_LITE}$	289.28	293.2 ± 3.2 $(+23.5\sigma)$
$10^9 A_s$	2.0824	2.083 ± 0.032 (-0.3σ)	$100\theta_{s,eq}$	0.44508	0.4450 ± 0.0046 (-0.8σ)	χ^2_{small}	395.70	396.8 ± 1.5 (-0.1σ)
$10^9 A_s e^{-2\tau}$	1.8873	1.888 ± 0.019 $(+0.3\sigma)$	$H(0.15)$	71.96	71.96 ± 0.79 (-0.4σ)	χ^2_{prior}	0.003	0.99 ± 1.4 (-0.0σ)
D_{40}	1226.5	1231^{+46}_{-52} (-0.1σ)	$D_M(0.15)$	650.7	650.8 ± 8.1 $(+0.4\sigma)$	χ^2_{CMB}	694.75	700.9 ± 3.6 $(+19.8\sigma)$

Best-fit $\chi^2_{eff} = 694.75$; $\bar{\chi}^2_{eff} = 701.86$; $R - 1 = 0.01570$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 9.77 plik_lite_v22: 289.28 simall_100x143_offlike5_EE_Aplanck_B: 395.70

2.47 base_pliklite_TTTEEE_lowl_lmax801_lowE_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02237 \pm 0.00021 \quad (+1.1\sigma)$	D_{810}	$2534 \pm 15 \quad (-0.2\sigma)$	$H(0.51)$	$89.67 \pm 0.40 \quad (+0.8\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1193 \pm 0.0014 \quad (-0.6\sigma)$	D_{1420}	$815.2 \pm 6.9 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1983 \pm 15 \quad (-0.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04076 \pm 0.00058 \quad (-0.0\sigma)$	D_{2000}	$230.1 \pm 2.5 \quad (+0.3\sigma)$	$H(0.61)$	$95.30 \pm 0.34 \quad (+0.8\sigma)$
τ	$0.0527 \pm 0.0076 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9652 \pm 0.0068 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2307 \pm 16 \quad (-0.7\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.038 \pm 0.015 \quad (-0.2\sigma)$	Y_{P}	$0.245393^{+0.000087}_{-0.000078} \quad (+1.1\sigma)$	$H(2.33)$	$236.11 \pm 0.82 \quad (-0.5\sigma)$
n_{s}	$0.9652 \pm 0.0068 \quad (+0.4\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246719^{+0.000087}_{-0.000078} \quad (+1.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5764 \pm 16 \quad (-0.8\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.586 \pm 0.039 \quad (-1.1\sigma)$	$f\sigma_8(0.15)$	$0.4549 \pm 0.0079 \quad (-0.7\sigma)$
H_0	$67.54 \pm 0.73 \quad (+0.7\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.799 \pm 0.037 \quad (-0.8\sigma)$	$\sigma_8(0.15)$	$0.7449 \pm 0.0057 \quad (-0.6\sigma)$
Ω_{Λ}	$0.6878^{+0.0098}_{-0.0089} \quad (+0.6\sigma)$	z_*	$1089.86 \pm 0.36 \quad (-1.0\sigma)$	$f\sigma_8(0.38)$	$0.4730 \pm 0.0062 \quad (-0.7\sigma)$
Ω_{m}	$0.3122 \pm 0.0094 \quad (-0.6\sigma)$	r_*	$144.60 \pm 0.29 \quad (+0.3\sigma)$	$\sigma_8(0.38)$	$0.6602 \pm 0.0050 \quad (-0.5\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1424 \pm 0.0013 \quad (-0.5\sigma)$	$100\theta_*$	$1.04094 \pm 0.00057 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4715 \pm 0.0053 \quad (-0.7\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09614 \pm 0.00046 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.891 \pm 0.028 \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.6179 \pm 0.0047 \quad (-0.4\sigma)$
σ_8	$0.8062 \pm 0.0064 \quad (-0.6\sigma)$	z_{drag}	$1059.89 \pm 0.43 \quad (+1.1\sigma)$	$f\sigma_8(0.61)$	$0.4665 \pm 0.0048 \quad (-0.7\sigma)$
S_8	$0.822 \pm 0.016 \quad (-0.7\sigma)$	r_{drag}	$147.27 \pm 0.29 \quad (+0.1\sigma)$	$\sigma_8(0.61)$	$0.5879 \pm 0.0045 \quad (-0.4\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4505 \pm 0.0086 \quad (-0.7\sigma)$	k_{D}	$0.14068 \pm 0.00034 \quad (+0.3\sigma)$	$f\sigma_8(2.33)$	$0.2964 \pm 0.0024 \quad (-0.3\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6026 \pm 0.0076 \quad (-0.7\sigma)$	$100\theta_{\mathrm{D}}$	$0.16075 \pm 0.00024 \quad (-1.2\sigma)$	$\sigma_8(2.33)$	$0.3055 \pm 0.0026 \quad (-0.1\sigma)$
$\sigma_8/h^{0.5}$	$0.981 \pm 0.011 \quad (-0.7\sigma)$	z_{eq}	$3386 \pm 31 \quad (-0.5\sigma)$	$\chi_{\mathrm{lensing}}^2$	9.5 ± 1.1
$r_{\mathrm{drag}} h$	$99.5 \pm 1.2 \quad (+0.6\sigma)$	k_{eq}	$0.010336 \pm 0.000096 \quad (-0.5\sigma)$	$\chi_{\mathrm{PLIK_LITE}}^2$	$254.5 \pm 3.1 \quad (+12.6\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.431 \pm 0.028 \quad (-0.6\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8161 \pm 0.0061 \quad (+0.5\sigma)$	χ_{small}^2	$396.8 \pm 1.5 \quad (-0.1\sigma)$
z_{re}	$7.49 \pm 0.76 \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4508 \pm 0.0031 \quad (+0.5\sigma)$	χ_{lowl}^2	$23.4 \pm 1.3 \quad (-0.4\sigma)$
