

MICROMETER MEASUREMENTS OF DOUBLE STARS  
(Series 53)

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**SUMMARY: A set of 38 measurements of double stars, carried out with the Zeiss Refractor 65/1055 cm of the Belgrade Observatory, is communicated.**

Belgrade Observatory's Zeiss Refractor 65/1055 cm is still out of use, whereby the measurements of double stars had to be stopped. The present short series of measurements, following the ones published in Popović and Pavlović (1998) and Zulević and al. (2000), is a result of our attempt to test the instrument's capabilities under the current very aggravated circumstances. Obviously, a great

effort must be invested to restore the instrument to its original full capacity.

The comparison of these measurements with the ephemeris was performed using the orbital elements as given in Fifth Catalog of Orbits of Visual Binary Stars (Hartkopf *et al.*, 2000).

The reduction of present series was carried out according to the standard method, just as it was done with the earlier series.

**Table 1.** Micrometer Measurements of Double Stars

WDS	Dis	Mult.	ADS	Epoch	Theta [ <i>o</i> ]	Ro [ <i>"</i> ]	Est.Mag.	W	N
07455-1441	STF	1138 AB	6348	2000.248	339.7	16.94	-	1+2	
07466+0408	STF	1137	6360	2000.248	130.0	2.48	-	1+2	
09566+4359	POP	151	+44°1931	2000.294	107.8	0.58	0.2	1+1	N
10112+3346	POP	85 AB	-	2000.349	47.1	5.20	12.0-13.5	1+1	N
10112+3346	POP	85 AC	-	2000.349	237.9	48.63	12.0-12.5	1+2	
11363+2747	STF	1555 AB	8231	2000.340	331.1	0.99	0.3	1+2	
				2000.343	324.0	0.86	0.2	2+3	
				<b>2000.342</b>	<b>326.7</b>	<b>0.91</b>	<b>0.2</b>	<b>2n</b>	<b>O</b>

Table 1. (continued)

WDS	Dis	Mult.	ADS	Epoch	Theta [ $^{\circ}$ ]	Ro [ $''$ ]	Est.Mag.	W	N	
11363+2747	STF	1555	AC	-	2000.340	334.5	22.18	-	1+2	
12160+0538	STF	1621		8486	2000.357	32.2	1.02	9.5-10.0	2+2	O
12244+2535	STF	1639	AB	8539	2000.340 2000.343 <b>2000.342</b>	323.1 324.1 <b>323.7</b>	1.61 1.45 <b>1.51</b>	7.0- 8.5 7.5- 8.5 <b>7.4- 8.5</b>	1+2 2+3 <b>2n</b>	O
12244+2535	STF	1639	AC	-	2000.340	158.2	-		1+2	
12272+2701	STF	1643		8553	2000.340 2000.343 <b>2000.342</b>	9.0 9.6 <b>9.4</b>	2.37 2.37 <b>2.37</b>	- 0.1 -	1+2 3+3 <b>2n</b>	ON
13165+3432	POP	72		-	2000.346 2000.357 2000.441 <b>2000.390</b>	320.9 328.3 320.4 <b>322.8</b>	1.45 1.72 1.80 <b>1.68</b>	- 9.5-10.2 - -	1+1 1+1 1+2 <b>3n</b>	
13232+4029	POP	119		+41 $^{\circ}$ 2389	2000.343 2000.428 <b>2000.377</b>	359.9 360.7 <b>360.2</b>	0.61 0.73 <b>0.66</b>	10.0-10.2 - -	2+1 1+1 <b>2n</b>	N
13235+2914	HO	260		8887	2000.340 2000.343 <b>2000.342</b>	79.0 80.1 <b>79.7</b>	1.34 1.28 <b>1.30</b>	9.0- 9.5 0.2 <b>0.3</b>	2+1 3+3 <b>2n</b>	O
13343-0019	STF	1757	AB	8949	2000.340 2000.343 <b>2000.342</b>	128.1 125.0 <b>126.0</b>	1.88 1.84 <b>1.85</b>	8.0- 9.0 8.0- 9.0 <b>8.0- 9.0</b>	1+2 3+3 <b>2n</b>	O
13460+4102	STF	1783		9020	2000.438	50.1	2.16	8.0-10.0	3+3	
13537+4104	POP	153		-	2000.349 2000.431 2000.438 <b>2000.414</b>	336.5 355.9 348.2 <b>348.0</b>	0.97 1.22 1.07 <b>1.10</b>	10.3-10.5 0.1 0.0 <b>0.1</b>	1+1 1+2 2+1 <b>3n</b>	
15121+3419	POP	209		-	2000.441	168.2	3.84	-	1+2	
15158+4153	POP	118		-	2000.343 2000.428 <b>2000.386</b>	342.0 343.7 <b>342.8</b>	2.86 2.46 <b>2.66</b>	- 0.0 -	1+1 1+1 <b>2n</b>	
15210+0043	BU	32		9596	2000.436	24.5	2.95	5.0-11.0	1+1	N
16272+3419	POP	1	AB	+34 $^{\circ}$ 2788	2000.441	181.0	2.41	9.0-11.0	1+2	
16272+3419	POP	1	AC	-	2000.441	201.1	41.58	9.0-14.0	1+1	
16450+3355	POP	5		+34 $^{\circ}$ 2834	2000.431 2000.436 <b>2000.435</b>	134.3 135.7 <b>135.4</b>	0.69 0.61 <b>0.63</b>	- 10.0-10.0 -	1+1 3+3 <b>2n</b>	N
17175+3205	BU	629		10450	2000.436	337.2	1.22	9.0- 9.5	1+2	
17179+3229	BU	45		10456	2000.436	289.4	4.49	8.0- 8.1	2+2	
17186+3225	PAL	2		-	2000.436	299.6	2.99	11.0-11.3	2+1	N

