OBSERVATORIO ASTRONOMICO RAMON MARIA ALLER

INTERNATIONAL ASTRONOMICAL UNION COMMISSION 26 (DOUBLE STARS)

INFORMATION CIRCULAR No. 125 (FEBRUARY 1995)

NEW ORBITS

ADS Name P (yr) T e W(2000) 1995 Author
RA 2000 DEC n (deg) a (") i (deg) w (deg) 1996 Last obs.

1359 BU 870 304 04 2032.90 0.299 17.4 350 7 0"72 POPOVIV & PAVLOVIC
01443 N 5732 1.1841 1.015 124.5 117.7 349.4 0.71 1987.76

2755 AB BU 536 1421.57 1980.20 0.660 2.1 178.6 0.64 POPOVIC & PAVLOVIC
03462 N 2412 0.2532 1.930 100.0 175.2 178.4 0.64 1985.73

3390 STF 577 826.65 2026.67 0.255 88.0 9.6 1.09 POPOVIC & PAVLOVIC
04423 N 3730 0.4355 1.653 150.1 103.7 8.7 1.09 1989.05

-- RST 3442 18.28 1943.00 0.313 79.9 104.8 0.18 ZULEVIC
06098 S 2246 19.7000 0.214 45.3 124.4 129.8 0.14 1983.0667

6828 A 551 54.33 1945.81 0.390 63.1 233.7 0.13 ZULEVIC
08285 S 0230 6.6265 0.282 83.0 198.4 236.8 0.15 1987.2745

7997 A 2375 150.00 1964.90 0.628 73.0 192.3 0.40 DOCOBO & LING
10585 N 1711 2.4000 0.377 150.1 103.2 190.9 0.40 1991.3268

8128 STF 1527 593.36 2028.26 0.476 16.8 54.0 0.70 POPOVIC & PAVLOVIC
11191 N 1416 0.6067 3.108 76.6 130.7 56.5 0.67 1990.21

9730 HU 1168 89.22 1985.13 0.621 128.2 315.2 0.32 DOCOBO & LING
15370 N 6427 4.0350 0.388 119.9 51.6 312.9 0.34 1991.3270

9989 A 2181 285.69 1962.37 0.126 137.3 74.8 0.39 POPOVIC & PAVLOVIC
16170 N 0111 1.2601 0.433 11.9 245.1 76.3 0.39 1981.45

10017 HU 481 150.16 2008.47 0.277 1.6 62.3 0.26 POPOVIC & PAVLOVIC
16213 N 2300 2.3975 0.572 121.7 341.9 56.7 0.27 1986.47

10699 STF 2199 1298.54 2073.65 0.097 34.4 58.2 1.89 POPOVIC & PAVLOVIC
17386 N 5546 0.2772 2.223 136.4 355.1 58.0 1.89 1994.48

10769 STF 2205 2482.86 2019.37 0.624 133.9 346.9 1.33 POPOVIC & PAVLOVIC
17458 N 1743 0.1450 4.083 49.1 244.0 347.6 1.32 1988.56

10795 STF 2215 853.14 2187.93 0.375 164.7 261.2 0.58 POPOVIC & PAVLOVIC
17472 N 1742 0.4248 0.717 138.6 28.2 260.8 0.58 1988.56

11010 BU 1127 345.25 2163.73 0.578 7.5 70.2 0.97 POPOVIC & PAVLOVIC
18026 N 4413 1.0427 1.078 121.8 103.9 69.6 0.98 1989.52

11998 A 2992 1162.50 1943.00 0.668 78.2 261.3 0.35 POPOVIC & PAVLOVIC
19038 N 2642 0.3097 0.740 113.2 95.4 260.9 0.36 1985.62

12577 HU 951 208.76 1953.47 0.302 147.6 145.0 0.25 POPOVIC & PAVLOVIC
19309 N 6337 1.7245 0.256 39.7 250.1 146.2 0.26 1982.70

