

Table 1: Median Reduced  $\chi^2$ : 0.95 – Maximum-Likelihood Reduced  $\chi^2$ : 1.01

Parameter	Median and $1\sigma$ Values	Maximum-Likelihood
$P$ (days)	$3679.8^{+5.0}_{-4.7}$	3682.4
$t_{tran}$ (days)	$48835^{+15}_{-15}$	48823.0
$\sqrt{e} \cos \omega$	$0.744^{+0.013}_{-0.013}$	0.755
$\sqrt{e} \sin \omega$	$-0.214^{+0.033}_{-0.033}$	-0.194
$K_1$ (km/s)	$4.54^{+0.13}_{-0.13}$	4.38
$\gamma_1(km/s)$	$41.392^{+0.093}_{-0.093}$	41.458
$\gamma_2(km/s)$	$41.201^{+0.093}_{-0.093}$	41.216
$\gamma_3(km/s)$	$40.68^{+0.76}_{-0.76}$	40.29
$\gamma_4(km/s)$	$41.12^{+0.66}_{-0.65}$	41.11
$\sigma_{j,1}^2(km/s)^2$	$0.104^{+0.087}_{-0.060}$	0.103
$\sigma_{j,2}^2(km/s)^2$	$0.205^{+0.078}_{-0.052}$	0.213
$\sigma_{j,3}^2(km/s)^2$	$0.50^{+0.34}_{-0.34}$	0.0
$\sigma_{j,4}^2(km/s)^2$	$0.50^{+0.34}_{-0.34}$	0.0
$e$	$0.775^{+0.013}_{-0.013}$	0.779
$\omega$ (deg)	$-16.0^{+2.4}_{-2.4}$	-14.4

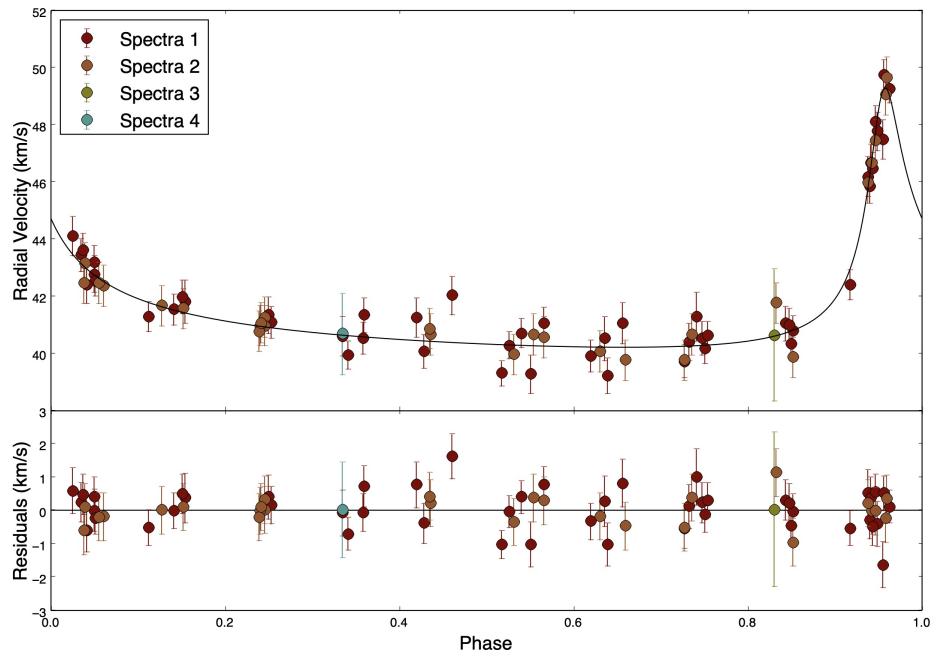


Figure 1: RV fit to median MCMC parameters. RMS residual velocity of  $0.53 \text{ km s}^{-1}$ .

