

REVISED ORBITS OF TWO BINARY STARS WDS 06098S2246 = RST 3442  
AND WDS 08285S0230 = ADS 6828 = A 551

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**SUMMARY:** This paper presents the orbital elements of two binary stars WDS 06098S2246 = RST 3442 and WDS 08285S0230 = ADS 6828 = A 551. The present orbits are revised since the original ones do not fit well the recent observations. For each pair are given in addition of the orbital elements, the (O-C), the dynamical parallax, the mass, the absolute magnitudes and ephemerides.

The orbital elements of the binary stars have been computed by using the method of Thiele-Innes (1926). The dynamical parallaxes were computed by use of the method of Baize and Romani (1946). The orbital elements with the dynamical parallaxes, the total masses, the absolute magnitudes and the major axes are given in Table 1, the ephemerides in Table

2, the measures and the comparison with measures in Table 3. The orbits by van den Bos (1951), Wieth-Knudsen (1960) and Finsen (1964) for the pair RST 3442 and the one by van den Bos (1953) for the pair ADS 6828 = A 551 do not fit well the recent interferometric observations as evident from data next exposed:

WDS 06098S2246 = RST 3442					WDS 08285S0230 = ADS 6828 = A551 -				
t	Bos (1951)		Wieth-Knudsen (1960)		Finsen (1964)		t	Bos (1953)	
	(O-C) $\Theta$	(O-C) $\rho$	(O-C) $\Theta$	(O-C) $\rho$	(O-C) $\Theta$	(O-C) $\rho$		(O-C) $\Theta$	(O-C) $\rho$
1978.7486	+42° 3	-0" 04	+15° 2	-0" 02	+12° 6	-0" 02	1984.055	-13° 2	-0" 02
1983.0475	+23.5	-0.01	-6.7	-0.01	-7.0	0.00	1986.890	-54.1	-0.04
1983.0667	+25.4	-0.02	-4.7	-0.02	-5.1	-0.01	1987.275	-67.0	-0.05

**Table 1.** Orbital elements

WDS 06098S2246 = RST 3442			WDS 08285S0230 = ADS 6828 = A 551		
P=18.278	$\pi_{\text{dyn}}=0.021$	A=-0".1435	P=54.327	$\pi_{\text{dyn}}=0.013$	A=-0".1114
n=19° 70	a=10.4 (AU)	B=-0".0974	n=6° 6265	a=22.2 (AU)	B=-0".2437
T=1943.00	$\mathcal{M}_{\text{AB}}=3.3 \mathcal{M}_{\odot}$	F=+0".0529	T=1945.81	$\mathcal{M}_{\text{AB}}=3.7 \mathcal{M}_{\odot}$	F=+0".0694
e=0.313	$M_{\text{A}}=3.0$ abs. mag.	G=-0".1889	e=0.39	$M_{\text{A}}=2.5$ abs. mag.	G=+0".0645
a=0".214	$M_{\text{B}}=3.0$ abs. mag.	C=±0".1257	a=0".282	$M_{\text{B}}=2.6$ abs. mag.	C=∓0".0882
i=45° 3	$T_{\Omega}=1993.22$	H=±0".0861	i=83° 0	$T_{\Omega}=2021.66$	H=∓0".2656
$\Omega=79^{\circ} 9$	$T_{\text{U}}=1999.35$	pL=±11".73	$\Omega=63^{\circ} 1$	$T_{\text{U}}=1998.00$	pL=∓2".77
$\omega=124^{\circ} 4$		pN=∓8".03	$\omega=198^{\circ} 4$		pN=∓8".34

**Table 2.** Ephemerides

WDS 06098S2246 = RST 3442			WDS 08285S0230 = ADS 6828 = A 551		
t	$\Theta$	$\rho$	t	$\Theta$	$\rho$
1995.00	104° 8	0".18	1995.00	233° 7	0".13
1996.00	129.8	0.14	1996.00	236.8	0.15
1997.00	173.6	0.11	1997.00	239.1	0.17
1998.00	221.4	0.12	1998.00	241.2	0.17
1999.00	252.1	0.16	1999.00	243.1	0.17
2000.00	273.9	0.17	2000.00	245.2	0.17
2001.00	293.3	0.18	2001.00	247.6	0.15
2002.00	312.7	0.18	2002.00	250.9	0.12
2003.00	332.2	0.18	2003.00	256.5	0.09
2004.00	350.8	0.18	2004.00	269.0	0.05

