

B.R.N.O. Contributions #37

Times of minima

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Abstract

Paper presents observations of eclipsing binaries acquired by the Variable Star and Exoplanet Section of Czech Astronomical Society members (B.R.N.O. observing project) and cooperating observers. Paper contains 1270 minima timings for 478 eclipsing binaries, obtained by 45 observers during 2009 – 2011 period. Some neglected southern eclipsing binaries are included in the list. New accurate orbital elements have been found for 28 binary systems. Times of minima of an extraordinary quadruple system V994 Her are presented as well.

We introduce **1270 minima timings** (13 visual and 1257 CCD-based) of **478 eclipsing binaries** acquired by **45 observers**, members and collaborators of the Variable Star and Exoplanet Section of Czech Astronomical Society (“Brno Regional Network of Observers” group; hereafter B.R.N.O.), during 2009 – 2011 period.

This paper contains only new, previously unpublished observations.

Visual observation have been performed using Nijland - Blazhko method and the minima timings have been determined by tracing paper method.

CCD frames were mostly reduced by C-MuniPack code (Motl, 2007), the well-known adaptation of MuniPack code (Hroch, 1998), based on DaoPhot routines (Stetson, 1987, 1991). All frames were dark-frame and flat-field corrected first before application of further reduction steps. Minima timings were mostly determined by Kwee-van Woerden method using proram AVE (Barberá, 1999). The Tintagel, Taranis and SOP neural network based procedures (Gaspani, 1995) were applied in some cases.

The CCD-based minima timings already come with corresponding errors, usually determined by observers themselves. The error values depends on used method, data quality and depth of the observed minima.

All observations were first submitted on-line to the database of B.R.N.O. project¹. This submition is done by observers themselves. After that, each observation is visually validated by the database administrator (J. Trnka) and only observations with sufficient minimum light curve coverage are accepted for publication. Before publication, each minimum is validated if it is primary or secondary ones, according to O-C gateway² (Paschke & Brát, 2006).

Many eclipsing binaries were found to have wrong or uncertain orbital period, especially those systems known less than 20 years. Because a large number of accurate times of minima are presented in this paper, we were able to refine orbital elements for 28 eclipsing systems. The new orbital elements are presented in Section 2 – Notes on individual stars – in this paper.

Also many new, recently discovered eclipsing binaries were observed. These objects don't have the final designation by GCVS (Samus et al., 2007-2009) yet and in this paper, they are named using some preliminary names (e.g. CzeV, SvkV) or using catalogue numbers (GSC, TYC, USNO, 2MASS). Each of those new objects have been carefully identified with previously published objects and all possible information are presented in Section 2. If there was sufficient observational data, the orbital elements were determined and are presented as well.

We have also checked recently published 80th Name-List of Variable Stars (Kazarovets et al., 2011) and renamed preliminary designation of some objects to definite GCVS designation. Changes are noted in section 2.

There are also presented observations of neglected southern eclipsing binaries EN Oct, V775 Cen, V777 Cen, V901 Cen obtained by M. Lehky and D. Hanzl in Atacama desert, Chile in April 2010.

Observation of an extraordinary object – V 994 Her – a quadruple sytem made of 2 eclipsing binaries (Lee, C.-U. at al., 2008) is presented as well. Obtained minimas bellongs to both systems and are distinguished by designation used in Lee et al. Binary 'A' with period 2.083264 days and binary 'B' with period 1.420033 days. A sample light curve obtained by L. Smelcer shows figure 1.

Section 1 of this paper contains table of obtained times of minima. Each published observation can be viewed in detail following the active link under HJD number. There are available both light curve and reference CCD frame (finding chart for visual observation). Notes by observers can be found there as well. If orbital elements are known (Paschke & Brát, 2006), the O-C value is given in the main table as well.

The 6th column of the main table contains an independent indicator of the timing determination accuracy – the light curve minimum coverage factor – given in fractional form as a ratio between all acquired data points and data points covering decreasing branch of a minimum.

¹ <http://var2.astro.cz/brno>

² <http://var.astro.cz/ocgate>

We would like to point out that the character of a minimum (primary/secondary) depends only on used orbital elements – especially for EW binaries. All orbital elements used for character of minimum determination were taken from the O-C gateway.

Explanation to the main table

Column 0 – objects designation. G2779.0288 means GSC 2779-0288. If there are some notes about the presented object, it is marked with “\$”

Column 1 – heliocentric julian date of observed minimum ($\text{JD}_{\text{hel}} - 2\ 400\ 000$) based on coordinated universal time UTC

Column 2 – error of minimum determination in days

Column 3 – identification of primary (I) or secondary (II) minimum

Column 4 – O-C value in [days]. The value is given as URL link pointing to O-C gateway, where figure with highlighted observation (in red color) appears.

Column 5 – photometric band of CCD observation or mark “vis” for visual observation

Column 6 – total number of measurements / number of data on decreasing branch of light curve

Column 7 – observer’s identification

Column 8 – equipment used for observation.

Section 1 – Minima timings of eclipsing binaries

XZ And							
53624.37092	0.0070	I	-0.0078	vis	18/10	Vrašťák M.	RL 240
55561.22424	0.0005	I	-0.0008	CCD+Clear	66/27	Přibík V.	Newton 254/1200, CCD G2-1600, EQ6
AB And							
55064.41350	0.0002	II	+0.0036	CCD+I	31/17	Šmelcer L.	Celestron 280/1765 + CCD ST7
55064.41390	0.0002	II	+0.0040	CCD+R	36/20	Šmelcer L.	Celestron 280/1765 + CCD ST7
55064.41390	0.0002	II	+0.0040	CCD+V	35/20	Šmelcer L.	Celestron 280/1765 + CCD ST7
BD And							
55514.34577	0.0002	I	-0.0083	CCD+R	114/68	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55514.34848	0.0002	I	-0.0056	CCD+V	115/68	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55514.34928	0.0002	I	-0.0048	CCD+I	113/68	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55547.21444	0.0003	I	-0.0057	CCD+I	54/14	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55547.21504	0.0003	I	-0.0051	CCD+R	74/20	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
CN And							
55168.34120	0.0003	II	-0.0013	CCD+Clear	119/80	Vrašťák M.	RF65/300+ccd G2
55410.37898	0.0006	II	-0.0032	CCD+Clear	170/22	Vrašťák M.	RL 150/750 + CCD G2
55434.44658	0.0002	II	-0.0007	CCD+Clear	135/35	Vrašťák M.	RL 150/750 + CCD G2
55460.36815	0.0002	II	+0.0046	CCD+Clear	267/145	Vrašťák M.	RL240/1200 + CCD G2
55483.26805	0.0008	I	-0.0037	CCD+V	139/82	Poddaný S.	Meade LX 200 40,6 cm, SBIG ST10XME
55483.26805	0.0001	I	-0.0037	CCD+R	93/56	Poddaný S.	Meade LX 200 40,6 cm, SBIG ST10XME
CP And							
55168.39210	0.0001	I	-0.0081	CCD+Clear	161/78	Trnka J.	Newton 200/1000, ST-9E
DW And	§						
55093.32220	0.0200	I	-0.0108	CCD+Clear	122/61	Přibík V.	Newton 254/1200, CCD G2-1600, EQ6
EL And							
55552.45802	0.0016	I	-0.0179	CCD+Clear	275/178	Lomoz F.	Newton 300/1200+ST2000XM
GK And							
55481.61771	0.0007	I	+0.0142	CCD+I	63/45	Šmelcer L.	Celestron 280/1765 + CCD ST7
55481.61801	0.0006	I	+0.0145	CCD+V	58/43	Šmelcer L.	Celestron 280/1765 + CCD ST7
55481.61811	0.0006	I	+0.0146	CCD+R	56/44	Šmelcer L.	Celestron 280/1765 + CCD ST7
GZ And							
55462.59598	0.0004	II	+0.0009	CCD+I	58/44	Šmelcer L.	Celestron 280/1765 + CCD ST7
55462.59628	0.0003	II	+0.0012	CCD+V	58/43	Šmelcer L.	Celestron 280/1765 + CCD ST7
55462.59648	0.0003	II	+0.0014	CCD+R	59/44	Šmelcer L.	Celestron 280/1765 + CCD ST7
KP And	§						
55084.52441	0.0004	II	-----	CCD+R	296/162	Lehky M.	0.40-m f/5 + CCD ST7 + R
55429.54541	0.0006	I	+0.0003	CCD+I	76/43	Šmelcer L.	Celestron 280/1765 + CCD ST7
55429.54551	0.0005	I	+0.0004	CCD+R	80/45	Šmelcer L.	Celestron 280/1765 + CCD ST7
55439.38279	0.0002	I	-0.0001	CCD+Clear	95/50	Marchi F.	Celestron 9.25, F6.3+ FLI Kaf 3200

