

WMAP Cosmological Parameters

Model:  $\text{olcdm}+\text{mnu}$

Data: wmap9

$10^9 \Delta_{\mathcal{R}}^2$	$2.49 \pm 0.12$	$H_0$	$60^{+13}_{-14}$ km/s/Mpc
$\ell(\ell+1)C_{220}/(2\pi)$	$5754^{+37}_{-36} \mu\text{K}^2$	$d_A(z_{\text{eq}})$	$14131 \pm 126$ Mpc
$d_A(z_*)$	$13972^{+126}_{-125}$ Mpc	$D_v(z=0.57)/r_s(z_d)$	$14.9^{+2.3}_{-2.1}$
$\eta$	$(6.07^{+0.15}_{-0.16}) \times 10^{-10}$	$k_{\text{eq}}$	$0.01012 \pm 0.00034$
$\ell_{\text{eq}}$	$141.4 \pm 3.6$	$\ell_*$	$302.40 \pm 0.66$
$\sum m_\nu$	$< 1.3$ eV (95% CL)	$n_b$	$(2.494^{+0.063}_{-0.064}) \times 10^{-7} \text{ cm}^{-3}$
$n_s$	$0.960 \pm 0.016$	$\Omega_b$	$0.033 < \Omega_b < 0.146$ (95% CL)
$\Omega_b h^2$	$0.02220^{+0.00056}_{-0.00057}$	$\Omega_c$	$0.17 < \Omega_c < 0.79$ (95% CL)
$\Omega_c h^2$	$0.1163^{+0.0048}_{-0.0047}$	$\Omega_k$	$-0.026^{+0.042}_{-0.043}$
$\Omega_k$	$-0.170 < \Omega_k < 0.031$ (95% CL)	$\Omega_\Lambda$	$0.55^{+0.16}_{-0.18}$
$\Omega_m$	$0.21 < \Omega_m < 0.98$ (95% CL)	$\Omega_m h^2$	$0.1450^{+0.0069}_{-0.0068}$
$\Omega_\nu h^2$	$< 0.014$ (95% CL)	$\Omega_{\text{tot}}$	$1.026^{+0.043}_{-0.042}$
$\Omega_{\text{tot}}$	$0.97 < \Omega_{\text{tot}} < 1.17$ (95% CL)	$r_s(z_d)$	$151.7 \pm 1.3$ Mpc
$r_s(z_d)/D_v(z=0.106)$	$0.299^{+0.060}_{-0.063}$	$r_s(z_d)/D_v(z=0.2)$	$0.165^{+0.031}_{-0.032}$
$r_s(z_d)/D_v(z=0.35)$	$0.101^{+0.017}_{-0.018}$	$r_s(z_d)/D_v(z=0.44)$	$0.084^{+0.013}_{-0.014}$
$r_s(z_d)/D_v(z=0.54)$	$0.071^{+0.010}_{-0.011}$	$r_s(z_d)/D_v(z=0.57)$	$0.0683^{+0.0098}_{-0.0102}$
$r_s(z_d)/D_v(z=0.6)$	$0.0658^{+0.0092}_{-0.0096}$	$r_s(z_d)/D_v(z=0.73)$	$0.0572^{+0.0074}_{-0.0077}$
$r_s(z_*)$	$145.2 \pm 1.2$	$R$	$1.774 \pm 0.031$
$\sigma_8$	$0.690^{+0.078}_{-0.075}$	$\sigma_8 \Omega_m^{0.5}$	$0.458^{+0.100}_{-0.097}$
$\sigma_8 \Omega_m^{0.6}$	$0.42 \pm 0.11$	$A_{\text{SZ}}$	$< 2.0$ (95% CL)
$t_0$	$14.7^{+1.5}_{-1.4}$ Gyr	$\tau$	$0.085 \pm 0.013$
$\theta_*$	$0.010389 \pm 0.000023$	$\theta_*$	$0.5952 \pm 0.0013$ °
$\tau_{\text{rec}}$	$282.2 \pm 2.6$	$t_{\text{reion}}$	$445^{+65}_{-66}$ Myr
$t_*$	$373023^{+4602}_{-4606}$ yr	$z_d$	$1019.9 \pm 1.2$
$z_{\text{eq}}$	$3315 \pm 110$	$z_{\text{rec}}$	$1088.91 \pm 0.95$
$z_{\text{reion}}$	$10.5 \pm 1.1$	$z_*$	$1091.8 \pm 1.0$