

**Table 1.** Median values and 68% confidence interval for OGLE-TR-1036.

Parameter	Units	Values
Stellar Parameters:		
$M_*$ . . . . .	Mass ( $M_\odot$ ) . . . . .	$0.794^{+0.083}_{-0.034}$
$R_*$ . . . . .	Radius ( $R_\odot$ ) . . . . .	$1.329^{+0.050}_{-0.043}$
$R_{*,SED}$ . . . . .	Radius <sup>1</sup> ( $R_\odot$ ) . . . . .	$1.343^{+0.080}_{-0.076}$
$L_*$ . . . . .	Luminosity ( $L_\odot$ ) . . . . .	$3.15^{+0.77}_{-0.66}$
$F_{Bol}$ . . . . .	Bolometric Flux (cgs) . . . . .	$0.00000000084^{+0.000000000017}_{-0.000000000015}$
$\rho_*$ . . . . .	Density (cgs) . . . . .	$0.486^{+0.040}_{-0.035}$
$\log g$ . . . . .	Surface gravity (cgs) . . . . .	$4.099^{+0.028}_{-0.025}$
$T_{eff}$ . . . . .	Effective Temperature (K) . . . . .	$6690^{+320}_{-380}$
$T_{eff,SED}$ . . . . .	Effective Temperature <sup>1</sup> (K) . . . . .	$6660^{+350}_{-410}$
[Fe/H] . . . . .	Metallicity (dex) . . . . .	$-3.51^{+2.1}_{-0.86}$
[Fe/H] <sub>0</sub> . . . . .	Initial Metallicity <sup>2</sup> . . . . .	$-2.93^{+1.8}_{-0.86}$
Age . . . . .	Age (Gyr) . . . . .	$11.5^{+1.6}_{-2.6}$
EEP . . . . .	Equal Evolutionary Phase <sup>3</sup> . . . . .	$435.7^{+8.4}_{-5.8}$
$A_V$ . . . . .	V-band extinction (mag) . . . . .	$1.18^{+0.47}_{-0.30}$
$\sigma_{SED}$ . . . . .	SED photometry error scaling . . . . .	$18.0^{+2.6}_{-2.1}$
$\varpi$ . . . . .	Parallax (mas) . . . . .	$0.912^{+0.070}_{-0.067}$
$d$ . . . . .	Distance (pc) . . . . .	$1096^{+87}_{-78}$
Planetary Parameters:		
		b
$P$ . . . . .	Period (days) . . . . .	$0.93942100 \pm 0.00000041$
$R_P$ . . . . .	Radius ( $R_J$ ) . . . . .	$1.668^{+0.11}_{-0.091}$
$M_P$ . . . . .	Mass <sup>4</sup> ( $M_J$ ) . . . . .	$0.398^{+0.013}_{-0.026}$
$T_C$ . . . . .	Time of conjunction <sup>5</sup> (BJD <sub>TDB</sub> ) . . . . .	$2455261.03860 \pm 0.00076$
$T_T$ . . . . .	Time of minimum projected separation <sup>6</sup> (BJD <sub>TDB</sub> ) . . . . .	$2455261.03860 \pm 0.00076$
$T_0$ . . . . .	Optimal conjunction Time <sup>7</sup> (BJD <sub>TDB</sub> ) . . . . .	$2456771.62757 \pm 0.00039$
$a$ . . . . .	Semi-major axis (AU) . . . . .	$0.01739^{+0.00059}_{-0.00025}$
$i$ . . . . .	Inclination (Degrees) . . . . .	$71.70^{+0.71}_{-0.75}$
$T_{eq}$ . . . . .	Equilibrium temperature <sup>8</sup> (K) . . . . .	$2810^{+140}_{-170}$
$\tau_{circ}$ . . . . .	Tidal circularization timescale (Gyr) . . . . .	$0.000061^{+0.000019}_{-0.000015}$
$K$ . . . . .	RV semi-amplitude <sup>4</sup> (m/s) . . . . .	$89.8^{+5.6}_{-8.2}$
$R_P/R_*$ . . . . .	Radius of planet in stellar radii . . . . .	$0.1284^{+0.0051}_{-0.0038}$
$a/R_*$ . . . . .	Semi-major axis in stellar radii . . . . .	$2.830^{+0.075}_{-0.071}$
$\delta$ . . . . .	$(R_P/R_*)^2$ . . . . .	$0.01648^{+0.0013}_{-0.00096}$
$\delta_I$ . . . . .	Transit depth in I (fraction) . . . . .	$0.01447^{+0.00040}_{-0.00041}$
$\delta_V$ . . . . .	Transit depth in V (fraction) . . . . .	$0.01330^{+0.00062}_{-0.00066}$
$\tau$ . . . . .	Ingress/egress transit duration (days) . . . . .	$0.03904^{+0.00086}_{-0.0012}$
$T_{14}$ . . . . .	Total transit duration (days) . . . . .	$0.0782 \pm 0.0016$

