

**Table 1.** Median values and 68% confidence interval for OGLE-TR-1026.

Parameter	Units	Values
Stellar Parameters:		
$M_*$ . . . . .	Mass ( $M_\odot$ ) . . . . .	$0.859^{+0.14}_{-0.069}$
$R_*$ . . . . .	Radius ( $R_\odot$ ) . . . . .	$2.73^{+0.34}_{-0.27}$
$R_{*,SED}$ . . . . .	Radius <sup>1</sup> ( $R_\odot$ ) . . . . .	$2.71^{+0.39}_{-0.29}$
$L_*$ . . . . .	Luminosity ( $L_\odot$ ) . . . . .	$7.5^{+3.2}_{-2.1}$
$F_{Bol}$ . . . . .	Bolometric Flux (cgs) . . . . .	$0.00000000081^{+0.000000000022}_{-0.000000000016}$
$\rho_*$ . . . . .	Density (cgs) . . . . .	$0.060^{+0.024}_{-0.016}$
$\log g$ . . . . .	Surface gravity (cgs) . . . . .	$3.502^{+0.10}_{-0.086}$
$T_{eff}$ . . . . .	Effective Temperature (K) . . . . .	$5750^{+500}_{-450}$
$T_{eff,SED}$ . . . . .	Effective Temperature <sup>1</sup> (K) . . . . .	$5780^{+510}_{-470}$
[Fe/H] . . . . .	Metallicity (dex) . . . . .	$-1.74^{+0.95}_{-1.3}$
[Fe/H] <sub>0</sub> . . . . .	Initial Metallicity <sup>2</sup> . . . . .	$-1.68^{+0.90}_{-1.2}$
Age . . . . .	Age (Gyr) . . . . .	$9.9^{+2.8}_{-4.0}$
EEP . . . . .	Equal Evolutionary Phase <sup>3</sup> . . . . .	$475.7^{+5.3}_{-5.7}$
$A_V$ . . . . .	V-band extinction (mag) . . . . .	$1.73^{+0.34}_{-0.33}$
$\sigma_{SED}$ . . . . .	SED photometry error scaling . . . . .	$16.9^{+2.6}_{-2.1}$
$\varpi$ . . . . .	Parallax (mas) . . . . .	$0.586^{+0.070}_{-0.073}$
$d$ . . . . .	Distance (pc) . . . . .	$1710^{+240}_{-180}$
Planetary Parameters:		
		b
$P$ . . . . .	Period (days) . . . . .	$4.119553 \pm 0.000041$
$R_P$ . . . . .	Radius ( $R_J$ ) . . . . .	$1.195^{+0.15}_{-0.091}$
$M_P$ . . . . .	Mass <sup>4</sup> ( $M_J$ ) . . . . .	$19^{+92}_{-17}$
$T_C$ . . . . .	Time of conjunction <sup>5</sup> (BJD <sub>TDB</sub> ) . . . . .	$2455376.948^{+0.023}_{-0.021}$
$T_T$ . . . . .	Time of minimum projected separation <sup>6</sup> (BJD <sub>TDB</sub> ) . . . . .	$2455376.948^{+0.023}_{-0.021}$
$T_0$ . . . . .	Optimal conjunction Time <sup>7</sup> (BJD <sub>TDB</sub> ) . . . . .	$2457082.442^{+0.016}_{-0.011}$
$a$ . . . . .	Semi-major axis (AU) . . . . .	$0.0485^{+0.0027}_{-0.0015}$
$i$ . . . . .	Inclination (Degrees) . . . . .	$87.4^{+1.8}_{-3.1}$
$T_{eq}$ . . . . .	Equilibrium temperature <sup>8</sup> (K) . . . . .	$2090 \pm 170$
$\tau_{circ}$ . . . . .	Tidal circularization timescale (Gyr) . . . . .	$11^{+30}_{-10}$
$K$ . . . . .	RV semi-amplitude <sup>4</sup> (m/s) . . . . .	$2700^{+11000}_{-2300}$
$R_P/R_*$ . . . . .	Radius of planet in stellar radii . . . . .	$0.0457 \pm 0.0025$
$a/R_*$ . . . . .	Semi-major axis in stellar radii . . . . .	$3.80^{+0.47}_{-0.34}$
$\delta$ . . . . .	$(R_P/R_*)^2$ . . . . .	$0.00209^{+0.00024}_{-0.00022}$
$\delta_I$ . . . . .	Transit depth in I (fraction) . . . . .	$0.00235 \pm 0.00025$
$\delta_V$ . . . . .	Transit depth in V (fraction) . . . . .	$0.00255^{+0.00029}_{-0.00028}$
$\tau$ . . . . .	Ingress/egress transit duration (days) . . . . .	$0.0164^{+0.0024}_{-0.0016}$
$T_{14}$ . . . . .	Total transit duration (days) . . . . .	$0.358^{+0.029}_{-0.040}$

