INTERNATIONAL ASTRONOMICAL UNION

COMMISSION G1 (BINARY AND MULTIPLE STAR SYSTEMS)

DOUBLE STARS INFORMATION CIRCULAR No. 199 (OCTOBER 2019)

NEW ORBITS

ADS α2000δ	Name n	P a	T i	e ω	Ω(2000) Last ob.	2019 2020	Author(s)
- 00121-5832	RST 4739 9°7539	36.^{y}9 0″236	1989.95 147°4	0.597 278°2	55°0 2019.529	272°5 0″262 266.9 0.248	TOKOVININ
- 00277-1625	YR 1 Aa,Ab 26.9670	13.35 0.121	2014.41 69.6	0.024 270.3	167.8 2019.537	182.1 0.102 201.4 0.069	TOKOVININ
475 00345-0433	D 2 AB 0.4634	777. 1.111	2008.5 77.6	0.79 270.4	83.0 2019.540	75.6 0.252 76.7 0.270	TOKOVININ
- 00533-4530	B 644 0.7604	473.4 0.366	2460.04 51.4	0.233 343.5	341.6 2018.7296	356.4 0.279 357.2 0.279	JOSTIES & MASON
1339 01417-1119	STF 147 0.6202	580.5 2.374	2014.9 82.4	0.905 170.6	87.6 2019.540	289.8 0.125 308.1 0.087	TOKOVININ
1665 02060-2209	SEE 16 1.5776	228. 0.404	1971.9 101.8	0.585 133.1	33.8 2019.540	118.1 0.096 113.6 0.098	TOKOVININ
- 02415-7128	B 1923 3.6247	99.3 0.528	2011.43 116.0	0.370 252.6	222.6 2018.805	249.4 0.280 244.7 0.312	TOKOVININ
- 02517-5234	HU 1562 5.3239	67.6 0.259	2019.94 128.8	0.950 168.9	49.1 2019.534	24.1 0.062 212.3 0.014	TOKOVININ
2242 02572-2458	BU 741 AB 2.3799	151.3 1.343	1870.6 81.8	0.54 259.7	163.2 2019.540	354.0 0.391 358.3 0.304	TOKOVININ
2928 04008+0505	A 1937 7.8124	46.08 0.097	2014.74 40.8	0.535 0.4	31.9 2019.619	125.6 0.054 140.0 0.061	TOKOVININ
- 04070-1000	HDS 521 AB 17.0979	21.06 0.229	2017.94 121.7	0.711 77.3	220.4 2019.614	44.2 0.121 29.3 0.177	TOKOVININ

NEW ORBITS (continuation)

ADS α2000δ	Name n	P a	T i	e ω	Ω(2000) Last ob.	2019 2020		Author(s)
3053	STT 74	272.5	1993.23	0.397	106.0	109.0	0.501	JOSTIES
04123+0939	1.3211	0.728	96.6	262.5	2018.9680	108.7	0.516	& MASON
-	RST 2347	123.	2010.87	0.523	163.5	123.7	0.086	TOKOVININ
04318-2407	2.9302	0.173	129.4	339.7	2019.619	117.3	0.086	
-	HDS 599	50.1	2004.18	0.817	153.9	232.5	0.121	TOKOVININ
04389-1207	7.1810	0.317	76.5	281.2	2019.619	239.0	0.122	
-	COU 1524	200.	1996.93	0.232	22.7	230.0	0.094	DOCOBO
04445+3953	1.8000	0.272	78.5	187.9	2011.9436	233.2	0.087	& CAMPO
3434	HU 612 AB	233.7	1899.6	0.541	23.5	2.8	0.721	DOCOBO
04478+5318	1.5402	0.519	53.6	146.1	2012.8880	3.2	0.723	& CAMPO
-	RST 2375	161.80	2015.95	0.313	153.2	76.0	0.137	JOSTIES
05190-2159	2.2250	0.316	52.0	264.3	2018.0697	82.7	0.140	& MASON
-	FIN 343	76.8	2020.49	0.36	165.3	26.0	0.084	TOKOVININ
06253+0130	4.6901	0.132	161.9	153.7	2018.974	15.6	0.084	
-	HDS 930	13.45	2012.65	0.285	115.9	6.8	0.089	DOCOBO
06426+3955	26.7618	0.078	152.0	292.9	2014.9321	350.0	0.092	et al. (*)
6138	A 2869	143.69	1995.89	0.773	304.7	110.6	0.245	JOSTIES
07305+0743	2.5054	0.214	155.5	48.1	2018.2490	109.5	0.251	& MASON
-	I 1070 AB	4411.	2015.86	0.890	181.7	61.2	0.088	TOKOVININ
07598-4718	0.0816	1.777	66.8	247.3	2018.844	67.5	0.084	
-	B 1605 Ba,Bb	103.33	1990.41	0.013	277.2	118.6	0.188	JOSTIES
08263-3904	3.4841	0.199	136.4	50.6	2018.0851	115.9	0.191	& MASON
7044	VDK 3	221.2	2043.17	0.281	305.0	191.8	1.076	JOSTIES
08507+0752	1.6278	2.180	55.6	322.6	2018.2517	195.5	1.049	& MASON
-	TOK 384 Aa,Ab	31.46	2016.14	0.68	190.1	179.7	0.159	TOKOVININ
11420-1701	11.4450	0.210	25.1	233.5	2019.212	190.7	0.192	
-	RST 3767 AB	122.03	1999.12	0.954	255.7	93.9	0.566	JOSTIES
11585-2350	2.9501	1.371	84.1	85.1	2018.2520	94.5	0.566	& MASON