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LM And						
55155.42670	0.0003	I	<u>-0.0040</u>	CCD+Clear 100/60	Trnka J.	Newton 200/1000, ST-9E
LY And						
55478.44410	0.0016	II	<u>+0.0993</u>	CCD+R 361/151	Lomoz F.	Newton 300/1200+ST2000XM
55478.61565	0.0016	I	<u>+0.0984</u>	CCD+R 361/332	Lomoz F.	Newton 300/1200+ST2000XM
55514.50170	0.0010	I	<u>+0.1016</u>	CCD+Clear 125/20	Přibík V.	Newton 254/1200, CCD G2-1600, EQ6
V 404 And						
55094.59659	0.0001	II	<u>-0.0016</u>	CCD+R 309/153	Lehky M.	0.40-m f/5 + CCD ST7 + R
V 483 And						
55410.48539	0.0003	II	-----	CCD+Clear 227/157	Vrašták M.	RL150/750 - CCD G2
55423.40265	0.0004	I	-----	CCD+Clear 129/70	Vrašták M.	RL150/750 + CCD G2
55446.43034	0.0003	II	-----	CCD+Clear 147/115	Vrašták M.	RL150/750 + CCD G2
55452.37203	0.0002	II	-----	CCD+Clear 166/45	Vrašták M.	RL150/750 + CCD G2
55460.39366	0.0002	II	-----	CCD+Clear 262/166	Vrašták M.	RL240/1200 + CCD G2
55461.28460	0.0004	II	-----	CCD+Clear 234/46	Vrašták M.	RL240/1200 + CCD G2
V 449 And						
55515.32912	0.0008	I	<u>-0.0115</u>	CCD+Clear 53/31	Zahajský J.	Vixen 130/860 + DSLR Canon 5D Mk II
SvkV18 And	\$					
55410.48815	0.0004	I	-----	CCD+Clear 180/131	Vrašták M.	RL150/750 + CCD G2
55446.41278	0.0002	II	-----	CCD+Clear 135/80	Vrašták M.	RL150/750 + CCD G2
55452.37425	0.0002	I	-----	CCD+Clear 159/48	Vrašták M.	RL150/750 + CCD G2
55460.37325	0.0002	II	-----	CCD+Clear 266/146	Vrašták M.	RL240/1200 + CCD G2
55461.39168	0.0004	I	-----	CCD+Clear 223/181	Vrašták M.	RL240/1200 + CCD G2
G3285.1748 And	\$					
55515.34800	0.0007	I	-----	CCD+Clear 52/36	Zahajský J.	Vixen 130/860, Canon 5D MkII
OO Aql						
55051.45678	0.0002	I	<u>-0.0059</u>	CCD+I 34/14	Šmelcer L.	Celestron 280/1765 + CCD ST7
55051.45698	0.0002	I	<u>-0.0057</u>	CCD+V 32/14	Šmelcer L.	Celestron 280/1765 + CCD ST7
55051.45708	0.0002	I	<u>-0.0056</u>	CCD+R 31/13	Šmelcer L.	Celestron 280/1765 + CCD ST7
OP Aql						
55369.48119	0.0006	I	<u>+0.0333</u>	CCD+Clear 170/132	Trnka J.	Newton 200/1000, ST-9E
sig Aql						
55051.42586	0.0005	II	<u>-0.0043</u>	CCD+R 259/101	Lehky M.	EQ6 + 2.8/29 Pentacon auto lens + CCD ST5C
V 889 Aql						
55012.45415	0.0002	I	<u>-0.0010</u>	CCD+V 181/87	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
55012.45425	0.0004	I	<u>-0.0009</u>	CCD+R 185/91	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
55012.45545	0.0002	I	<u>+0.0003</u>	CCD+I 174/87	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
V1331 Aql						
55388.46649	0.0015	I	<u>+0.0100</u>	CCD+I 58/28	Lehky M.	EQ6 + 2.8/80 + CCD ST5C + VRI
55388.46753	0.0017	I	<u>+0.0111</u>	CCD+V 49/29	Lehky M.	EQ6 + 2.8/80 + CCD ST5C + VRI
55388.46820	0.0013	I	<u>+0.0117</u>	CCD+R 53/27	Lehky M.	EQ6 + 2.8/80 + CCD ST5C + VRI

