COMMISSIONS 27 AND 42 OF THE IAU
INFORMATION BULLETIN ON VARIABLE STARS
Number 4380

Konkoly Observatory
Budapest
7 October 1996

HU ISSN 0374 – 0676

PHOTOELECTRIC MINIMA OF SOME ECLIPSING BINARIES

We present 127 minima observations of 25 eclipsing binaries, not yet published anywhere. These stars were observed during several seasons and most of minima observations are part of complete light curve coverages. All observations were obtained with the 30 cm Maksutov telescope at the Ankara University Observatory. Differential observations were secured by using an EMI 9789QB photomultiplier before 29 September 1991 (HJD 2448528.5) and an OPTEC SSP-5A photometer head which contains a side on R-1414 Hamamatsu photomultiplier after that date. The filters used are in close accordance with the standard Johnson's UBV and reductions of the observations have been performed in the usual way (Hardie, 1962).

The moments of minima and their standard errors for each filter were calculated using the method of Kwee & van Woerden (1956). The algorithm of this method was applied to the computer by Müyesseroğlu and Gürol. Weighted average values of times of minima of these system are given in Table 1, together with their minimum types, filters and observers. Weighted averages and their mean errors for the minima times in different filters were calculated with the formula given in Gürol & Selam (1994).

We give our special thanks to the observers for their helps during the observations.

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Table 1: Times of minima of observed systems

System	Min HJD 2400000+	mean error	Min type	Filter	Observers
RT And	49972.3730	0.0002	II	UBV	Sl
	49973.3144	0.0001	I	UBV	Gr
	50000.3592	0.0001	I	UBV	Sl
	50001.3001	0.0003	II	BV	Gr
XZ And	50008.4732	0.0001	I	UBV	Gr
SS Ari	48928.4421	0.0003	I	UBV	My
	49341.3288	0.0006	I	UBV	Al
	49342.3464	0.0008	II	UBV	Sl
	49625.3171	0.0015	II	BV	My
	49625.5210	0.0001	I	BV	My
CK Boo	49500.3766	0.0010	I	UBV	Hk
	49502.3353	0.0008	II	UBV	Öd
	50248.3374	0.0010	I	UBV	My
	50260.4143	0.0015	I	UBV	Gr
KR Cyg	50266.4764	0.0013	I	BV	My
V1073 Cyg	47761.4060	0.0010	II	UBV	Sl
	47763.3764	0.0008	I	UBV	Sl
	47767.3453	0.0009	II	UBV	Ör
	48106.3953	0.0015	II	UBV	Kh
	48132.3293	0.0027	II	UBV	Sl
	48145.2951	0.0010	I	UBV	Öd
	48482.4272	0.0028	I	BV	Öd
	48484.3966	0.0036	II	BV	Sl
	48488.3169	0.0014	II	BV	Al
	48489.4935	0.0018	I	BV	Dn
	48864.3487	0.0008	I	UBV	Dr
	48865.5247	0.0013	II	UBV	Öd
	49236.4492	0.0014	II	UBV	Al
RX Her	49588.4010	0.0001	I	UBV	Gr
	49532.3732	0.0001	II	UBV	Gr
TX Her	49930.4693	0.0005	I	BV	Sl
HS Her	49509.4548	0.0018	I	UBV	Öd
	49523.3757	0.0028	II	UBV	My
	49545.4726	0.0010	I	UBV	Sl
	49559.3891	0.0024	II	UBV	Sl
	49961.3763	0.0011	I	BV	Sl
FG Hya	47530.5958	0.0007	I	BV	Sl
	47532.5624	0.0010	I	UBV	Ör
	47952.3476	0.0010	II	BV	Ör
	47953.3374	0.0009	II	UBV	Gr
	47968.2512	0.0005	I	UBV	Ör
	48308.3705	0.0011	II	BV	My
	49007.4727	0.0008	I	UBV	Al
	49046.3152	0.0002	II	UBV	My

