

WMAP Cosmological Parameters

Model:  $\Lambda$ cdm+mnu

Data: wmap9+h0

$10^9 \Delta_{\mathcal{R}}^2$	$2.44 \pm 0.11$	$H_0$	$73.3^{+2.3}_{-2.4}$ km/s/Mpc
$\ell(\ell+1)C_{220}/(2\pi)$	$5754 \pm 37 \mu\text{K}^2$	$d_A(z_{\text{eq}})$	$14173^{+116}_{-120}$ Mpc
$d_A(z_*)$	$13993^{+120}_{-124}$ Mpc	$D_v(z=0.57)/r_s(z_d)$	$12.74^{+0.32}_{-0.31}$
$\eta$	$(6.14 \pm 0.14) \times 10^{-10}$	$k_{\text{eq}}$	$0.01001^{+0.00032}_{-0.00031}$
$\ell_{\text{eq}}$	$140.1^{+3.3}_{-3.2}$	$\ell_*$	$302.25^{+0.65}_{-0.63}$
$\sum m_\nu$	$< 1.2$ eV (95% CL)	$n_b$	$(2.521^{+0.059}_{-0.058}) \times 10^{-7} \text{ cm}^{-3}$
$n_s$	$0.967 \pm 0.014$	$\Omega_b h^2$	$0.02245 \pm 0.00052$
$\Omega_c h^2$	$0.1146^{+0.0045}_{-0.0043}$	$\Omega_k$	$0.0158^{+0.0352}_{-0.0086}$
$\Omega_k$	$0.00023 < \Omega_k < 0.05099$ (95% CL)	$\Omega_\Lambda$	$0.717^{+0.024}_{-0.025}$
$\Omega_m$	$0.267 \pm 0.021$	$\Omega_m h^2$	$0.1431^{+0.0065}_{-0.0063}$
$\Omega_\nu h^2$	$< 0.013$ (95% CL)	$\Omega_{\text{tot}}$	$0.9842^{+0.0086}_{-0.0352}$
$\Omega_{\text{tot}}$	$0.95 < \Omega_{\text{tot}} < 1.00$ (95% CL)	$r_s(z_d)$	$152.0 \pm 1.3$ Mpc
$r_s(z_d)/D_v(z=0.106)$	$0.362^{+0.011}_{-0.012}$	$r_s(z_d)/D_v(z=0.2)$	$0.1974^{+0.0059}_{-0.0060}$
$r_s(z_d)/D_v(z=0.35)$	$0.1185^{+0.0032}_{-0.0033}$	$r_s(z_d)/D_v(z=0.44)$	$0.0972^{+0.0025}_{-0.0026}$
$r_s(z_d)/D_v(z=0.54)$	$0.0821^{+0.0020}_{-0.0021}$	$r_s(z_d)/D_v(z=0.57)$	$0.0786 \pm 0.0019$
$r_s(z_d)/D_v(z=0.6)$	$0.0754 \pm 0.0018$	$r_s(z_d)/D_v(z=0.73)$	$0.0650 \pm 0.0015$
$r_s(z_*)$	$145.4 \pm 1.2$	$R$	$1.765 \pm 0.029$
$\sigma_8$	$0.712^{+0.076}_{-0.075}$	$\sigma_8 \Omega_m^{0.5}$	$0.367 \pm 0.036$
$\sigma_8 \Omega_m^{0.6}$	$0.322 \pm 0.032$	$A_{\text{SZ}}$	$< 2.0$ (95% CL)
$t_0$	$13.22 \pm 0.27$ Gyr	$\tau$	$0.087 \pm 0.013$
$\theta_*$	$0.010394 \pm 0.000022$	$\theta_*$	$0.5955^{+0.0012}_{-0.0013}$ °
$\tau_{\text{rec}}$	$283.1^{+2.4}_{-2.5}$	$t_{\text{reion}}$	$434^{+60}_{-62}$ Myr
$t_*$	$374630^{+4181}_{-4298}$ yr	$z_d$	$1020.3^{+1.2}_{-1.1}$
$z_{\text{eq}}$	$3280^{+104}_{-101}$	$z_{\text{rec}}$	$1088.52^{+0.86}_{-0.85}$
$z_{\text{reion}}$	$10.7 \pm 1.1$	$z_*$	$1091.29 \pm 0.89$