$10^9 A_{\mathrm{s}}$	$2.086 \pm 0.031 \quad (-0.2\sigma)$	$H(0.15)$	$72.83 \pm 0.64 \quad (+0.7\sigma)$	χ_{prior}^2	$1.0 \pm 1.4 \quad (-0.0\sigma)$
$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.877 \pm 0.011 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.15)$	$641.9 \pm 6.3 \quad (-0.7\sigma)$	χ_{CMB}^2	$684.2 \pm 3.6 \quad (+15.1\sigma)$
D_{40}	$1229 \pm 16 \quad (-0.3\sigma)$	$H(0.38)$	$82.95 \pm 0.48 \quad (+0.7\sigma)$		
D_{220}	$5731 \pm 40 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.38)$	$1531 \pm 13 \quad (-0.7\sigma)$		
$\bar{\chi}_{\mathrm{eff}}^2 = 685.20; R - 1 = 0.00655$					

2.48 base_pliklite_TTTEEE_lowl_lmax801_lowE_lensing_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02243 \pm 0.00018 \quad (+1.4\sigma)$	D_{1420}	$816.6 \pm 6.5 \quad (+0.4\sigma)$	$H(0.61)$	$95.43 \pm 0.26 \quad (+1.2\sigma)$
$\Omega_{\text{c}}h^2$	$0.1187 \pm 0.0010 \quad (-0.9\sigma)$	D_{2000}	$230.7 \pm 2.3 \quad (+0.6\sigma)$	$D_{\text{M}}(0.61)$	$2300 \pm 12 \quad (-1.1\sigma)$
$100\theta_{\text{MC}}$	$1.04089 \pm 0.00053 \quad (+0.3\sigma)$	$n_{\text{s},0.002}$	$0.9674 \pm 0.0059 \quad (+0.8\sigma)$	$H(2.33)$	$235.78 \pm 0.61 \quad (-0.7\sigma)$
τ	$0.0544 \pm 0.0074 \quad (+0.3\sigma)$	Y_{P}	$0.245418 \pm 0.000070 \quad (+1.3\sigma)$	$D_{\text{M}}(2.33)$	$5758 \pm 13 \quad (-1.2\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.040 \pm 0.015 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246744 \pm 0.000070 \quad (+1.3\sigma)$	$f\sigma_{\text{s}}(0.15)$	$0.4521 \pm 0.0060 \quad (-0.9\sigma)$
n_{s}	$0.9674 \pm 0.0059 \quad (+0.8\sigma)$	$10^5\text{D}/\text{H}$	$2.574 \pm 0.033 \quad (-1.4\sigma)$	$\sigma_{\text{s}}(0.15)$	$0.7449 \pm 0.0057 \quad (-0.6\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.1\sigma)$	Age/Gyr	$13.786 \pm 0.029 \quad (-1.2\sigma)$	$f\sigma_{\text{s}}(0.38)$	$0.4711 \pm 0.0050 \quad (-0.9\sigma)$
H_0	$67.85 \pm 0.52 \quad (+1.0\sigma)$	z_*	$1089.73 \pm 0.28 \quad (-1.4\sigma)$	$\sigma_{\text{s}}(0.38)$	$0.6607 \pm 0.0051 \quad (-0.4\sigma)$
Ω_{Λ}	$0.6919 \pm 0.0065 \quad (+0.9\sigma)$	r_*	$144.71 \pm 0.23 \quad (+0.5\sigma)$	$f\sigma_{\text{s}}(0.51)$	$0.4701 \pm 0.0045 \quad (-0.9\sigma)$
Ω_{m}	$0.3081 \pm 0.0065 \quad (-0.9\sigma)$	$100\theta_*$	$1.04107 \pm 0.00052 \quad (+0.2\sigma)$	$\sigma_{\text{s}}(0.51)$	$0.6185 \pm 0.0048 \quad (-0.3\sigma)$
$\Omega_{\text{m}}h^2$	$0.14180 \pm 0.00095 \quad (-0.8\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.900 \pm 0.024 \quad (+0.5\sigma)$	$f\sigma_{\text{s}}(0.61)$	$0.4654 \pm 0.0042 \quad (-0.8\sigma)$
$\Omega_{\text{m}}h^3$	$0.09621 \pm 0.00044 \quad (+0.7\sigma)$	z_{drag}	$1059.99 \pm 0.39 \quad (+1.3\sigma)$	$\sigma_{\text{s}}(0.61)$	$0.5886 \pm 0.0045 \quad (-0.3\sigma)$
σ_{s}	$0.8058 \pm 0.0063 \quad (-0.7\sigma)$	r_{drag}	$147.36 \pm 0.24 \quad (+0.3\sigma)$	$f\sigma_{\text{s}}(2.33)$	$0.2969 \pm 0.0023 \quad (-0.1\sigma)$
S_{s}	$0.817 \pm 0.012 \quad (-0.9\sigma)$	k_{D}	$0.14063 \pm 0.00032 \quad (+0.2\sigma)$	$\sigma_{\text{s}}(2.33)$	$0.3062 \pm 0.0025 \quad (+0.1\sigma)$
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.5}$	$0.4472 \pm 0.0064 \quad (-0.9\sigma)$	$100\theta_{\text{D}}$	$0.16071 \pm 0.00022 \quad (-1.3\sigma)$	χ_{lensing}^2	9.6 ± 1.1
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.25}$	$0.6003 \pm 0.0062 \quad (-0.9\sigma)$	z_{eq}	$3373 \pm 23 \quad (-0.8\sigma)$	$\chi_{\text{PLIK_LITE}}^2$	$254.3 \pm 3.1 \quad (+12.5\sigma)$
$\sigma_{\text{s}}/h^{0.5}$	$0.9783 \pm 0.0090 \quad (-0.9\sigma)$	k_{eq}	$0.010295 \pm 0.000069 \quad (-0.8\sigma)$	χ_{small}^2	$396.9 \pm 1.7 \quad (-0.0\sigma)$
$r_{\text{drag}}h$	$99.98 \pm 0.83 \quad (+0.9\sigma)$	$100\theta_{\text{eq}}$	$0.8187 \pm 0.0044 \quad (+0.8\sigma)$	χ_{lowl}^2	$23.0 \pm 1.1 \quad (-0.7\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.423 \pm 0.024 \quad (-0.8\sigma)$	$100\theta_{\text{s,eq}}$	$0.4522 \pm 0.0022 \quad (+0.8\sigma)$	$\chi_{6\text{DF}}^2$	0.040 ± 0.055
z_{re}	$7.64 \pm 0.74 \quad (+0.1\sigma)$	$H(0.15)$	$73.10 \pm 0.45 \quad (+1.0\sigma)$	χ_{MGS}^2	1.46 ± 0.48
