

Table 1. Transiting planetary systems known as of September/2010. Planets are ordered in increasing coronal densities of their host stars, taken as a proxy for the detection of light curves asymmetries. The columns are: (1) the planet name, (2) mass, (3) radius, (4) orbital period, and (5) semi-major axis, (6) the distance to the system, (7) the host star spectral type, (8) mass, and (9) radius, (10) the sky-projected stellar rotation velocity, (11) the maximum temperature required for shock formation; (12) the local density around the planet for the confined corona, and (13) considering the coronal density scales with Ω_* , (14) the size of the planet magnetosphere for a planet with $B_p = 14$ G and a star with $B_* = 1$ G, (15) the same but for $B_* = 100$ G, (16) the minimum planetary magnetic field relative to the stellar one ($f = (B_p/B_*)_{\min}$) that is required to sustain a magnetosphere. Online material.

Planet Name	M_p (M_J)	R_p (R_J)	P_{orb} (d)	R_{orb} (AU)	d (pc)	Spec. Type	M_* (M_{\odot})	R_* (R_{\odot})	$v \sin(i)$ (km/s)	T_{max} (MK)	$\log \left[\frac{n}{\text{cm}^{-3}} \right]$ unsc.	$\log \left[\frac{n}{\text{cm}^{-3}} \right]$ scaled	r_M/R_p (1G)	r_M/R_p (100G)	f (%)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
WASP-12b	1.41	1.79	1.09	0.023	267	G0	1.35	1.57	2.2	3.96	7.02	6.86	7.5	1.6	3.2
OGLE-TR-56b	1.30	1.20	1.21	0.023	1500	G	1.17	1.32	3.2	3.32	6.71	6.80	8.8	1.9	2.0
WASP-19b	1.15	1.31	0.79	0.016	–	G8V	0.95	0.93	4	3.61	6.62	6.95	9.1	2.0	1.8
SWEEPS-11	9.70	1.13	1.80	0.030	8500	–	1.10	1.45	–	2.62	6.51	–	10.7	2.3	1.1
WASP-4b	1.12	1.42	1.34	0.023	300	G7V	0.90	1.15	2	2.55	6.43	6.37	10.3	2.2	1.3
WASP-18b	10.43	1.17	0.94	0.020	100	F9	1.28	1.23	11	3.11	6.40	7.05	8.6	1.9	2.2
CoRoT-7b	0.02	0.15	0.85	0.017	150	K0V	0.93	0.87	3.5	3.36	6.38	6.69	10.2	2.2	1.3
CoRoT-14b	7.60	1.09	1.51	0.027	1340	F9V	1.13	1.21	–	2.99	6.36	–	11.5	2.5	0.91
HAT-P-7b	1.80	1.42	2.20	0.038	320	–	1.47	1.84	3.8	2.29	6.21	6.22	10.6	2.3	1.2
OGLE-TR-132b	1.17	1.25	1.69	0.031	1500	F	1.26	1.34	5	2.24	5.78	6.05	11.8	2.5	0.84
CoRoT-1b	1.03	1.49	1.51	0.025	460	G0V	0.95	1.11	5.2	1.98	5.71	6.08	11.8	2.6	0.84
TrES-3	1.91	1.31	1.31	0.023	–	G	0.92	0.81	1.5	2.65	5.63	5.60	14.3	3.1	0.47
