

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

Number 5777

Konkoly Observatory
Budapest
11 June 2007

HU ISSN 0374 – 0676

NEW MINIMA TIMES OF SELECTED ECLIPSING BINARIES

PARIMUCHA, Š.¹; VAŇKO, M.^{2,3}; PRIBULLA, T.²; HAMBÁLEK, L.²; DUBOVSKY, P.⁴;
BALUŽANSKÝ, D.⁵; PETRÍK, K.^{6,7}; CHRASTINA, M.^{7,8}; URBANČOK, L.^{7,9}

¹ Institute of Physics, Faculty of Natural Sciences, University of P.J. Šafárik, 040 01 Košice, The Slovak Republic; e-mail: stefan.parimucha@upjs.sk

² Astronomical Institute of the Slovak Academy of Sciences, 059 60 Tatranská Lomnica, The Slovak Republic; e-mail: (vanko,pribulla,lhambalek)@ta3.sk

³ Astrophysikalisches Institut, Universität Jena, Schillergässchen 2-307745 Jena, Germany

⁴ Kolonica Observatory, The Slovak Republic; e-mail: var@kozmos.sk

⁵ Roztoky Observatory, 090 01 Vyšný Orлік, The Slovak Republic; e-mail: bdaniel@pobox.sk

⁶ Department of Physics, Faculty of Education, Trnava University, Priemyselná 4, 918 43 Trnava, The Slovak Republic; e-mail: kpetrik@astronyx.sk

⁷ Hlohovec Observatory and Planetarium, Sládkovičova 41, 920 01 Hlohovec, The Slovak Republic, e-mail: chrastina@kozmos.sk

⁸ Institute of Theoretical Physics and Astrophysics, Faculty of Science Masaryk University, Brno, The Czech Republic

⁹ Slovak Union of Amateur Astronomers, Organisation Rimavská Sobota, Tomašovská 63, 979 01, The Slovak Republic; e-mail: astrosid@szm.sk

Observatory and telescope:

50-cm Newtonian (G1) and 60-cm Cassegrain (G2) telescopes at Stará Lesná, 256/1360 Newton telescope (K1) and 5.6/400 Zeiss Objective (K2) at Kolonica Observatory, 40-cm Cassegrain telescope at Roztoky Observatory (RO), 600/2400 Cassegrain telescope (H1) and 5,6/1000 Zeiss Spiegelobjektiv (H2) at Hlohovec Observatory, 15-cm refractor at David Dunlap Observatory, University of Toronto (DDO)

Detector:

SBIG ST-10XME CCD camera (G1), photoelectric photometer (G2), Meade DSI Pro CCD camera (K1, K2), SBIG ST-8 CCD camera (RO), SBIG ST-9XE camera (H1,H2), SBIG ST-6 and SBIG ST-402 camera (DDO)
--

Method of data reduction:

G1 and DDO data were analysed by scripts written under the MIDAS reduction package (http://www.eso.org/projects/esomidas/) by one of the authors (TP) while at K1, K2, RO and HL the C-Munipack package (http://integral.physics.muni.cz/cmunipack/) has been used. Part of the photoelectric photometry was performed with neutral filter (<i>N</i>). Photometric observations at DDO were performed simultaneously with medium-dispersion spectroscopy using the main telescope.

Method of minimum determination:

