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## **Orbital elements of double stars: STF 2672 and A 307**

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**INTERNATIONAL ASTRONOMICAL UNION**  
**COMMISSION G1 (BINARY AND MULTIPLE STAR SYSTEMS)**  
**DOUBLE STARS INFORMATION CIRCULAR No. 198 (JUNE 2019)**

**NEW ORBITS**

<b>ADS <math>\alpha</math>2000<math>\delta</math></b>	<b>Name n</b>	<b>P a</b>	<b>T i</b>	<b>e <math>\omega</math></b>	<b><math>\Omega</math>(2000) Last ob.</b>	<b>2019 2020</b>	<b>Author(s)</b>
- 02552+5950	MLR 520 7°1493	50 <sup>y</sup> 35 0 <sup>o</sup> 107	2002.82 143°1	0.530 239°5	66°2 2011.6949	37°3 0 <sup>o</sup> 140 34.5 0.141	CVETKOVIC
- 03087-4801	HDS 399 10.1789	35.37 0.147	2015.44 63.9	0.150 223.2	237.4 2019.14	150.4 0.058 176.5 0.066	TOKOVININ
- 03119+6131	HDS 407 10.1907	35.33 0.504	2021.75 46.4	0.735 266.1	69.9 2011.6867	226.2 0.329 240.0 0.262	CVETKOVIC
- 03494-1956	RST 2324 4.8039	74.94 0.226	1995.01 130.9	0.597 46.5	35.4 2015.9078	198.6 0.310 197.3 0.312	DOCOBO & CAMPO
- 04539-2032	HDS 633 30.4702	11.82 0.142	2018.21 55.8	0.912 159.9	166.6 2019.14	131.2 0.082 142.3 0.150	TOKOVININ
- 04570+7350	YSC 145 28.7393	12.526 0.058	2019.499 130.1	0.087 182.3	116.6 2014.7585	306.3 0.052 283.8 0.051	CVETKOVIC
- 04584-0344	HDS 644 2.8346	127.0 0.743	1944.9 55.1	0.30 283.4	36.9 2019.20	172.9 0.671 174.7 0.680	TOKOVININ
3588 04590-1623	BU 314 AB 6.1292	58.74 0.446	2037.84 122.8	0.914 351.0	136.4 2016.9573	317.2 0.781 316.7 0.766	DOCOBO & LING
- 05202+4105	HDS 701 3.3999	105.89 0.391	2011.40 60.8	0.817 100.2	83.2 2011.9436	294.5 0.206 297.8 0.214	CVETKOVIC
- 05441-1934	HDS 766 AB 4.5000	80.0 0.175	2035.90 69.8	0.0 0.0	23.4 2019.05	329.0 0.072 337.3 0.080	TOKOVININ
- 06146-0434	CHR 164 Aa,Ab 19.0077	18.94 0.051	2017.34 59.3	0.764 228.2	287.6 2018.97	285.6 0.039 293.1 0.053	TOKOVININ

**NEW ORBITS (continuation)**

<b>ADS</b> $\alpha$ <b>2000</b> $\delta$	<b>Name</b> <b>n</b>	<b>P</b> <b>a</b>	<b>T</b> <b>i</b>	<b>e</b> $\omega$	$\Omega$ ( <b>2000</b> ) <b>Last ob.</b>	<b>2019</b> <b>2020</b>	<b>Author(s)</b>
- 06253+0130	FIN 343 4.6901	76.76 0.132	2020.49 161.9	0.36 153.7	165.3 2018.97	26.0 0.084 15.6 0.084	TOKOVININ
- 06432-2821	HDS 933 6.5882	54.6 0.157	1982.17 106.0	0.50 287.1	23.1 2019.14	219.7 0.152 218.0 0.156	TOKOVININ
- 06467+0822	HDS 940 AB 7.4982	48.01 0.382	2028.36 53.7	0.607 257.5	157.2 2016.9575	291.3 0.313 296.7 0.308	CVETKOVIC
- 08158-1027	RST 3578 AB 12.1278	29.68 0.207	2017.30 56.4	0.494 207.1	96.5 2019.14	3.5 0.070 42.9 0.095	TOKOVININ
7685 10131+2725	STT 213 AB 1.7459	206.2 0.924	1939.52 126.8	0.958 111.1	59.0 2019.158	120.6 1.133 120.4 1.137	SCARDIA et al. (*)
- 10373-4814	SEE 119 21.5879	16.68 0.398	2019.83 123.5	0.77 287.3	36.0 2019.21	216.4 0.214 54.6 0.093	TOKOVININ
- 10596+1800	HDS 1568 22.7494	15.83 0.214	2000.92 105.8	0.095 192.2	95.1 2019.21	233.8 0.080 160.2 0.063	TOKOVININ
- 11043-3643	HDS 1579 3.6000	100.0 0.270	2011.0 131.0	0.447 84.3	239.8 2019.14	76.7 0.179 72.2 0.191	TOKOVININ
- 12335+0901	REU 1 22.7675	15.812 0.910	2008.120 102.8	0.301 347.7	143.2 2019.421	316.3 0.949 310.5 0.709	SCARDIA et al. (*)
- 14400-5300	B 1252 5.3765	67.0 0.268	2012.08 67.2	0.59 10.5	125.3 2019.14	267.9 0.120 274.9 0.145	TOKOVININ
- 15251-3810	RST 2955 AB 0.7059	510.0 0.427	1998.1 84.7	0.645 60.2	226.0 2018.25	40.1 0.138 40.5 0.147	TOKOVININ
- 16163-1836	HDS 2299 5.1429	70.0 0.184	2027.3 96.5	0.40 220.6	129.6 2019.14	316.3 0.106 314.7 0.113	TOKOVININ
- 16302-1440	WSI 132 7.2000	50.0 0.527	2019.67 115.0	0.436 255.6	13.1 2019.14	154.6 0.180 120.9 0.131	TOKOVININ
- 18280+0612	CHR 71 18.1571	19.827 0.069	2018.705 138.9	0.224 34.8	125.7 2018.2382	90.2 0.048 59.2 0.043	DOCOBO & CAMPO