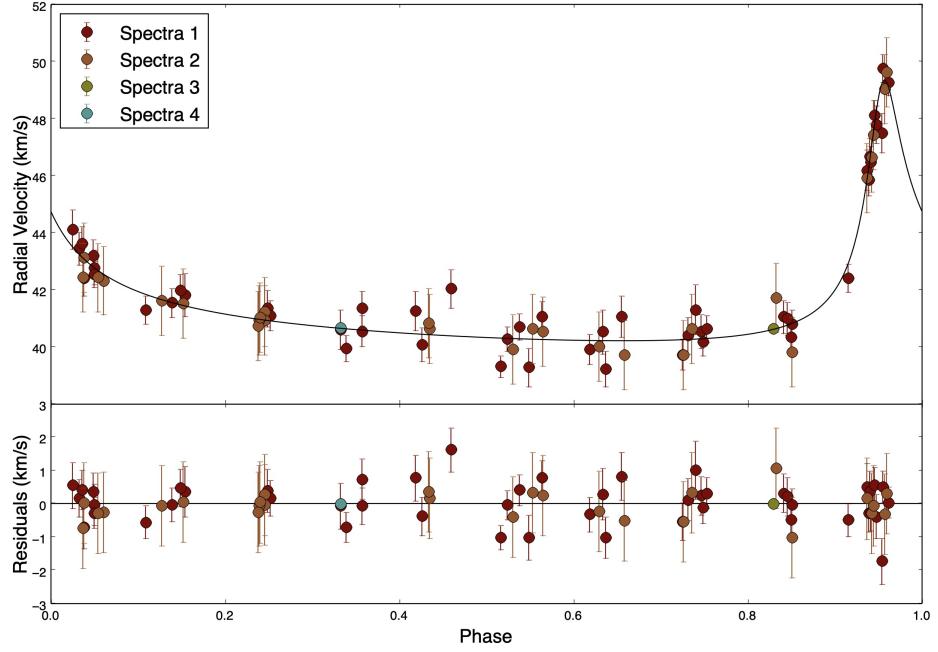


Figure 2: RV fit to maximum-likelihood MCMC parameters. RMS residual velocity of  $0.54 \text{ km s}^{-1}$ .

