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**TIMES OF MINIMA OF ECLIPSING BINARIES
FROM ROTSE1 CCD DATA I: NAMED VARIABLES**

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The ROTSE-1 survey (Robotic Optical Transient Search Experiment 1), designed for the detection of astrophysical transients, especially those associated with gamma-ray bursts, has yielded a large amount of CCD data on variable stars, as reported in Akerlof et al. (2000). With permission of the ROTSE-1 team, we have used these measurements publicly available through the internet (<http://www.umich.edu/~rotse>) to determine the times of minimum of eclipsing binaries.

In Table 1, the derived times are presented for the named variables according to the General Catalogue of Variable Stars. In each case, the data have been folded into a seasonal light curve using the best available elements of variation. In most cases, we used either the data from the latest edition of the General Catalogue of Variable Stars or the more actual ephemerides in SAC 72 (Rocznik Astronomiczny Obserwatorium Krakowskiego, 2001) or from other sources in the literature. Where no previous elements of variation were known, we employed the period values given in the ROTSE1 data base. It should be noted, that the GCVS periods for DP Herculis and ES Herculis are to be preferred over the ROTSE1 values. The time of minimum was then found with the help of the Kwee-Van Woerden algorithm (Kwee and Van Woerden, 1956).

We would like to express our gratitude towards the ROTSE team for making their data available to the general public. In addition, the cross-reference table provided by B. Skiff through M. Baldwin of the AAVSO is thankfully acknowledged. It proved to be very helpful for the identification of the ROTSE sources.

References:

- Akerlof, C., Amrose, S., Balsano, R., Bloch, J., Casperson, D., Fletcher, S., Gisler, G., Hills, J., Kehoe, R., Lee, B., Marshall, S., McKay, T., Pawl, A., Schaefer, J., Szymanski, J., Wren, J., 2000, *AJ*, **119**, 1901
Kwee, K.K., Van Woerden, H., 1956, *Bull. Astron. Inst. Neth.*, **12**, 327

ERRATUM FOR IBVS 4982

In IBVS No. 4982 the period of GSC 2646.1938 should read 0^d.2890550 instead of 0^d.2860550.

Table 1: Times of minima of eclipsing binaries

Star	Type	JD(hel, min)	Est. error	Star	Type	JD(hel, min)	Est. error
TU Boo	p	2451246.8098	0 ^d 0021	OS Her	p	2451304.7322	0 ^d 0029
	s	2451338.7443	0.0028	V342 Her	p	2451275.8470	0.0011
TY Boo	p	2451339.7500	0.0004		s	2451295.866	0.003
AR Boo	p	2451305.7312	0.0021	V366 Her	p	2451306.706	0.024
	s	2451320.7360	0.0008		s	2451310.8874	0.0015
CV Boo	p	2451258.8651	0.0008	V381 Her	s	2451258.876	0.005
	s	2451339.7597	0.0006		p	2451310.762	0.004
EW Boo	p	2451225.9064	0.0014	V387 Her	p	2451307.7584	0.0007
RV CVn	p	2451247.8110	0.0005		s	2451312.769	0.004
	s	2451334.7461	0.0004	V412 Her	s	2451283.788	0.005
YZ CVn	s	2451247.8728	0.0016		p	2451295.724	0.005
	p	2451310.7319	0.0013	V450 Her	s	2451295.7100	0.0025
BI CVn	p	2451258.6944	0.0008		p	2451305.717	0.004
	s	2451277.7129	0.0008	V477 Her	p	2451287.713	0.002
RW Com	s	2451258.7015	0.0004		s	2451287.8769	0.0011
	p	2451288.7288	0.0003	V502 Her	p	2451280.8461	0.0015
RZ Com	s	2451281.9016	0.0003		s	2451306.8870	0.0012
	p	2451312.8758	0.0004	V663 Her	s	2451260.891	0.003
EK Com	p	2451288.8642	0.0002		p	2451288.8684	0.0016
	s	2451340.7354	0.0004	V681 Her	p	2451274.9033	0.0011
TW CrB	s	2451283.7764	0.0008	V687 Her	p	2451258.8624	0.0014
	p	2451311.7468	0.0009		s	2451283.7749	0.0013
V753 Cyg	p	2451274.8715	0.0016	V719 Her	p	2451283.7341	0.0019
	s	2451304.8680	0.0008	V728 Her	p	2451285.6920	0.0004
V850 Cyg	s	2451243.886	0.013		s	2451305.7220	0.0008
	p	2451259.839	0.016	V731 Her	s	2451243.9885	0.0015
V997 Cyg	p	2451291.8078	0.0022		p	2451310.7184	0.0009
	s	2451304.8548	0.0027	V836 Her	s	2451259.91	0.03
V1763 Cyg	s	2451283.7514	0.0010		s	2451306.80	0.06
	p	2451312.7292	0.0015	V848 Her	s	2451262.917	0.003
V1918 Cyg	s	2451275.8345	0.0016		p	2451308.8586	0.0021
	p	2451288.8466	0.0007	V857 Her	s	2451306.7712	0.0005
AK Dra	p	2451275.8273	0.0012		s	2451308.8759	0.0010
DP Her	s	2451288.740	0.010	TZ Lyr	p	2451258.8404	0.0004
	p	2451312.748	0.003		s	2451306.7043	0.0013
TU Boo	p	2451246.8098	0.0021	EX Lyr	s	2451296.7667	0.0011
	s	2451338.7443	0.0028	V400 Lyr	s	2451274.8713	0.0012
ES Her	p	2451291.8187	0.0020		p	2451321.8742	0.0010
	s	2451304.7379	0.0017	V404 Lyr	s	2451308.698	0.004
GU Her	p	2451265.7877	0.0022		p	2451312.7094	0.0012
	s	2451280.951	0.003	V406 Lyr	s	2451265.9702	0.0015
HP Her	s	2451288.7143	0.0015		p	2451306.8668	0.0015
	p	2451295.7147	0.0015	V461 Lyr	p	2451311.789	0.013
IT Her	p	2451274.8872	0.0013	V449 Oph	p	2451306.9022	0.0003
	s	2451296.7743	0.0027		s	2451324.895	0.004
LT Her	s	2451287.7312	0.0009	V1125 Oph	p	2451259.8922	0.0020
	p	2451308.8692	0.0007		s	2451307.753	0.004
MS Her	s	2451274.8894	0.0012				
	p	2451297.8952	0.00111				