INTERNATIONAL ASTRONOMICAL UNION COMMISSION 26

(DOUBLE STARS)

INFORMATION CIRCULAR No. 173 (FEBRUARY 2011)

NEW ORBITS

ADS α2000δ	Name n	P a	T i	e ω	Ω(2000) Last ob.	2011 2012	Author(s)
- 02434-6643	FIN 333 10°8086	33ʸ31 0″465	1994.63 91°2	0.96 119°9	212°6 2010.9656	214°6 0″452 214.6 0.462	MASON & HARTKOPF
2397 03130+4417	STT 51 0.6020	598. 0.998	2051.69 43.0	0.718 308.9	148.6 2009.700	342.6 0.626 343.4 0.614	LING
- 04021-3429	BU 1004 AB 0.8781	410. 1.452	2066.69 160.2	0.244 160.8	145.4 2008.7676	59.1 1.206 58.0 1.200	DOCOBO & LING
- 04070-1000	HDS 521 16.6340	21.64 0.2261	1996.78 122.5	0.684 76.5	218.1 2010.9657	304.7 0.190 295.2 0.183	MASON & HARTKOPF
3315 04357+3944	HU 1084 0.7377	488. 0.681	1966.00 105.9	0.894 137.9	34.9 2008.8498	74.2 0.254 73.5 0.261	LING
3748 05103-0736	A 484 9.5714	37.61 0.2058	2005.0 101.7	0.007 113.	125.0 2010.9658	306.6 0.203 304.6 0.205	MASON & HARTKOPF
5092 06274-2544	B 114 6.0360	59.64 0.4219	1977.24 19.1	0.543 18.	160. 2010.9796	5.6 0.636 7.7 0.630	MASON & HARTKOPF
5956 07171-1202	A 2123 AB 4.4825	80.3 0.641	1981.10 77.8	0.940 79.2	135.9 2010.8950	354.2 0.395 355.0 0.391	MASON & HARTKOPF
- 08421-5245	B 1624 4.8571	74.12 0.445	1997.78 70.0	0.2133 14.0	90.65 2010.9661	213.2 0.167 223.3 0.191	MASON & HARTKOPF
- 08447-5443	I 10 AB 2.4495	146.97 2.002	2000.78 105.6	0.482 8.5	344.7 2010.0658	294.0 0.446 281.1 0.404	MASON
7012 08487+0057	A 2552 4.3677	82.4 0.253	1968.7 125.8	0.230 343.	212.9 2010.9659	40.8 0.305 39.1 0.307	MASON & HARTKOPF

NEW ORBITS (continuation)

ADS α2000δ	Name n	P a	T i	e ω	Ω(2000) Last ob.	2010 2011	Author(s)
- 09128-0950	HDO 207 AB 4.5863	78.5 0.343	1968.2 78.7	0.843 80.5	215.1 2010.9662	93.3 0.144 96.1 0.139	MASON & HARTKOPF
7334 09228-0950	A 1342 AB 6.8469	52.58 0.1675	1963.4 68.1	0.052 33.	202.6 2010.9690	200.9 0.160 203.7 0.160	MASON & HARTKOPF
- 09317+0152	FIN 349 8.7816	40.99 0.156	1971.80 54.7	0.402 72.2	138.8 2010.9689	159.7 0.089 177.7 0.071	MASON & HARTKOPF
- 10282-2548	FIN 308 AB 5.5200	65.2 0.176	1957. 51.8	0.022 291.	249.8 2010.9689	102.6 0.144 108.0 0.137	MASON & HARTKOPF
8094 11137+2008	STF 1517 AB 0.3896	924. 2.278	1393.49 93.6	0.489 256.5	120.4 2010.0649	317.2 0.662 316.9 0.671	RICA
- 17075+3810	COU 1291 4.3902	82.0 0.221	1969.44 61.3	0.434 326.7	140.7 2009.4303	303.9 0.280 305.0 0.284	DOCOBO & LING
15182 21395+3009	A 772 2.5963	138.7 0.198	1999.56 152.7	0.549 233.7	42.8 2010.504	77.1 0.131 72.9 0.138	DOCOBO & TAMAZIAN
15843 22202+2931	BU 1216 0.7157	503. 0.774	1837.83 130.1	0.833 289.9	23.9 2009.755	278.2 0.872 278.0 0.874	LING

PAPERS PUBLISHED IN 2010

1. ABT, H. A.: *The Origin of the Exoplanets.* Pub. Astron. Soc. of the Pacific **122**, 1015 (2010).

2. ALLEN, C. et al: *Commission 26: Double and Multiple Stars.* Transactions IAU, **6**, (T27) 191 (2010).

3. ALLERS, K. N. et al. : *Discovery of A Young L Dwarf Binary, SDSS J224953.47 +004404.6 AB.* Astrophys. J. **715**, 561 (2010).

