Table 1. Median values and 68% confidence interval for OGLE-TR-1027.

Parameter	Units	Values
Stellar Parameters:		
M_*	Mass ($M_\odot$)	$2.06^{+0.47}_{-0.51}$
R_*	Radius ($R_\odot$)	$2.95^{+1.1}_{-0.39}$
$R_{*,SED}$ ..	Radius[1] ($R_\odot$)	$3.02^{+1.0}_{-0.41}$
L_*	Luminosity ($L_\odot$)	$6.8^{+4.4}_{-2.1}$
F_{Bol}	Bolometric Flux (cgs)	$0.0000000000315^{+0.0000000000052}_{-0.0000000000039}$
ρ_*	Density (cgs)	$0.106^{+0.055}_{-0.066}$
$\log g$	Surface gravity (cgs)	$3.80^{+0.11}_{-0.28}$
$T_{\rm eff}$	Effective Temperature (K)	5320^{+370}_{-290}
$T_{\rm eff,SED}$ ..	Effective Temperature[1] (K)	5280^{+350}_{-290}
[Fe/H]..	Metallicity (dex)	$0.26^{+0.23}_{-0.35}$
$[{\rm Fe/H}]_0$.	Initial Metallicity[2]	$0.21^{+0.20}_{-0.33}$
Age	Age (Gyr)	$0.0020^{+0.0032}_{-0.0014}$
EEP	Equal Evolutionary Phase[3]	159^{+18}_{-29}
A_V	V-band extinction (mag)	$1.30^{+0.25}_{-0.24}$
σ_{SED}	SED photometry error scaling	$16.5^{+2.7}_{-2.1}$
ϖ	Parallax (mas)	$0.390^{+0.059}_{-0.091}$
d	Distance (pc)	2570^{+780}_{-340}
Planetary Parameters:		b
P	Period (days)	2.624793 ± 0.000019
R_P	Radius ($R_{\rm J}$)	$1.21^{+1.2}_{-0.15}$
M_P	Mass[4] ($M_{\rm J}$)	66^{+160}_{-55}
T_C	Time of conjunction[5] ($\rm BJD_{TDB}$)	$2455261.407^{+0.013}_{-0.012}$
T_T	Time of minimum projected separation[6] ($\rm BJD_{TDB}$)	$2455261.407^{+0.013}_{-0.012}$
T_0	Optimal conjunction Time[7] ($\rm BJD_{TDB}$)	$2456623.6758^{+0.0069}_{-0.0081}$
a	Semi-major axis (AU)	$0.0477^{+0.0042}_{-0.0037}$
i	Inclination (Degrees)	$75.2^{+2.5}_{-7.7}$
T_{eq}	Equilibrium temperature[8] (K)	2090^{+240}_{-170}
$\tau_{\rm circ}$	Tidal circularization timescale (Gyr)	$3.1^{+9.0}_{-2.5}$
K	RV semi-amplitude[4] (m/s)	6300^{+11000}_{-5100}
R_P/R_* ..	Radius of planet in stellar radii	$0.0451^{+0.015}_{-0.0052}$
a/R_* ...	Semi-major axis in stellar radii	$3.40^{+0.51}_{-0.88}$
δ	$\left(R_P/R_*\right)^2$	$0.00203^{+0.0015}_{-0.00044}$
$\delta_{\rm I}$	Transit depth in I (fraction)	$0.00170^{+0.00031}_{-0.00026}$
$\delta_{\rm V}$	Transit depth in V (fraction)	$0.00138^{+0.00030}_{-0.00041}$
τ	Ingress/egress transit duration (days)	$0.0252^{+0.049}_{-0.0085}$
T_{14}	Total transit duration (days)	$0.144^{+0.021}_{-0.018}$

Table 1 continued on next page

Table 1 *(continued)*

Parameter	Units	Values	
T_{FWHM} ..	FWHM transit duration (days)	0.106 ± 0.029	
b	Transit Impact parameter	$0.897^{+0.073}_{-0.076}$	
$\delta_{S,2.5\mu m}$ ..	Blackbody eclipse depth at 2.5μm (ppm)	239^{+400}_{-61}	
$\delta_{S,5.0\mu m}$ ..	Blackbody eclipse depth at 5.0μm (ppm)	450^{+600}_{-100}	
$\delta_{S,7.5\mu m}$ ..	Blackbody eclipse depth at 7.5μm (ppm)	540^{+670}_{-120}	
ρ_P	Density[4] (cgs)	26^{+32}_{-17}	
$logg_P$ ...	Surface gravity[4]	$4.96^{+0.19}_{-0.61}$	
Θ	Safronov Number	$3.2^{+1.1}_{-2.6}$	
$\langle F \rangle$	Incident Flux (10^9 erg s^{-1} cm^{-2})	$4.3^{+2.4}_{-1.3}$	
T_P	Time of Periastron (BJD$_{\rm TDB}$)	$2455261.407^{+0.013}_{-0.012}$	
T_S	Time of eclipse (BJD$_{\rm TDB}$)	$2455262.720^{+0.013}_{-0.012}$	
T_A	Time of Ascending Node (BJD$_{\rm TDB}$)	$2455263.376^{+0.013}_{-0.012}$	
T_D	Time of Descending Node (BJD$_{\rm TDB}$)	$2455262.064^{+0.013}_{-0.012}$	
V_c/V_e ...	.....	1.00	
$M_P \sin i$.	Minimum mass[4] ($M_{\rm J}$)	64^{+140}_{-53}	
M_P/M_* .	Mass ratio[4]	$0.034^{+0.062}_{-0.028}$	
d/R_* ...	Separation at mid transit	$3.40^{+0.51}_{-0.88}$	
P_T	A priori non-grazing transit prob	$0.282^{+0.092}_{-0.037}$	
$P_{T,G}$	A priori transit prob	$0.306^{+0.11}_{-0.039}$	
Wavelength Parameters:		I	V
u_1	linear limb-darkening coeff	$0.343^{+0.076}_{-0.094}$	$0.566^{+0.093}_{-0.13}$
u_2	quadratic limb-darkening coeff	$0.258^{+0.064}_{-0.060}$	$0.196^{+0.093}_{-0.081}$
Transit Parameters:		OGLE UT 2010-03-05 (I)	OGLE UT 2010-03-05 (V)
σ^2	Added Variance	$0.00001144 \pm 0.00000022$	$0.0000205^{+0.0000035}_{-0.0000029}$
F_0	Baseline flux	$1.000084^{+0.000039}_{-0.000037}$	0.99931 ± 0.00040

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