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ST Aqr 55075.51586	0.0004	I	+0.0054	CCD+Clear	188/96	Mašek M.	R70/700mm, 0.5x reducer + Meade DSI
TX Ari 55535.33351	0.0005	I	+0.0031	CCD+I	67/41	Brát L.	RL200, f/6 + ST8
DD Aqr 55058.49869	0.0006	II	+0.0029	CCD+I	40/20	Šmelcer L.	Celestron 280/1765 + CCD ST7
55058.50179	0.0011	II	+0.0060	CCD+R	46/21	Šmelcer L.	Celestron 280/1765 + CCD ST7
55161.24266	0.0003	I	+0.0028	CCD+R	75/34	Šmelcer L.	Celestron 280/1765 + CCD ST7
55161.24346	0.0003	I	+0.0036	CCD+I	73/32	Šmelcer L.	Celestron 280/1765 + CCD ST7
55463.34580	0.0005	I	+0.0026	CCD+R	31/16	Šmelcer L.	Celestron 280/1765 + CCD ST7
55463.34690	0.0003	I	+0.0037	CCD+I	35/17	Šmelcer L.	Celestron 280/1765 + CCD ST7
DX Aqr 55064.50431	0.0005	I	+0.0042	CCD+R	209/139	Lehky M.	EQ6 + 2.8/29 + CCD ST5C
EX Aqr 55082.36033	0.0006	I	+0.0031	CCD+R	67/31	Ehrenberger R.	RL 96/400 + HX516 + R
GK Aqr 55445.40799	0.0002	I	+0.0378	CCD+I	98/71	Šmelcer L.	Celestron 280/1765 + CCD ST7
RY Aur 55500.43071	0.0002	I	+0.0046	CCD+R	251/57	Lehky M.	EQ6 + 0.25-m f/4 + CCD ST7 + R
SX Aur 55288.35362	0.0006	I	+0.0037	CCD+R	67/46	Šmelcer L.	Celestron 280/1765 + CCD ST7
55288.35482	0.0010	I	+0.0049	CCD+V	65/46	Šmelcer L.	Celestron 280/1765 + CCD ST7
55288.35502	0.0005	I	+0.0051	CCD+I	69/47	Šmelcer L.	Celestron 280/1765 + CCD ST7
AH Aur 55155.45138	0.0005	I	-0.0039	CCD+I	43/14	Šmelcer L.	Celestron 280/1765 + CCD ST7
55155.45428	0.0005	I	-0.0010	CCD+R	44/16	Šmelcer L.	Celestron 280/1765 + CCD ST7
55157.43081	0.0002	I	-0.0009	CCD+Clear	80/29	Vrašták M.	RF63/300 + ccd G2
55479.59115	0.0001	I	+0.0016	CCD+R	356/164	Lehky M.	EQ6 + 0.25-m f/4 + CCD ST7 + R
55591.26024	0.0003	I	+0.0025	CCD+R	61/17	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55591.26134	0.0003	I	+0.0036	CCD+V	73/28	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55621.40056	0.0006	I	+0.0022	CCD+I	52/32	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55621.40106	0.0006	I	+0.0027	CCD+R	73/44	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55621.40166	0.0004	I	+0.0033	CCD+V	77/40	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
AP Aur 55623.38130	0.0007	I	+0.0136	CCD+Clear	88/45	Trnka J.	Orestegor 300/4, ST-9E
CG Aur 55500.51952	0.0005	II	+0.0552	CCD+R	55/35	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55500.51963	0.0007	II	+0.0553	CCD+V	56/35	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55500.51967	0.0008	II	+0.0553	CCD+I	56/35	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55528.43677	0.0010	I	-0.0033	CCD+I	38/17	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55528.43877	0.0004	I	-0.0013	CCD+V	46/20	Šmelcer L.	Celestron 280/1765 + CCD G2 1600

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55528.43888	0.0003	I	-0.0011	CCD+R	45/16	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55528.43897	0.0006	I	-0.0010	CCD+R	44/17	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55528.43964	0.0003	I	-0.0004	CCD+V	42/15	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55528.43980	0.0005	I	-0.0002	CCD+I	44/16	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55547.44341	0.0006	II	+0.0528	CCD+R	72/38	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55547.44351	0.0005	II	+0.0529	CCD+I	70/40	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55602.43463	0.0005	I	-0.0044	CCD+V	48/16	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55602.43563	0.0005	I	-0.0034	CCD+R	46/19	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
 CL Aur							
55561.33212	0.0002	I	+0.0173	CCD+R	46/25	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55561.33252	0.0001	I	+0.0177	CCD+V	47/25	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
 EM Aur							
55625.39552	0.0004	I	-0.0107	CCD+I	113/45	Trnka J.	Newton 200/1000, G2 - 1600
55625.39762	0.0006	I	-0.0086	CCD+R	113/47	Trnka J.	Newton 200/1000, G2 - 1600
55625.39832	0.0003	I	-0.0079	CCD+V	114/48	Trnka J.	Newton 200/1000, G2 - 1600
55625.40447	0.0008	I	-0.0017	CCD+V	63/35	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55625.40577	0.0006	I	-0.0004	CCD+I	60/33	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55625.40617	0.0007	I	-0.0000	CCD+R	73/37	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
 FW Aur							
55293.32869	0.0001	I	-0.0006	CCD+Clear	139/67	Trnka J.	Newton 200/1000, ST-9E
 GI Aur							
55264.36168	0.0001	I	+0.0041	CCD+Clear	128/33	Trnka J.	Newton 200/1000, ST-9E
55480.56592	0.0002	I	+0.0018	CCD+R	200/101	Lehky M.	EQ6 + 0.25-m f/4 + CCD ST7 + R
 HL Aur							
55480.52497	0.0001	I	+0.0016	CCD+V	57/25	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55480.52509	0.0001	I	+0.0017	CCD+R	61/28	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55480.52520	0.0001	I	+0.0018	CCD+B	61/28	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55480.52541	0.0001	I	+0.0020	CCD+I	60/27	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
 II Aur							
55274.32224	0.0003	I	-0.0036	CCD+R	105/52	Lehky M.	0.40-m f/5 + CCD ST7 + R
 IM Aur							
55590.25808	0.0004	I	-0.0052	CCD+I	29/16	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55590.25868	0.0005	I	-0.0046	CCD+V	29/17	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55590.25968	0.0003	I	-0.0036	CCD+R	33/20	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
 IU Aur							
55619.37424	0.0019	I	+0.0012	CCD+R	47/29	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55619.37444	0.0017	I	+0.0014	CCD+V	47/30	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
 IZ Aur							
55428.54841	0.0001	I	+0.0006	CCD+R	105/37	Lehky M.	0.40-m f/5 + CCD ST7 + R
 KO Aur							
55601.53321	0.0002	I	-0.0020	CCD+V	69/31	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55601.53451	0.0003	I	-0.0007	CCD+R	66/30	Šmelcer L.	Celestron 280/1765 + CCD G2 1600