$10^9 A_{\text{s}}$	$2.092 \pm 0.031 \quad (-0.0\sigma)$	$D_{\text{M}}(0.15)$	$639.2 \pm 4.4 \quad (-1.0\sigma)$	χ_{DR12BAO}^2	4.4 ± 1.2
$10^9 A_{\text{s}}e^{-2\tau}$	$1.876 \pm 0.011 \quad (-0.6\sigma)$	$H(0.38)$	$83.15 \pm 0.35 \quad (+1.1\sigma)$	χ_{prior}^2	$1.0 \pm 1.4 \quad (-0.0\sigma)$
D_{40}	$1225 \pm 15 \quad (-0.5\sigma)$	$D_{\text{M}}(0.38)$	$1525.3 \pm 9.0 \quad (-1.0\sigma)$	χ_{CMB}^2	$683.8 \pm 3.5 \quad (+15.0\sigma)$
D_{220}	$5735 \pm 39 \quad (+0.5\sigma)$	$H(0.51)$	$89.83 \pm 0.30 \quad (+1.1\sigma)$	χ_{BAO}^2	5.92 ± 0.96
D_{810}	$2535 \pm 15 \quad (-0.1\sigma)$	$D_{\text{M}}(0.51)$	$1976 \pm 11 \quad (-1.1\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 690.73$; $R - 1 = 0.01107$

2.49 base_pliklite_TTTEEE_lowl_lmax801_lowE_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02246 \pm 0.00018 \quad (+1.5\sigma)$	D_{1420}	$815.9 \pm 6.6 \quad (+0.3\sigma)$	$H(0.61)$	$95.50 \pm 0.27 \quad (+1.4\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1183 \pm 0.0011 \quad (-1.1\sigma)$	D_{2000}	$230.4 \pm 2.3 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(0.61)$	$2296 \pm 12 \quad (-1.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04097 \pm 0.00055 \quad (+0.4\sigma)$	$n_{\mathrm{s},0.002}$	$0.9681 \pm 0.0057 \quad (+0.9\sigma)$	$H(2.33)$	$235.55 \pm 0.67 \quad (-0.9\sigma)$
τ	$0.0514 \pm 0.0084 \quad (-0.1\sigma)$	Y_{P}	$0.245427 \pm 0.000071 \quad (+1.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5755 \pm 13 \quad (-1.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.032 \pm 0.017 \quad (-0.5\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246754 \pm 0.000071 \quad (+1.4\sigma)$	$f\sigma_{\mathrm{s}}(0.15)$	$0.4479 \pm 0.0075 \quad (-1.3\sigma)$
n_{s}	$0.9681 \pm 0.0057 \quad (+0.9\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.570 \pm 0.033 \quad (-1.5\sigma)$	$\sigma_{\mathrm{s}}(0.15)$	$0.7410 \pm 0.0072 \quad (-1.1\sigma)$
y_{cal}	$1.0003 \pm 0.0025 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.780 \pm 0.030 \quad (-1.3\sigma)$	$f\sigma_{\mathrm{s}}(0.38)$	$0.4674 \pm 0.0064 \quad (-1.3\sigma)$
H_0	$68.04 \pm 0.55 \quad (+1.2\sigma)$	z_*	$1089.66 \pm 0.29 \quad (-1.5\sigma)$	$\sigma_{\mathrm{s}}(0.38)$	$0.6575 \pm 0.0062 \quad (-0.9\sigma)$
Ω_{Λ}	$0.6944^{+0.0073}_{-0.0066} \quad (+1.1\sigma)$	r_*	$144.80 \pm 0.26 \quad (+0.7\sigma)$	$f\sigma_{\mathrm{s}}(0.51)$	$0.4667 \pm 0.0058 \quad (-1.3\sigma)$
Ω_{m}	$0.3056 \pm 0.0069 \quad (-1.1\sigma)$	$100\theta_*$	$1.04115 \pm 0.00054 \quad (+0.4\sigma)$	$\sigma_{\mathrm{s}}(0.51)$	$0.6156 \pm 0.0058 \quad (-0.8\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1414 \pm 0.0010 \quad (-1.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.908 \pm 0.026 \quad (+0.7\sigma)$	$f\sigma_{\mathrm{s}}(0.61)$	$0.4622 \pm 0.0054 \quad (-1.3\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09622 \pm 0.00045 \quad (+0.7\sigma)$	z_{drag}	$1060.02 \pm 0.39 \quad (+1.3\sigma)$	$\sigma_{\mathrm{s}}(0.61)$	$0.5859 \pm 0.0055 \quad (-0.8\sigma)$
σ_{s}	$0.8013 \pm 0.0081 \quad (-1.2\sigma)$	r_{drag}	$147.44 \pm 0.27 \quad (+0.5\sigma)$	$f\sigma_{\mathrm{s}}(2.33)$	$0.2957 \pm 0.0027 \quad (-0.6\sigma)$
S_{s}	$0.809 \pm 0.014 \quad (-1.2\sigma)$	k_{D}	$0.14057 \pm 0.00034 \quad (+0.0\sigma)$	$\sigma_{\mathrm{s}}(2.33)$	$0.3051 \pm 0.0028 \quad (-0.3\sigma)$
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.5}$	$0.4429 \pm 0.0079 \quad (-1.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16070 \pm 0.00023 \quad (-1.4\sigma)$	$\chi_{\mathrm{PLIK_LITE}}^2$	$255.0 \pm 3.2 \quad (+12.7\sigma)$
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.25}$	$0.5957 \pm 0.0079 \quad (-1.3\sigma)$	z_{eq}	$3364 \pm 25 \quad (-1.0\sigma)$	χ_{simall}^2	$396.9 \pm 1.7 \quad (-0.1\sigma)$
$\sigma_{\mathrm{s}}/h^{0.5}$	$0.971 \pm 0.012 \quad (-1.3\sigma)$	k_{eq}	$0.010268 \pm 0.000076 \quad (-1.0\sigma)$	χ_{lowl}^2	$22.7 \pm 1.0 \quad (-0.9\sigma)$
$r_{\mathrm{drag}}h$	$100.32 \pm 0.90 \quad (+1.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8205 \pm 0.0048 \quad (+1.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	0.035 ± 0.048
