

**INTERNATIONAL ASTRONOMICAL UNION**  
**COMMISSION G1 (BINARY AND MULTIPLE STAR SYSTEMS)**  
**DOUBLE STARS INFORMATION CIRCULAR No. 187 (OCTOBER 2015)**

**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>2015 2016</b>	<b>Author(s)</b>
9 00028+0208	BU 281AB 0°3223	1117 <sup>y</sup> 3"140	2077.5 108°5	0.639 55°7	149°9 2014.8561	160°2 1"560 159.9 1.558	LING
- 00463-0634	HDS 101 14.5108	24.809 0.102	2010.380 43.8	0.700 177.3	33.8 2010.7172	4.2 0.110 9.9 0.125	CVETKOVIC
1458 01500-0408	A 2602 0.2242	1606. 2.455	1976.2 82.4	0.868 45.3	4.5 2015.7382	181.1 0.795 181.2 0.814	DOCOBO et al. (*)
- 02514-2139	DON 43 3.3204	108.42 0.242	1972.75 52.1	0.362 94.1	29.6 2015.7383	274.1 0.208 276.7 0.207	DOCOBO et al. (*)
- 03264+3520	HDS 430 6.5820	54.70 0.273	2021.61 41.2	0.091 313.4	54.4 2010.8923	314.0 0.194 323.9 0.191	CVETKOVIC
- 03307-1926	HDS 441 18.9830	18.964 0.218	2007.281 102.7	0.500 84.4	17.8 2014.7635	164.7 0.122 149.7 0.095	CVETKOVIC
- 04025+0638	HDS 510 10.1577	35.44 0.159	2010.30 64.9	0.366 166.1	102.0 2008.6996	338.6 0.067 3.3 0.063	CVETKOVIC
7131 09001-1228	HU 225AB 2.8585	125.94 0.341	1944.21 46.0	0.331 9.5	68.4 2011.0371	263.8 0.433 264.9 0.430	DOCOBO & LING
- 09252+4606	HDS 1353 3.8332	93.92 0.582	1995.98 76.9	0.835 263.4	140.7 2010.0054	163.8 0.403 164.8 0.402	CVETKOVIC
- 09446+6459	CHR 176 16.5716	21.724 0.115	2000.621 74.5	0.351 262.3	25.5 2005.2458	174.2 0.068 184.0 0.083	CVETKOVIC
- 10294+1211	HDS 1507 15.4105	23.361 0.122	2011.062 51.6	0.156 77.8	64.5 2007.3298	228.6 0.109 239.3 0.120	CVETKOVIC

**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>2015</b> <b>2016</b>	<b>Author(s)</b>
- 10596+1800	HDS 1568 22.1622	16.244 0.203	2003.412 115.8	0.150 256.6	95.3 2010.3416	297.0 0.170 285.1 0.191	CVETKOVIC
8092 11136+5525	A 1353 2.8291	127.25 0.390	1962.00 117.6	0.644 39.2	44.4 2013.287	209.1 0.561 208.6 0.559	DOCOBO & LING
8727 12597-0349	CHR 39Aa,Ab 45.5350	7.906 0.078	2011.562 19.3	0.363 174.9	21.6 2014.3003	5.5 0.105 27.3 0.105	DOCOBO & CAMPO
- 13155+4051	CHR 180 1.6423	219.2 0.745	2201.7 44.5	0.686 273.3	22.2 2010.4701	61.0 0.654 62.2 0.661	CVETKOVIC
- 14562+1745	HDS 2108 9.5910	37.53 0.193	2016.35 126.9	0.489 174.1	34.4 2008.4743	247.0 0.087 224.9 0.096	CVETKOVIC
- 15226+7254	HDS 2163 2.7500	130.91 0.261	1993.53 66.0	0.483 39.2	3.7 2010.4675	173.0 0.234 174.2 0.243	CVETKOVIC
10828 17506+0714	STT 337 0.3600	1000. 1.389	1787.0 100.1	0.613 141.7	134.1 2013.678	164.7 0.573 164.4 0.579	DOCOBO & LING
18434-5546	B 398 4.8407	74.37 0.329	2007.91 107.5	0.344 252.4	163.1 2015.7375	177.8 0.199 174.5 0.224	DOCOBO et al. (*)
- 20002-5522	B 459BC 4.9464	72.78 0.292	2044.56 44.9	0.229 278.7	64.6 2015.7377	194.7 0.279 198.3 0.283	DOCOBO et al. (*)
- 20081-3929	RST 2134 2.3717	151.79 0.259	1977.23 133.1	0.258 18.9	22.2 2015.7377	234.8 0.238 233.0 0.244	DOCOBO et al. (*)
- 22007-5002	I 1450 1.7844	201.8 0.599	1961.8 58.4	0.780 162.8	10.2 2015.7378	349.3 0.775 349.7 0.785	DOCOBO et al. (*)
- 22504-1744	DON 1038 2.4468	147.13 0.488	1972.27 64.2	0.556 97.6	9.9 2015.7379	238.7 0.356 240.4 0.354	DOCOBO et al. (*)
16850 23357-2729	SEE 492 4.6302	77.75 0.601	1969.11 50.0	0.491 110.6	72.1 2014.7632	28.0 0.673 30.0 0.678	DOCOBO & CAMPO