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

http://var.astro.cz/oejv

ISSN 1801-5964

	March 2011						
KU Aur 55483.65243	0.0002	I	+0.0015	CCD+R	125/87	Lehky M.	EQ6 + 0.25-m f/4 + CCD ST7 + R
QT Aur 55155.55171	0.0002	I	+0.1280	CCD+R	259/148	Lehky M.	0.40-m f/5 + CCD ST7 + R
V 404 Aur 55482.47744	0.0010	II	+0.0049	CCD+R	94/26	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55482.47755	0.0019	II	+0.0050	CCD+V	81/22	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55482.47777	0.0008	II	+0.0052	CCD+I	75/22	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
V 410 Aur 55155.56307	0.0002	II	+0.0173	CCD+I	57/29	Šmelcer L.	Celestron 280/1765 + CCD ST7
55155.56347	0.0003	II	+0.0177	CCD+R	63/33	Šmelcer L.	Celestron 280/1765 + CCD ST7
55259.42940	0.0004	I	+0.0221	CCD+I	49/32	Šmelcer L.	Celestron 280/1765 + CCD ST7
55479.61285	0.0003	I	+0.0268	CCD+B	76/48	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55479.61292	0.0002	I	+0.0269	CCD+R	92/61	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55479.61324	0.0002	I	+0.0272	CCD+V	92/62	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55479.61358	0.0001	I	+0.0275	CCD+I	97/64	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
V 495 Aur 55223.34803	0.0003	I	+0.0321	CCD+R	234/124	Lehky M.	0.40-m f/5 + CCD ST7 + R
V 560 Aur 55597.28702	0.0003	I	-0.0030	CCD+V	108/52	Ruocco N.	Meade LX200 f/10 + ST7
V 567 Aur 55599.31561	0.0005	I	-0.0175	CCD+I	57/14	Trnka J.	Newton 200/1000, G2-1600
55599.31591	0.0008	I	-0.0172	CCD+V	49/15	Trnka J.	Newton 200/1000, G2-1600
55599.31641	0.0003	I	-0.0167	CCD+R	51/11	Trnka J.	Newton 200/1000, G2-1600
VSX J0626.6+275559 Aur \$ 55479.59151	0.0008	I	-----	CCD+R	322/147	Lehky M.	EQ6 + 0.25-m f/4 + CCD ST7 + R
TYC 2409-1921-1 Aur \$ 55599.36790	0.0003	I	-----	CCD+R	52/38	Trnka J.	Newton 200/1000, G2-1600
55599.36800	0.0001	I	-----	CCD+I	57/42	Trnka J.	Newton 200/1000, G2-1600
55599.36840	0.0003	I	-----	CCD+V	49/39	Trnka J.	Newton 200/1000, G2-1600
UCAC3 240-072567 Aur \$ 54821.34355	0.0008	I	-----	CCD+R	57/12	zambelli r.	meade lx200 gps 10" CCD sbig st8xe
55254.41475	0.0008	II	-----	CCD+V	90/63	Corfini G.	GSO 200/800 CCD-UAI
MisV1288 Aur 55482.52135	0.0002	I	+0.0030	CCD+R	234/41	Lehky M.	EQ6 + 0.25-m f/4 + CCD ST7 + R
SY Boo 55379.39946	0.0063	II	-0.0026	CCD+V	60/26	Corfini G.	GSO 200/800 CCD-UAI
TX Boo 55599.53690	0.0006	I	-0.0145	CCD+V	181/73	Trnka J.	Newton 200/1000, G2-1600
55599.54160	0.0005	I	-0.0098	CCD+R	176/73	Trnka J.	Newton 200/1000, G2-1600

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

ISSN 1801-5964

	March 2011				http://var.astro.cz/oejv		
55599.54410	0.0015	I	-0.0073	CCD+I	164/71	Trnka J.	Newton 200/1000, G2-1600
TY Boo							
55628.55095	0.0002	I	-0.0047	CCD+I	141/61	Trnka J.	Newton 200/1000, G2 - 1600
55628.55125	0.0001	I	-0.0044	CCD+V	143/62	Trnka J.	Newton 200/1000, G2 - 1600
55628.55125	0.0001	I	-0.0044	CCD+B	135/62	Trnka J.	Newton 200/1000, G2 - 1600
55628.55135	0.0001	I	-0.0043	CCD+R	142/61	Trnka J.	Newton 200/1000, G2 - 1600
XY Boo							
55342.40052	0.0003	I	-0.0007	CCD+R	86/40	Šmelcer L.	Celestron 280/1765 + CCD ST7
55385.38758	0.0006	I	+0.0009	CCD+R	36/21	Šmelcer L.	Celestron 280/1765 + CCD ST7
55385.38858	0.0009	I	+0.0019	CCD+I	34/18	Šmelcer L.	Celestron 280/1765 + CCD ST7
55385.38918	0.0004	I	+0.0025	CCD+V	36/19	Šmelcer L.	Celestron 280/1765 + CCD ST7
CK Boo							
55284.41673	0.0004	II	-0.0039	CCD+R	32/15	Šmelcer L.	Celestron 280/1765 + CCD ST7
55284.41863	0.0013	II	-0.0020	CCD+I	30/15	Šmelcer L.	Celestron 280/1765 + CCD ST7
55622.52307	0.0003	II	-0.0036	CCD+I	61/20	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55622.52387	0.0003	II	-0.0028	CCD+R	65/23	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55622.52537	0.0005	II	-0.0013	CCD+V	61/20	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
DV Boo	§						
55315.47554	0.0036	I	-0.0125	CCD+V	100/53	Corfini G.	GSO 200/800 CCD-UAI
GI Boo	§						
55361.41601	0.0056	II	+0.1371	CCD+V	122/34	Corfini G.	GSO 200/800 CCD-UAI
55376.40271	0.0001	I	+0.1380	CCD+V	59/28	Corfini G.	GSO 200/800 CCD-UAI
GP Boo							
55263.45936	0.0008	I	-0.0051	CCD+R	40/13	Šmelcer L.	Celestron 280/1765 + CCD ST7
55263.45956	0.0008	I	-0.0049	CCD+I	35/14	Šmelcer L.	Celestron 280/1765 + CCD ST7
GU Boo							
54936.46236	0.0020	I	-0.0003	CCD+Clear	189/163	Přibík V.	Newton 254/1200, CCD G2-1600, EQ6
54937.43987	0.0020	I	-0.0003	CCD+Clear	187/129	Přibík V.	Newton 254/1200, CCD G2-1600, EQ6
55231.65508	0.0001	I	-0.0005	CCD+R	231/143	Lehky M.	0.40-m f/5 + CCD ST7 + R
55309.36291	0.0000	I	-0.0008	CCD+Clear	111/79	Trnka J.	Newton 200/1000, ST-9E
55382.42672	0.0002	II	-0.0021	CCD+R	96/53	Lehky M.	0.40-m f/5 + CCD ST7 + R
HR Boo							
55316.37512	0.0020	I	-0.0037	CCD+V	70/35	Corfini G.	GSO 200/800 CCD-UAI
i Boo							
55352.46344	0.0010	I	+0.0096	CCD+Clear	44/27	Starzomski J.	refractor 80ED and Canon 300D
SV Cam							
55035.49304	0.0020	I	-0.0034	vis	11/6	Mašek M.	Somet-Binar 25x100
55035.50786	0.0078	I	+0.0114	vis	13/9	Moudrá M.	SB 25x100
55289.32980	0.0001	I	-0.0014	CCD+Clear	246/106	Polák J.	ED 80/600
AO Cam							
55483.57664	0.0002	II	+0.0003	CCD+B	75/30	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