4. BALEGA, I. I., BALEGA, Y. Y. & MALOGOLOVETS, E. V.: *Orbits of new Hipparcos binaries: III.* Astrophys. Bull. **65** (3), 250 (2010).

5. BERNAT, D. et al. : *A Close Companion Search Around L Dwarfs Using Aperture Masking Interferometry and Palomar Laser Guide Star Adaptive Optics.* Astrophys. J. **715**, 724 (2010).

6. BORKOVITS, T., PARAGI, Z. & CSIZMADIA, S.: *On the formation of close binaries - an interferometric look on Algol(s).* J. of Physics Conf. Ser. **218**, 2005 (2010).

7. BROŽ, M. et al.: *A Unified Solution for the Orbit and Light-time Effect in the V505 Sgr System.* Astron. J. **139**, 2258 (2010).

8. CABALLERO, J. A. et al.: *The magnetically-active, low-mass, triple system WDS 19312+3607 (Research Note).* Astron. Astrophys. **520**, 91 (2010).

9. CVETKOVIC, Z. & NINKOVIC, S.: *On the Component Masses of Visual Binaries.* Serbian Astron. J. **180** 71 (2010).

10. CVETKOVIC, Z. & NOVAKOVIC, B.: *Eight new and three recalculated orbits for binaries.* Astron. Nach. **331** 304 (2010).

11. CVETKOVIC, Z.; PAVLOVIC, R. & BOEVA, S.: *CCD Measurements of Double and Multiple Stars at NAO Rozhen. IV.* Serbian Astron. J. **180** 103 (2010).

12. CVETKOVIC, Z.; VINCE, I. & NINKOVIC, S.: *A new orbit of binary 15 Monocerotis.* New Astron. **15**, 302 (2010).

13. CVETKOVIC, Z., PAVLOVIC, R. & NINKOVIC, S.: *A New Recalculated Orbit for the Visual Binary CHR 90.* Astron. J. **140** 25 (2010).

14. DOCOBO, J. A. et al.: *EMCCD Speckle Interferometry with the 6 m Telescope: Astrometric Measurements, Differential Photometry, and Orbits.* Astron. J. **140**, 1078 (2010).

15. DUPUY, T. J. et al. : *Studying the Physical Diversity of Late-M Dwarfs with Dynamical Masses.* Astrophys. J. **721**, 1725 (2010).

16. EGGLETON, P. P.: *Evolution of intermediate and low mass binary systems.* New Astron. Rew. **54**, 45 (2010).

17. FARRINGTON, C. D. et al.: *Separated Fringe Packet Observations with the CHARA Array. I. Methods and New Orbits for χ Draconis, HD 184467, and HD 198084.* Astron. J. **139**, 2308 (2010).

18. FEKEL, F. C. & Williamson, M. H.: *New Precision Orbits of Bright Double-lined Spectroscopic Binaries. V. The Am Stars HD 434 and 41 Sextantis.* Astron. J. **140**, 1381 (2010).

19. FEKEL, F. C., TOMKIN, J. & Williamson, M. H.: *New Precision Orbits of Bright Double-lined Spectroscopic Binaries. IV. 66 Andromedae, HR 6979, and HR 9059.* Astron. J. **139**, 1579 (2010).

20. FEKEL, F. C. et al.: *Infrared Spectroscopy of Symbiotic Stars. VIII. Orbits for Three S-Type Systems: AE Arae, Y Coronae Australis, and SS 73-147.* Astron. J. **139**, 1315 (2010).

21. GIES, D. et al.: *Massive Star Studies with the CHARA Array.* Rev. Mex. A. A. Conf Ser **38**, 133 (2010).

22. GRIFFIN, R. F.: *Spectroscopic binary orbits from photoelectric radial velocities - Spectroscopic binary orbits from photoelectric radial velocities - Paper 210: Psi2 Aurigae and 34 Pegasi.* The Observatory **130**, 17 (2010).

23. GRIFFIN, R. F.: *Spectroscopic binary orbits from photoelectric radial velocities - Spectroscopic binary orbits from photoelectric radial velocities - Paper 211: HD 128642, HD 144601, HD 150172, and HD 155641.* The Observatory **130**, 75 (2010).

