

**MICROMETER MEASUREMENTS OF DOUBLE STARS**  
(Series 50)

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**SUMMARY:** 50 micrometric measurements of 24 double or multiple systems carried out with the Zeiss 65/1055 cm Refractor of Belgrade Observatory are communicated.

The present measurements follow the ones published in Series 48 (Popović and Pavlović, 1994). The Series 49 (Popović and Pavlović, 1997) contains CCD measurements of double stars.

This Series contains 50 measurements of 24 double or multiple systems. The comparison of the measurements with the ephemeris in the case of orbital pairs was performed with respect to the Ephemeris Catalogue by Couteau et al. (1986).

The observations of this series are reduced by applying the standard procedure, exactly as was done with the earlier ones.

The results are presented in Table 1 and 2.

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Table 1 Micrometer Measurements of Double Stars

ADS	Disc. WDS Mag	Mult.	Epoch 1900+	P [°]	$\rho$ ["]	Est. Mag.	Weight	Obs.	Notes
41	BU 997 00049N4540 7.47-9.88	AB	96.847	337.3	3.58	0.8	1+1		
			96.847	337.3	3.58	0.8	1n	POP	
			96.847	337.7	4.04		1+1		
			96.847	337.7	4.04		1n	PAV	
48	STT 547 00057N4549 8.93-8.97	AB	96.847	180.2	6.04	0.5	1+1		
			96.850	179.9	6.14	-0.1	3+3		
			96.849	180.0	6.12	0.0	2n	POP	O
			96.847	180.2	6.08		1+1		
			96.850	180.2	5.99		2+2		
			96.849	180.2	6.01		2n	PAV	
48	POP 217 00057N4549	AP	96.847	44.1	9.91	P:13.5	1+1		
			96.850	41.4	10.65	P:15.0	2+2		
			96.849	41.3	10.40	14.5	2n	POP	N
			96.847	40.7	11.73		1+1		
			96.850	40.3	11.71		2+2		
			96.849	40.4	11.72		2n	PAV	
48	STT 547 00057N4549 8.6-13.3	AC	96.848	1.2	53.91	C:12.5	1+1		
			96.850	0.6	53.36	C:10.0	2+1		
			96.849	0.8	53.58	11.0	2n	POP	N
			96.847	1.4	52.97		1+1		
			96.850	1.8	54.18		2+2		
			96.813	1.7	53.78		2n	PAV	
5958	STT 170 07176N0918 7.6-7.9		95.190	70.9	0.79	0.2	1+2		
			95.190	70.9	0.79	0.2	1n	POP	O
			95.190	73.5	0.83		1+1		
			95.190	73.5	0.83		1n	PAV	
6671	BU 1244 08138N0159 8.3-8.5		95.190	17.9	0.98	-0.5	1+1		
			95.190	17.9	0.98	-0.5	1n	POP	N
-	POP 98 09079N4338 10.5-10.7		95.188	59.8	2.88	0.2	1+1		
			95.188	59.8	2.88	0.2	1n	POP	N
			95.188	58.0	4.02		1+1		
			95.188	58.0	4.02		1n	PAV	
-	POP 119 13232N4029 9.2-9.5		96.432	22.5	0.80	0.5	2+1		
			96.432	22.5	0.80	0.5	1n	POP	N

MICROMETER MEASUREMENTS OF DOUBLE STARS

Table 1 (continue)