ISSN 1801-5964

March 2011							http://var.astro.cz/oejv
55483.57685	0.0003	II	+0.0005	CCD+V	72/29	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55600.36176	0.0003	II	-0.0006	CCD+I	39/22	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55600.36226	0.0002	II	-0.0001	CCD+R	40/23	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55600.36276	0.0002	II	+0.0004	CCD+V	40/23	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55622.29892	0.0002	I	-0.0020	CCD+I	64/36	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55622.29962	0.0002	I	-0.0013	CCD+R	65/38	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55622.29982	0.0002	I	-0.0011	CCD+V	62/35	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
AT Cam							
55481.53499	0.0002	I	+0.0104	CCD+R	468/157	Lehky M.	EQ6 + 0.25-m f/4 + CCD ST7 + R
CP Cam							
55308.32052	0.0002	II	-0.0207	CCD+Clear	37/13	Trnka J.	Newton 200/1000, ST-9E
CV Cam							
55478.46434	0.0002	I	-0.0038	CCD+R	560/229	Lehky M.	EQ6 + 0.25-m f/4 + CCD ST7 + R
HW Cam							
55303.36391	0.0001	I	+0.0157	CCD+Clear	135/74	Trnka J.	Newton 200/1000, ST-9E
LR Cam							
55093.59533	0.0001	I	+0.0050	CCD+R	298/178	Lehky M.	0.40-m f/5 + CCD ST7 + R
55430.48593	0.0002	I	+0.0038	CCD+R	490/169	Lehky M.	0.40-m f/5 + CCD ST7 + R
LT Cam	§						
55481.46459	0.0010	I	+0.0060	CCD+I	135/51	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55481.46511	0.0008	I	+0.0065	CCD+R	136/49	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55481.59977	0.0009	II	+0.0032	CCD+R	136/106	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55481.60099	0.0007	II	+0.0044	CCD+I	135/107	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55499.44232	0.0008	I	+0.0052	CCD+I	122/22	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55499.44443	0.0007	I	+0.0073	CCD+R	124/24	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55499.58075	0.0020	II	+0.0056	CCD+R	124/84	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55499.58120	0.0007	II	+0.0061	CCD+I	122/82	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
LV Cam	§						
55481.50978	0.0008	II	+0.0680	CCD+R	119/54	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55481.51268	0.0012	II	+0.0709	CCD+I	125/57	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55499.43885	0.0013	II	+0.0767	CCD+I	78/17	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55499.43885	0.0012	II	+0.0767	CCD+R	78/17	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55499.61551	0.0013	I	+0.0709	CCD+R	112/88	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55499.62075	0.0020	I	+0.0761	CCD+I	78/60	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
NR Cam							
55629.41915	0.0001	I	+0.0057	CCD+Clear	762/327	Polák J.	ED 120/900
55629.54734	0.0001	II	+0.0059	CCD+Clear	762/643	Polák J.	ED 120/900
NU Cam							
55624.40698	0.0006	I	+0.0079	CCD+V	123/67	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55624.40758	0.0005	I	+0.0085	CCD+R	134/75	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
CzeV208 Cam	§						
55600.34899	0.0003	I	-----	CCD+R	157/39	Kocián R.	Newton 200/1200 + SBIG ST8-XME

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

March 2011

http://var.astro.cz/oejv

ISSN 1801-5964

RZ Cas 55480.33937	0.0040	I	+0.0043	vis	13/7	Smyčka T.	Newton 76/300
AX Cas 55482.36005	0.0001	I	+0.0062	CCD+R	263/142	Lehky M.	EQ6 + 0.25-m f/4 + CCD ST7 + R
BG Cas 55102.43523	0.0006	I	+0.0108	CCD+Clear	120/80	Trnka J.	Newton 200/1000, ST-9E
BS Cas 54844.44697 54844.44747 54844.45220	0.0003 0.0003 0.0004	I I I	+0.0014 +0.0019 +0.0066	CCD+V CCD+R CCD+I	73/45 66/44 64/45	Kocián R. Kocián R. Kocián R.	Newton 200/1200 + SBIG ST8-XME Newton 200/1200 + SBIG ST8-XME Newton 200/1200 + SBIG ST8-XME
DP Cas 55169.20262	0.0003	I	-0.0073	CCD+R	121/55	Lehky M.	0.40-m f/5 + CCD ST7 + R
EG Cas 55483.28633	0.0003	II	-0.0056	CCD+R	144/55	Lehky M.	EQ6 + 0.25-m f/4 + CCD ST7 + R
IT Cas 55041.42220	0.0004	I	+0.0018	CCD+R	141/110	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
IV Cas 55094.47730 55094.47730 55481.39970 55481.40141	0.0002 0.0002 0.0009 0.0011	I I II II	+0.0044 +0.0044 +0.0018 +0.0035	CCD+I CCD+R CCD+R CCD+I	44/16 40/12 42/14 45/15	Šmelcer L. Šmelcer L. Šmelcer L. Šmelcer L.	Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD ST7
OQ Cas 55093.44754 55409.50308	0.0003 0.0002	II II	-0.0722 -0.0794	CCD+R CCD+R	185/148 227/140	Lehky M. Lehky M.	0.40-m f/5 + CCD ST7 + R 0.40-m f/5 + CCD ST7 + R
PV Cas 55169.38130 55169.38270 55456.45654 55456.45694	0.0004 0.0003 0.0006 0.0004	I I I I	-0.0184 -0.0170 -0.0202 -0.0198	CCD+I CCD+R CCD+R CCD+I	85/34 82/35 43/19 44/18	Šmelcer L. Šmelcer L. Šmelcer L. Šmelcer L.	Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD ST7
QQ Cas 55052.49536 55097.48152 55098.55269 55155.32174	0.0003 0.0001 0.0002 0.0003	I I II I	+0.0028 +0.0059 +0.0061 +0.0108	CCD+Clear CCD+R CCD+R CCD+Clear	136/36 559/400 620/444 155/78	Trnka J. Kučáková H. Kučáková H. Vrašťák M.	Newton 200/1000, ST-9E Meade 12''LX200GPS + SBIG ST8-XME Meade 12''LX200GPS + SBIG ST8-XME RF63/300+ccd G2
V 336 Cas 55471.31674	0.0001	I	+0.0029	CCD+R	98/53	Lehky M.	0.40-m f/5 + CCD ST7 + R
V 366 Cas 55483.46367 55483.46477 55483.46561	0.0002 0.0002 0.0003	II II II	+0.0122 +0.0133 +0.0142	CCD+V CCD+R CCD+I	59/42 57/40 59/42	Lehky M. Lehky M. Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI 0.40-m f/5 + CCD G2-1600 + BVRI 0.40-m f/5 + CCD G2-1600 + BVRI