24. GRIFFIN, R. F.: *Spectroscopic binary orbits from photoelectric radial velocities - Spectroscopic binary orbits from photoelectric radial velocities - Paper 212: HD 113449, HD 113762, HD 113880, and HD 119944.* The Observatory **130**, 125 (2010).

25. GRIFFIN, R. F.: *Spectroscopic binary orbits from photoelectric radial velocities - Spectroscopic binary orbits from photoelectric radial velocities - Paper 213: HD 179332, HD 181386, and their visual companions.* The Observatory **130**, 232 (2010).

26. GRIFFIN, R. F.: *Spectroscopic binary orbits from photoelectric radial velocities - Spectroscopic binary orbits from photoelectric radial velocities - Paper 214: HR 6790, HR 6886, HR 6901, and HR 7137.* The Observatory **130**, 299 (2010).

27. GRIFFIN, R. F.: *Spectroscopic binary orbits from photoelectric radial velocities - Spectroscopic binary orbits from photoelectric radial velocities - Paper 215: HD 105074, HD 105182, HD 108613, and HD 115445.* The Observatory **130**, 349 (2010).

28. GRIFFIN, R. F. & FILIZ, A. N.: *Orbits of six late-type active-chromosphere binaries.* Astrophys. Space Science **330**, (1), 47 (2010).

29. GRIFFIN, R. E. M. & GRIFFIN, R. F.: *Composite spectra Paper 16: HR 3222, a 2.5-yr binary with a metallic-line secondary.* Mont. Not. RAS **402**, 1675 (2010).

30. GROH, J. H. et al.: *Detection of high-velocity material from the wind-wind collision zone of Eta Carinae across the 2009.0 periastron passage.* Astron. Astrophys. **517**, A9 (2010).

31. HARTKOPF, W. I.: *Hot Binaries: Observational Results.* Rev. Mex. A. A. **38** 19 (2010).

32. HELMINIAK, K. & KONACKI, M.: *Precise Astrometry of Visual Binaries with Adaptive Optics. A way for finding exoplanets?.* EAS Publ. Ser. **41**, 103 (2010).

33. HINKLE, K. H., FEKEL, F. C. & JOYCE, R. R.: *Symbiotic Stars: Infrared Spectroscopy and Orbits.* Bull. AAS **42**, 268 (2010).

34. HORCH, E. P. et al: *CCD Speckle Observations of Binary Stars with the WIYN Telescope. VI. Measures During 2007-2008.* Astron. J. **139**, 205 (2010).

35. HOWELL, S. B. et al: *Kepler Observations of Three Pre-launch Exoplanet Candidates: Discovery of Two Eclipsing Binaries and a New Exoplanet.* Astrophys. J. **725**, 1633 (2010).

36. IZMAILOV, I. S. et al.: *Astrometric CCD Observations of Visual Double Stars at the Pulkovo Observatory.* Astron. Letters **36**, (5) 349 (2010).

37. KIYAEVA, O. V, GORYNYA, N.A. & IZMAILOV I. S.: *Astrometric study of the relative motion of three stars with possible invisible companions based on homogeneous series obtained at Pulkovo with a 26-inch refractor.* Astron. Letters **36**, (3) 204 (2010).

38. KONACKI, M. et al. : *High-precision Orbital and Physical Parameters of Double-lined Spectroscopic Binary StarsHD78418, HD123999, HD160922, HD200077, and HD210027.* Astrophys. J. **719**, 1293 (2010).

39. LING, J. F.: *First Orbit Solutions and Calculated Masses of 10 Visual Binaries.* Astron. J. **139**, 1521 (2010).

40. LIU, M. C., DUPUY, T. J. & LEGGETT, S. K.: *Discovery of a Highly Unequal-mass Binary T Dwarf with Keck Laser Guide Star Adaptive Optics: A Coevality Test of Substellar Theoretical Models and Effective Temperatures.* Astrophys. J. **722**, 331 (2010).

41. LOSSE, F.: *Double stars measurements: 2009-2010 campaing.* Obs. & Trav. **75**, 17 (2010).

42. MARTYNOVA, A. I. & ORLOV, V. V.: *Analysis of regions of stability in the vicinity of a new periodic S orbit in the three-body problem.* Astron. Reports **54**, (9) 797 (2010).