14666 STT 527 561.15 1950.18 0.419 91.3 122.1 0.28 POPOVIC & PAVLOVIC
21080 N 0509 0.6415 0.558 117.1 240.2 121.0 0.29 1987.76

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PHOTOGRAPHIC MEASUREMENTS OF DOUBLE STARS AND COMMON PROPER MOTION PAIRS

Name, Component	RA(2000)	DEC(2000)	pm	err	pm'	err	sep	err	pa	err	B	t	n
ADS 7565 A	09 55 02.688	+68 56 22.06	-61.2	1.0	-60.6	0.5					11.4		
ADS 7565 B	09 55 01.018	+68 56 22.46	-61.4	0.8	-60.2	0.5	8"92	0.06	272.5	0.2	11.5	1960	12
* anonymous A	09 54 39.816	+68 36 37.49	24.0	1.1	-15.3	0.6					13.6		
anonymous B	09 54 40.717	+68 36 35.18	23.0	1.6	-16.9	1.0	5.40	0.11	294.5	0.8	13.6	1969	11
* anonymous A	10 01 32.480	+68 36 35.35	-28.6	1.3	-2.0	0.8					13.9		
anonymous B	10 01 33.498	+68 36 34.85	-24.3	1.3	-2.7	0.6	5.43	0.1	94.7	0.5	15.7	1967	8
Gliese 360 A	09 42 34.826	+70 02 02.01	-671.3	1.2	-268.7	1.0					12.0		
Gliese 360 B	09 42 51.707	+70 02 21.86	-672.6	1.2	-265.7	1.0	88.7	0.1	77.2	0.1	12.7	1965	8
ADS 8945 A	13 33 34.011	+46 47 48.41	7.1	0.5	8.9	0.4					9.9		
ADS 8945 B	13 33 33.751	+46 47 56.92					8.85	0.05	342.7	0.5	14.3	1979	10
ADS 8910 A	13 27 45.730	+47 45 32.23	4.0	0.5	-36.7	0.5					10.6		
ADS 8910 B	13 27 45.355	+47 45 46.69	4.2	0.5	-37.9	0.6	14.93	0.05	345.4	0.1	10.6	1975	15
* BD+47 2056 A	13 23 31.323	+47 12 30.81	-22.1	2.4	6.8	3.4					10.6		
BD+47 2056 B							12.53	0.19	48.1	0.2	14.4	1977	2
* BD+48 2124 A	13 30 46.984	+47 59 36.81	-17.1	1.5	-1.2	1.0					10.5		
BD+48 2124 B	13 30 46.358	+47 59 49.14	-10.5	0.6	1.7	1.7	13.88	0.07	331.6	1.1	14.2	1954	4
BD+48 2129 A	13 33 44.129	+48 00 53.64	-71.3	1.0	11.3	0.7					10.2		
BD+48 2130 B	13 33 52.882	+47 59 26.06	-70.8	0.8	9.3	0.6	123.9	0.07	134.9	0.1	10.5	1943	6
* anonymous A	13 32 25.639	+47 17 03.05	-13.2	0.7	-23.6	0.7					14.0		
anonymous B	13 32 25.290	+47 17 01.20	-28.8	1.3	+10.1	0.7	4.00	0.07	239.2	0.5	14.3	1994	8

RA(2000) = Right ascension for equinox and epoch J2000.0
DEC(2000) = Declination for equinox and epoch J2000.0
pm, err = proper motion pm(RA) cos(DEC) in RA and its rms error
pm', err = proper motion in DEC and its rms error
sep, err = separation of components, mean and rms deviation
pa, err = position angle, mean and rms deviation
t = mean epoch of observations of sep, pa
n = number of observations of sep, pa
B = B magnitude

*** This pair is not noted as a binary in common double star catalogues (in the BD-cases, only the bright component A is known)**

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Sternwarte Universitat Bonn
Germany

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PAPERS PUBLISHED IN 1994

1) BAIZE, P.: "Orbital elements of twelve binary stars". Astron. and Astrophys. Suppl. Ser 106, 267 (1994).