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

March 2011

<http://var.astro.cz/oejv>

ISSN 1801-5964

V 389 Cas							
55059.46240	0.0005	I	+0.0090	CCD+Clear	47/18	Brát L.	RL200, f/6 + ST8, RF80/600+G1-0300
55059.46397	0.0002	I	+0.0106	CCD+R	204/91	Kučáková H., Speil J.	Newton 150 + G2
55483.58405	0.0003	I	+0.0130	CCD+R	414/309	Poddaný S.	Meade LX 200 40,6 cm, SBIG ST10XME
V 445 Cas							
55500.27594	0.0001	I	-0.0038	CCD+R	211/88	Lehky M.	EQ6 + 0.25-m f/4 + CCD ST7 + R
V 799 Cas							
55097.49546	0.0002	II	-1.2643	CCD+V	378/222	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
55097.49556	0.0001	II	-1.2642	CCD+R	393/239	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
55097.49566	0.0002	II	-1.2641	CCD+I	431/274	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
55156.53056	0.0003	I	-0.0006	CCD+R	159/75	Kučáková H.	Meade 12'' LX200GPS + SBIG ST8-XME
V 851 Cas							
55387.45826	0.0004	I	+0.0058	CCD+V	63/27	Brát L.	RL200, f/6 + ST8, guider RF80/600+G1-0300
V 959 Cas							
55480.38464	0.0003	I	-0.0137	CCD+R	126/55	Lehky M.	EQ6 + 0.25-m f/4 + CCD ST7 + R
V1007 Cas							
55051.47876	0.0002	II	-0.0053	CCD+R	113/52	Ehrenberger R.	RL 96/400 + HX516 + R
55098.46039	0.0001	I	-0.0029	CCD+R	208/114	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
V1011 Cas							
55438.38450	0.0055	I	+0.0382	CCD+V	70/32	Corfini G.	GSO 200/800 CCD-UAI
55505.41999	0.0074	I	+0.0428	CCD+V	44/23	Corfini G.	GSO 200/800 CCD-UAI
V1053 Cas							
55093.35108	0.0011	II	-----	CCD+R	185/78	Lehky M.	0.40-m f/5 + CCD ST7 + R
55409.56820	0.0009	II	-----	CCD+R	211/183	Lehky M.	0.40-m f/5 + CCD ST7 + R
V1094 Cas §							
54844.39282	0.0008	I	-----	CCD+I	58/30	Kocián R.	Newton 200/1200 + SBIG ST8-XME
54844.39309	0.0008	I	-----	CCD+V	70/34	Kocián R.	Newton 200/1200 + SBIG ST8-XME
54844.39862	0.0017	I	-----	CCD+R	66/37	Kocián R.	Newton 200/1200 + SBIG ST8-XME
CzeV131 Cas	§						
55100.44452	0.0003	-	-----	CCD+I	234/33	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
55100.44602	0.0007	-	-----	CCD+V	240/35	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
55100.44662	0.0006	-	-----	CCD+R	238/34	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
55154.47285	0.0002	-	-----	CCD+R	383/164	Zasche P.	65-cm telescope
55554.54486	0.0008	-	-----	CCD+I	62/43	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55554.54636	0.0007	-	-----	CCD+V	67/49	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55554.54786	0.0008	-	-----	CCD+R	68/48	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
NSVS 1693237 Cas §							
55482.30175	0.0002	I	-----	CCD+R	263/78	Lehky M.	EQ6 + 0.25-m f/4 + CCD ST7 + R
55482.43935	0.0001	II	-----	CCD+R	263/223	Lehky M.	EQ6 + 0.25-m f/4 + CCD ST7 + R

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

March 2011

<http://var.astro.cz/oejv>

ISSN 1801-5964

OPEN EUROPEAN JOURNAL ON VARIABLE STARS						
http://var.astro.cz/oejv						
V 775 Cen						
55294.57261						
0.0002	I	-0.0047	CCD+V	60/29	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55294.57299						
0.0003	I	-0.0044	CCD+R	55/25	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55294.57321						
0.0003	I	-0.0041	CCD+I	58/25	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55305.52463						
0.0010	II	-----	CCD+R	47/20	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55305.52551						
0.0009	II	-----	CCD+I	46/21	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55305.52573						
0.0009	II	-----	CCD+V	44/19	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
V 777 Cen						
55299.86179						
0.0006	II	+0.0172	CCD+I	100/85	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55299.86242						
0.0002	II	+0.0178	CCD+V	95/83	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55299.86298						
0.0004	II	+0.0183	CCD+R	96/82	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
V 901 Cen						
55298.61377						
0.0006	II	-----	CCD+I	51/34	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55298.61615						
0.0005	II	-----	CCD+V	49/35	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55298.61865						
0.0011	II	-----	CCD+R	44/31	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55299.50166						
0.0002	I	+0.1317	CCD+R	92/7	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55299.50202						
0.0006	I	+0.1320	CCD+V	86/8	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55299.50221						
0.0009	I	+0.1322	CCD+I	95/7	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55299.67769						
0.0007	II	-----	CCD+V	86/35	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55299.67790						
0.0004	II	-----	CCD+I	95/38	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55299.67797						
0.0003	II	-----	CCD+R	92/39	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55299.85566						
0.0003	I	+0.1314	CCD+V	86/73	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55299.85586						
0.0007	I	+0.1316	CCD+I	95/79	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55299.85664						
0.0005	I	+0.1324	CCD+R	92/76	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
WX Cep						
55060.49439						
0.0001	II	+0.0072	CCD+R	337/102	Kučáková H., Speil J.	Newton 150 + G2
55192.25153						
0.0004	II	+0.0046	CCD+I	147/72	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
55192.25173						
0.0002	II	+0.0048	CCD+R	145/73	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
55192.25253						
0.0003	II	+0.0056	CCD+V	148/75	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
WY Cep						
55483.27975						
0.0002	II	-0.0042	CCD+I	50/24	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55483.28022						
0.0001	II	-0.0037	CCD+R	50/24	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55483.28067						
0.0001	II	-0.0033	CCD+V	46/24	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55483.28121						
0.0002	II	-0.0027	CCD+B	46/25	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
BU Cep						
55063.55061						
0.0006	I	+0.0104	CCD+Clear	96/9	Trnka J., Klos M.	Newton 200/1000, ST-9E
CQ Cep						
55075.45727						
0.0001	II	-0.0035	CCD+R	657/296	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
55112.36807						
0.0005	I	-0.0204	CCD+Clear	165/79	Vrašťák M.	RF65/300+CCD G2
EF Cep						
55173.31374						
0.0003	I	+0.0171	CCD+I	99/65	Brát L.	RL200, f/6 + ST8, RF80/600+G1-0300
GI Cep						
55000.49843						
0.0200	I	-0.0131	CCD+Clear	95/38	Přibík V.	Newton 254/1200, CCD G2-1600, EQ6
55052.38164						
0.0001	I	-0.0139	CCD+R	114/63	Lehky M.	0.40-m f/5 + CCD ST7 + R