$\langle d^2 \rangle^{1/2}$	$2.408 \pm 0.029 \quad (-1.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4531 \pm 0.0024 \quad (+1.0\sigma)$	χ_{MGS}^2	1.66 ± 0.54
z_{re}	$7.31^{+0.86}_{-0.76} \quad (-0.3\sigma)$	$H(0.15)$	$73.26 \pm 0.48 \quad (+1.3\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	4.2 ± 1.0
10^9A_{s}	$2.075 \pm 0.036 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.15)$	$637.6 \pm 4.6 \quad (-1.2\sigma)$	χ_{prior}^2	$1.0 \pm 1.4 \quad (-0.0\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.872 \pm 0.011 \quad (-0.9\sigma)$	$H(0.38)$	$83.27 \pm 0.37 \quad (+1.3\sigma)$	χ_{CMB}^2	$674.6 \pm 3.4 \quad (+12.4\sigma)$
D_{40}	$1221 \pm 14 \quad (-0.8\sigma)$	$D_{\mathrm{M}}(0.38)$	$1522.1 \pm 9.5 \quad (-1.2\sigma)$	χ_{BAO}^2	5.85 ± 0.86
D_{220}	$5732 \pm 39 \quad (+0.5\sigma)$	$H(0.51)$	$89.92 \pm 0.31 \quad (+1.3\sigma)$		
D_{810}	$2532 \pm 15 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$1973 \pm 11 \quad (-1.3\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 681.40$; $R - 1 = 0.00853$

2.50 base_pliklite_TTTEE_lmax801_lowE_lensing_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02239 \pm 0.00018 \quad (+1.2\sigma)$	D_{1420}	$814.1 \pm 6.4 \quad (-0.1\sigma)$	$H(0.61)$	$95.36 \pm 0.26 \quad (+1.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1191 \pm 0.0011 \quad (-0.7\sigma)$	D_{2000}	$229.7 \pm 2.3 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2304 \pm 12 \quad (-0.9\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04089 \pm 0.00052 \quad (+0.3\sigma)$	$n_{\mathrm{s},0.002}$	$0.9639 \pm 0.0060 \quad (+0.2\sigma)$	$H(2.33)$	$235.97 \pm 0.62 \quad (-0.6\sigma)$
τ	$0.0544 \pm 0.0074 \quad (+0.3\sigma)$	Y_{P}	$0.245401 \pm 0.000072 \quad (+1.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5761 \pm 13 \quad (-1.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.041 \pm 0.015 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246727 \pm 0.000072 \quad (+1.2\sigma)$	$f\sigma_{\mathrm{s}}(0.15)$	$0.4537 \pm 0.0061 \quad (-0.8\sigma)$
n_{s}	$0.9639 \pm 0.0060 \quad (+0.2\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.582 \pm 0.034 \quad (-1.2\sigma)$	$\sigma_{\mathrm{s}}(0.15)$	$0.7451 \pm 0.0057 \quad (-0.5\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.792 \pm 0.029 \quad (-1.0\sigma)$	$f\sigma_{\mathrm{s}}(0.38)$	$0.4722 \pm 0.0051 \quad (-0.8\sigma)$
H_0	$67.69 \pm 0.52 \quad (+0.8\sigma)$	z_*	$1089.82 \pm 0.29 \quad (-1.2\sigma)$	$\sigma_{\mathrm{s}}(0.38)$	$0.6606 \pm 0.0050 \quad (-0.4\sigma)$
Ω_{Λ}	$0.6897 \pm 0.0066 \quad (+0.8\sigma)$	r_*	$144.65 \pm 0.24 \quad (+0.4\sigma)$	$f\sigma_{\mathrm{s}}(0.51)$	$0.4710 \pm 0.0045 \quad (-0.7\sigma)$
Ω_{m}	$0.3103 \pm 0.0066 \quad (-0.8\sigma)$	$100\theta_*$	$1.04107 \pm 0.00052 \quad (+0.2\sigma)$	$\sigma_{\mathrm{s}}(0.51)$	$0.6183 \pm 0.0047 \quad (-0.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14212 \pm 0.00097 \quad (-0.6\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.895 \pm 0.024 \quad (+0.4\sigma)$	$f\sigma_{\mathrm{s}}(0.61)$	$0.4661 \pm 0.0042 \quad (-0.7\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09619 \pm 0.00043 \quad (+0.6\sigma)$	z_{drag}	$1059.92 \pm 0.39 \quad (+1.1\sigma)$	$\sigma_{\mathrm{s}}(0.61)$	$0.5884 \pm 0.0045 \quad (-0.3\sigma)$
σ_{s}	$0.8062 \pm 0.0063 \quad (-0.6\sigma)$	r_{drag}	$147.31 \pm 0.25 \quad (+0.2\sigma)$	$f\sigma_{\mathrm{s}}(2.33)$	$0.2967 \pm 0.0023 \quad (-0.1\sigma)$
S_{s}	$0.820 \pm 0.012 \quad (-0.8\sigma)$	k_{D}	$0.14065 \pm 0.00033 \quad (+0.2\sigma)$	$\sigma_{\mathrm{s}}(2.33)$	$0.3060 \pm 0.0025 \quad (+0.0\sigma)$
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.5}$	$0.4491 \pm 0.0065 \quad (-0.8\sigma)$	$100\theta_{\mathrm{D}}$	$0.16076 \pm 0.00023 \quad (-1.2\sigma)$	$\chi_{\mathrm{lensing}}^2$	9.38 ± 0.98
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.25}$	$0.6017 \pm 0.0062 \quad (-0.8\sigma)$	z_{eq}	$3381 \pm 23 \quad (-0.6\sigma)$	$\chi_{\mathrm{PLIK_LITE}}^2$	$254.0 \pm 3.0 \quad (+12.5\sigma)$
$\sigma_{\mathrm{s}}/h^{0.5}$	$0.9800 \pm 0.0091 \quad (-0.8\sigma)$	k_{eq}	$0.010318 \pm 0.000071 \quad (-0.6\sigma)$	χ_{small}^2	$397.0 \pm 1.8 \quad (+0.0\sigma)$