NEW ORBITS (continuation)

ADS α2000δ	Name n	P a	T i	e ω	Ω(2000) Last ob.	2019 2020		Author(s)
8574	A 2780 Aa,Ab	297.	2018.728	0.932	174.4	15.9	0.030	TOKOVININ
12301-0653	1.2137	0.494	119.6	116.3	2019.536	345.3	0.055	
-	WSI 78	6.489	1981.962	0.651	288.0	174.7	0.020	JOSTIES
13527-1843	55.4807	0.035	68.4	58.2	2018.0856	242.5	0.017	& MASON
-	FIN 370	18.757	2005.849	0.218	269.6	44.5	0.133	JOSTIES
13574-6229	19.1929	0.136	144.3	0.2	2018.2495	26.8	0.119	& MASON
9473	HU 907	173.2	2038.66	0.474	146.5	300.5	0.188	LING
15002+2129	2.0785	0.259	47.1	238.8	2019.4206	302.9	0.187	et al. (**)
9557	STF 3091 AB	143.22	2027.99	0.799	225.2	226.2	0.422	JOSTIES
15160-0454	2.5136	0.691	93.0	104.7	2018.2498	226.0	0.398	& MASON
-	HDS 2273 Aa,Ab	33.00	1992.98	0.426	160.6	275.2	0.318	TOKOVININ
16059+1041	10.9084	0.351	35.1	234.6	2019.536	285.5	0.303	
-	RST 1883	104.	2006.8	0.779	288.5	322.4	0.145	TOKOVININ
16140-2815	3.4533	0.219	118.1	166.0	2019.536	320.2	0.157	
	COU 985	81.97	1986.18	0.270	78.9	265.4	0.343	DOCOBO
16384+3514	4.3919	0.282	59.1	34.5	2012.4434	266.9	0.342	& LING
10561	A 2244 AB	44.83	2015.37	0.549	272.7	21.6	0.089	TOKOVININ
17283-2058	8.0311	0.170	41.9	16.5	2019.534	37.0	0.106	
10938	HU 190	162.7	2011.4	0.422	15.4	332.2	0.232	TOKOVININ
17586-1306	2.2126	0.370	180.0	0.0	2019.536	327.2	0.237	
11530	HO 87 AB	119.39	1972.37	0.599	210.5	95.3	0.440	JOSTIES
18386+1632	3.0152	0.299	19.6	78.8	2019.5363	96.4	0.442	& MASON
-	HDS2665	38.44	2023.47	0.411	36.4	158.2	0.240	TOKOVININ
18480-1009	9.365	0.480	56.4	195.7	2019.534	176.1	0.254	
-	RST 4036	7.680	1995.057	0.263	200.2	235.3	0.159	JOSTIES
19167-4553	46.8737	0.244	124.7	241.0	2019.3751	200.7	0.260	& MASON
12648	A 163	223.6	1977.39	0.284	35.6	8.2	0.220	SCARDIA
19358 +2316	1.6100	0.273	124.9	302.4	2019.730	6.8	0.219	et al. (***)

NEW ORBITS (continuation)