WASP-5b	1.64	1.17	1.63	0.027	297	G4V	1.02	1.08	3.5	2.15	5.63	5.84	13.0	2.8	0.63
OGLE-TR-211b	0.75	1.26	3.68	0.051	–	–	1.33	1.64	–	1.86	5.54	–	16.0	3.5	0.33
HAT-P-13b	0.85	1.28	2.92	0.043	214	G4	1.22	1.56	2.9	1.63	5.37	5.33	14.1	3.0	0.49
WASP-14b	7.73	1.26	2.24	0.037	160	F5V	1.32	1.30	2.8	2.08	5.29	5.32	14.7	3.2	0.43
HAT-P-24b	0.69	1.24	3.36	0.047	306	–	1.19	1.32	–	1.83	5.15	–	18.2	3.9	0.23
WASP-26b	1.02	1.32	2.76	0.040	250	G0	1.12	1.34	2.4	1.63	5.13	5.08	15.4	3.3	0.38
CoRoT-12b	0.92	1.44	2.83	0.040	1150	G2V	1.08	1.12	–	1.92	5.09	–	18.6	4.0	0.22
Kepler-4b	0.08	0.36	3.21	0.046	550	G0	1.22	1.49	2.2	1.57	5.06	4.93	15.8	3.4	0.35
WASP-33b	4.1	1.5	1.22	0.03	116	A5	1.50	1.44	90	1.03	4.92	6.42	9.1	2.0	1.8
WASP-1b	0.86	1.48	2.52	0.038	–	F7V	1.24	1.38	5	1.58	4.87	5.13	14.3	3.1	0.48
Kepler-5b	2.11	1.43	3.55	0.051	–	–	1.37	1.79	4.8	1.28	4.69	4.82	14.6	3.2	0.45
HAT-P-4b	0.68	1.27	3.06	0.045	310	F	1.26	1.59	5.5	1.26	4.54	4.78	14.5	3.1	0.46
OGLE-TR-113b	1.24	1.11	1.43	0.023	1500	K	0.78	0.77	5	1.62	4.51	5.03	15.3	3.3	0.38
Kepler-6b	0.67	1.32	3.23	0.046	–	–	1.21	1.39	3	1.41	4.48	4.52	16.9	3.7	0.28
TrES-2	1.25	1.26	2.47	0.036	220	G0V	0.98	1.00	2	1.60	4.48	4.48	18.3	4.0	0.22
XO-2b	0.57	0.97	2.62	0.037	149	K0V	0.98	0.96	1.3	1.64	4.39	4.22	19.8	4.3	0.18
HAT-P-5b	1.06	1.26	2.79	0.041	340	–	1.16	1.17	2.6	1.57	4.35	4.40	18.0	3.9	0.24
HD 149026b	0.36	0.61	2.88	0.043	78.9	G0 IV	1.30	1.50	6	1.30	4.31	4.61	14.8	3.2	0.43
WASP-37b	1.70	1.14	3.58	0.043	338	G2	0.85	0.98	–	1.40	4.30	–	22.9	5.0	0.11
OGLE-TR-182b	1.06	1.47	3.98	0.051	–	–	1.14	1.14	–	1.60	4.27	–	23.1	5.0	0.11
HAT-P-16b	4.19	1.29	2.78	0.041	235	F8	1.22	1.24	3.5	1.51	4.27	4.42	17.2	3.7	0.27
SWEEPS-04	3.80	0.81	4.20	0.055	8500	–	1.24	1.18	–	1.61	4.10	–	24.1	5.2	0.10
CoRoT-11b	2.33	1.43	2.99	0.044	560	F6V	1.27	1.37	40 ^a	1.01	4.05	5.21	16.4	3.6	0.31
CoRoT-5b	0.47	1.39	4.04	0.049	400	F9V	1.00	1.19	1	1.26	4.05	3.67	21.5	4.7	0.14
HAT-P-25b	0.57	1.19	3.65	0.047	297	G5	1.01	0.96	–	1.55	3.92	–	25.1	5.4	0.09
WASP-15b	0.54	1.43	3.75	0.050	308	F5	1.18	1.48	4	1.08	3.78	3.91	17.4	3.8	0.26
HAT-P-3b	0.60	0.89	2.90	0.039	140	K	0.94	0.82	0.5	1.60	3.75	3.23	24.4	5.3	0.10
CoRoT-13b	1.31	0.89	4.04	0.051	1310	G0V	1.09	1.01	–	1.53	3.74	–	26.1	5.6	0.08