$r_{\mathrm{drag}}h$	$99.71 \pm 0.85 \quad (+0.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8172 \pm 0.0045 \quad (+0.7\sigma)$	$\chi_{6\mathrm{DF}}^2$	0.056 ± 0.068
$\langle d^2 \rangle^{1/2}$	$2.434 \pm 0.025 \quad (-0.5\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4514 \pm 0.0023 \quad (+0.6\sigma)$	χ_{MGS}^2	1.31 ± 0.47
z_{re}	$7.65 \pm 0.75 \quad (+0.2\sigma)$	$H(0.15)$	$72.95 \pm 0.46 \quad (+0.9\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	4.8 ± 1.5
10^9A_{s}	$2.092 \pm 0.031 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.6 \pm 4.5 \quad (-0.9\sigma)$	χ_{prior}^2	$1.0 \pm 1.4 \quad (-0.0\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.877 \pm 0.010 \quad (-0.5\sigma)$	$H(0.38)$	$83.05 \pm 0.35 \quad (+0.9\sigma)$	χ_{CMB}^2	$660.4 \pm 3.5 \quad (+8.4\sigma)$
D_{40}	$1233 \pm 15 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1528.1 \pm 9.1 \quad (-0.9\sigma)$	χ_{BAO}^2	6.2 ± 1.2
D_{220}	$5744 \pm 39 \quad (+0.7\sigma)$	$H(0.51)$	$89.75 \pm 0.30 \quad (+0.9\sigma)$		
D_{810}	$2532 \pm 15 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$1980 \pm 11 \quad (-0.9\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 667.60$; $R - 1 = 0.01075$

2.51 base_pliklite_TTTEE_lowl_lmax801_lowE_lensing_BAO_theta

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02243 \pm 0.00018 \quad (+1.4\sigma)$	D_{1420}	$816.3 \pm 6.4 \quad (+0.4\sigma)$	$H(0.61)$	$95.43 \pm 0.23 \quad (+1.2\sigma)$
$\Omega_{\text{c}}h^2$	$0.1187 \pm 0.0010 \quad (-0.9\sigma)$	D_{2000}	$230.6 \pm 2.3 \quad (+0.6\sigma)$	$D_{\text{M}}(0.61)$	$2300 \pm 11 \quad (-1.1\sigma)$
$100\theta_{\text{MC}}$	$1.04089 \pm 0.00040 \quad (+0.3\sigma)$	$n_{\text{s},0.002}$	$0.9672 \pm 0.0059 \quad (+0.8\sigma)$	$H(2.33)$	$235.76 \pm 0.61 \quad (-0.7\sigma)$
τ	$0.0546 \pm 0.0072 \quad (+0.3\sigma)$	Y_{P}	$0.245417^{+0.000072}_{-0.000063} \quad (+1.3\sigma)$	$D_{\text{M}}(2.33)$	$5758 \pm 11 \quad (-1.2\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.041 \pm 0.015 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246744^{+0.000072}_{-0.000063} \quad (+1.3\sigma)$	$f\sigma_{\text{s}}(0.15)$	$0.4520 \pm 0.0059 \quad (-0.9\sigma)$
n_{s}	$0.9672 \pm 0.0059 \quad (+0.8\sigma)$	$10^5\text{D}/\text{H}$	$2.575 \pm 0.033 \quad (-1.4\sigma)$	$\sigma_{\text{s}}(0.15)$	$0.7449 \pm 0.0056 \quad (-0.6\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.1\sigma)$	Age/Gyr	$13.787 \pm 0.025 \quad (-1.2\sigma)$	$f\sigma_{\text{s}}(0.38)$	$0.4710 \pm 0.0049 \quad (-0.9\sigma)$
H_0	$67.86 \pm 0.48 \quad (+1.0\sigma)$	z_*	$1089.73 \pm 0.28 \quad (-1.4\sigma)$	$\sigma_{\text{s}}(0.38)$	$0.6607 \pm 0.0049 \quad (-0.4\sigma)$
Ω_{Λ}	$0.6920 \pm 0.0062 \quad (+1.0\sigma)$	r_*	$144.72 \pm 0.23 \quad (+0.5\sigma)$	$f\sigma_{\text{s}}(0.51)$	$0.4700 \pm 0.0044 \quad (-0.9\sigma)$
Ω_{m}	$0.3080 \pm 0.0062 \quad (-1.0\sigma)$	$100\theta_*$	$1.04107 \pm 0.00039 \quad (+0.2\sigma)$	$\sigma_{\text{s}}(0.51)$	$0.6184 \pm 0.0046 \quad (-0.3\sigma)$
$\Omega_{\text{m}}h^2$	$0.14178 \pm 0.00094 \quad (-0.8\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.901 \pm 0.023 \quad (+0.5\sigma)$	$f\sigma_{\text{s}}(0.61)$	$0.4653 \pm 0.0041 \quad (-0.8\sigma)$
$\Omega_{\text{m}}h^3$	$0.09620 \pm 0.00037 \quad (+0.7\sigma)$	z_{drag}	$1059.99 \pm 0.38 \quad (+1.3\sigma)$	$\sigma_{\text{s}}(0.61)$	$0.5885 \pm 0.0044 \quad (-0.3\sigma)$
σ_{s}	$0.8057 \pm 0.0062 \quad (-0.7\sigma)$	r_{drag}	$147.37 \pm 0.24 \quad (+0.3\sigma)$	$f\sigma_{\text{s}}(2.33)$	$0.2969 \pm 0.0023 \quad (-0.1\sigma)$
S_{s}	$0.816 \pm 0.011 \quad (-0.9\sigma)$	k_{D}	$0.14062 \pm 0.00032 \quad (+0.1\sigma)$	$\sigma_{\text{s}}(2.33)$	$0.3062 \pm 0.0024 \quad (+0.1\sigma)$
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.5}$	$0.4471 \pm 0.0062 \quad (-0.9\sigma)$	$100\theta_{\text{D}}$	$0.16071 \pm 0.00023 \quad (-1.3\sigma)$	χ_{lensing}^2	9.6 ± 1.1
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.25}$	$0.6002 \pm 0.0060 \quad (-0.9\sigma)$	z_{eq}	$3373 \pm 23 \quad (-0.8\sigma)$	$\chi_{\text{PLIK_LITE}}^2$	$253.9 \pm 2.8 \quad (+12.4\sigma)$
