Table 1. Median values and 68% confidence interval for OGLE-TR-1002.

Parameter	Units	Values
Stellar Parameters:		
M_*	Mass ($M_\odot$)	$1.27^{+0.12}_{-0.14}$
R_*	Radius ($R_\odot$)	$1.429^{+0.086}_{-0.099}$
$R_{*,SED}$ ..	Radius[1] ($R_\odot$)	1.52 ± 0.11
L_*	Luminosity ($L_\odot$)	$2.39^{+0.68}_{-0.50}$
F_{Bol}	Bolometric Flux (cgs)	$0.0000000000279^{+0.0000000000047}_{-0.0000000000037}$
ρ_*	Density (cgs)	$0.61^{+0.14}_{-0.10}$
$\log g$	Surface gravity (cgs)	$4.232^{+0.062}_{-0.059}$
$T_{\rm eff}$	Effective Temperature (K)	6030^{+310}_{-280}
$T_{\rm eff,SED}$ ..	Effective Temperature[1] (K)	5840^{+310}_{-280}
[Fe/H]..	Metallicity (dex)	$0.38^{+0.11}_{-0.18}$
$[{\rm Fe/H}]_0$.	Initial Metallicity[2]	$0.387^{+0.082}_{-0.15}$
Age	Age (Gyr)	$3.0^{+3.3}_{-2.2}$
EEP	Equal Evolutionary Phase[3]	367^{+57}_{-46}
A_V	V-band extinction (mag)	2.12 ± 0.20
σ_{SED}	SED photometry error scaling	$11.6^{+1.8}_{-1.5}$
ϖ	Parallax (mas)	$0.604^{+0.047}_{-0.043}$
d	Distance (pc)	1660^{+130}_{-120}
Planetary Parameters:		b
P	Period (days)	13.197893 ± 0.000040
R_P	Radius ($R_{\rm J}$)	$1.66^{+0.12}_{-0.15}$
M_P	Mass[4] ($M_{\rm J}$)	$0.401^{+0.013}_{-0.026}$
T_C	Time of conjunction[5] ($\rm BJD_{TDB}$)	$2455379.7864^{+0.0035}_{-0.0036}$
T_T	Time of minimum projected separation[6] ($\rm BJD_{TDB}$)	$2455379.7864^{+0.0035}_{-0.0036}$
T_0	Optimal conjunction Time[7] ($\rm BJD_{TDB}$)	2456264.0452 ± 0.0023
a	Semi-major axis (AU)	$0.1184^{+0.0036}_{-0.0044}$
i	Inclination (Degrees)	$87.28^{+0.26}_{-0.22}$
T_{eq}	Equilibrium temperature[8] (K)	1007^{+51}_{-46}
$\tau_{\rm circ}$	Tidal circularization timescale (Gyr)	$7.8^{+6.2}_{-2.3}$
K	RV semi-amplitude[4] (m/s)	$29.2^{+4.8}_{-2.5}$
R_P/R_* ..	Radius of planet in stellar radii	0.1190 ± 0.0046
a/R_* ...	Semi-major axis in stellar radii	$17.8^{+1.3}_{-1.0}$
δ	$\left(R_P/R_*\right)^2$	0.0142 ± 0.0011
$\delta_{\rm I}$	Transit depth in I (fraction)	$0.01323^{+0.00078}_{-0.00077}$
$\delta_{\rm V}$	Transit depth in V (fraction)	$0.01236^{+0.00076}_{-0.00078}$
τ	Ingress/egress transit duration (days)	$0.057^{+0.013}_{-0.011}$
T_{14}	Total transit duration (days)	$0.1740^{+0.0073}_{-0.0071}$

Table 1 continued on next page

Table 1 *(continued)*

Parameter	Units	Values	
T_{FWHM} ..	FWHM transit duration (days)	$0.1168^{+0.0094}_{-0.012}$	
b	Transit Impact parameter	$0.844^{+0.021}_{-0.031}$	
$\delta_{S,2.5\mu m}$ ..	Blackbody eclipse depth at 2.5μm (ppm)	76^{+19}_{-17}	
$\delta_{S,5.0\mu m}$ ..	Blackbody eclipse depth at 5.0μm (ppm)	536^{+71}_{-76}	
$\delta_{S,7.5\mu m}$ ..	Blackbody eclipse depth at 7.5μm (ppm)	940^{+100}_{-110}	
ρ_P	Density[4] (cgs)	$0.105^{+0.048}_{-0.020}$	
$logg_P$ ...	Surface gravity[4]	$2.544^{+0.11}_{-0.062}$	
Θ	Safronov Number	$0.0442^{+0.0099}_{-0.0049}$	
$\langle F \rangle$	Incident Flux (10^9 erg s^{-1} cm^{-2})	$0.234^{+0.051}_{-0.040}$	
T_P	Time of Periastron (BJD$_{\rm TDB}$)	$2455379.7864^{+0.0035}_{-0.0036}$	
T_S	Time of eclipse (BJD$_{\rm TDB}$)	$2455386.3854^{+0.0035}_{-0.0036}$	
T_A	Time of Ascending Node (BJD$_{\rm TDB}$)	2455389.6848 ± 0.0035	
T_D	Time of Descending Node (BJD$_{\rm TDB}$)	$2455383.0859^{+0.0035}_{-0.0036}$	
V_c/V_e ...	.....	1.00	
$M_P \sin i$.	Minimum mass[4] ($M_{\rm J}$)	$0.400^{+0.013}_{-0.026}$	
M_P/M_* .	Mass ratio[4]	$0.000300^{+0.000070}_{-0.000033}$	
d/R_* ...	Separation at mid transit	$17.8^{+1.3}_{-1.0}$	
P_T	A priori non-grazing transit prob	$0.0495^{+0.0030}_{-0.0032}$	
$P_{T,G}$	A priori transit prob	$0.0629^{+0.0039}_{-0.0043}$	
Wavelength Parameters:		I	V
u_1	linear limb-darkening coeff	0.258 ± 0.064	$0.444^{+0.075}_{-0.073}$
u_2	quadratic limb-darkening coeff	0.296 ± 0.054	$0.272^{+0.060}_{-0.062}$
Transit Parameters:		OGLE UT 2010-07-02 (I)	OGLE UT 2010-07-02 (V)
σ^2	Added Variance	$0.00002771^{+0.00000045}_{-0.00000044}$	$0.0000437^{+0.0000072}_{-0.0000063}$
F_0	Baseline flux	1.000336 ± 0.000052	$1.00022^{+0.00058}_{-0.00059}$

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

[1] This value ignores the systematic error and is for reference only

[2] The metallicity of the star at birth

[3] Corresponds to static points in a star's evolutionary history. See §2 in Dotter, A., 2016, ApJS, 222, 8

[4] Uses measured radius and estimated mass from Chen, J., & Kipping, D. 2017, ApJ, 834, 17

[5] Time of conjunction is commonly reported as the "transit time"

[6] Time of minimum projected separation is a more correct "transit time"

[7] Optimal time of conjunction minimizes the covariance between T_C and Period

[8] Assumes no albedo and perfect redistribution