2) BALEGA, I.I et al.: "Binary star speckle measurements during 1989-1993 from the SAO 6 m and 1 m telescopes in Zelenchuk". Astron. Astrophys. Suppl. Ser 105, 503 (1994).

3) BERNSTEIN, H. H.: "Global astrometry of HIPPARCOS double stars within the FAST consortium". Astron. Astrophys. 283, 293 (1994).

4) COUTEAU, P.; GILI, R: "Measurements of double stars made at Nice Observatory, New Double Stars (24th series) discovered at Nice with the 50 cm refractor". Astron. Astrophys. Suppl. Ser. 106, 377 (1994).

5) COUTEAU, P.: "Discussion relating to the discovery of 2700 double stars". Astron. Astrophys. 283, 289 (1994).

6) DADONAS, V. et al.: "Radial velocity measurements of the chromospherically-active stars II. HD 28591=V492 Per" Astrophysics Space Science 220 97 (1994).

7) DOCOBO, J.A.; LING J. F.: "Micrometer measurements of visual double stars made at Pic du Midi Observatory". Astron. Astrophys. Suppl. Ser. 105, 337 (1994).

8) DOCOBO, J.A.; LING J. F.; PRIETO, C: "Orbits of six Visual Double Stars". Astrophys. J. Suppl. Ser. 91(2), 793 (1994).

9) FEKEL, F.C. et al.: "Chromospherically active stars XII. ADS 11060C: A double lined K Dwarf binary in a Quintuple System". Astron. J. 108(2), 694 (1994).

10) FEKEL, F.C. et al.: "Chromospherically active stars XIII. HD 30957 A double lined K Dwarf binary". Astron. J. 108(5),

1936 (1994).

11) GIES, D.R. et al.: "HD 53975: An O-Type Spectroscopic binary with a large mass ratio". Astrophys. J. 422, 823 (1994).

12) GOLDMAN, I; MAZEH, T.: "The orbital evolution of highly eccentric binaries". Astrophys. J. 429, 362 (1994).

13) HARTKOPF, W.I. et al: "ICCD Speckle observations of binary stars XI. Measurements during 1991-1993 from Kitt Peak 4 m telescope". Astron. J. 108(6), 2299 (1994).

14) HEINTZ, W. D.: "Photographic astrometry of binary and proper-motion stars VIII". Astron. J. 108(6), 2338 (1994).

15) HEINTZ, W. D.; CANTOR, B. A.: "An astrometic study of four binary stars". Pub. Astron. Soc. of the Pacific, 106, 363 (1994).

16) HORN J. et al.: "The orbit of the spectroscopic binary ro Aurigae". Astron. Astrophys. Suppl. Ser. 105, 119 (1994).

17) JASINTA, D.M.D.; SOEGIARTINI, E.: "Photographic observations of visual double stars". Astron. Astrophys. Suppl. Ser. 107, 235 (1994).

18) MEREZHIN, U. P.: "Physical characteristics of close binary system" Astrophysics Space Science 215 83 (1994).

19) OLEVIC D. et al.: "New orbital elements of five visual binaries". Bull Astron. Belgrade 149, 95 (1994).

20) POPOVIC, G. M.; PAVLOVIC, R.: "Micrometer measurements of double stars (Series 48)" Bull. Astron. Belgrade 150, 109 (1994).

21) POURBAIX, D.: "A trial-and-error approach to the determination of the orbital parameters of visual binaries". Astron. Astrophys. 290, 682 (1994).

22) RICHICHI, A.; CALAMAI, G.; LEINERT, C.: "New binary stars discovered by lunar occultations". Astron. Astrophys. 286, 829.

23) ROMANENKO, L. G.; CHENTSOV, E. L.: "Determination of the relative radial velocities of the components of visual binary stars from observations with the Six-meter telescope". Astronomy Reports 38(2), 244 (1994).

24) ROMANENKO, L.G.: "Determination of the orbital elements of the wide double stars ADS 10759 (Psi Dra) and ADS 12815 (16 Cyg) by the method of apparent-motions parameters". Astronomy Reports 38(6), 779 (1994).