$\sigma_{\text{s}}/h^{0.5}$	$0.9781 \pm 0.0089 \quad (-0.9\sigma)$	k_{eq}	$0.010294 \pm 0.000069 \quad (-0.8\sigma)$	χ_{simall}^2	$396.9 \pm 1.6 \quad (-0.0\sigma)$
$r_{\text{drag}}h$	$99.997 \pm 0.80 \quad (+0.9\sigma)$	$100\theta_{\text{eq}}$	$0.8188 \pm 0.0043 \quad (+0.9\sigma)$	χ_{lowl}^2	$23.0 \pm 1.1 \quad (-0.7\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.423 \pm 0.024 \quad (-0.8\sigma)$	$100\theta_{\text{s,eq}}$	$0.4522 \pm 0.0022 \quad (+0.8\sigma)$	$\chi_{6\text{DF}}^2$	0.037 ± 0.050
z_{re}	$7.66 \pm 0.73 \quad (+0.2\sigma)$	$H(0.15)$	$73.10 \pm 0.42 \quad (+1.0\sigma)$	χ_{MGS}^2	1.47 ± 0.46
10^9A_{s}	$2.092 \pm 0.031 \quad (-0.0\sigma)$	$D_{\text{M}}(0.15)$	$639.2 \pm 4.1 \quad (-1.0\sigma)$	χ_{DR12BAO}^2	4.4 ± 1.1
$10^9A_{\text{s}}e^{-2\tau}$	$1.875 \pm 0.011 \quad (-0.6\sigma)$	$H(0.38)$	$83.15 \pm 0.32 \quad (+1.1\sigma)$	χ_{prior}^2	$1.5 \pm 1.6 \quad (+0.3\sigma)$
D_{40}	$1225 \pm 15 \quad (-0.5\sigma)$	$D_{\text{M}}(0.38)$	$1525.2 \pm 8.4 \quad (-1.0\sigma)$	χ_{CMB}^2	$683.4 \pm 3.2 \quad (+14.9\sigma)$
D_{220}	$5735 \pm 39 \quad (+0.5\sigma)$	$H(0.51)$	$89.83 \pm 0.27 \quad (+1.1\sigma)$	χ_{BAO}^2	5.86 ± 0.87
D_{810}	$2535 \pm 15 \quad (-0.1\sigma)$	$D_{\text{M}}(0.51)$	$1976.4 \pm 9.9 \quad (-1.1\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 690.74$; $R - 1 = 0.00721$

2.52 base_pliklite_EE_lowE_lensing_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022573	0.02259 ± 0.00045 (+2.1 σ)	D_{220}	5757	5761 ± 91 (+1.2 σ)	$H(0.38)$	82.80	82.80 ± 0.70 (+0.5 σ)
$\Omega_{\mathrm{c}}h^2$	0.11948	0.1196 ± 0.0020 (−0.5 σ)	D_{810}	2545.8	2546 ± 24 (+0.7 σ)	$D_{\mathrm{M}}(0.38)$	1534.5	1535 ± 18 (−0.4 σ)
$100\theta_{\mathrm{MC}}$	1.03977	1.03974 ± 0.00081 (−2.2 σ)	D_{1420}	821.2	821 ± 12 (+1.3 σ)	$H(0.51)$	89.55	89.56 ± 0.59 (+0.5 σ)
τ	0.0503	0.0495 ± 0.0082 (−0.4 σ)	D_{2000}	232.36	232.4 ± 4.2 (+1.6 σ)	$D_{\mathrm{M}}(0.51)$	1987.3	1988 ± 22 (−0.4 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0374	3.036 ± 0.016 (−0.3 σ)	$n_{\mathrm{s},0.002}$	0.9676	0.967 ± 0.011 (+0.8 σ)	$H(0.61)$	95.20	95.20 ± 0.51 (+0.5 σ)
n_{s}	0.9676	0.967 ± 0.011 (+0.8 σ)	Y_{P}	0.245470	0.24548 ± 0.00019 (+2.0 σ)	$D_{\mathrm{M}}(0.61)$	2312.0	2312 ± 24 (−0.4 σ)
y_{cal}	0.99988	1.0000 ± 0.0025 (−0.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246797	0.24680 ± 0.00019 (+2.0 σ)	$H(2.33)$	236.31	236.4 ± 1.1 (−0.3 σ)
H_0	67.32	67.3 ± 1.0 (+0.4 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.549	2.549 ± 0.081 (−2.0 σ)	$D_{\mathrm{M}}(2.33)$	5768.5	5768 ± 25 (−0.5 σ)
Ω_{Λ}	0.6851	$0.684^{+0.014}_{-0.012}$ (+0.4 σ)	Age/Gyr	13.809	13.809 ± 0.058 (−0.5 σ)	$f\sigma_8(0.15)$	0.4563	0.456 ± 0.011 (−0.6 σ)
Ω_{m}	0.3149	$0.316^{+0.012}_{-0.014}$ (−0.4 σ)	z_*	1089.62	1089.62 ± 0.68 (−1.6 σ)	$\sigma_8(0.15)$	0.7440	0.7435 ± 0.0068 (−0.8 σ)
$\Omega_{\mathrm{m}}h^2$	0.14270	0.1428 ± 0.0018 (−0.3 σ)	r_*	144.410	144.38 ± 0.39 (−0.2 σ)	$f\sigma_8(0.38)$	0.4738	0.4736 ± 0.0086 (−0.6 σ)
$\Omega_{\mathrm{m}}h^3$	0.09606	0.09608 ± 0.00079 (+0.4 σ)	$100\theta_*$	1.03993	1.03990 ± 0.00080 (−2.3 σ)	$\sigma_8(0.38)$	0.6592	0.6586 ± 0.0058 (−0.7 σ)
σ_8	0.8055	0.8050 ± 0.0079 (−0.7 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8865	13.884 ± 0.040 (+0.1 σ)	$f\sigma_8(0.51)$	0.4720	0.4718 ± 0.0073 (−0.7 σ)
S_8	0.8253	0.826 ± 0.022 (−0.6 σ)	z_{drag}	1060.35	1060.39 ± 0.94 (+2.2 σ)	$\sigma_8(0.51)$	0.6167	0.6162 ± 0.0054 (−0.7 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4520	0.452 ± 0.012 (−0.6 σ)	r_{drag}	147.005	146.97 ± 0.43 (−0.5 σ)	$f\sigma_8(0.61)$	0.4668	0.4665 ± 0.0064 (−0.7 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6034	0.603 ± 0.010 (−0.6 σ)	k_{D}	0.14111	0.14115 ± 0.00065 (+1.1 σ)	$\sigma_8(0.61)$	0.5867	0.5862 ± 0.0052 (−0.7 σ)
$\sigma_8/h^{0.5}$	0.9818	0.981 ± 0.015 (−0.7 σ)	$100\theta_{\mathrm{D}}$	0.16032	$0.16031^{+0.00053}_{-0.00060}$ (−2.9 σ)	$f\sigma_8(2.33)$	0.29569	0.2954 ± 0.0027 (−0.7 σ)
$r_{\mathrm{drag}}h$	98.96	98.9 ± 1.6 (+0.3 σ)	z_{eq}	3394.7	3397 ± 42 (−0.3 σ)	$\sigma_8(2.33)$	0.30470	0.3044 ± 0.0030 (−0.6 σ)
