Table 2. System Parameters for Kepler-6

Parameter	Value	Notes
Transit and orbital parameters		
Orbital period P (d)	3.234723 ± 0.000017	A
Midtransit time E (HJD)	$2454954.48636 \pm 0.00014$	A
Scaled semimajor axis $a/R_\star$	$7.05^{+0.11}_{-0.06}$	A
Scaled planet radius $R_{\rm P}/R_\star$	$0.09829^{+0.00014}_{-0.00050}$	A
Impact parameter $b \equiv a\cos i/R_\star$	$0.398^{+0.020}_{-0.039}$	A
Orbital inclination i	$86\overset{\circ}{.}8 \pm 0.3$	A
Orbital semi-amplitude K ($\rm m\,s^{-1}$)	80.9 ± 2.6	A,B
Orbital eccentricity e	0 (adopted)	A,B
Center-of-mass velocity γ ($\rm m\,s^{-1}$)	-18.3 ± 3.5	A,B
Observed stellar parameters		
Effective temperature $T_{\rm eff}$ (K)	5647 ± 44	C
Spectroscopic gravity $\log g$ (cgs)	Fixed at transit value	C
Metallicity [Fe/H]	$+0.34 \pm 0.04$	C
Projected rotation $v \sin i$ ($\rm km\,s^{-1}$)	3.0 ± 1.0	C
Mean radial velocity ($\rm km\,s^{-1}$)	-49.14 ± 0.10	B
Derived stellar parameters		
Mass $M_\star (M_\odot)$	$1.209^{+0.044}_{-0.038}$	C,D
Radius $R_\star (R_\odot)$	$1.391^{+0.017}_{-0.034}$	C,D
Surface gravity $\log g_\star$ (cgs)	4.24 ± 0.011	C,D
Luminosity $L_\star$ ($L_\odot$)	$1.99^{+0.24}_{-0.21}$	C,D
Age (Gyr)	3.8 ± 1.0	C,D
Planetary parameters		
Mass $M_{\rm P}$ ($M_{\rm J}$)	$0.669^{+0.025}_{-0.030}$	A,B,C,D
Radius $R_{\rm P}$ ($R_{\rm J}$, equatorial)	$1.323^{+0.026}_{-0.029}$	A,B,C,D
Density $\rho_{\rm P}$ ($\rm g\,cm^{-3}$)	$0.352^{+0.018}_{-0.022}$	A,B,C,D
Surface gravity $\log g_{\rm P}$ (cgs)	$2.974^{+0.016}_{-0.022}$	A,B,C
Orbital semimajor axis a (AU)	$0.04567^{+0.00055}_{-0.00046}$	E
Equilibrium temperature $T_{\rm eq}$ (K)	1500 ± 200	F

Note. —
A: Based on the photometry.
B: Based on the radial velocities assuming an elliptical orbit.
C: Based on an SME analysis of the HIRES spectra.
D: Based on the Yale-Yonsei stellar evolution tracks.
E: Based on Newton's version of Kepler's Third Law and total mass.
F: Assumes Bond albedo = 0.1 and complete redistribution. The uncertainty reflects the uncertainties in these assumptions.