The minima times were computed by Kwee & van Woerden method

Times of minima:					
Star name	Time of min. HJD 2400000+	Error	Type	Filter	Rem.
AB And	53935.4904	0.0001	I		K2
EP And	53944.5054	0.0001	II		K1
	53945.5155	0.0001	I		K1
	53005.3233	0.0001	I	<i>V</i>	K1
GZ And	53943.4620	0.0001	I	<i>V</i>	K1
	53947.4616	0.0001	I	<i>V</i>	K1
	54027.3420	0.0002	I	<i>V</i>	K1
LO And	53919.4921	0.0001	II	<i>V</i>	K1
	53935.4702	0.0001	II	<i>V</i>	K1
	53966.4748	0.0004	I	<i>V</i>	K1
QR And	53991.5901	0.0002	I	<i>BVR_C</i>	H1
	54003.4696	0.0001	I	<i>BVR_C</i>	H1
	54009.4160	0.0002	I	<i>BVR_C</i>	H1
	54025.2708	0.0001	II	<i>BV(RI)_C</i>	H1
	54026.5804	0.0001	I	<i>BV(RI)_C</i>	H1
AH Aur	53768.2584	0.0001	II	<i>V(RI)_C</i>	G1
TY Boo	53932.4444	0.0001	I	<i>V</i>	K1
TZ Boo	53934.4327	0.0003	II		K1
	53947.3621	0.0001	I		K1
	54178.8486	0.0001	I		DDO
AO Cam	53746.6428	0.0006	I	<i>R</i>	RO
	54020.4641	0.0001	II	<i>V</i>	K1
	54027.5584	0.0004	I	<i>V</i>	K1
BS Cas	53988.3972	0.0001	II	<i>V(RI)_C</i>	G1
	53990.5998	0.0001	II	<i>V(RI)_C</i>	G1
CW Cas	53854.5284	0.0002	I		K1
	53921.4902	0.0002	I	<i>V</i>	K1
	53926.4327	0.0002	II	<i>V</i>	K1
	53930.4183	0.0001	I	<i>V</i>	K1
	53942.4711	0.0001	I	<i>V</i>	K1
	53944.4477	0.0001	I	<i>V</i>	K1
V523 Cas	53930.4592	0.0001	II	<i>V</i>	K1
	53943.4294	0.0001	I		K1
	53943.5460	0.0001	II		K1
	53947.5188	0.0001	II		K1
V776 Cas	53966.5385	0.0007	I		K2
EG Cep	53761.3173	0.0008	I	<i>R</i>	RO
GW Cep	53747.2237	0.0003	I	<i>RI</i>	RO
	53763.4836	0.0001	II	<i>RI</i>	RO
	53763.6436	0.0002	I	<i>RI</i>	RO
	53764.2813	0.0002	II	<i>RI</i>	RO
	53764.4405	0.0002	I	<i>RI</i>	RO
	53765.3975	0.0003	I	<i>I</i>	RO
	53765.5577	0.0008	II	<i>I</i>	RO

Times of minima:						
Star name	Time of min. HJD 2400000+	Error	Type	Filter	Rem.	
GW Cep	53866.4409	0.0007	I	<i>I</i>	RO	
	53895.4816	0.0001	I		K1	
	53929.4367	0.0001	II	<i>V</i>	K1	
WZ Cep	53791.3402	0.0002	I	<i>RI</i>	RO	
	53795.3050	0.0003	I	<i>RI</i>	RO	
	53922.4157	0.0001	II	<i>V</i>	K1	
	53965.4127	0.0001	II		K1	
CC Com	53823.7849	0.0003	II		DDO	
	53824.7758	0.0002	I		DDO	
RZ Com	53845.4203	0.0001	II		K1	
RW Com	53760.5710	0.0001	II	<i>BV(RI)_C</i>	G1	
	53760.6892	0.0001	I	<i>BV(RI)_C</i>	G1	
	53818.4821	0.0002	I	<i>RI</i>	RO	
	53818.5996	0.0003	II	<i>R</i>	RO	
	53830.3059	0.0004	I	<i>RI</i>	RO	
	53847.4787	0.0005	I	<i>RI</i>	RO	
	54167.3830	0.0003	I	<i>RI</i>	RO	
	54174.3836	0.0005	I	<i>RI</i>	RO	
	54182.3341	0.0002	I	<i>VRI</i>	RO	
	GO Cyg	53650.3114	0.0001	I	<i>BV(RI)_C</i>	G1
	V401 Cyg	53550.4480	0.0001	I	<i>V(RI)_C</i>	G1
		53584.5375	0.0001	II	<i>V(RI)_C</i>	G1
		53617.4605	0.0001	I	<i>V(RI)_C</i>	G1
53620.3740		0.0001	I	<i>V(RI)_C</i>	G1	
53651.2584		0.0001	I	<i>V(RI)_C</i>	G1	
53653.2997		0.0001	II	<i>V(RI)_C</i>	G1	
53900.3758		0.0001	II	<i>V(RI)_C</i>	G1	
53920.4796		0.0001	I	<i>V</i>	K1	
53927.4714		0.0001	I	<i>V</i>	K1	
53941.4586		0.0002	I	<i>V</i>	K1	
V1191 Cyg	53915.5113	0.0005	I	<i>V</i>	K1	
	53921.4649	0.0002	I	<i>V</i>	K1	
	53934.4683	0.0004	II		K2	
V1918 Cyg	53924.4905	0.0003	I	<i>V</i>	K1	
BE Dra	53834.5354	0.0002	I		K1	
EF Dra	53848.5136	0.0003	II		K2	
	53911.4791	0.0006	I		K1	
FU Dra	53939.4375	0.0002	II		K2	
AK Her	53867.4823	0.0002	II		K1	
	53944.4123	0.0001	II	<i>V(RI)_C</i>	G1	
V829 Her	53945.4914	0.0002	II	<i>V</i>	K1	
	53947.4613	0.0007	I	<i>V</i>	K1	
	53963.3987	0.0004	II	<i>V</i>	K1	
	53937.4694	0.0004	I		K1	
V857 Her	53965.3739	0.0007	I	<i>V</i>	K1	
	53944.3915	0.0001	I		K1	
PP Lac	53964.4499	0.0001	I	<i>V</i>	K1	

