Table 1. Median values and 68% confidence interval for OGLE-TR-1019.

Parameter	Units	Values
Stellar Parameters:		
M_*	Mass ($M_\odot$)	$0.820^{+0.078}_{-0.048}$
R_*	Radius ($R_\odot$)	$1.385^{+0.079}_{-0.069}$
$R_{*,SED}$ ..	Radius[1] ($R_\odot$)	$1.485^{+0.10}_{-0.093}$
L_*	Luminosity ($L_\odot$)	$4.07^{+1.2}_{-0.81}$
F_{Bol}	Bolometric Flux (cgs)	$0.000000000088^{+0.000000000022}_{-0.000000000015}$
ρ_*	Density (cgs)	$0.444^{+0.072}_{-0.067}$
$\log g$	Surface gravity (cgs)	$4.076^{+0.049}_{-0.051}$
$T_{\rm eff}$	Effective Temperature (K)	6970^{+410}_{-330}
$T_{\rm eff,SED}$ ..	Effective Temperature[1] (K)	6750^{+420}_{-360}
[Fe/H] ..	Metallicity (dex)	$-4.28^{+1.2}_{-0.24}$
$[{\rm Fe/H}]_0$.	Initial Metallicity[2]	$-3.69^{+1.2}_{-0.23}$
Age	Age (Gyr)	$10.1^{+2.4}_{-2.6}$
EEP	Equal Evolutionary Phase[3]	$433.9^{+7.2}_{-5.7}$
A_V	V-band extinction (mag)	$4.47^{+0.88}_{-1.2}$
σ_{SED}	SED photometry error scaling	$6.70^{+1.2}_{-0.94}$
ϖ	Parallax (mas)	$0.820^{+0.058}_{-0.056}$
d	Distance (pc)	1219^{+89}_{-80}
Planetary Parameters:		b
P	Period (days)	$23.07172^{+0.00012}_{-0.00013}$
R_P	Radius ($R_{\rm J}$)	$1.975^{+0.10}_{-0.092}$
M_P	Mass[4] ($M_{\rm J}$)	$0.4035^{+0.0078}_{-0.016}$
T_C	Time of conjunction[5] ($\rm BJD_{TDB}$)	$2455377.6698^{+0.0091}_{-0.0089}$
T_T	Time of minimum projected separation[6] ($\rm BJD_{TDB}$)	$2455377.6698^{+0.0091}_{-0.0089}$
T_0	Optimal conjunction Time[7] ($\rm BJD_{TDB}$)	$2456485.1121^{+0.0068}_{-0.0064}$
a	Semi-major axis (AU)	$0.1485^{+0.0045}_{-0.0029}$
i	Inclination (Degrees)	$89.65^{+0.24}_{-0.35}$
T_{eq}	Equilibrium temperature[8] (K)	1026^{+58}_{-51}
$\tau_{\rm circ}$	Tidal circularization timescale (Gyr)	$29.0^{+7.2}_{-6.0}$
K	RV semi-amplitude[4] (m/s)	$32.5^{+1.7}_{-2.3}$
R_P/R_* ..	Radius of planet in stellar radii	$0.1465^{+0.0048}_{-0.0050}$
a/R_* ...	Semi-major axis in stellar radii	23.2 ± 1.2
δ	$\left(R_P/R_*\right)^2$	0.0215 ± 0.0014
$\delta_{\rm I}$	Transit depth in I (fraction)	0.0237 ± 0.0016
$\delta_{\rm V}$	Transit depth in V (fraction)	$0.0256^{+0.0019}_{-0.0018}$
τ	Ingress/egress transit duration (days)	$0.0471^{+0.0032}_{-0.0024}$
T_{14}	Total transit duration (days)	$0.358^{+0.018}_{-0.016}$

Table 1 continued on next page

Table 1 *(continued)*

Parameter	Units	Values	
T_{FWHM} ..	FWHM transit duration (days)	$0.310^{+0.017}_{-0.015}$	
b	Transit Impact parameter	$0.141^{+0.14}_{-0.099}$	
$\delta_{S,2.5\mu m}$ ..	Blackbody eclipse depth at 2.5μm (ppm)	101^{+26}_{-21}	
$\delta_{S,5.0\mu m}$ ..	Blackbody eclipse depth at 5.0μm (ppm)	706^{+83}_{-76}	
$\delta_{S,7.5\mu m}$ ..	Blackbody eclipse depth at 7.5μm (ppm)	1240^{+110}_{-100}	
ρ_P	Density[4] (cgs)	$0.0644^{+0.0098}_{-0.0089}$	
$loggP$ ...	Surface gravity[4]	$2.405^{+0.042}_{-0.043}$	
Θ	Safronov Number	$0.0730^{+0.0056}_{-0.0064}$	
$\langle F \rangle$	Incident Flux (10^9 erg s^{-1} cm^{-2})	$0.252^{+0.062}_{-0.046}$	
T_P	Time of Periastron (BJD$_{\rm TDB}$)	$2455377.6698^{+0.0091}_{-0.0089}$	
T_S	Time of eclipse (BJD$_{\rm TDB}$)	$2455389.2056^{+0.0091}_{-0.0089}$	
T_A	Time of Ascending Node (BJD$_{\rm TDB}$)	$2455394.9736^{+0.0090}_{-0.0089}$	
T_D	Time of Descending Node (BJD$_{\rm TDB}$)	$2455383.4377^{+0.0091}_{-0.0089}$	
V_c/V_e ...	.....	1.00	
$M_P \sin i$.	Minimum mass[4] ($M_{\rm J}$)	$0.4035^{+0.0078}_{-0.016}$	
M_P/M_* .	Mass ratio[4]	$0.000465^{+0.000033}_{-0.000043}$	
d/R_* ...	Separation at mid transit	23.2 ± 1.2	
P_T	A priori non-grazing transit prob	$0.0368^{+0.0022}_{-0.0019}$	
$P_{T,G}$	A priori transit prob	$0.0494^{+0.0027}_{-0.0023}$	
Wavelength Parameters:		I	V
u_1	linear limb-darkening coeff	$0.200^{+0.056}_{-0.054}$	$0.333^{+0.057}_{-0.053}$
u_2	quadratic limb-darkening coeff	$0.294^{+0.051}_{-0.054}$	$0.309^{+0.051}_{-0.052}$
Transit Parameters:		OGLE UT 2010-06-30 (I)	OGLE UT 2010-06-30 (V)
σ^2	Added Variance	$0.0002321^{+0.0000034}_{-0.0000033}$	$0.000146^{+0.000019}_{-0.000017}$
F_0	Baseline flux	1.00018 ± 0.00015	0.99981 ± 0.00091

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