Table 1 continued on next page

Table 1 (continued)

Parameter	Units	Values	
$T_{FWHM}$ . . .	FWHM transit duration (days) . . . . .	$0.341^{+0.027}_{-0.038}$	
$b$ . . . . .	Transit Impact parameter . . . . .	$0.18^{+0.19}_{-0.12}$	
$\delta_{S,2.5\mu m}$ . . .	Blackbody eclipse depth at $2.5\mu m$ (ppm) . . . . .	$238^{+45}_{-37}$	
$\delta_{S,5.0\mu m}$ . . .	Blackbody eclipse depth at $5.0\mu m$ (ppm) . . . . .	$448^{+61}_{-49}$	
$\delta_{S,7.5\mu m}$ . . .	Blackbody eclipse depth at $7.5\mu m$ (ppm) . . . . .	$540^{+68}_{-55}$	
$\rho_P$ . . . . .	Density <sup>4</sup> (cgs) . . . . .	$16^{+35}_{-14}$	
$\log g_P$ . . . . .	Surface gravity <sup>4</sup> . . . . .	$4.57^{+0.57}_{-0.86}$	
$\Theta$ . . . . .	Safronov Number . . . . .	$1.9^{+6.5}_{-1.6}$	
$\langle F \rangle$ . . . . .	Incident Flux ( $10^9 \text{ erg s}^{-1} \text{ cm}^{-2}$ ) . . . . .	$4.4^{+1.6}_{-1.3}$	
$T_P$ . . . . .	Time of Periastron (BJD <sub>TDB</sub> ) . . . . .	$2455376.948^{+0.023}_{-0.021}$	
$T_S$ . . . . .	Time of eclipse (BJD <sub>TDB</sub> ) . . . . .	$2455374.888^{+0.023}_{-0.021}$	
$T_A$ . . . . .	Time of Ascending Node (BJD <sub>TDB</sub> ) . . . . .	$2455380.038^{+0.023}_{-0.021}$	
$T_D$ . . . . .	Time of Descending Node (BJD <sub>TDB</sub> ) . . . . .	$2455377.978^{+0.023}_{-0.021}$	
$V_c/V_e$ . . . . .	. . . . .	1.00	
$M_P \sin i$ . . . . .	Minimum mass <sup>4</sup> ( $M_J$ ) . . . . .	$19^{+91}_{-17}$	
$M_P/M_*$ . . . . .	Mass ratio <sup>4</sup> . . . . .	$0.022^{+0.084}_{-0.019}$	
$d/R_*$ . . . . .	Separation at mid transit . . . . .	$3.80^{+0.47}_{-0.34}$	
$P_T$ . . . . .	A priori non-grazing transit prob . . . . .	$0.251^{+0.025}_{-0.028}$	
$P_{T,G}$ . . . . .	A priori transit prob . . . . .	$0.275^{+0.027}_{-0.030}$	
Wavelength Parameters:		I	V
$u_1$ . . . . .	linear limb-darkening coeff . . . . .	$0.235^{+0.073}_{-0.059}$	$0.379^{+0.087}_{-0.060}$
$u_2$ . . . . .	quadratic limb-darkening coeff . . . . .	$0.289^{+0.052}_{-0.054}$	$0.286^{+0.055}_{-0.060}$
Transit Parameters:		OGLE UT 2010-06-29 (I)	OGLE UT 2010-06-29 (V)
$\sigma^2$ . . . . .	Added Variance . . . . .	$0.00002340^{+0.00000044}_{-0.00000043}$	$0.0000148^{+0.00000024}_{-0.00000021}$
$F_0$ . . . . .	Baseline flux . . . . .	$1.000172 \pm 0.000058$	$1.00026^{+0.00032}_{-0.00033}$

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