ADS α2000δ	Name n	P a	T i	e ω	Ω(2000) Last ob.	2019 2020		Author(s)
12889	STF 2576 FG	236.8	1945.28	0.772	90.8	155.5	3.088	SCARDIA
19464 +3344	1.5203	2.076	156.9	128.3	2019.522	155.1	3.105	et al. (***)
12909	BU 146	198.12	2198.94	0.852	220.6	251.0	0.683	JOSTIES
19471-1953	1.8171	1.166	65.3	271.0	2018.2528	252.1	0.694	& MASON
-	JNN 282 AC	1.4694	2019.248	0.645	129.6	30.3	0.089	TOKOVININ
20298+0941	245.0	0.110	138.0	232.7	2019.539	84.1	0.152	
-	HDS 2932	95.	1991.3	0.392	152.2	317.7	0.151	TOKOVININ
20306+1349	3.7895	0.254	82.0	337.3	2019.539	319.0	0.164	
-	HD S2957	68.8	2027.66	0.423	85.4	211.9	0.308	TOKOVININ
20462-2145	5.2349	0.799	67.4	198.9	2019.529	223.2	0.335	
14847	BU 271 AB	189.	1841.5	0.631	244.7	1.8	0.589	TOKOVININ
21198-2621	1.9033	2.159	65.2	190.5	2019.529	9.9	0.601	
-	I 1444	169.	2037.05	0.365	125.0	131.7	0.244	TOKOVININ
21364-4041	2.1247	0.308	160.0	68.4	2019.539	128.7	0.240	
15176	BU 1212 AB	48.67	1972.09	0.867	141.1	315.7	0.200	TOKOVININ
21395-0003	7.3960	0.428	55.1	293.6	2019.539	332.5	0.109	
-	B 557 Aa,Ab	108.0	2020.0253	0.893	190.0	195.4	0.067	TOKOVININ
22220-3431	3.3343	0.356	112.6	72.8	2019.539	144.2	0.019	
16056	HU 389	186.	2006.32	0.417	122.5	328.7	0.179	TOKOVININ
22342-1841	1.9360	0.299	50.6	158.8	2019.539	331.8	0.178	

(*) DOCOBO, CAMPO & GÓMEZ
(**) LING, SCARDIA, PRIEUR, PANSECCHI, ARGYLE, ARISTIDI, ZANUTTA, ABE, BENDJOYA, RIVET, SUAREZ, & VERNET.
(***) SCARDIA, PRIEUR, PANSECCHI, LING, ARGYLE, ARISTIDI, ZANUTTA, ABE, BENDJOYA, RIVET, SUAREZ & VERNET

NEW COMPANIONS TO EXOPLANET HOST STARS

Reported by: Francisco Rica using GAIA-DR2

Astrometric data from GAIA-DR2

STAR	**parallax** (mas)	μ**(AR)** (mas/yr)	μ**(DEC)** (mas/yr)	**Vrad** (km/s)
WASP-14	6.14 ± 0.03	+29.24 ± 0.06	-6.95 ± 0.06	-4.34 ± 0.91
Companion	6.08 ± 0.10	+27.97 ± 0.20	-6.15 ± 0.18	-

Other values for 2015.5

	WASP-14 companion
magnitude	18.3
θ	184°8
ρ	11″54

NEW DOUBLE STARS

Discovered by: Kacper Wierzchos with a CCD camera attached to the 0.2m SCT from Tucson, Arizona, USA

STAR	**Coords. ICRS**	**Mag.**	**Epoch**	θ (°)	ρ (″)
WRS 11	17:57:26.72 -18:56:28.0	8.4-11.6	2019.584	208.0	4.44
WRS 12	18:17:31.49 -12:06:18.0	9.4-10.5	2019.637	133.5	8.81

ANNOUNCEMENTS

The availability of large astrometric catalogs and the admirable acumen of users has led to the republishing of the same measures and identification of the same "new" systems by multiple data-miners. This has significantly increased the amount of work needed to properly incorporate these data into the USNO double star catalogs. Therefore, in the future, data mining results will be added to the WDS and WDSS at the discretion of the catalogers. Furthermore, preference will be given to data prepared by those specifically associated with the original catalog project.

Brian D. Mason

Access to USNO double star catalog websites will not be possible for about the next six months. As such, we would like to remind the readers of our website mirrors:

- The Washington Double Star Catalog:
  `http://www.astro.gsu.edu/wds/`
- Sixth Catalog of Orbits of Visual Binary Stars:
  `http://www.astro.gsu.edu/wds/orb6.html`
- Second Catalog of Rectilinear Elements:
  `http://www.astro.gsu.edu/wds/lin2.html`
- Fourth Catalog of Interferometric Measurements of Binary Stars:
  `http://www.astro.gsu.edu/wds/int4.html`
- The Third Photometric Magnitude Difference Catalog:
  `http://www.astro.gsu.edu/wds/dm3.html`
- IAU Commission G1 (Binary and Multiple Stars) webpage:
  `http://www.astro.gsu.edu/wds/bsl/`
- Double Star Astronomy at the U.S. Naval Observatory:
  `http://www.astro.gsu.edu/wds/ds_history.html`

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Brian D. Mason

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The deadline for contributions to Information Circular No. 200 is:

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