Times of minima:					
Star name	Time of min. HJD 2400000+	Error	Type	Filter	Rem.
PP Lac	54001.3565	0.0001	I		K1
V344 Lac	53928.5027	0.0001	II		K1
	53939.4857	0.0001	II		K1
	54004.4019	0.0001	I		K1
	54018.5225	0.0002	I	V	K1
	54068.3360	0.0003	I		K1
CE Leo	54085.6639	0.0001	I		K1
XY Leo	53842.5981	0.0003	I		DDO
UV Lyn	54067.6037	0.0002	I	V	K2
	54068.6367	0.0005	I	V	K2
V361 Lyr	53814.5114	0.0001	I	$V(RI)_C$	G1
	53990.3713	0.0001	I	$BV(RI)_C$	G1
	54003.3748	0.0001	I	$BV(RI)_C$	G1
	54004.3037	0.0001	I	$BV(RI)_C$	G1
BB Peg	54039.3068	0.0001	I	$V(RI)_C$	G1
DI Peg	53967.4772	0.0001	I		K2
V351 Peg	53945.4657	0.0001	II		K2
V357 Peg	54005.4320	0.0001	I		K2
V432 Per	54003.3866	0.0001	I	V	K1
	54017.5696	0.0001	I	V	K1
DV Psc	53618.5659	0.0001	I	$BV(RI)_C$	G1
	53637.3862	0.0001	I	$BV(RI)_C$	G1
	53640.4720	0.0001	I	$BV(RI)_C$	G1
	53648.3397	0.0002	II	$BV(RI)_C$	G1
	53648.4938	0.0001	I	$BV(RI)_C$	G1
	53671.3290	0.0001	I	$BV(RI)_C$	G1
	53963.5049	0.0001	I		K1
	53965.5111	0.0004	II		K1
	53972.4523	0.0001	I		K1
	53974.4580	0.0001	II		K1
	53995.4397	0.0001	II		K1
	54026.2961	0.0001	II	$BV(RI)_C$	G1
	54026.4530	0.0001	I	$BV(RI)_C$	G1
	54027.3771	0.0001	I	$BV(RI)_C$	G1
	54035.3992	0.0001	I	$BV(RI)_C$	G1
CW Sge	53935.5438	0.0005	II		K1
	53936.5269	0.0002	I		K1
	53942.4714	0.0003	I		K1
	53967.5616	0.0003	I	V	K1
	54019.4057	0.0003	I	V	K1
V Sge	53515.4940	0.0002	I	V	H2
	53579.5023	0.0001	I	VR_C	H2
	53580.5293	0.0002	I	$BV(RI)_C$	H2
	53581.5574	0.0003	I	$B(RI)_C$	H2
	53596.4716	0.0004	I	$V(RI)_C$	H2
	53615.5040	0.0001	I	$BV(RI)_C$	H2
	53619.3585	0.0003	II	$(RI)_C$	H2