(\*) DOCOBO, GOMEZ & CAMPO

**NEW LINEAR FITS**

<b>ADS</b> $\alpha$ <b>2000</b> $\delta$	<b>Name</b> -	$X_0$ $Y_0$	$X_A$ $Y_A$	$\rho_0$ $\theta_0$	$T_0$ <b>Last ob.</b>	<b>2015</b> <b>2016</b>	<b>Authors</b>
- 04312+5858	STI2051AB -	5''579910 2''330326	0''042772 -0''102417	6''047 112°670	1939.9580 2013.7723	58°6 10''293 58.3 10.383	CVETKOVIC
3527 04556+1653	HJ3263 -	-3.459261 -2.136124	0.039617 -0.064157	4.066 301.700	1834.7860 2013.7749	375.0 14.184 375.1 14.256	CVETKOVIC
- 05492+2941	BRT2521 -	-1.248724 2.026629	-0.076498 -0.047135	2.380 211.640	1940.8240 2013.7725	282.0 7.077 282.2 7.162	CVETKOVIC
5423 06451-1643	AGC1AD -	-16.490870 12.605517	-0.182838 -0.239193	20.757 232.61	1994.900 1915.804	248.1 21.539 248.4 21.573	MASON & HARTKOPF
5423 06451-1643	HL3AE -	64.195206 29.752087	0.550715 -1.188261	70.755 114.87	1877.958 2011.214	46.5 191.705 46.4 192.246	MASON & HARTKOPF
5423 06451-1643	BU1411AF -	67.216583 31.062237	0.549349 -1.188754	74.047 114.80	1933.492 2011.214	59.9 128.834 59.8 129.264	MASON & HARTKOPF
6251 07393+0514	D29AE -	201.662064 143.563950	0.692103 -0.972186	247.544 125.45	1676.174 2009.135	67.0 473.087 67.0 473.494	MASON & HARTKOPF
6251 07393+0514	SLE439AF -	-123.079185 -96.874138	0.791689 -1.005846	156.630 308.21	1956.928 2012.237	333.2 172.829 333.4 173.049	MASON & HARTKOPF
6251 07393+0514	SMR11AG -	-284.463531 -207.747711	0.741101 -1.014771	352.248 306.14	1977.242 2012.237	313.6 355.263 313.7 355.330	MASON & HARTKOPF
7472 09388+0242	J78 -	0.562050 3.036883	0.067989 -0.012583	3.088 169.510	1948.2240 2014.2542	113.3 5.555 112.9 5.612	CVETKOVIC
- 17046+3900	HJ2804AB -	-2.604337 4.882575	0.083382 0.044476	5.534 208.080	2049.7729 2014.6040	238.8 6.436 238.0 6.388	CVETKOVIC
11711 18489+1615	STF2400AB -	-0.954074 0.429117	0.029920 0.066523	1.046 245.780	1869.0909 2014.6100	161.4 10.694 161.4 10.767	CVETKOVIC
11711 18489+1615	STF400A,BC -	-1.225272 0.603106	0.031637 0.064275	1.366 243.79	1867.037 2012.606	161.1 10.688 161.1 10.759	CVETKOVIC
11711 18489+1615	STF2400AC -	-0.867775 0.194374	0.016718 0.074637	0.889 257.370	1862.1140 2000.0000	171.7 11.728 171.7 11.804	CVETKOVIC