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

http://var.astro.cz/oejv

ISSN 1801-5964

March 2011						
55052.38201	0.0010	I	-0.0136	CCD+Clear	60/18	Trnka J.
55052.38288	0.0004	I	-0.0127	CCD+R	85/32	Ehrenberger R.
55093.36973	0.0002	II	-0.0144	CCD+R	307/204	Kučáková H.
55410.37751	0.0001	I	-0.0177	CCD+R	157/71	Lehky M.
GK Cep						Newton 200/1000, ST-9E
55064.47275	0.0004	I	+0.0030	CCD+Clear	87/43	Klimentová J., Kliment P.
IW Cep						RL 96/400 + HX516 + R
55060.40146	0.0001	I	+0.0063	CCD+Clear	58/27	Klos M.
V 736 Cep						Meade 12''LX200GPS + SBIG ST8-XME
55069.36137	0.0003	I	-0.0106	CCD+R	103/44	Ehrenberger R.
V 738 Cep						RL 96/400 + HX516 + R
55071.59218	0.0004	I	-0.0124	CCD+I	79/44	Dřevěný R.
55071.59267	0.0006	I	-0.0120	CCD+V	78/45	Dřevěný R.
55157.27662	0.0004	I	-0.0138	CCD+Clear	90/25	Vrašťák M.
TYC 4487-347-1 Cep						RL 200/660 CCD G2-402
55076.41759	0.0001	I	-----	CCD+R	545/253	Kučáková H.
55089.49485	0.0002	II	-----	CCD+R	327/281	Kučáková H.
55093.47250	0.0002	II	-----	CCD+R	400/85	Kučáková H.
G3957.0256 Cep	§					Meade 12''LX200GPS + SBIG ST8-XME
55069.35012	0.0002	I	-----	CCD+R	135/47	Ehrenberger R.
G4465.1210 Cep	§					Meade 12''LX200GPS + SBIG ST8-XME
55064.44412	0.0008	I	-----	CCD+Clear	88/24	Klimentová J., Kliment P.
IW Cep						Meade 12''LX200GPS + SBIG ST8-XME
55076.55256	0.0002	I	+0.0053	CCD+R	322/121	Kučáková H.
TV Cet						Newton 200/1200 + SBIG ST8-XME
AG CMi						
55578.56329	0.0001	I	-0.0271	CCD+Clear	119/35	Trnka J.
AM CMi						Newton 200/1000, ST-9E
55601.30678	0.0009	I	+0.0153	CCD+R	79/32	Šmelcer L.
55601.30888	0.0004	I	+0.0174	CCD+V	82/31	Šmelcer L.
BF CMi						Celestron 280/1765 + CCD G2 1600
55591.39143	0.0005	I	-0.0055	CCD+R	72/33	Šmelcer L.
55591.39193	0.0007	I	-0.0050	CCD+I	71/37	Šmelcer L.
55591.39273	0.0004	I	-0.0042	CCD+V	65/32	Šmelcer L.
BH CMi						Celestron 280/1765 + CCD G2 1600
55629.36069	0.0002	I	+0.0008	CCD+Clear	182/85	Vrašťák M.
CW CMi						Celestron 280/1765 + CCD G2 1600
55255.34107	0.0003	II	-0.0060	CCD+R	167/58	Ehrenberger R.
						Celestron 280/1765 + CCD G2 1600
						RL 96/400 + HX516 + R

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

March 2011

<http://var.astro.cz/oejv>

ISSN 1801-5964

XZ CMi							
55621.28669	0.0008	II	+0.0009	CCD+R	61/21	Trnka J.	Newton 200/1000, G2 - 1600
55621.28679	0.0009	II	+0.0010	CCD+B	57/21	Trnka J.	Newton 200/1000, G2 - 1600
55621.28759	0.0005	II	+0.0018	CCD+I	61/21	Trnka J.	Newton 200/1000, G2 - 1600
55621.29009	0.0004	II	+0.0043	CCD+V	61/23	Trnka J.	Newton 200/1000, G2 - 1600
RY Cnc							
55314.35458	0.0003	II	+0.0121	CCD+Clear	96/42	Trnka J.	Newton 200/1000, ST-9E
TX Cnc							
55279.38407	0.0006	I	-0.0033	CCD+I	50/12	Lehky M.	0.20-m f/4 + CCD ST8 + I
55279.38511	0.0009	I	-0.0022	CCD+R	45/12	Lehky M.	0.20-m f/4 + CCD ST8 + R
55279.38551	0.0006	I	-0.0018	CCD+V	49/13	Lehky M.	0.20-m f/4 + CCD ST8 + V
AH Cnc							
55621.42772	0.0006	I	+0.0151	CCD+V	69/45	Trnka J.	Newton 200/1000, G2 - 1600
55621.42812	0.0010	I	+0.0155	CCD+R	67/48	Trnka J.	Newton 200/1000, G2 - 1600
55621.42922	0.0005	I	+0.0166	CCD+I	77/50	Trnka J.	Newton 200/1000, G2 - 1600
EH Cnc							
55274.34593	0.0002	I	-0.0098	CCD+R	75/49	Šmelcer L.	Celestron 280/1765 + CCD ST7
55274.34633	0.0002	I	-0.0094	CCD+I	70/51	Šmelcer L.	Celestron 280/1765 + CCD ST7
55628.42057	0.0003	I	-0.0120	CCD+V	78/29	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55628.42087	0.0008	I	-0.0117	CCD+R	52/25	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
GY Cnc							
55295.41638	0.0016	I	-0.0016	CCD+R	188/107	Lomoz F.	Newton-Schmidt 254/1016+ST2000XM
IU Cnc							
55286.32966	0.0002	I	-0.0068	CCD+I	70/30	Šmelcer L.	Celestron 280/1765 + CCD ST7
G1395.0877 Cnc §							
55279.47724	0.0020	I	-----	CCD+I	48/40	Lehky M.	0.20-m f/4 + CCD ST8 + I
RW Com							
55567.61268	0.0010	I	+0.0085	CCD+R	75/34	Poddaný S.	Meade LX 200 40,6 cm, SBIG ST10XME
55567.61368	0.0010	I	+0.0095	CCD+V	61/33	Poddaný S.	Meade LX 200 40,6 cm, SBIG ST10XME
EK Com							
55280.32919	0.0002	I	-0.0032	CCD+R	87/42	Šmelcer L.	Celestron 280/1765 + CCD ST7
55589.55426	0.0002	II	+0.0010	CCD+R	46/27	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55589.55486	0.0002	II	+0.0016	CCD+I	43/27	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55591.55410	0.0002	I	+0.0004	CCD+I	54/36	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55591.55440	0.0001	I	+0.0007	CCD+R	57/36	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55607.42286	0.0003	II	+0.0017	CCD+I	76/10	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55607.42356	0.0006	II	+0.0024	CCD+R	68/11	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55607.55502	0.0009	I	+0.0002	CCD+I	76/65	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55607.55602	0.0007	I	+0.0012	CCD+R	68/53	Šmelcer L.	Celestron 280/1765 + CCD G2 1600