**NEW ORBITS (continuation)**

<b>ADS</b> $\alpha$ 2000 $\delta$	<b>Name</b> <b>n</b>	<b>P</b> <b>a</b>	<b>T</b> <b>i</b>	<b>e</b> $\omega$	$\Omega$ (2000) <b>Last ob.</b>	<b>2019</b> <b>2020</b>	<b>Author(s)</b>
- 19307+2758	MCA 55 Aa,Ac 2.9925	120.3 0.392	2032.22 157.5	0.089 164.5	184.2 2017.687	64.4 0.345 60.8 0.345	SCARDIA et al. (*)
- 20205-2749	RST 3255 6.7199	53.57 0.178	2012.99 39.8	0.172 183.5	57.8 2018.4022	289.7 0.132 299.2 0.130	DOCOBO & CAMPO
13750 20216+2346	STF 2672 0.4712	764. 0.898	2121.6 41.4	0.436 41.0	40.6 2016.857	350.8 0.645 351.4 0.644	LING et al. (**)
- 20267-4334	I 1420 4.6270	77.81 0.446	1981.04 79.3	0.336 61.6	159.3 2018.4022	356.7 0.319 358.4 0.298	DOCOBO & CAMPO
- 21551-3148	I 1449 4.1049	87.70 0.301	1998.61 120.0	0.759 84.1	126.3 2017.4330	264.9 0.275 263.3 0.277	DOCOBO & CAMPO
15487 21573+3241	A 1226 2.8986	124.2 0.325	1963.49 105.6	0.871 281.0	116.5 2017.693	358.0 0.183 356.8 0.185	SCARDIA I et al. (*)
15487 21573+3241	A 1226 1.0236	351.7 0.227	2004.15 136.0	0.331 328.0	177.0 2017.693	177.0 0.158 175.5 0.158	SCARDIA II et al. (*)
15569 22025+2612	A 307 0.2169	1660. 1.748	2156.0 107.5	0.496 342.8	9.3 2016.677	122.8 0.396 121.7 0.391	LING et al. (**)
- 22134-3729	B 2056 4.2888	83.94 0.212	2039.42 109.6	0.060 77.4	158.8 2018.4874	164.7 0.204 163.2 0.207	DOCOBO & CAMPO
- 22313-0633	CHR 111 207.8522	1.732 0.069	2019.149 66.6	0.335 346.8	84.7 2018.4873	31.8 0.025 258.7 0.090	DOCOBO & CAMPO
- 22378-5004	HDS 3214 6.2334	57.8 0.123	2020.19 136.7	0.750 65.9	98.5 2018.40	97.4 0.040 53.8 0.026	TOKOVININ
16368 22550+5132	HU 785 1.2993	277.1 0.217	2010.3 129.8	0.379 16.5	106.5 2008.6310	75.5 0.118 72.8 0.116	CVETKOVIC

(\*) SCARDIA, PRIEUR, PANSECCHI, LING, ARGYLE, ARISTIDI, ZANUTTA, ABE, BENDJOYA, RIVET, SUAREZ & VERNET

(\*\*) LING, SCARDIA, PRIEUR, PANSECCHI, 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

<b>STAR</b>	<b>parallax</b> (mas)	$\mu$ (AR) (mas/yr)	$\mu$ (DEC) (mas/yr)	<b>Vrad</b> (km/s)
WASP-3	$4.30 \pm 0.03$	$-6.07 \pm 0.04$	$-21.751 \pm 0.05$	$-4.40 \pm 0.36$
Companion	$4.17 \pm 0.03$	$-7.39 \pm 0.04$	$-23.34 \pm 0.06$	-

## Other values for 2015.5

	WASP-3 companion
magnitude	14.1
$\theta$	$245^{\circ}8$
$\rho$	$18''33$

## NEW DOUBLE STARS

Discovered by André Debackère using LCO global telescope network.