ADS	Disc. WDS Mag	Mult.	Epoch 1900+	P [°]	$\rho$ ["]	Est.Mag.	Weight	Obs.	Notes
8820	A 1606 13128N4030 9.0- 9.0		96.433 <b>96.433</b>	22.3 <b>22.3</b>	1.39 <b>1.39</b>	0.0 <b>0.0</b>	2+1 1n	POP	
8914	STT 266 13284N1543 8.4- 8.9		96.431 <b>96.431</b>	356.9 <b>356.9</b>	1.91 <b>1.91</b>	0.3 <b>0.3</b>	3+2 1n	POP	N
-	POP 72 13165N3432 9.7-10.8		96.439 <b>96.439</b>	314.5 <b>314.5</b>	1.40 <b>1.40</b>	0.8 <b>0.8</b>	1+1 1n	POP	N
9031	STF 1785 13491N2659 7.7 - 7.9		96.439 <b>96.439</b>	171.8 <b>171.8</b>	3.09 <b>3.09</b>	0.2 <b>0.2</b>	2+2 1n	POP	O
9639	STT 296 15264N4400 7.6- 9.2	AB	96.502 <b>96.502</b>	272.1 <b>272.1</b>	1.87 <b>1.87</b>	1.0 <b>1.0</b>	1+2 1n	POP	N
			96.502 <b>96.502</b>	278.0 <b>278.0</b>	1.95 <b>1.95</b>		1+1 1n	PAV	
9639	STT 296 15264N4400 7.4-12.5	AC	96.502 <b>96.502</b>	313.1 <b>313.1</b>	77.96 <b>77.96</b>		1+1 1n	POP	N
			96.502 <b>96.502</b>	311.3 <b>311.3</b>	78.41 <b>78.41</b>		1+1 1n	PAV	
10418	STF 2140 17146N1423 3.5- 5.4	AaB	96.499 <b>96.499</b>	102.0 <b>102.0</b>	4.65 <b>4.65</b>	2.0 <b>2.0</b>	1+1 1n	POP	N
			96.499 <b>96.499</b>	105.6 <b>105.6</b>	4.20 <b>4.20</b>		1+1 1n	PAV	
11141	HU 317 18113N1713 9.0- 9.3		96.502 <b>96.502</b>	18.3 <b>18.3</b>	1.50 <b>1.50</b>	0.3 <b>0.3</b>	1+1 1n	POP	
			96.502 <b>96.502</b>	26.8 <b>26.8</b>	1.78 <b>1.78</b>		1+1 1n	PAV	
11483	STT 358 18359N1659 6.8- 7.2	AB	95.590 <b>95.590</b>	159.8 <b>159.8</b>	2.04 <b>2.04</b>		1+1 1n	PAV	N
12201	STF 2484 19143N1904 7.9- 9.4		96.655 <b>96.655</b>	232.4 <b>232.4</b>	2.08 <b>2.08</b>	2.0 <b>2.0</b>	1+1 1n	POP	N

Table 1 (continue)

ADS	Disc. WDS Mag	Mult.	Epoch 1900+	P [°]	$\rho$ ["]	Est. Mag.	Weight	Obs.	Notes
13277	STT 395 20020N2456 5.9— 6.3		96.847	121.8	0.85	0.2	2+1		
			96.849	122.6	0.76	7.0— 7.2	2+2		N
			<b>96.848</b>	<b>122.3</b>	<b>0.80</b>	<b>0.2</b>	<b>2n</b>	<b>POP</b>	
			96.847	125.2	1.10		2+2		
			96.849	125.4	1.03		2+2		
			<b>96.848</b>	<b>125.3</b>	<b>1.06</b>		<b>2n</b>	<b>PAV</b>	
14856	STF 2786 21197N0931 7.2— 8.3		96.852	189.0	2.62	8.0— 9.0	1+2		
			<b>96.852</b>	<b>189.0</b>	<b>2.62</b>	<b>8.0—9.0</b>	<b>1n</b>	<b>POP</b>	
14889	STT 437 21208N3228 6.2— 6.7	AB	96.844	23.4	2.24		1+1		
			96.852	24.1	2.40	0.2	2+2		
			<b>96.849</b>	<b>23.9</b>	<b>2.35</b>	<b>0.2</b>	<b>2n</b>	<b>POP</b>	N
			96.844	24.1	2.49		1+1		
			<b>96.844</b>	<b>24.1</b>	<b>2.49</b>		<b>1n</b>	<b>PAV</b>	
14894	STT 435 21214N0253 8.0— 8.2		96.852	230.2	0.64	0.0	2+2		
			<b>96.852</b>	<b>230.2</b>	<b>0.64</b>	<b>0.0</b>	<b>1n</b>	<b>POP</b>	N
16602	STF 2990 23133N2205 9.6— 9.6	AB	96.844	56.8	2.30	0.2	1+1		
			<b>96.844</b>	<b>56.8</b>	<b>2.30</b>	<b>0.2</b>	<b>1n</b>	<b>POP</b>	N
			96.844	56.8	2.55		1+1		
			<b>96.844</b>	<b>56.8</b>	<b>2.55</b>		<b>1n</b>	<b>PAV</b>	
16642	STF 2995 23166S0135 8.19—8.56		94.747	32.6	5.17	9.0— 9.5	1+1		
			<b>94.747</b>	<b>32.6</b>	<b>5.17</b>	<b>9.0— 9.5</b>	<b>1n</b>	<b>POP</b>	
			94.747	31.5	5.43		1+1		
			<b>94.747</b>	<b>31.5</b>	<b>5.43</b>		<b>1n</b>	<b>PAV</b>	
16957	AGC 14 23440N2922 5.0—7.8		96.850	262.2	0.58	3.0	3+2		
			<b>96.850</b>	<b>262.2</b>	<b>0.58</b>	<b>3.0</b>	<b>1n</b>	<b>POP</b>	O
			96.849	264.2	0.84		2+2		
			<b>96.849</b>	<b>264.2</b>	<b>0.84</b>		<b>1n</b>	<b>PAV</b>	
17149	STF 3050 23595N3343 6.5— 6.6	AB	96.852	325.3	1.79	0.0	2+3		
			<b>96.852</b>	<b>325.3</b>	<b>1.79</b>	<b>0.0</b>	<b>1n</b>	<b>POP</b>	O