## NEW LINEAR FITS (continuation)

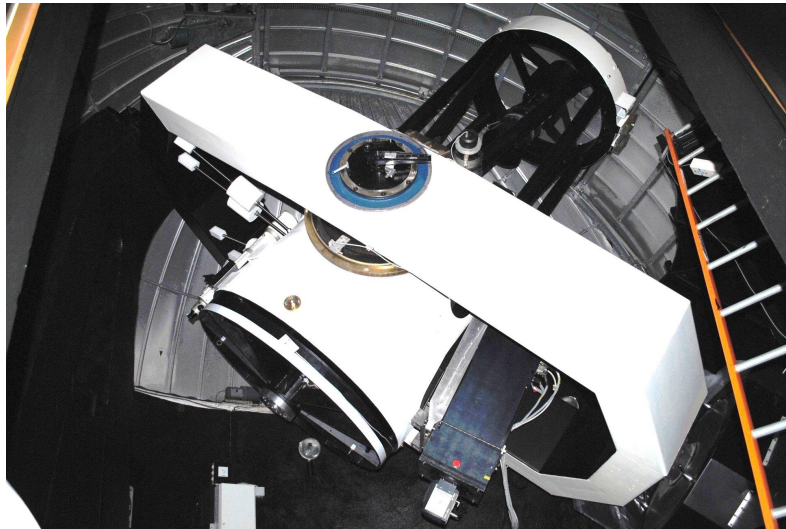
ADS $\alpha$ 2000 $\delta$	Name	$X_0$ $Y_0$	$X_A$ $Y_A$	$\rho_0$ $\theta_0$	$T_0$ Last ob.	2015 2016	Authors	
-	HDS 2740	0.129807	0.009663	0.141	2016.6639	50.7	0.147	CVETKOVIC
19218+7708	-	-0.055851	0.022458	66.720	2008.4750	60.2	0.142	
12991	J 1336 AB	-0.370453	0.047707	2.070	1904.8290	58.5	5.729	CVETKOVIC
19500+0637	-	-2.036395	-0.008679	349.690	2013.5284	58.7	5.774	
13421	J 1338	-0.230028	0.074518	1.557	1884.9110	72.5	9.924	CVETKOVIC
20087+1223	-	-1.540130	-0.011130	351.510	2013.5366	72.5	9.999	

## ANNOUNCEMENTS

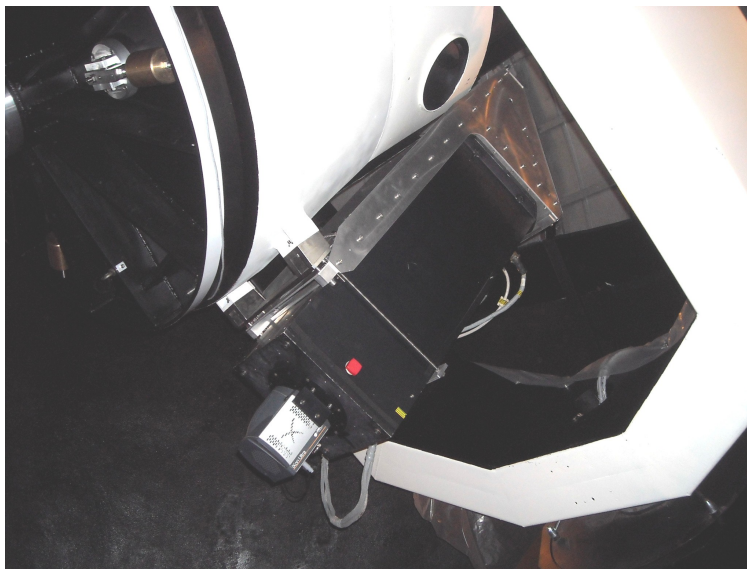
THE SPECKLE CAMERA PISCO IS NOW MOUNTED ON THE 104 CM  
“EPSILON” TELESCOPE OF THE OBSERVATOIRE DE LA CÔTE D’AZUR, ON  
THE PLATEAU DE CALERN, FRANCE.