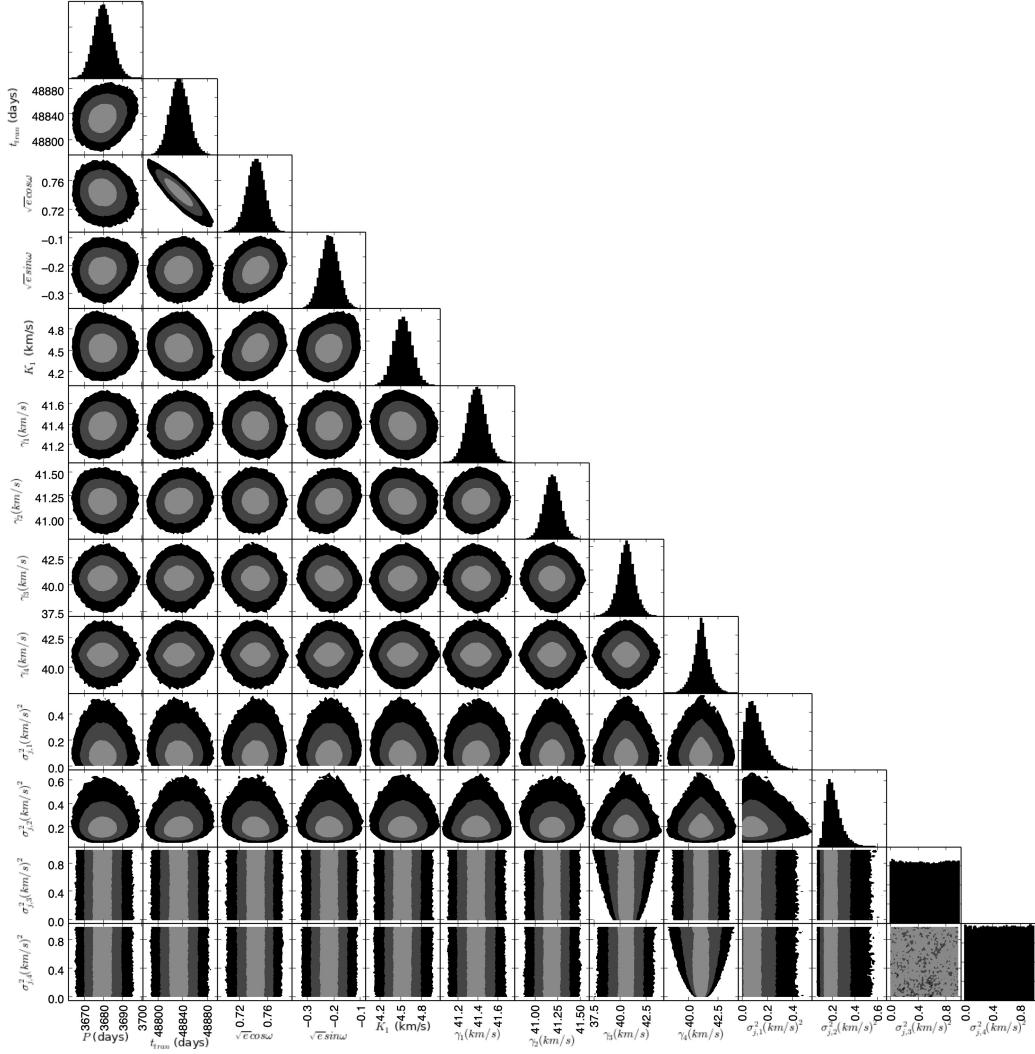


Figure 3: Contour plots showing the  $1\sigma$ ,  $2\sigma$ , and  $3\sigma$  constraints on pairs of parameters for the MCMC model.

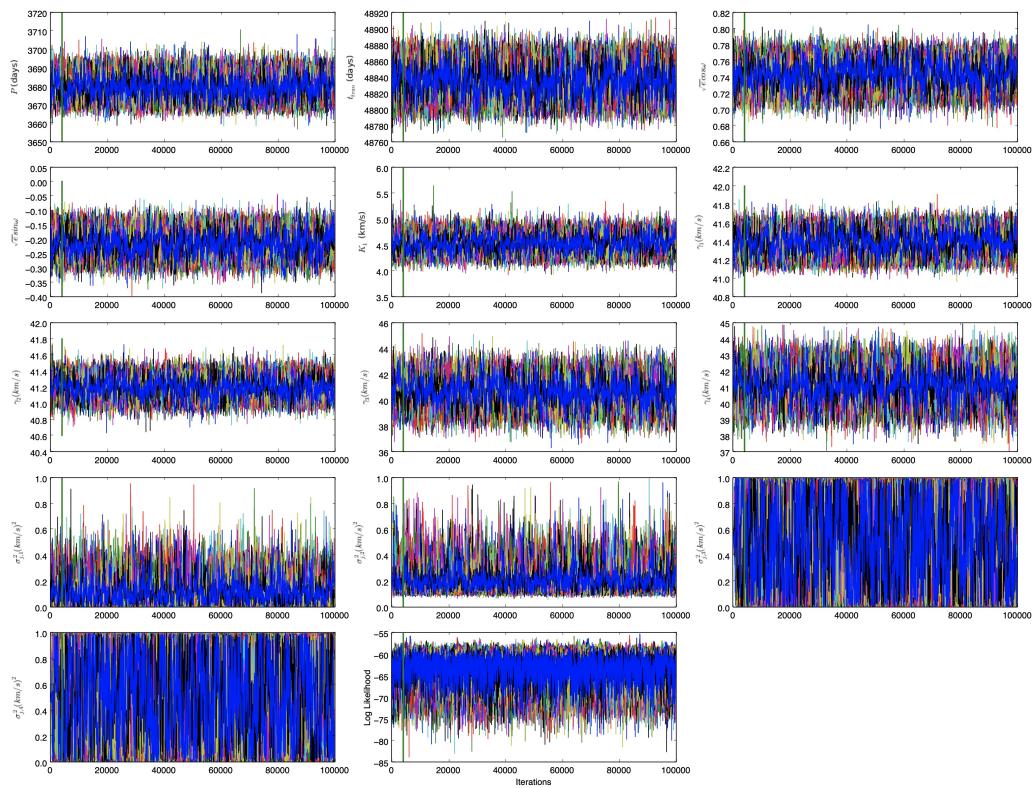


Figure 4: MCMC chains for all 50 walkers. Green line is burnout: 4000 steps.