Table 1: Continued

System	Min HJD 2400000+	mean error	Min type	Filter	Observers
FG Hya	49387.4305	0.0011	I	BV	My
	49401.3518	0.0012	II	BV	My
	49772.2926	0.0010	I	BV	My
	49772.4570	0.0023	II	BV	My
	49779.3410	0.0010	II	BV	My
SW Lac	47766.5308	0.0008	II	BV	My
	47769.4210	0.0004	II	BV	Ör
	47771.3440	0.0005	II	BV	Gr
	47771.5097	0.0004	I	BV	Gr
	47775.3574	0.0005	I	BV	Kh
	48158.2975	0.0006	I	BV	My
	48158.4553	0.0003	II	BV	My
	48159.4169	0.0005	II	BV	My
	48504.3532	0.0005	I	BV	Gr
	48504.5116	0.0003	II	BV	Gr
	48505.3102	0.0005	I	BV	My
	48505.4746	0.0004	II	V	My
	48537.3889	0.0002	I	BV	Öd
	48887.2921	0.0003	I	UBV	Öd
	48887.4511	0.0003	II	UBV	Öd
	49242.3249	0.0003	I	UBV	Ör
	49242.4838	0.0003	II	UBV	Ör
	49975.3209	0.0005	II	UBV	My
	49975.4803	0.0003	I	UBV	My
	50010.2777	0.0001	II	BV	My
UV Leo	47538.6165	0.0006	I	BV	My
	47557.5204	0.0002	II	UBV	My
	47559.6206	0.0004	I	UBV	My
	48277.6275	0.0002	II	BV	Ör
	48308.5314	0.0001	I	BV	Öd
	48339.4340	0.0002	II	BV	Ör
	49099.4448	0.0001	I	BV	Öd
	49103.3475	0.0001	II	UBV	Gr
XY Leo	47969.3225	0.0007	II	BV	Ör
	47969.4655	0.0003	I	BV	Ör
	47970.3185	0.0006	I	BV	My
	47970.4587	0.0004	II	BV	My
	49063.4202	0.0008	II	UBV	Al
	49069.3865	0.0006	II	UBV	Sl
	49101.3497	0.0006	I	UBV	Ak
	49360.6000	0.0004	II	BV	Dn
	49432.3373	0.0004	I	UBV	Al
	49446.4022	0.0004	II	BV	My

Table 1: Continued

System	Min HJD 2400000+	mean error	Min type	Filter	Observers
V451 Oph	49560.3397	0.0004	II	UBV	Gr
	50269.3834	0.0002	I	BV	My
	50274.4634	0.0001	I	UBV	Gr
	49539.3775	0.0001	II	BV	Gr
	49546.4921	0.0002	II	BV	Gr
	49567.3290	0.0001	I	UBV	Gr
BB Peg	49243.4462	0.0011	II:	UBV	Öd
	49244.3490	0.0013	I	UBV	My
	49273.2689	0.0008	I	UBV	Gr
	49275.2600	0.0010	II	UBV	Sl
DI Peg	48935.3002	0.0008	II	BV	Öd
	48939.2161	0.0003	I	UBV	Sl
	49246.3631	0.0006	II	BV	Hk
	49248.4963	0.0005	II	BV	Ak
	49276.2546	0.0007	II	V	Dn
	49277.3259	0.0001	I	UBV	Ak
	49553.5085	0.0001	I	UBV	Gr
	50050.3564	0.0001	I	UBV	Gr
RT Per	49634.4624	0.0003	I	BV	Dr
	49739.3638	0.0006	II	BV	Yc
IQ Per	48546.4067	0.0011	I	UBV	Öd
	48926.5043	0.0006	I	UBV	Ak
	49023.2577	0.0010	II	UBV	Sl
AQ Psc	49283.3250	0.0010	I	UBV	Dn
	49326.3696	0.0011	II	UBV	Öd
	49327.3203	0.0015	II	UBV	Öd
V505 Sgr	48858.3253	0.0004	I	UBV	Öd
W UMa	49797.3908	0.0003	I	UBV	Sl
TX UMa	49804.4760	0.0008	I	BV	Sl
AW UMa	48644.5117	0.0006	I	UBV	Dr
	48649.5555	0.0008	II	UBV	Dr
	49029.4962	0.0014	II	UBV	Al
	49074.4635	0.0011	I	UBV	Dn
	49105.3933	0.0008	II	UBV	Al
	49411.4063	0.0008	I	BV	Ak
	49412.2867	0.0007	I	BV	Al
	49412.5015	0.0011	II	BV	Sl
AW UMa	49432.4636	0.0009	I	UBV	Al
HW Vir	50155.3946	0.0001	I	BV	Gr
	50155.5119	0.0001	I	BV	Gr

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