

NEW ORBITS OF BINARY STARS ADS 1473 AND ADS 1992

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**SUMMARY:** This paper presents the orbital elements of two binary stars ADS 1473 and ADS 1992. For each pair are given the dynamical parallax, the mass, the absolute magnitudes, the measures, the (O–C) and the ephemerides.

The orbital elements of binary stars ADS 1473 and ADS 1992 have been computed by using the Thiele-Innes methods. The dynamical parallaxes were computed by use of the Baize and Romani method (1946) with magnitudes and spectral types taken from the Lick Index Catalogue of Visual Double

Stars, 1961.0 (1963). The orbital elements with the dynamical parallaxes, the total masses, the absolute magnitudes and the major axes are given in Table I, the ephemerides in Table II, the measures and the comparison with the measures in Table III.

Table I Orbital elements

ADS 1473		ADS 1992	
P = 150.50	A = +0" 3704	P = 210.21	A = -0" 1177
n = 2° 39' 21"	B = +0" 0587	n = 1° 7' 13"	B = +0" 1483
T = 1851.50	F = -0" 0167	T = 1787.48	F = +0" 0933
e = 0.45	G = +0" 1054	e = 0.31	G = +0" 0740
a = 0" 375	C = 0" 000	a = 0" 189	C = 0" 0000
i = 73° 5'	H = +0" 3596	i = 129° 0'	H = +0" 1469
Ω = 9° 0'	m <sub>AB</sub> = 2.3 ☉	Ω = 128° 5'	m <sub>AB</sub> = 4.3 ☉
ω = 0° 0'	M <sub>A</sub> = 2.0 abs.mag.	ω = 0° 0'	M <sub>A</sub> = 1.9 abs.mag.
π <sub>dyn</sub> = 0" 010	M <sub>B</sub> = 2.2 abs.mag.	π <sub>dyn</sub> = 0" 033	M <sub>B</sub> = 1.9 abs.mag.
a = 37.5 AU	T <sub>Ω</sub> = 2002.0	a = 57.27 AU	T <sub>Ω</sub> = 1997.69

Table II

## Ephemerides

t	ADS 1473		ADS 1992	
	P	$\rho$	P	$\rho$
1992.0	340° 7	0" 13	140° 7	0" 13
1993.0	345° 3	0" 14	138° 5	0" 13
1994.0	349° 2	0" 15	136° 3	0" 13
1995.0	352° 5	0" 16	134° 2	0" 13
1996.0	355° 5	0" 17	132° 0	0" 13
1997.0	358° 1	0" 18	129° 9	0" 13
1998.0	0° 6	0" 19	127° 8	0" 13
1999.0	2° 8	0" 20	125° 6	0" 13
2000.0	5° 0	0" 20	123° 5	0" 13
2001.0	7° 8	0" 21	121° 4	0" 13

Table III

## Observations and residuals

ADS 1473							
t	P	mag.	$\rho$	n	Obs	(O-C)P	(O-C) $\rho$
1890.50	174° 2	7.0-7.2	0" 36	2	Ho	-0° 5	+0" 01
1890.92	177° 5		0" 37	3	$\beta$	+2° 5	+0" 02
1900.90	180° 8		0" 39	12	GrO	+0° 4	-0" 05
1904.29	179° 7		0" 42	4	Doo	-2° 1	-0" 05
1905.55	182° 9		0" 49	3	A 1, Bow 1, Lau 1	+0° 6	+0" 01
1908.28	181° 2		0" 46	5	Lau 3, Doo 2	-2° 1	-0" 03
1914.91	188° 8		0" 37	2	J	+3° 3	-0" 15
1923.70	188° 8		0" 46	11	Plg et all	+0° 7	-0" 08
1943.05	193° 0		0" 51	4	VBs	-1° 0	+0" 01
1959.86	197° 0		0" 39	3	Cou	-4° 2	+0" 01
1962.89	202° 9		0" 36	4	Wor	-0° 3	+0" 01
1962.98	199° 7		0" 39	4	Hei	-3° 6	+0" 04
1969.06	206° 8		0" 33	4	Hei	-1° 9	+0" 06
1974.375	213° 2		0" 21	4	Wor	-3° 6	+0" 01
1978.618	221° 9		0" 128	1	McAl	-7° 0	-0" 02
1979.773	227° 5		0" 104	1	McAl	-6° 5	-0" 03
1980.729	240° 6		0" 073	1	McAl	+1° 4	-0" 05
1984.849	269° 3		0" 053	1	Bal	-5° 9	-0" 03
1985.745	299° 2		0" 093	1	Tok	+13° 4	+0" 01
1985.854	291° 0		0" 065	1	McAl	+3° 9	-0" 02
1986.698	298° 4		0" 071	1	Bal	+1° 3	-0" 01
1987.763	312° 0		0" 097	1	McAl	+3° 0	+0" 01
1989.91	322° 4		0" 16	1	Beau	-5° 6	+0" 05
ADS 1992							
t	P	mag.	$\rho$	n	Obs	(O-C)P	(O-C) $\rho$
1910.65	300° 9	9.3-9.3	0" 25	3	A	+3° 7	+0" 01
1919.20	287° 8		0" 23	2	A	-3° 4	+0" 01
1922.71	282° 8		0" 20	2	A	-5° 7	-0" 02
1924.74	289° 6		0" 19	3	Plg	+2° 7	-0" 02
1954.13	256° 0		0" 14	2	VBs	+7° 8	+0" 01
1966.05	-		0" 15	1	Wor	-	+0" 03
1966.877	205° 8		0" 11	1	Wor	-7° 5	0" 00
1983.713	161° 0		0" 117	1	McAl	+0° 4	0" 00
1984.705	158° 7		0" 122	1	McAl	+0° 7	0" 00
1985.854	155° 6		0" 122	1	McAl	-0° 1	0" 00
1987.763	149° 1		0" 129	1	McAl	-1° 3	0" 01

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НОВИ ПУТАЊСКИ ЕЛЕМЕНТИ ДВЕ ДВОЈНЕ ЗВЕЗДЕ

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У раду су анализом посматрачког материјала двају система одређени њихови путањски елементи и друге астрофизичке величине.