Table 2 Notes

WDS	Disc.	Mult.	Notes
00057N4549	STT 547	AB	Popović, Pavlović, 1996: $-0^{\circ} 7, +0'' 10$ Popović, Pavlović, 1996: $-0^{\circ} 5, +0'' 05$
00057N4549	POP 217	AP	The first micrometer measurement.
00057N4549	STT 547	AC	The last measurement from 1925. Probably we did not measure the component C.
07176N0918	STT 170		Popović, 1982: $+2^{\circ} 9, +0'' 28$ Popović, 1982: $+5^{\circ} 5, +0'' 32$
08138N0159	BU 1244		$\Delta\theta/\Delta t = -32^{\circ}/104y$
09079N4338	POP 98		Probably this pair is not BRT 102. (See C.I. No 63 UAI)
13232N4029	POP 119		POP 119 = BD $+41^{\circ} 2389$ .
13284N1543	STT 266		$\Delta\theta/\Delta t = +28^{\circ}/152y$
13165N3432	POP 72		According to BD $+35^{\circ} 2430$ : $\Delta\alpha = +4^s, \Delta\delta = +8'$
13491N2659	STF 1785		Strand, 1955: $+0^{\circ} 5, -0'' 25$
15264N4400	STT 296	AB	$\Delta\theta/\Delta t = +56^{\circ}/151y$
15264N4400	STT 296	AC	$\Delta\rho/\Delta t = +10'' 7/85y$
17146N1423	STF 2140	AaB	Slow decrease in angle.
18359N1659	STT 358	AB	Heintz, 1954: $+9^{\circ} 2, +0'' 66$ Pavlović, Živkov, 1996: $+3^{\circ} 8, +0'' 49$
19143N1904	STF 2484		Slow increase in angle.
20020N2456	STT 395		$\Delta\theta/\Delta t = +43^{\circ}/152y$
21208N3228	STT 437	AB	$\Delta\theta/\Delta t = -44^{\circ}/151y$
21214N0253	STT 435		$\Delta\theta/\Delta t = +27^{\circ}/148y$
23133N2205	STF 2990	AB	Slow retrograde motion. There is a component C ( $12^m, 30''$ ).
23440N2922	AGC 14		Popović, Pavlović, 1997: $-2^{\circ} 6, -0'' 32$ . Popović, Pavlović, 1997: $-0^{\circ} 6, -0'' 03$ .
23595N3343	STF 3050	AB	Heintz, 1974: $-5^{\circ} 9, +0'' 10$ .

МИКРОМЕТАРСКА МЕРЕЊА ДВОЈНИХ ЗВЕЗДА  
(Серија 50)

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*Претходно саопштење*

Саопштавају се 50 микрометарских мерења на Zeiss рефрактору 65/1055 cm Опсерваторије у 24 двојних и вишеструких система реализованих Београду.