$\langle d^2 \rangle^{1/2}$	2.4285	2.429 ± 0.037 (−0.6 σ)	k_{eq}	0.010361	0.01037 ± 0.00013 (−0.3 σ)	$\chi_{\mathrm{lensing}}^2$	8.62	9.5 ± 1.2
z_{re}	7.21	7.11 ± 0.85 (−0.5 σ)	$100\theta_{\mathrm{eq}}$	0.8143	0.8141 ± 0.0082 (+0.3 σ)	$\chi_{\mathrm{PLIK_LITE}}^2$	194.32	197.7 ± 2.7 (−3.4 σ)
10^9A_{s}	2.0850	2.083 ± 0.033 (−0.3 σ)	$100\theta_{\mathrm{s,eq}}$	0.44973	0.4496 ± 0.0041 (+0.2 σ)	χ_{small}^2	395.66	396.7 ± 1.5 (−0.1 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8856	1.886 ± 0.015 (+0.2 σ)	$H(0.15)$	72.63	72.62 ± 0.91 (+0.4 σ)	χ_{prior}^2	0.56	2.4 ± 2.3 (+1.0 σ)
D_{40}	1227.1	1228 ± 27 (−0.3 σ)	$D_{\mathrm{M}}(0.15)$	643.8	644.0 ± 9.0 (−0.4 σ)	χ_{CMB}^2	598.59	603.9 ± 3.5 (−7.5 σ)

Best-fit $\chi_{\mathrm{eff}}^2 = 599.15$; $\bar{\chi}_{\mathrm{eff}}^2 = 606.34$; $R - 1 = 0.01015$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.62 plik_lite_v22: 194.31 simall_100x143_offlike5_EE_Aplanck_B: 395.65

2.53 base_pliklite_EE_lowE_lensing_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02345	0.02344 ± 0.00055 (+6.1 σ)	D_{1420}	833.9	835 ± 12 (+4.0 σ)	$H(0.61)$	96.08	96.06 ± 0.51 (+3.0 σ)
$\Omega_c h^2$	0.11734	0.1175 ± 0.0014 (−1.5 σ)	D_{2000}	237.32	237.6 ± 4.4 (+4.5 σ)	$D_M(0.61)$	2275.6	2277 ± 19 (−2.2 σ)
$100\theta_{MC}$	1.03992	1.03988 ± 0.00079 (−1.9 σ)	$n_{s,0.002}$	0.9716	0.9725 ± 0.0099 (+1.7 σ)	$H(2.33)$	235.79	235.86 ± 0.80 (−0.7 σ)
τ	0.0511	0.0507 ± 0.0079 (−0.2 σ)	Y_P	0.245847	$0.24583^{+0.00025}_{-0.00019}$ (+5.7 σ)	$D_M(2.33)$	5723.8	5725 ± 27 (−3.2 σ)
$\ln(10^{10} A_s)$	3.0456	3.045 ± 0.015 (+0.3 σ)	Y_P^{BBN}	0.247175	$0.24716^{+0.00025}_{-0.00019}$ (+5.7 σ)	$f\sigma_8(0.15)$	0.4420	0.4429 ± 0.0085 (−1.7 σ)
n_s	0.9716	0.9725 ± 0.0099 (+1.7 σ)	$10^5 D/H$	2.396	2.401 ± 0.092 (−5.6 σ)	$\sigma_8(0.15)$	0.7398	0.7401 ± 0.0069 (−1.2 σ)
y_{cal}	0.99988	0.99998 ± 0.0025 (−0.1 σ)	Age/Gyr	13.707	13.710 ± 0.062 (−3.3 σ)	$f\sigma_8(0.38)$	0.4630	0.4636 ± 0.0070 (−1.7 σ)
H_0	68.86	68.80 ± 0.83 (+2.1 σ)	z_*	1088.39	1088.43 ± 0.70 (−4.6 σ)	$\sigma_8(0.38)$	0.6572	0.6574 ± 0.0059 (−0.9 σ)
Ω_Λ	0.7017	0.7008 ± 0.0088 (+1.6 σ)	r_*	144.291	144.27 ± 0.39 (−0.4 σ)	$f\sigma_8(0.51)$	0.4632	0.4637 ± 0.0062 (−1.6 σ)
Ω_m	0.2983	0.2992 ± 0.0088 (−1.6 σ)	$100\theta_*$	1.03999	1.03995 ± 0.00080 (−2.2 σ)	$\sigma_8(0.51)$	0.6156	0.6158 ± 0.0055 (−0.8 σ)
$\Omega_m h^2$	0.14144	0.1415 ± 0.0012 (−0.9 σ)	$D_M(z_*)/\text{Gpc}$	13.8742	13.873 ± 0.040 (−0.1 σ)	$f\sigma_8(0.61)$	0.4593	0.4598 ± 0.0057 (−1.6 σ)
$\Omega_m h^3$	0.09739	0.0974 ± 0.0010 (+3.3 σ)	z_{drag}	1062.22	1062.2 ± 1.2 (+6.2 σ)	$\sigma_8(0.61)$	0.5862	0.5863 ± 0.0052 (−0.7 σ)
σ_8	0.7992	0.7996 ± 0.0078 (−1.3 σ)	r_{drag}	146.60	146.59 ± 0.52 (−1.3 σ)	$f\sigma_8(2.33)$	0.29607	0.2961 ± 0.0027 (−0.4 σ)
S_8	0.7969	0.799 ± 0.017 (−1.7 σ)	k_D	0.14216	0.14217 ± 0.00089 (+3.1 σ)	$\sigma_8(2.33)$	0.30584	0.3058 ± 0.0028 (−0.0 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4365	0.4374 ± 0.0091 (−1.7 σ)	$100\theta_D$	0.15928	0.15930 ± 0.00068 (−6.7 σ)	$\chi^2_{lensing}$	8.22	9.0 ± 1.0
$\sigma_8 \Omega_m^{0.25}$	0.5906	0.5914 ± 0.0086 (−1.6 σ)	z_{eq}	3364.5	3367 ± 28 (−0.9 σ)	$\chi^2_{PLIK_LITE}$	193.08	196.6 ± 2.6 (−3.7 σ)
$\sigma_8/h^{0.5}$	0.9631	0.964 ± 0.013 (−1.8 σ)	k_{eq}	0.010269	0.010277 ± 0.000087 (−0.9 σ)	χ^2_{small}	395.61	396.6 ± 1.4 (−0.2 σ)
$r_{drag} h$	100.95	100.8 ± 1.1 (+1.5 σ)	$100\theta_{eq}$	0.8223	0.8218 ± 0.0055 (+1.2 σ)	χ^2_{6DF}	0.0079	0.055 ± 0.080
$\langle d^2 \rangle^{1/2}$	2.4027	2.402 ± 0.030 (−1.3 σ)	$100\theta_{s,eq}$	0.45326	0.4530 ± 0.0027 (+1.0 σ)	χ^2_{MGS}	1.97	1.97 ± 0.69
z_{re}	7.09	$7.03^{+0.84}_{-0.73}$ (−0.6 σ)	$H(0.15)$	74.02	73.97 ± 0.75 (+2.2 σ)	$\chi^2_{DR12BAO}$	3.555	4.3 ± 1.1
$10^9 A_s$	2.1022	2.102 ± 0.032 (+0.3 σ)	$D_M(0.15)$	630.5	631.1 ± 7.0 (−2.1 σ)	χ^2_{prior}	0.00	1.0 ± 1.4 (−0.0 σ)
$10^9 A_s e^{-2\tau}$	1.8979	1.899 ± 0.017 (+1.1 σ)	$H(0.38)$	83.94	83.90 ± 0.62 (+2.4 σ)	χ^2_{CMB}	596.91	602.3 ± 3.3 (−8.0 σ)
D_{40}	1238.4	1237 ± 28 (+0.2 σ)	$D_M(0.38)$	1506.9	1508 ± 15 (−2.1 σ)	χ^2_{BAO}	5.53	6.4 ± 1.3
D_{220}	5902	5897 ± 110 (+4.5 σ)	$H(0.51)$	90.55	90.52 ± 0.56 (+2.7 σ)			
D_{810}	2572.6	2574 ± 25 (+2.7 σ)	$D_M(0.51)$	1954.1	1956 ± 18 (−2.2 σ)			

Best-fit $\chi^2_{eff} = 602.44$; $\bar{\chi}^2_{eff} = 609.66$; $R - 1 = 0.00869$