XO-5b	1.08	1.09	4.19	0.049	255	G8V	0.88	1.06	0.7	1.15	3.71	3.23	23.7	5.1	0.10
Kepler-7b	0.43	1.48	4.89	0.062	–	–	1.35	1.84	4.2	0.94	3.58	3.63	17.4	3.8	0.26
WASP-3b	2.06	1.45	1.85	0.032	223	F7V	1.24	1.31	13.4	1.10	3.45	4.16	12.5	2.7	0.71
WASP-24b	1.03	1.10	2.34	0.036	330	F8-9	1.13	1.15	6.96	1.17	3.26	3.74	16.2	3.5	0.33
TrES-1	0.76	1.10	3.03	0.039	157	K0V	0.87	0.82	1.08	1.34	3.26	3.08	24.7	5.3	0.09
TrES-4	0.88	1.81	3.55	0.051	440	F	1.38	1.81	8.5	0.87	3.19	3.56	14.5	3.1	0.45
Lupus-TR-3b	0.81	0.89	3.91	0.046	–	K1V	0.87	0.82	–	1.34	3.17	–	29.2	6.3	0.06
HAT-P-19b	0.29	1.13	4.01	0.047	215	K	0.84	0.82	–	1.29	3.15	–	29.3	6.3	0.05
WASP-28b	0.91	1.12	3.41	0.046	334	F8-G0	1.08	1.05	2.2	1.25	3.14	3.16	22.4	4.8	0.12
HD 189733b	1.15	1.15	2.22	0.031	19.3	K1-K2	0.80	0.79	3.32	1.20	3.04	3.36	20.6	4.4	0.16
WASP-11	0.46	1.05	3.72	0.044	125	K3V	0.82	0.81	0.5	1.22	2.95	2.44	28.0	6.0	0.06
HAT-P-10b	0.21	0.96	3.21	0.038	142.5	–	0.73	0.70	0.5	1.24	2.88	2.43	28.3	6.1	0.06
HAT-P-12b	0.21	0.96	3.21	0.038	142.5	–	0.73	0.70	0.5	1.24	2.88	2.43	28.3	6.1	0.06
WASP-21b	0.30	1.07	4.32	0.052	230	G3V	1.01	1.06	1.5	1.07	2.67	2.52	25.3	5.5	0.09

^a Gandolfi et al. (2010)

Table 1 – *continued*

Planet Name (1)	M_p (M_J) (2)	R_p (R_J) (3)	P_{orb} (d) (4)	R_{orb} (AU) (5)	d (pc) (6)	Spec. Type (7)	M_* (M_{\odot}) (8)	R_* (R_{\odot}) (9)	$v \sin(i)$ (km/s) (10)	T_{max} (MK) (11)	$\log \left[\frac{n}{\text{cm}^{-3}} \right]$ unsc. (12)	$\log \left[\frac{n}{\text{cm}^{-3}} \right]$ scaled (13)	r_M/R_p (1G) (14)	r_M/R_p (100G) (15)	f (%) (16)
XO-1b	0.90	1.18	3.94	0.049	200	G1V	1.00	0.93	1.11	1.21	2.59	2.37	27.1	5.9	0.07
WASP-22b	0.56	1.12	3.53	0.05	300	–	1.10	1.13	3.5	1.04	2.47	2.66	21.4	4.6	0.14
WASP-2b	0.85	1.04	2.15	0.031	144	K1V	0.84	0.83	5	1.04	2.41	2.88	19.4	4.2	0.19
WASP-16b	0.86	1.01	3.12	0.042	–	G3V	1.02	0.95	3	1.12	2.30	2.50	23.0	5.0	0.11
WASP-29b	0.24	0.79	3.92	0.046	80	K4V	0.82	0.85	1.5	0.96	1.84	1.79	27.9	6.0	0.06
HAT-P-18b	0.20	1.00	5.51	0.056	166	K	0.77	0.75	–	0.98	1.49	–	38.5	8.3	0.02
OGLE-TR-10b	0.68	1.72	3.10	0.042	1500	G or K	1.18	1.16	7	0.88	1.41	1.89	18.5	4.0	0.22
HD 209458b	0.64	1.38	3.52	0.047	47	G0 V	1.00	1.15	4.7	0.73	0.96	1.28	21.4	4.6	0.14
WASP-25b	0.58	1.26	3.76	0.047	169	G4	1.00	0.95	3	0.88	0.85	1.04	25.7	5.6	0.08