- FTN : Faulkes Telescope North T2m, Haleakala, Hawaii, LCO
- FTS : Faulkes Telescope South T2m, Siding Spring, Australia, LCO

Notes (N):

- 1- The component B of DBR 317 BC is the component B of COU 911 AB
- 2- The main component is the eclipsing binary 1SWASPJ154828.29+201442.8

STAR	Precise Coord	GAIA-DR2	G Mag.	Plx e-plx	pmRA e-pmRA	pmDE e-pmDE	Epoch	$\theta$ ( $^{\circ}$ )	$\rho$ ( $''$ )	Obs N
DBR 314 A	004203.354+002426.36	2543119611356356224	12.55	9.6861 0.0435	-3.440 0.094	-52.363 0.055	2018.916	75.13 $\pm 0.59$	5.234 $\pm 0.023$	1FTS
B	004203.692+002427.73	2543119611354208256	15.79	9.6064 0.0882	-4.378 0.193	-53.316 0.113				
DBR 315 A	052145.611-071602.26	3207344966630463872	15.39	0.8241 0.0457	9.388 0.081	-1.790 0.077	2019.190	295.08	4.644	1FTN
B	052145.320-071600.27	3207344966630464128	16.16	0.8563 0.0679	9.478 0.123	-1.640 0.118				
DBR 316 A	053447.222+220340.35	3403841850727269888	14.57	2.3405 0.0384	18.601 0.064	-12.168 0.051	2019.061	349.87 $\pm 0.37$	5.689 $\pm 0.123$	1FTN
B	053447.146+220346.05	3403841885087007744	16.71	2.4322 0.1128	18.955 0.179	-11.968 0.141				

## NEW DOUBLE STARS

Discovered by André Debackère using LCO global telescope network.  
(continuation)

STAR	Precise Coord	GAIA-DR2	G Mag.	Plx e-plx	pmRA e-pmRA	pmDE e-pmDE	Epoch	$\theta$ ( $^{\circ}$ )	$\rho$ ( $''$ )	Obs N
DBR 317 B	060153.009+271128.37	3430416119054948096	14.13	0.2889 0.0405	-0.078 0.070	-2.921 0.058	2018.916	81.50	1.400	1FTN 1
C	060153.112+271128.58	3430416119058887808	14.53	0.2992 0.0306	-0.452 0.057	-2.521 0.051				
DBR 318 A	072956.748+583205.99	1085671696960070528	12.53	3.0286 0.0366	8.844 0.062	-18.093 0.048	2019.010	32.21	2.627	1FTN
B	072956.927+583208.22	1085671701255567232	15.45	3.0676 0.0569	9.799 0.090	-18.752 0.071				
DBR 319 A	073033.123+583547.55	1085670670464728064	11.73	0.6373 0.0363	-4.361 0.050	-2.484 0.043	2019.010	314.02	3.709	1FTN
B	073032.782+583550.12	1085670670464728192	16.09	0.5393 0.0758	-4.772 0.112	-2.514 0.098				
DBR 320 A	154828.303+201442.86	1204105905478754176	10.34	1.5967 0.0330	3.182 0.044	-5.749 0.041	2019.322	230.02	2.051	1FTN 2
B	154828.186+201441.55	1204105905482054912	12.47	1.6128 0.0488	2.808 0.085	-5.300 0.148		$\pm 0.27$	$\pm 0.017$	

## NEW DOUBLE STARS

Discovered by: Kacper Wierzchos using a CCD camera attached to the 0.2m SCT of the Aravaca Observatory, Spain

STAR	Coords. ICRS	Mag.	Epoch	$\theta$ ( $^{\circ}$ )	$\rho$ ( $''$ )
WRS 8	03:54:38.74+80:01:45.3	10.2-10.8	2018.966	135.5	3.19
WRS 9	01:34:47.03+76:26:46.8	10.6-10.8	2018.985	27.5	12.36
WRS 10	19:00:04.14-28:42:06.0	8.5-10.7	2019.234	354.5	15.85

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The deadline for contributions to Information Circular No. 199 is:

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