

Table 1. Median values and 68% confidence interval for OGLE-TR-1032.

Parameter	Units	Values
Stellar Parameters:		
M_*	Mass (M_\odot)	$1.417^{+0.084}_{-0.051}$
R_*	Radius (R_\odot)	$1.699^{+0.050}_{-0.040}$
$R_{*,SED}$	Radius ¹ (R_\odot)	$1.828^{+0.087}_{-0.083}$
L_*	Luminosity (L_\odot)	$3.05^{+0.67}_{-0.49}$
F_{Bol}	Bolometric Flux (cgs)	$0.0000000000382^{+0.0000000000064}_{-0.0000000000051}$
ρ_*	Density (cgs)	$0.410^{+0.019}_{-0.022}$
$\log g$	Surface gravity (cgs)	$4.131^{+0.014}_{-0.015}$
T_{eff}	Effective Temperature (K)	5860^{+290}_{-280}
$T_{eff,SED}$	Effective Temperature ¹ (K)	5670^{+300}_{-280}
[Fe/H]	Metallicity (dex)	$0.45^{+0.11}_{-0.21}$
[Fe/H] ₀	Initial Metallicity ²	$0.374^{+0.094}_{-0.19}$
Age	Age (Gyr)	$0.0157^{+0.0021}_{-0.0040}$
EEP	Equal Evolutionary Phase ³	$193.5^{+2.8}_{-5.3}$
A_V	V-band extinction (mag)	$2.32^{+0.21}_{-0.22}$
σ_{SED}	SED photometry error scaling	$9.0^{+1.3}_{-1.0}$
ϖ	Parallax (mas)	$0.625^{+0.030}_{-0.031}$
d	Distance (pc)	1598^{+83}_{-74}
Planetary Parameters:		
		b
P	Period (days)	14.165438 ± 0.000019
R_p	Radius (R_J)	$2.232^{+0.067}_{-0.050}$
M_p	Mass ⁴ (M_J)	$0.4070^{+0.0052}_{-0.011}$
T_C	Time of conjunction ⁵ (BJD _{TDB})	2455383.9723 ± 0.0028
T_T	Time of minimum projected separation ⁶ (BJD _{TDB})	2455383.9723 ± 0.0028
T_0	Optimal conjunction Time ⁷ (BJD _{TDB})	$2457197.1483^{+0.0014}_{-0.0013}$
a	Semi-major axis (AU)	$0.1287^{+0.0025}_{-0.0016}$
i	Inclination (Degrees)	$89.65^{+0.25}_{-0.36}$
T_{eq}	Equilibrium temperature ⁸ (K)	1026^{+50}_{-49}
τ_{circ}	Tidal circularization timescale (Gyr)	$2.74^{+0.27}_{-0.30}$
K	RV semi-amplitude ⁴ (m/s)	$26.91^{+0.87}_{-1.2}$
R_p/R_*	Radius of planet in stellar radii	0.1351 ± 0.0017
a/R_*	Semi-major axis in stellar radii	$16.33^{+0.25}_{-0.29}$
δ	$(R_p/R_*)^2$	0.01825 ± 0.00046
δ_I	Transit depth in I (fraction)	$0.02146^{+0.00067}_{-0.00064}$
δ_V	Transit depth in V (fraction)	$0.0238^{+0.0013}_{-0.0012}$
τ	Ingress/egress transit duration (days)	$0.03754^{+0.0012}_{-0.00066}$
T_{14}	Total transit duration (days)	$0.3117^{+0.0040}_{-0.0039}$

Table 1 continued on next page

Table 1 (continued)

Parameter	Units	Values	
T_{FWHM} ..	FWHM transit duration (days)	0.2739 ^{+0.0037} _{-0.0036}	
b	Transit Impact parameter	0.101 ^{+0.10} _{-0.071}	
$\delta_{S,2.5\mu m}$..	Blackbody eclipse depth at 2.5 μm (ppm)	112 ⁺²⁵ ₋₂₁	
$\delta_{S,5.0\mu m}$..	Blackbody eclipse depth at 5.0 μm (ppm)	745 ⁺⁷⁰ ₋₆₈	
$\delta_{S,7.5\mu m}$..	Blackbody eclipse depth at 7.5 μm (ppm)	1286 ⁺⁸⁰ ₋₇₈	
ρ_P	Density ⁴ (cgs)	0.0451 ^{+0.0033} _{-0.0039}	
$\log g_P$	Surface gravity ⁴	2.303 ^{+0.021} _{-0.027}	
Θ	Safronov Number	0.0328 ^{+0.0017} _{-0.0021}	
$\langle F \rangle$	Incident Flux (10 ⁹ erg s ⁻¹ cm ⁻²)	0.252 ^{+0.053} _{-0.045}	
T_P	Time of Periastron (BJD _{TDB})	2455383.9723 \pm 0.0028	
T_S	Time of eclipse (BJD _{TDB})	2455376.8896 \pm 0.0028	
T_A	Time of Ascending Node (BJD _{TDB})	2455394.5964 \pm 0.0028	
T_D	Time of Descending Node (BJD _{TDB})	2455387.5136 \pm 0.0028	
V_c/V_e	1.00	
$M_P \sin i$..	Minimum mass ⁴ (M_J)	0.4070 ^{+0.0052} _{-0.011}	
M_P/M_*	Mass ratio ⁴	0.000272 ^{+0.000012} _{-0.000017}	
d/R_*	Separation at mid transit	16.33 ^{+0.25} _{-0.29}	
P_T	A priori non-grazing transit prob	0.05299 ^{+0.0010} _{-0.00087}	
$P_{T,G}$	A priori transit prob	0.0695 ^{+0.0013} _{-0.0010}	
Wavelength Parameters:		I	V
u_1	linear limb-darkening coeff	0.307 \pm 0.063	0.479 ^{+0.080} _{-0.078}
u_2	quadratic limb-darkening coeff	0.303 ^{+0.055} _{-0.056}	0.249 ^{+0.063} _{-0.065}
Transit Parameters:		OGLE UT 2010-07-06 (I)	OGLE UT 2010-07-06 (V)
σ^2	Added Variance	0.00001658 \pm 0.00000035	0.0000479 ^{+0.0000072} _{-0.0000062}
F_0	Baseline flux	1.000064 \pm 0.000050	0.99998 \pm 0.00056

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

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

²The metallicity of the star at birth

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

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

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

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

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

⁸Assumes no albedo and perfect redistribution