43. MASON, B. D, HARTKOPF, W. I. & McALISTER, H. A.: *Binary Star Orbits. III. Revisiting the Remarkable Case of Tweedledum and Tweedledee.* Astron. J. **140**, 242 (2010).

44. MASON, B. D, HARTKOPF, W. I. & WYCOFF, G. L.: *Speckle Interferometry at the U.S. Naval Observatory. XV.* Astron. J. **140**, 480 (2010).

45. MASON, B. D, HARTKOPF, W. I. & TOKOVININ, A. A.: *Binary Star Orbits. IV. Orbits of 18 Southern Interferometric Pairs.* Astron. J. **140**, 753 (2010).

46. MELIKIAN, N. D. et al.: *Spectral observations of the eclipsing binary RY Sct.* Astroph. **53** (2), 202 (2010).

47. MELIKIAN, N. D. et al.: *Spectral and photometric observations of TT Ari. III..* Astroph. **53** (3), 373 (2010).

48. MILIC, I. S. & CVETKOVIC, Z.: *Correlations of Orbital Elements for Visual Double Stars.* Serbian Astron. J. **181** 69 (2010).

49. MUTERSPAUGH, M. W. et al.: *The Phases Differential Astrometry Data Archive. I. Measurements and Description.* Astron. J. **140**, 1579 (2010).

50. MUTERSPAUGH, M. W. et al.: *The Phases Differential Astrometry Data Archive. II. Updated Binary Star Orbits and a Long Period Eclipsing Binary.* Astron. J. **140**, 1623 (2010).

51. MUTERSPAUGH, M. W. et al.: *The Phases Differential Astrometry Data Archive. III. Limits to Tertiary Companions.* Astron. J. **140**, 1631 (2010).

52. MUTERSPAUGH, M. W. et al.: *The Phases Differential Astrometry Data Archive. IV. The Triple Star Systems 63 Gem A and HR 2896.* Astron. J. **140**, 1646 (2010).

53. MUTERSPAUGH, M. W. et al.: *The Phases Differential Astrometry Data Archive. V. Candidate Substellar Companions to Binary Systems.* Astron. J. **140**, 1657 (2010).

54. ORLOV, V. G. et al.: *Speckle Interferometry at the Observatorio Astronómico Nacional. II* Rev. Mex. A. A. **46**, 245 (2010).

55. PRIEUR, R. J. et al: *Speckle observations with PISCO in Merate - IX. Astrometric measurements of visual binaries in 2008.* Mont. Not. RAS **407**, 1913 (2010).

56. RAGHAVAN, D.: *A Survey of Stellar Families: Multiplicity of Solar-type Stars.* Astrophys. J. Sup. Ser. **190** (1), 1 (2010).

57. REIPURTH, B. et al: *Orphaned Protostars.* Astrophys. J. L. **725**, 56 (2010).

58. RICA, F. M.: *Orbital elements for eight binaries. Study of the nature of wide components. I.* Rev. Mex. A. A. **46** 263 (2010).

59. RIEDEL, A. R. et al: *The Solar Neighborhood. XXII. Parallax Results from the CTIOPI 0.9 m Program: Trigonometric Parallaxes of 64 Nearby Systems with* $0''5 \leq \mu \leq 1''0 yr^{-1}$ *(SLOWMO Sample).* Astron. J. **140**, 897 (2010).

60. SCARDIA, R. et al: *Speckle observations with PISCO in Merate: VIII. Astrometric measurements of visual binaries in 2007 and new orbits of the multiple system Zeta Aqr.* Astron. Nach. **331**, 286 (2010).

61. SCHAEFER, G. et al: *Masses and Distance to the Young Triple Star Elias 12.* Bull. AAS **42**, 354 (2010).

62. SHAKHT, N. A. et al.: *Orbit determination and estimate of the component masses.* Astroph. **53** (2), 227 (2010).

63. ZASCHE, P. & UHLÁŘ, R.: *The triple system KR Comae Berenices.* Astron. Astroph. **519A**, 78 (2009).

64. ZHUCHKOV, R. Y. et al.: *Physical and dynamical parameters of the multiple system HD 222326.* Astron. Reports **52**, (7) 546 (2010).

65. ZHUCHKOV, R. Y. et al.: *Physical parameters and dynamical properties of the multiple star o And.* Astron. Reports **54**, (12) 1134 (2010).

66. ZHUCHKOV, R. Y., KIYAEVA, O. V. & ORLOV, V. V.: *Criteria for the stability of triple systems and their application to observations of multiple stars.* Astron. Reports **54**, (1) 38 (2010).

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