

WMAP Cosmological Parameters

Model: lcdm+nrel

Data: wmap9+snls3

$10^9 \Delta_{\mathcal{R}}^2$	$2.34 \pm 0.10$	$H_0$	$77.8_{-8.8}^{+9.4}$ km/s/Mpc
$N_{\text{eff}}$	$> 1.8$ (95% CL)	$\ell(\ell+1)C_{220}/(2\pi)$	$5752 \pm 34 \mu\text{K}^2$
$d_A(z_{\text{eq}})$	$13193_{-1503}^{+1448}$ Mpc	$d_A(z_*)$	$13041_{-1484}^{+1429}$ Mpc
$D_v(z=0.57)/r_s(z_d)$	$12.63_{-0.72}^{+0.71}$	$\eta$	$(6.24 \pm 0.13) \times 10^{-10}$
$k_{\text{eq}}$	$0.0106_{-0.0011}^{+0.0012}$	$\ell_{\text{eq}}$	$136.9 \pm 3.3$
$\ell_*$	$303.4 \pm 1.9$	$n_b$	$(2.562 \pm 0.055) \times 10^{-7} \text{ cm}^{-3}$
$n_s$	$0.993 \pm 0.026$	$\Omega_b$	$0.026 < \Omega_b < 0.054$ (95% CL)
$\Omega_b h^2$	$0.02282 \pm 0.00049$	$\Omega_c$	$0.225 \pm 0.020$
$\Omega_c h^2$	$0.139_{-0.035}^{+0.037}$	$\Omega_\Lambda$	$0.736 \pm 0.021$
$\Omega_m$	$0.264 \pm 0.021$	$\Omega_m h^2$	$0.161_{-0.035}^{+0.037}$
$r_s(z_d)$	$141_{-17}^{+16}$ Mpc	$r_s(z_d)/D_v(z=0.106)$	$0.367 \pm 0.022$
$r_s(z_d)/D_v(z=0.2)$	$0.200 \pm 0.012$	$r_s(z_d)/D_v(z=0.35)$	$0.1199_{-0.0069}^{+0.0071}$
$r_s(z_d)/D_v(z=0.44)$	$0.0983_{-0.0056}^{+0.0057}$	$r_s(z_d)/D_v(z=0.54)$	$0.0829_{-0.0047}^{+0.0048}$
$r_s(z_d)/D_v(z=0.57)$	$0.0794_{-0.0044}^{+0.0046}$	$r_s(z_d)/D_v(z=0.6)$	$0.0762_{-0.0042}^{+0.0044}$
$r_s(z_d)/D_v(z=0.73)$	$0.0656_{-0.0036}^{+0.0037}$	$r_s(z_*)$	$135 \pm 16$
$R$	$1.718 \pm 0.014$	$\sigma_8$	$0.868_{-0.079}^{+0.082}$
$\sigma_8 \Omega_m^{0.5}$	$0.446 \pm 0.046$	$\sigma_8 \Omega_m^{0.6}$	$0.391_{-0.041}^{+0.042}$
$\alpha_{\text{SNLS}}$	$1.43 \pm 0.11$	$\beta_{\text{SNLS}}$	$3.26 \pm 0.11$
$A_{\text{SZ}}$	$< 2.0$ (95% CL)	$t_0$	$12.7 \pm 1.4$ Gyr
$\tau$	$0.091 \pm 0.014$	$\theta_*$	$0.010354 \pm 0.000065$
$\theta_*$	$0.5932 \pm 0.0037$ °	$\tau_{\text{rec}}$	$263_{-31}^{+30}$
$t_{\text{reion}}$	$391_{-100}^{+98}$ Myr	$t_*$	$349278_{-42217}^{+40734}$ yr
$z_d$	$1022.2_{-2.4}^{+2.2}$	$z_{\text{eq}}$	$3175 \pm 108$
$z_{\text{rec}}$	$1090.0_{-2.9}^{+3.1}$	$z_{\text{reion}}$	$11.4 \pm 1.5$
$z_*$	$1092.7_{-2.8}^{+3.0}$		