 χ^2_{eff} : BAO - 6DF: 0.01 MGS: 1.97 DR12BAO: 3.56 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb_consext8: 8.22 plik_lite_v22: 193.08 simall_100x143_offlike5_EE_Aplanck_B: 395.61

2.54 base_pliklite_EE_lowE_lensing_CookeDH_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022761	0.02277 ± 0.00037 (+3.0 σ)	D_{1420}	824.9	825 ± 10 (+2.1 σ)	$H(0.61)$	95.480	95.49 ± 0.37 (+1.4 σ)
$\Omega_{\mathrm{c}}h^2$	0.11841	0.1183 ± 0.0013 (−1.1 σ)	D_{2000}	233.82	233.8 ± 3.7 (+2.4 σ)	$D_{\mathrm{M}}(0.61)$	2298.3	2298 ± 15 (−1.2 σ)
$100\theta_{\mathrm{MC}}$	1.03999	1.03999 ± 0.00080 (−1.7 σ)	$n_{\mathrm{s},0.002}$	0.9713	0.9712 ± 0.0099 (+1.5 σ)	$H(2.33)$	235.81	235.76 ± 0.82 (−0.7 σ)
τ	0.0520	0.0517 ± 0.0077 (−0.1 σ)	Y_{P}	0.245540	$0.24555^{+0.00014}_{-0.00016}$ (+2.8 σ)	$D_{\mathrm{M}}(2.33)$	5755.1	5755 ± 19 (−1.4 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0407	3.040 ± 0.015 (−0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246867	$0.24688^{+0.00014}_{-0.00016}$ (+2.8 σ)	$f\sigma_8(0.15)$	0.4505	0.4500 ± 0.0076 (−1.1 σ)
n_{s}	0.9713	0.9712 ± 0.0099 (+1.5 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.516	2.516 ± 0.066 (−2.8 σ)	$\sigma_8(0.15)$	0.7432	0.7427 ± 0.0068 (−0.9 σ)
y_{cal}	1.00004	1.0002 ± 0.0025 (−0.1 σ)	Age/Gyr	13.7792	13.778 ± 0.045 (−1.4 σ)	$f\sigma_8(0.38)$	0.4696	0.4691 ± 0.0064 (−1.1 σ)
H_0	67.93	67.96 ± 0.65 (+1.1 σ)	z_*	1089.298	1089.29 ± 0.51 (−2.5 σ)	$\sigma_8(0.38)$	0.6592	0.6589 ± 0.0059 (−0.7 σ)
Ω_{Λ}	0.6926	0.6930 ± 0.0078 (+1.0 σ)	r_*	144.544	144.56 ± 0.35 (+0.2 σ)	$f\sigma_8(0.51)$	0.4687	0.4683 ± 0.0057 (−1.1 σ)
Ω_{m}	0.3074	0.3070 ± 0.0078 (−1.0 σ)	$100\theta_*$	1.04013	1.04013 ± 0.00080 (−1.8 σ)	$\sigma_8(0.51)$	0.6171	0.6168 ± 0.0055 (−0.6 σ)
$\Omega_{\mathrm{m}}h^2$	0.14181	0.1417 ± 0.0012 (−0.8 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8968	13.898 ± 0.037 (+0.5 σ)	$f\sigma_8(0.61)$	0.4641	0.4637 ± 0.0053 (−1.1 σ)
$\Omega_{\mathrm{m}}h^3$	0.09633	0.09632 ± 0.00075 (+0.9 σ)	z_{drag}	1060.73	1060.72 ± 0.82 (+2.9 σ)	$\sigma_8(0.61)$	0.5873	0.5870 ± 0.0052 (−0.6 σ)
σ_8	0.8038	0.8033 ± 0.0076 (−0.9 σ)	r_{drag}	147.078	147.10 ± 0.42 (−0.2 σ)	$f\sigma_8(2.33)$	0.29628	0.2962 ± 0.0027 (−0.4 σ)
S_8	0.8136	0.813 ± 0.015 (−1.1 σ)	k_{D}	0.14117	0.14115 ± 0.00066 (+1.2 σ)	$\sigma_8(2.33)$	0.30563	0.3055 ± 0.0028 (−0.1 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4456	0.4451 ± 0.0081 (−1.1 σ)	$100\theta_{\mathrm{D}}$	0.160136	0.16014 ± 0.00050 (−3.5 σ)	$\chi^2_{\mathrm{lensing}}$	8.49	9.2 ± 1.1
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5985	0.5979 ± 0.0078 (−1.1 σ)	z_{eq}	3373.5	3372 ± 29 (−0.8 σ)	$\chi^2_{\mathrm{PLIK_LITE}}$	194.13	197.5 ± 2.7 (−3.4 σ)
$\sigma_8/h^{0.5}$	0.9753	0.974 ± 0.012 (−1.1 σ)	k_{eq}	0.010296	0.010291 ± 0.000088 (−0.8 σ)	χ^2_{simall}	395.69	396.7 ± 1.4 (−0.2 σ)
$r_{\mathrm{drag}}h$	99.90	99.97 ± 0.98 (+0.9 σ)	$100\theta_{\mathrm{eq}}$	0.8188	0.8192 ± 0.0053 (+0.9 σ)	$\chi^2_{6\mathrm{DF}}$	0.0150	0.052 ± 0.069
$\langle d^2 \rangle^{1/2}$	2.4126	2.412 ± 0.030 (−1.1 σ)	$100\theta_{\mathrm{s,eq}}$	0.45195	0.4521 ± 0.0027 (+0.8 σ)	χ^2_{MGS}	1.34	1.45 ± 0.56
z_{re}	7.34	$7.29^{+0.82}_{-0.71}$ (−0.3 σ)	$H(0.15)$	73.17	73.20 ± 0.57 (+1.2 σ)	$\chi^2_{\mathrm{DR12BAO}}$	4.25	4.8 ± 1.5
10^9A_{s}	2.0919	2.091 ± 0.032 (−0.0 σ)	$D_{\mathrm{M}}(0.15)$	638.5	638.3 ± 5.5 (−1.1 σ)	χ^2_{prior}	1.26	2.9 ± 2.4 (+1.3 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8851	1.886 ± 0.015 (+0.1 σ)	$H(0.38)$	83.211	83.23 ± 0.46 (+1.2 σ)	χ^2_{CMB}	598.32	603.4 ± 3.5 (−7.6 σ)
D_{40}	1222.5	1224 ± 27 (−0.6 σ)	$D_{\mathrm{M}}(0.38)$	1523.9	1523 ± 11 (−1.2 σ)	χ^2_{BAO}	5.61	6.3 ± 1.2
D_{220}	5778	5783 ± 87 (+1.7 σ)	$H(0.51)$	89.890	89.91 ± 0.41 (+1.3 σ)			
D_{810}	2551.8	2552 ± 22 (+1.2 σ)	$D_{\mathrm{M}}(0.51)$	1974.7	1974 ± 14 (−1.2 σ)			

Best-fit $\chi^2_{\mathrm{eff}} = 605.19$; $\bar{\chi}^2_{\mathrm{eff}} = 612.59$; $R - 1 = 0.00499$

χ^2_{eff} : BAO - 6DF: 0.01 MGS: 1.34 DR12BAO: 4.25 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb_consext8: 8.49 plik_lite_v22: 194.13 simall_100x143_offlike5_EE_Aplanck_B: 395.69