**Table 3.** Observations and residuals

WDS 06098S2246 = RST 3442						
t	$\Theta$	$\rho$	n	Obs.	(O-C) $\Theta$	(O-C) $\rho$
1935.91	53° 8	0".24	1	RST	-1° 7	-0".01
1936.19	59.8	0.23	2	RST	+1.6	-0.03
1936.81	66.9	0.26	4	V	+2.8	+0.01
1939.79	95.8	0.21	1	Smv	-2.3	+0.02
1943.19	219.6	0.18	1	B	-2.5	+0.05
1944.197	242.5	0.16	1	B	-6.6	+0.01
1944.82	270.8	0.18	4	V	+4.3	+0.01
1950.02	7.6	0.20	1	RST	+2.4	+0.01
1951.071	29.6	0.15	1	B	+8.9	-0.06
1951.20	12.6	0.226	2	FIN	interf.	+02
1952.079	33.9	0.29	1	B	+0.4	+0.06
1952.18	38.0	0.22	2	FIN	interf.	-0.01
1953.159	43.3	0.216	5,4	FIN	interf.	-0.02
1957.14	84.1	0.22	2	Churms	-1.3	0.00

Table 3. (continued)

t	$\Theta$	$\rho$	n	Obs.		(O-C) $\Theta$	(O-C) $\rho$
1975.9593	90° 4	0" 208	1	McAli.	interf.	-2.001	0" 00
1976.8603	105.7	0.176	1	McAli.	interf.	-1.7	+0.01
1978.7486	166.8	0.104	1	Bonneau	interf.	-7.2	-0.01
1983.0475	300.8	0.177	1	McAli.	interf.	+1.3	0.00
1983.0667	303.1	0.170	1	McAli.	interf.	+3.2	-0.01
Epoch 2000							

## WDS 08285S0230 = ADS 6828 = A 551

t	$\Theta$	$\rho$	n	Obs.		(O-C) $\Theta$	(O-C) $\rho$
1903.04	60° 1	0" 24	3	A		+3° 1	+0" 01
1906.31	56.9	0.24	1	Bry		-2.9	-0.06
1908.19	63.0	0.34	3	A		+2.1	+0.01
1908.27	54.5	0.24	1	Bry		-6.5	-0.10
1915.23	65.4	0.31	1	Bry		+1.3	-0.07
1915.33	53.2	0.34	1	Bry		-10.9	-0.04
1917.05	68.2	0.37	3	A		+4.4	-0.01
1924.27	68.3	0.30	1	A		0.0	-0.01
1932.33	109.2	0.14	3	B		+29.3	+0.01
1933.28	121.9	0.12	4	B		+37.5	+0.02
1941.25	234.3	0.14	1	B		-1.3	0.00
1942.94	246.4	0.29	4	V		+6.6	+0.12
1944.06	240.4	0.19	1	B		-1.6	+0.01
1944.89	243.4	0.23	4	V		-0.2	+0.06
1947.22	241.7	0.18	1	B		-7.5	+0.05
1952.30	41.4	0.11	3	FIN	interf.	+4.7	+0.05
1953.29	53.7	0.14	3	FIN	interf.	+7.2	+0.04
1953.58	51.2	0.14	4	VBs		+3.1	+0.03
1958.138	61.5	0.27	4	B		+3.6	+0.03
1979.1896	68.0	0.327	1	McAli.	interf.	-0.7	-0.01
1980.157	69.2	0.266	2	McAli.	interf.	-0.2	-0.01
1980.891	70.0	0.252	2	McAli.1, Tok.1	interf.	0.0	-0.01
1982.858	68.6	0.193	1	McAli.	interf.	-3.4	-0.03
1984.0553	73.8	0.184	1	McAli.	interf.	+0.2	-0.01
1986.8895	79.1	0.112	1	McAli.	interf.	-1.8	-0.01
1987.2745	80.5	0.104	1	McAli.	interf.	-2.1	0.00
Epoch 2000							

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ПОБОЉШАЊЕ ПУТАЊСКИХ ЕЛЕМЕНАТА ДВОЈНИХ ЗВЕЗДА  
 RST 3442 И ADS 6828 = A 551

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Користећи нова микрометарска и интерферометриска мерења за системе: RST 3442 и ADS 6828 = A 551, одређени су нови путањски еле-

менти истих. Такође у раду је одређена паралакса и маса за наведене системе као и друге астрофизичке величине.