

**Table 1.** Median values and 68% confidence interval for OGLE-TR-1003.

Parameter	Units	Values
Stellar Parameters:		
$M_*$ . . . . .	Mass ( $M_\odot$ ) . . . . .	$0.950^{+0.14}_{-0.085}$
$R_*$ . . . . .	Radius ( $R_\odot$ ) . . . . .	$1.08^{+0.51}_{-0.11}$
$R_{*,SED}$ . . . . .	Radius <sup>1</sup> ( $R_\odot$ ) . . . . .	$1.08^{+0.48}_{-0.11}$
$L_*$ . . . . .	Luminosity ( $L_\odot$ ) . . . . .	$1.22^{+0.99}_{-0.36}$
$F_{Bol}$ . . . . .	Bolometric Flux (cgs) . . . . .	$0.000000000278^{+0.0000000000042}_{-0.0000000000034}$
$\rho_*$ . . . . .	Density (cgs) . . . . .	$1.10^{+0.32}_{-0.75}$
$\log g$ . . . . .	Surface gravity (cgs) . . . . .	$4.360^{+0.073}_{-0.32}$
$T_{eff}$ . . . . .	Effective Temperature (K) . . . . .	$5720^{+290}_{-280}$
$T_{eff,SED}$ . . . . .	Effective Temperature <sup>1</sup> (K) . . . . .	$5750^{+340}_{-320}$
[Fe/H] . . . . .	Metallicity (dex) . . . . .	$-0.09 \pm 0.24$
[Fe/H] <sub>0</sub> . . . . .	Initial Metallicity <sup>2</sup> . . . . .	$-0.04^{+0.20}_{-0.23}$
Age . . . . .	Age (Gyr) . . . . .	$8.5^{+3.9}_{-5.4}$
EEP . . . . .	Equal Evolutionary Phase <sup>3</sup> . . . . .	$402^{+50}_{-55}$
$A_V$ . . . . .	V-band extinction (mag) . . . . .	$1.86^{+0.20}_{-0.22}$
$\sigma_{SED}$ . . . . .	SED photometry error scaling . . . . .	$7.07^{+1.2}_{-0.88}$
$\varpi$ . . . . .	Parallax (mas) . . . . .	$0.86^{+0.12}_{-0.25}$
$d$ . . . . .	Distance (pc) . . . . .	$1160^{+470}_{-140}$
Planetary Parameters:		
		b
$P$ . . . . .	Period (days) . . . . .	$2.7762250^{+0.0000058}_{-0.000056}$
$R_P$ . . . . .	Radius ( $R_J$ ) . . . . .	$0.565^{+0.35}_{-0.064}$
$M_P$ . . . . .	Mass <sup>4</sup> ( $M_J$ ) . . . . .	$0.129^{+53}_{-0.042}$
$T_C$ . . . . .	Time of conjunction <sup>5</sup> (BJD <sub>TDB</sub> ) . . . . .	$2455379.3408^{+0.0041}_{-0.0043}$
$T_T$ . . . . .	Time of minimum projected separation <sup>6</sup> (BJD <sub>TDB</sub> ) . . . . .	$2455379.3408^{+0.0041}_{-0.0043}$
$T_0$ . . . . .	Optimal conjunction Time <sup>7</sup> (BJD <sub>TDB</sub> ) . . . . .	$2457033.9707^{+0.0026}_{-0.0023}$
$a$ . . . . .	Semi-major axis (AU) . . . . .	$0.0383^{+0.0018}_{-0.0013}$
$i$ . . . . .	Inclination (Degrees) . . . . .	$87.2^{+1.9}_{-5.5}$
$T_{eq}$ . . . . .	Equilibrium temperature <sup>8</sup> (K) . . . . .	$1490^{+220}_{-110}$
$\tau_{circ}$ . . . . .	Tidal circularization timescale (Gyr) . . . . .	$0.73^{+20}_{-0.30}$
$K$ . . . . .	RV semi-amplitude <sup>4</sup> (m/s) . . . . .	$19.2^{+7100}_{-6.3}$
$R_P/R_*$ . . . . .	Radius of planet in stellar radii . . . . .	$0.0546^{+0.0042}_{-0.0029}$
$a/R_*$ . . . . .	Semi-major axis in stellar radii . . . . .	$7.66^{+0.68}_{-2.3}$
$\delta$ . . . . .	$(R_P/R_*)^2$ . . . . .	$0.00298^{+0.00047}_{-0.00031}$
$\delta_I$ . . . . .	Transit depth in I (fraction) . . . . .	$0.00332 \pm 0.00028$
$\delta_V$ . . . . .	Transit depth in V (fraction) . . . . .	$0.00355^{+0.00035}_{-0.00033}$
$\tau$ . . . . .	Ingress/egress transit duration (days) . . . . .	$0.00670^{+0.0091}_{-0.0094}$
$T_{14}$ . . . . .	Total transit duration (days) . . . . .	$0.1143^{+0.0084}_{-0.0060}$