CoRoT-8b	0.22	0.57	6.21	0.06	380	K1V	0.88	0.77	–	1	0.83	–	42.2	9.1	0.02
HAT-P-15b	1.95	1.07	10.86	0.096	190	G5	1.01	1.08	–	0.75	0.13	–	46.1	10.0	0.01
CoRoT-2b	3.31	1.47	1.74	0.03	300	G7V	0.97	0.90	11.85	0.74	–0.05	0.76	16.1	3.5	0.33
HAT-P-1b	0.52	1.22	4.47	0.055	139	GOV	1.13	1.12	3.75	0.73	–0.40	–0.17	25.6	5.5	0.08
HAT-P-8b	1.52	1.50	3.08	0.049	230	–	1.28	1.58	11.5	0.48	–1.42	–0.85	15.9	3.4	0.34
HAT-P-11b	0.08	0.45	4.89	0.05	38	K4	0.81	0.75	1.5	0.71	–1.46	–1.46	36.5	7.9	0.03
HAT-P-6b	1.06	1.33	3.85	0.052	200	F	1.29	1.46	8.7	0.53	–1.51	–1.04	18.5	4.0	0.22
Kepler-8b	0.6	1.42	3.52	0.05	1330	–	1.21	1.49	10.5	0.47	–1.75	–1.20	16.8	3.6	0.29
XO-4b	1.72	1.34	4.13	0.06	293	F5V	1.32	1.55	8.8	0.49	–1.94	–1.49	18.5	4.0	0.22
GJ 436b	0.07	0.37	2.64	0.029	10.2	M2.5	0.45	0.46	2.4	0.59	–2.05	–1.64	32.1	6.9	0.04
GJ 1214b	0.02	0.24	1.58	0.014	13	–	0.16	0.21	2	0.41	–3.18	–2.51	34.2	7.4	0.03
WASP-17b	0.49	1.74	3.74	0.051	–	F6	1.20	1.38	9	0.43	–3.48	–2.97	19.1	4.1	0.20
HAT-P-14b	2.2	1.2	4.63	0.06	205	F	1.39	1.47	8.4	0.41	–5.42	–4.96	20.9	4.5	0.15
WASP-10b	3.06	1.08	3.09	0.037	90	K5	0.71	0.78	6	0.39	–5.83	–5.25	24.4	5.3	0.09
OGLE-TR-111b	0.54	1.08	4.01	0.047	1500	G or K	0.82	0.83	5	0.33	–10.13	–9.65	29.2	6.3	0.06
WASP-7b	0.96	0.92	4.95	0.062	140	F5V	1.28	1.24	17	0.17	–24.53	–23.70	25.8	5.6	0.08
HAT-P-9b	0.78	1.40	3.92	0.053	480	F	1.28	1.32	11.9	0.16	–27.30	–26.64	20.7	4.5	0.16
HAT-P-23b	2.09	1.37	1.21	0.023	–	–	–	–	–	–	–	–	–	–	–
HAT-P-22b	2.15	1.08	3.21	0.041	–	–	–	–	–	–	–	–	–	–	–
WASP-6b	0.50	1.22	3.36	0.042	307	G8	–	–	1.4	–	–	–	–	–	0.00
XO-3b	11.79	1.22	3.19	0.045	260	F5V	1.21	1.38	18.54	0.04	–	–	17.0	3.7	0.28
WASP-36b	2.40	1.40	1.50	–	–	–	–	–	–	–	–	–	–	–	–
HAT-P-20b	7.25	0.87	2.88	0.036	–	–	–	–	–	–	–	–	–	–	–
HAT-P-21b	4.06	1.02	4.12	0.049	–	–	–	–	–	–	–	–	–	–	–
CoRoT-3b	21.66	1.01	4.26	0.057	680	F3V	1.37	1.56	17	0.01	–	–	18.9	4.1	0.21
CoRoT-4b	0.72	1.19	9.20	0.090	–	F8V	1.10	1.15	6.4	0.00	–	–	40.4	8.7	0.02
CoRoT-6b	2.96	1.17	8.89	0.086	–	F9V	1.06	1.03	7.5	0.07	–	–	43.0	9.3	0.02
OGLE2-TR-L9b	4.34	1.61	2.49	–	900	F3	1.52	1.53	39.33	–	–	–	–	–	–
WASP-13b	0.46	1.21	4.35	0.053	156	G1V	–	–	4.9	–	–	–	–	–	–
WASP-31b	0.50	1.60	3.50	–	–	–	–	–	–	–	–	–	–	–	–