Times of minima:					
Star name	Time of min. HJD 2400000+	Error	Type	Filter	Rem.
V Sge	53900.3619	0.0001	I	<i>V</i>	K1
	53902.4117	0.0001	I	<i>V</i>	K1
	53940.4648	0.0003	I	<i>V</i>	K1
	53967.4877	0.0006	II	<i>BVR_C</i>	H1
	53972.3476	0.0005	I	<i>V</i>	K1
	53975.4324	0.0002	I		K1
	53991.3636	0.0002	I	<i>BVR_C</i>	H1
	53992.4066	0.0001	I	<i>BVR_C</i>	H1
	53993.4375	0.0001	I	<i>VR_C</i>	H1
	53993.4427	0.0006	I	<i>V</i>	K1
	53999.3319	0.0003	II	<i>BVR_C</i>	H1
	54000.3932	0.0003	II	<i>BVR_C</i>	H1
	54007.3107	0.0001	I	<i>V</i>	K1
	54018.3713	0.0005	II	<i>V</i>	H1
	54023.2561	0.0001	I	<i>BVI_C</i>	H1
	54024.2779	0.0001	I	<i>BV(RI)_C</i>	H1
	54026.3407	0.0003	I	<i>V</i>	K1
	EQ Tau	54022.5508	0.0001	I	<i>V</i>
V781 Tau	53767.2730	0.0003	I	<i>RI</i>	RO
XY UMa	53833.3711	0.0001	II	<i>BV(RI)_C</i>	G1
	53834.3295	0.0001	II	<i>BV(RI)_C</i>	G1
TV UMi	53848.3990	0.0008	I		K1
	53860.4463	0.0001	I		K1
	53865.4388	0.0002	I		K1
	53866.4750	0.0006	II		K1
AG Vir	53450.4496	0.0002	II	<i>N</i>	G2
	53451.4089	0.0002	I	<i>N</i>	G2
	53285.3871	0.0001	II	<i>V</i>	G1
PY Vir	54201.7944	0.0001	I		DDO
ER Vul	53936.4766	0.0004	II		K2
BD+7 3142	54188.8663	0.0001	I		DDO

Explanation of the remarks in the table:

Remark gives observatory

Remarks:

Times of minima are weighted averages from all filters used

Acknowledgements:

Part of data published in this paper was obtained at the David Dunlap Observatory, University of Toronto. This work was also supported by the following grants: VEGA grants of the Slovak Academy of Sciences No. 7010 and 7011, grant of Šafárik University VVGS 10/2006, APVV grant LPP-0049-06, Bilateral APVV grant SK-UK-01006, INTERREG IIIA SR-ČR 143-13-36 grant, KEGA grant 3/4128/06 and grant of GA ČR 205/06/0217. M. Vanko's research is supported by a Maria Curie "Transfer of Knowledge" Fellowship within the 6th European Community Framework Programme. Support (of the stay of TP at the DDO) from the grant of the Natural Sciences and Engineering Council of Canada to S.M. Rucinski is acknowledged with gratitude.

ERRATUM FOR IBVS 5777

The following corrections for the paper "New Minima Times of Selected Eclipsing Binaries" by Parimucha et al. were communicated by the authors after the publication:

Star	Original		Corrected	
EP And	53005.3233	I	54005.3233	I
UV Lyn	54068.6367	I	54068.6367	II
GZ And	53947.4616		should be deleted	
CW Cas	53942.4711		should be deleted	
GW Cep	53866.4409		should be deleted	
RW Com	53830.3059		should be deleted	
RW Com	53847.4787		should be deleted	
AG Vir	53285.3871		should be deleted	