25) SCARFE C. D. et al.: "The spectroscopic-speckle triple system HR 6469". Astron. J. 107(4), 1529 (1994).

26) SMEKHOV, M.G.: "A third component in the visual double star ADS

12040". Astron. Lett. 20(3), 343 (1994).

27) TESSIER, E.; BOUVIER, J.; LACOMBE, F.: "Speckle imaging of T Tauri stars in the L and M near-IR bands". Astron. Astrophys. 283, 827 (1994).

28) TOKOVININ, A. A.: "Spectroscopic components in multiple systems. Kuiper 84". Astron. Lett. 20(3), 309 (1994).

29) TOKOVININ, A. A.: "Spectroscopic components in multiple systems. Two optical pairs". Astron. Lett. 20(3), 314 (1994).

30) TOKOVININ, A. A.: "Spectroscopic components in multiple systems. Couteau 325 and 542". Astron. Lett. 20(4), 435 (1994).

31) TOKOVININ, A. A.: "Spectroscopic orbit of HD 92855". Astron. Lett. 20(6), 717 (1994).

32) TOKOVININ, A. A.: "Radial velocities of the component of wide visual double stars". Astron. Reports. 38(2), 258 (1994).

33) ZULEVIC D. J.: "Orbit of binary star ADS 16904, A 643". Bull Astron. Belgrade 150, 117 (1994).

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NOTES ON PREVIOUSLY LISTED PAPERS

No. 13) Dr W. I. Hartkopf has detected two errata in Table 3 of his paper "ICCD Speckle observations of binary stars XI. Measurements during 1991-1993 from the Kitt Peak 4 m telescope". Astron. J. 108(6), 2299 (1994).

i) The residue of theta with respect to Docobo and Costa's orbit for WDS 00550 N 2338 (STF 73 AB) is -0.3 deg, not +6.2 as published.

ii) The orbit for COU 606 should be referenced "Ling 92", not "D&L 92" as published.

No. 21) Dr J. A. Docobo notes that Section 3 of the paper "A trial-and-error approach to the determination of the orbital parameters of visual binaries" (Pourbaix, D. Astron. Astrophys. 290, 682 (1994)), comments on his orbit calculation method in a way that may be misleading. This method does not optimize directly over the manifold of all the posible orbits that can be calculated from all the available observations, and it does not use Cid's (1958) method to calculate any orbit. Rather, it relies on the professional astronomer's experience to identify three reliable observations, generates the submanifold consisting of all possible orbits through these three points (not by Cid's method), and uses a subset of the remaining observations to optimize on this submanifold (again the astronomer's experience is appealed to for definition of a suitable subset).

GENERAL INFORMATION

Dr. J. Dommanget announces the publication of the catalogue:

CATALOGUE OF THE COMPONENTS OF DOUBLE AND MULTIPLE STARS
CCDM
first edition
J. Dommanget & O. Nys

This first edition ofthe CCDM has been published in Communications de l'Observatoire Royal de Belgique, Serie A, No. 115 where all details are given concerning its origin, its aim, its construction and its contents. A shorter description will be given in the Proceedings of the IAU Symposium No. 166. The catalogue contains 34.031 systems precisely identified on the sky, including 14.711 systems observed by HIPPARCOS.

It is available at the Centre des Donnees Astronomiques (CDS) in Strasbourg, under the reference: I/211.

And two papers by the same authors:

ETOILES DOUBLES NOUVELLES D COUVERTES AU COURS DE LA PRÉPARATION DU CATALOGUE D'ENTRÉE HIPPARCOS.
Bulletin d'Information du Centre de Donnees Astronomiques de Strasbourg, 43, 27-30 (1993).

ERREURS RELEVÉES DANS LE CATALOGUE INDEX 1961,0
Bulletin d'Information du Centre de Donnees Astronomiques de Strasbourg, 45, 7-17 (1994).

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The deadline for contributions to Information Circular No. 126 is:

June 15th 1995

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