

---

WMAP Cosmological Parameters

Model:  $\Lambda$ cdm+tens

Data: wmap9+bao+h0

$10^9 \Delta_{\mathcal{R}}^2$	$2.377^{+0.085}_{-0.086}$	$H_0$	$69.61 \pm 0.91$ km/s/Mpc
$\ell(\ell + 1)C_{220}/(2\pi)$	$5740 \pm 33$ $\mu\text{K}^2$	$d_A(z_{\text{eq}})$	$14136 \pm 93$ Mpc
$d_A(z_*)$	$13970 \pm 94$ Mpc	$D_v(z = 0.57)/r_s(z_d)$	$13.37 \pm 0.12$
$\eta$	$(6.24 \pm 0.12) \times 10^{-10}$	$k_{\text{eq}}$	$0.01009 \pm 0.00018$
$\ell_{\text{eq}}$	$140.9 \pm 1.7$	$\ell_*$	$302.30 \pm 0.59$
$n_b$	$(2.564 \pm 0.050) \times 10^{-7}$ cm $^{-3}$	$n_s$	$0.978 \pm 0.011$
$n_t$	$> -0.025$ (95% CL)	$\Omega_b$	$0.0471 \pm 0.0010$
$\Omega_b h^2$	$0.02283 \pm 0.00045$	$\Omega_c$	$0.2383 \pm 0.0094$
$\Omega_c h^2$	$0.1154 \pm 0.0023$	$\Omega_\Lambda$	$0.715 \pm 0.010$
$\Omega_m$	$0.285 \pm 0.010$	$\Omega_m h^2$	$0.1382 \pm 0.0025$
$r$	$< 0.20$ (95% CL)	$r_s(z_d)$	$151.56^{+0.92}_{-0.93}$ Mpc
$r_s(z_d)/D_v(z = 0.106)$	$0.3426 \pm 0.0045$	$r_s(z_d)/D_v(z = 0.2)$	$0.1872 \pm 0.0023$
$r_s(z_d)/D_v(z = 0.35)$	$0.1126 \pm 0.0012$	$r_s(z_d)/D_v(z = 0.44)$	$0.09244^{+0.00092}_{-0.00093}$
$r_s(z_d)/D_v(z = 0.54)$	$0.07811 \pm 0.00072$	$r_s(z_d)/D_v(z = 0.57)$	$0.07481 \pm 0.00067$
$r_s(z_d)/D_v(z = 0.6)$	$0.07186 \pm 0.00063$	$r_s(z_d)/D_v(z = 0.73)$	$0.06196^{+0.00048}_{-0.00049}$
$r_s(z_*)$	$145.18^{+0.76}_{-0.77}$	$R$	$1.7323 \pm 0.0062$
$\sigma_8$	$0.830 \pm 0.018$	$\sigma_8 \Omega_m^{0.5}$	$0.444 \pm 0.015$
$\sigma_8 \Omega_m^{0.6}$	$0.391 \pm 0.014$	$A_{\text{SZ}}$	$< 2.0$ (95% CL)
$t_0$	$13.729^{+0.086}_{-0.087}$ Gyr	$\tau$	$0.087 \pm 0.013$
$\theta_*$	$0.010393 \pm 0.000020$	$\theta_*$	$0.5954 \pm 0.0012$ $^\circ$
$\tau_{\text{rec}}$	$283.0 \pm 1.3$	$t_{\text{reion}}$	$459 \pm 65$ Myr
$t_*$	$374842^{+2099}_{-2102}$ yr	$z_d$	$1021.3 \pm 1.1$
$z_{\text{eq}}$	$3309 \pm 59$	$z_{\text{rec}}$	$1088.07^{+0.62}_{-0.63}$
$z_{\text{reion}}$	$10.4 \pm 1.1$	$z_*$	$1090.85 \pm 0.57$

---