Table 1 continued on next page

Table 1 (continued)

Parameter	Units	Values	
$T_{FWHM}$ ..	FWHM transit duration (days) .....	0.1055 <sup>+0.0055</sup> <sub>-0.0048</sub>	
$b$ .....	Transit Impact parameter .....	0.38 <sup>+0.39</sup> <sub>-0.25</sub>	
$\delta_{S,2.5\mu m}$ ..	Blackbody eclipse depth at 2.5 $\mu m$ (ppm) .....	103 <sup>+120</sup> <sub>-24</sub>	
$\delta_{S,5.0\mu m}$ ..	Blackbody eclipse depth at 5.0 $\mu m$ (ppm) .....	313 <sup>+220</sup> <sub>-48</sub>	
$\delta_{S,7.5\mu m}$ ..	Blackbody eclipse depth at 7.5 $\mu m$ (ppm) .....	432 <sup>+250</sup> <sub>-58</sub>	
$\rho_P$ .....	Density <sup>4</sup> (cgs) .....	1.01 <sup>+80</sup> <sub>-0.33</sub>	
$\log g_P$ ..	Surface gravity <sup>4</sup> .....	3.03 <sup>+2.2</sup> <sub>-0.15</sub>	
$\Theta$ .....	Safronov Number .....	0.0189 <sup>+4.4</sup> <sub>-0.0058</sub>	
$\langle F \rangle$ .....	Incident Flux (10 <sup>9</sup> erg s <sup>-1</sup> cm <sup>-2</sup> ) .....	1.13 <sup>+0.83</sup> <sub>-0.29</sub>	
$T_P$ .....	Time of Periastron (BJD <sub>TDB</sub> ) .....	2455379.3408 <sup>+0.0041</sup> <sub>-0.0043</sub>	
$T_S$ .....	Time of eclipse (BJD <sub>TDB</sub> ) .....	2455377.9527 <sup>+0.0041</sup> <sub>-0.0043</sub>	
$T_A$ .....	Time of Ascending Node (BJD <sub>TDB</sub> ) .....	2455381.4229 <sup>+0.0041</sup> <sub>-0.0043</sub>	
$T_D$ .....	Time of Descending Node (BJD <sub>TDB</sub> ) .....	2455380.0348 <sup>+0.0041</sup> <sub>-0.0043</sub>	
$V_c/V_e$ ..	.....	1.00	
$M_P \sin i$ ..	Minimum mass <sup>4</sup> ( $M_J$ ) .....	0.129 <sup>+52</sup> <sub>-0.042</sub>	
$M_P/M_*$ ..	Mass ratio <sup>4</sup> .....	0.000130 <sup>+0.048</sup> <sub>-0.000043</sub>	
$d/R_*$ ..	Separation at mid transit .....	7.66 <sup>+0.68</sup> <sub>-2.3</sub>	
$P_T$ .....	A priori non-grazing transit prob .....	0.124 <sup>+0.052</sup> <sub>-0.010</sub>	
$P_{T,G}$ .....	A priori transit prob .....	0.138 <sup>+0.061</sup> <sub>-0.011</sub>	
Wavelength Parameters:		I	V
$u_1$ .....	linear limb-darkening coeff .....	0.285 <sup>+0.065</sup> <sub>-0.066</sub>	0.467 <sup>+0.078</sup> <sub>-0.080</sub>
$u_2$ .....	quadratic limb-darkening coeff .....	0.272 $\pm$ 0.055	0.256 <sup>+0.059</sup> <sub>-0.064</sub>
Transit Parameters:		OGLE UT 2010-07-01 (I)	OGLE UT 2010-07-01 (V)
$\sigma^2$ .....	Added Variance .....	0.00002012 <sup>+0.00000032</sup> <sub>-0.00000033</sub>	0.0000222 <sup>+0.00000043</sup> <sub>-0.00000036</sub>
$F_0$ .....	Baseline flux .....	1.000116 $\pm$ 0.000046	0.99999 <sup>+0.00046</sup> <sub>-0.00043</sub>

See Table 3 in Eastman, J. et al., 2019, arXiv:1907.09480 for a detailed description of all parameters

<sup>1</sup>This value ignores the systematic error and is for reference only

<sup>2</sup>The metallicity of the star at birth

<sup>3</sup>Corresponds to static points in a star's evolutionary history. See §2 in Dotter, A., 2016, ApJS, 222, 8

<sup>4</sup>Uses measured radius and estimated mass from Chen, J., & Kipping, D. 2017, ApJ, 834, 17

<sup>5</sup>Time of conjunction is commonly reported as the "transit time"

<sup>6</sup>Time of minimum projected separation is a more correct "transit time"

<sup>7</sup>Optimal time of conjunction minimizes the covariance between  $T_C$  and Period

<sup>8</sup>Assumes no albedo and perfect redistribution