Table 1 continued on next page

Table 1 (continued)

Parameter	Units	Values	
$T_{FWHM}$ . . .	FWHM transit duration (days) . . . . .	0.03935 <sup>+0.0013</sup> <sub>-0.00083</sub>	
$b$ . . . . .	Transit Impact parameter . . . . .	0.889 <sup>+0.014</sup> <sub>-0.012</sub>	
$\delta_{S,2.5\mu m}$ . . .	Blackbody eclipse depth at 2.5 $\mu m$ (ppm) . . . . .	3310 <sup>+370</sup> <sub>-320</sub>	
$\delta_{S,5.0\mu m}$ . . .	Blackbody eclipse depth at 5.0 $\mu m$ (ppm) . . . . .	4930 <sup>+480</sup> <sub>-360</sub>	
$\delta_{S,7.5\mu m}$ . . .	Blackbody eclipse depth at 7.5 $\mu m$ (ppm) . . . . .	5550 <sup>+520</sup> <sub>-380</sub>	
$\rho_P$ . . . . .	Density <sup>4</sup> (cgs) . . . . .	0.104 <sup>+0.021</sup> <sub>-0.017</sub>	
$\log g_P$ . . . . .	Surface gravity <sup>4</sup> . . . . .	2.541 <sup>+0.055</sup> <sub>-0.054</sub>	
$\Theta$ . . . . .	Safronov Number . . . . .	0.0102 <sup>+0.0010</sup> <sub>-0.0011</sub>	
$\langle F \rangle$ . . . . .	Incident Flux (10 <sup>9</sup> erg s <sup>-1</sup> cm <sup>-2</sup> ) . . . . .	14.2 $\pm$ 3.1	
$T_P$ . . . . .	Time of Periastron (BJD <sub>TDB</sub> ) . . . . .	2455261.03860 $\pm$ 0.00076	
$T_S$ . . . . .	Time of eclipse (BJD <sub>TDB</sub> ) . . . . .	2455261.50831 $\pm$ 0.00076	
$T_A$ . . . . .	Time of Ascending Node (BJD <sub>TDB</sub> ) . . . . .	2455261.74317 $\pm$ 0.00076	
$T_D$ . . . . .	Time of Descending Node (BJD <sub>TDB</sub> ) . . . . .	2455261.27346 $\pm$ 0.00076	
$V_c/V_e$ . . . . .	. . . . .	1.00	
$M_P \sin i$ . . . . .	Minimum mass <sup>4</sup> ( $M_J$ ) . . . . .	0.378 <sup>+0.012</sup> <sub>-0.024</sub>	
$M_P/M_*$ . . . . .	Mass ratio <sup>4</sup> . . . . .	0.000469 <sup>+0.000037</sup> <sub>-0.000054</sub>	
$d/R_*$ . . . . .	Separation at mid transit . . . . .	2.830 <sup>+0.075</sup> <sub>-0.071</sub>	
$P_T$ . . . . .	A priori non-grazing transit prob . . . . .	0.3077 <sup>+0.0071</sup> <sub>-0.0072</sub>	
$P_{T,G}$ . . . . .	A priori transit prob . . . . .	0.399 $\pm$ 0.011	
Wavelength Parameters:		I	V
$u_1$ . . . . .	linear limb-darkening coeff . . . . .	0.201 <sup>+0.057</sup> <sub>-0.053</sub>	0.338 <sup>+0.060</sup> <sub>-0.053</sub>
$u_2$ . . . . .	quadratic limb-darkening coeff . . . . .	0.290 $\pm$ 0.050	0.305 <sup>+0.051</sup> <sub>-0.052</sub>
Transit Parameters:		OGLE UT 2010-03-05 (I)	OGLE UT 2010-03-05 (V)
$\sigma^2$ . . . . .	Added Variance . . . . .	0.00002499 $\pm$ 0.00000036	0.0000748 <sup>+0.0000088</sup> <sub>-0.0000076</sub>
$F_0$ . . . . .	Baseline flux . . . . .	1.000411 <sup>+0.000047</sup> <sub>-0.000048</sub>	0.99957 $\pm$ 0.00062

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