## NOTES:

- 09566+4359 POP 151 : Direct motion.  
 10112+3346 POP 85AB : Direct motion.  
 11363+2747 STF 1555AB : Costa, J.M.-Docobo, J.A., 1983: +0.<sup>o</sup>4, +0.<sup>o</sup>8  
 12160+0538 STF 1621 : Soderhjelm, S., 1999: -0.<sup>o</sup>9, -0.<sup>o</sup>22  
 12244+2535 STF 1639AB : Olevic, D.-Popovic, G.M., 2000: -0.<sup>o</sup>9, -0.<sup>o</sup>20  
 12272+2701 STF 1643 : Hopmann, J., 1964: +1.<sup>o</sup>1, -0.<sup>o</sup>19. Both components red.  
 13235+2914 HO 260 : Ambruster, C.: -3.<sup>o</sup>6, -0.<sup>o</sup>01  
 13343-0019 STF 1757AB : Heintz, W.D., 1988: 0.<sup>o</sup>0, -0.<sup>o</sup>16  
 15210+0043 BU 32 : Direct motion.  
 17186+3225 PAL 2: If PAL 2 is the double star L 15 then 2' S  
 should be to find double star which Lewiss  
 mention: 1900.5, 28<sup>o</sup>, 5.<sup>o</sup>55;  
 (designate with arrow, Fig 1) .  
 However, this star is not double.

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## REFERENCES

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 Popović, G.M., Pavlović, R.: 1998, *Ser. Astron. J.* **158**, 67.  
 Zulević, D.J., Popović, G.M. and Pavlović, R.: 2000, *Ser. Astron. J.* **161**, 25.

## МИКРОМЕТАРСКА МЕРЕЊА ДВОЈНИХ ЗВЕЗДА

(Серија 53.)

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*Претходно саопштење*

Саопштавају се 38 микрометарских мерења двојних звезда обављених на Zeiss рефрактору 65/1055 cm Астрономске опсерваторије у Београду.