The speckle camera PISCO, originally built at the Observatoire Midi-Pyrnes for the Bernard Lyot telescope of 2m aperture on the Pic du Midi, France, on November 2003 was transported in Italy and mounted at the Cassegrain focus of the 102cm Zeiss telescope of the INAF - Osservatorio Astronomico di Brera in Merate, where it became operational on 01 January 2004. From that date and until 04 June 2015 more than 3750 measures of visual binary stars were performed. On 16 June 2015, PISCO was dismantled from the Zeiss telescope and placed in the original boxes previously used for its transportation in Italy. Ten days later, it was returned in France, at the Observatoire de la Côte d’Azur (OCA), on the Plateau de Calern ( $\sim 1270$ -m a.s.l.), near the town of Grasse, and transferred to the Group C2PU (Centre Pédagogique Planète Univers), which manages the telescopes “Omicron” and “Epsilon”, both of 104cm aperture, of that observatory. Between August 3 and 7, after a careful overhaul, and cleaning of the optics, PISCO was firmly mounted on the Epsilon telescope. Then, the old ICCD Philips camera of 1992, used in Merate, technologically obsolete, although still operational, was replaced with a modern, high-performance EMCCD ANDOR Ixon Ultra 897 camera, belonging to the C2PU Group. At present, some necessary tests are in progress, and the software for operating the camera ANDOR, the internal mechanisms of PISCO, and for pointing the telescope is nearly completed. We foresee that the Epsilon+PISCO unit will become operational before the end of the current year.

The PISCO Group (M. Scardia, J.-L. Prieur, L. Pansecchi, R.W. Argyle and E. Aristidi)  
The C2PU Group (in alphabetical order: L. Abe, P. Bendjoya, C. Dimur, J.-P. Rivet, D. Vernet and O. Suarez)



The OCA Epsilon telescope at Calern with PISCO (black box with red button) fastened alongside



Detail of the mechanical connection of PISCO to the Epsilon telescope

## NEW BOOK

Jean-Claude Thorel announces the edition of the book:

Title: *Robert JONCKHEERE l'astronome des étoiles doubles GÉNÉALOGIE et compléments à la biographie "Le Ciel d'une Vie - Robert Jonckheere"*.

Editorial: Nice Imprim 794 071 316 R.C.S. Nice

Date: December 2014

## Errata in Information Circular No. 186

- The entry 00152-1607 GJ 1005 should be 00155-1608 HEI 299 AB
- The entry 01022+0503 BD+04 should be 01024+0504 HDS 135
- The entry 01102-6726 GJ 54 should be 01104-6727 GKI 3
- The entry 01350-2954 GJ 60 should be 01350-2955 DAW 31 AB
- In the NOTE, the sentence “The precise position is a designation...” it should be “The precise position is a datum...”

\*\*\*\*\*

The deadline for contributions to Information Circular No. 188 is:

February 15th 2016

**J. A. Docobo** (joseangel.docobo@usc.es)

**J. F. Ling** (josefinaf.ling@usc.es)

Tel: +34 881 815 016

Fax: +34 881 813 197

Observatorio Astronómico R. M. Aller

P. O. Box 197

<http://www.usc.es/astro>

Universidade de Santiago de Compostela

SPAIN

---

ISSN: 1024-7769