KK Com

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

55624.54437	March 2011 0.0003	I	+0.0275	CCD+R	http://var.astro.cz/oejv 401/227	Juryšek J.	ISSN 1801-5964 Newton 200/1200 + SBIG ST8-XME
KR Com 55621.54522	0.0016	II	+0.0007	CCD+R	88/24	Kocián R.	Newton 200/1200 + SBIG ST8-XME
LQ Com 54912.35351 54925.37832 55304.33563 55315.40038 55315.40108 55315.40108	0.0020 0.0020 0.0001 0.0016 0.0016 0.0016	I II II II II II	-0.0072 -0.0069 -0.0094 -0.0066 -0.0059 -0.0059	CCD+B CCD+V CCD+Clear CCD+R CCD+B CCD+V	120/23 144/113 98/40 229/71 220/68 230/71	Přibík V. Přibík V. Trnka J. Lomoz F. Lomoz F. Lomoz F.	Newton 254/1200, CCD G2-1600, EQ6 Newton 254/1200, CCD G2-1600, EQ6 Newton 200/1000, ST-9E Newton-Schmidt 254/1016+ST2000XM Newton-Schmidt 254/1016+ST2000XM Newton-Schmidt 254/1016+ST2000XM
U CrB 55364.42014	0.0007	I	+0.0161	CCD+Clear	46/23	Starzomski J.	refractor 80ED and Canon 300D
TW CrB 55275.46962 55275.46982 55394.42334 55394.42434	0.0002 0.0002 0.0003 0.0002	I I I I	+0.0039 +0.0041 +0.0050 +0.0060	CCD+I CCD+R CCD+I CCD+R	63/26 67/25 60/29 60/30	Šmelcer L. Šmelcer L. Šmelcer L. Šmelcer L.	Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD ST7
UX CrB 55265.48632	0.0002	I	+0.0063	CCD+R	183/54	Lehky M.	0.40-m f/5 + CCD ST7 + R
AM CrB 55309.57763	0.0003	II	+0.0127	CCD+R	88/54	Brát L.	RL200, f/6 + G2-0402
CU CVn 55628.49625	§ 0.0002	I	-0.0126	CCD+V	169/60	Juryšek J.	Newton 200/1200 + SBIG ST8-XME
CX CVn 55294.48605 55294.48621 55294.48769	0.0002 0.0002 0.0002	I I I	+0.5526 +0.5528 +0.5543	CCD+R CCD+V CCD+I	148/34 143/33 147/36	Kocián R. Kocián R. Kocián R.	Meade 300/f6.3 + SBIG ST8-XME Meade 300/f6.3 + SBIG ST8-XME Meade 300/f6.3 + SBIG ST8-XME
DL CVn 55292.36748	0.0005	I	+0.0064	CCD+Clear	85/43	Trnka J.	Newton 200/1000, ST-9E
DR CVn 55622.53577 55622.53787 55622.53907	0.0004 0.0004 0.0004	II II II	+0.0004 +0.0025 +0.0037	CCD+R CCD+V CCD+I	148/109 132/99 139/105	Trnka J. Trnka J. Trnka J.	Newton 200/1000, G2-1600 Newton 200/1000, G2-1600 Newton 200/1000, G2-1600
DU CVn 55295.52107 55306.42238 55306.57824 55312.41230	0.0020 0.0020 0.0040 0.0002	II I II II	+0.0587 +0.0556 +0.0575 +0.0551	CCD+Clear CCD+Clear CCD+Clear CCD+Clear	254/112 202/66 202/168 188/126	Přibík V. Přibík V. Přibík V. Klos M.	Newton 254/1200, CCD G2-1600, EQ6 Newton 254/1200, CCD G2-1600, EQ6 Newton 254/1200, CCD G2-1600, EQ6 Newton 150/750, ST-7

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

<http://var.astro.cz/oejv>

ISSN 1801-5964

March 2011

G2533.0370 CVn						
	§					
55155.63628	0.0020	II	+0.0132	CCD+Clear	148/71	Přibík V.
55278.43249	0.0020	II	-0.0269	CCD+Clear	123/95	Přibík V.
55293.54883	0.0020	I	-0.0161	CCD+Clear	192/68	Přibík V.
55294.39053	0.0020	II	-0.0044	CCD+Clear	430/136	Přibík V.
55294.56100	0.0100	I	+0.0001	CCD+Clear	430/333	Přibík V.
Y Cyg						
55093.44912	0.0004	I	-0.0995	CCD+V	268/44	Kučáková H.
55093.44962	0.0003	I	-0.0990	CCD+I	266/44	Kučáková H.
55093.45092	0.0003	I	-0.0977	CCD+R	266/46	Kučáková H.
WW Cyg						
55082.32007	0.0002	I	+0.0110	CCD+I	80/35	Šmelcer L.
						Celestron 280/1765 + CCD ST7
ZZ Cyg						
55037.42547	0.0038	I	+0.0047	vis	9/4	Mašek M.
						Newton 200/1000mm
CV Cyg						
54976.40275	0.0008	II	-0.0135	CCD+I	41/18	Šmelcer L.
54976.40455	0.0007	II	-0.0117	CCD+R	40/19	Šmelcer L.
54976.40455	0.0009	II	-0.0117	CCD+V	41/20	Šmelcer L.
55387.46839	0.0010	II	-0.0195	CCD+I	41/11	Šmelcer L.
						Celestron 280/1765 + CCD ST7
DK Cyg						
55051.37298	0.0002	I	+0.0081	CCD+V	41/25	Šmelcer L.
55051.37358	0.0004	I	+0.0087	CCD+I	40/26	Šmelcer L.
55051.37358	0.0003	I	+0.0087	CCD+R	40/25	Šmelcer L.
55379.44658	0.0001	I	+0.0087	CCD+Clear	69/33	Vrašták M.
						Celestron 280/1765 + CCD ST7
CE Cyg						
	§					
54639.51561	0.0003	I	-0.0220	CCD+R	69/29	Lehky M.
55063.37489	0.0016	I	-0.0179	CCD+R	394/67	Lomoz F.
55067.44080	0.0020	I	-0.0247	CCD+R	460/205	Lomoz F.
55353.40714	0.0001	I	-0.0224	CCD+Clear	78/47	Trnka J.
55376.39140	0.0016	I	-0.0200	CCD+R	286/45	Lomoz F.
55385.40795	0.0004	I	-0.0216	CCD+R	141/20	Lehky M.
55385.55044	0.0013	II	-----	CCD+R	141/119	Lehky M.
55390.49974	0.0010	II	-----	CCD+R	173/115	Lehky M.
55392.39226	0.0006	I	-0.0191	CCD+R	49/20	Marchi F.
55394.42648	0.0001	I	-0.0213	CCD+R	59/32	Marchi F.
55408.38995	0.0001	I	-0.0215	CCD+R	50/22	Marchi F.
						0.40-m f/5 + CCD ST7 + R
HK Cyg						
55303.53404	0.0001	I	-0.0697	CCD+Clear	255/131	Trnka J.
						Newton 200/1000, ST-9E
NZ Cyg						
55378.42672	0.0002	II	-0.0091	CCD+Clear	137/81	Trnka J.
						Newton 200/1000, ST-9E
OO Cyg						
55058.50239	0.0002	I	+0.0382	CCD+R	187/66	Lomoz F.
						Newton 300/1200+ST2000XM

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

http://var.astro.cz/oejv

ISSN 1801-5964

March 2011							
55378.50186	0.0032	I	+0.1247	CCD+R	210/188	Lomoz F.	Newton-Schmidt 254/1016+ST2000XM
55460.38213	0.0016	I	-0.0039	CCD+Clear	343/134	Lomoz F.	Newton 300/1200+ST2000XM
QU Cyg							
55394.41312	0.0002	I	-0.0072	CCD+R	103/43	Zejda M.	RL600
55394.41402	0.0002	I	-0.0063	CCD+V	104/44	Zejda M.	RL600
V 348 Cyg							
55387.48326	0.0016	I	+0.0345	CCD+R	205/80	Lomoz F.	Newton-Schmidt 254/1016+ST2000XM
V 366 Cyg							
55377.50350	0.0003	I	-0.0005	CCD+Clear	183/113	Vrašťák M.	RL 150/750, CCD G2-1600
V 385 Cyg							
55410.53297	0.0002	I	+0.0020	CCD+R	167/87	Lehky M.	0.40-m f/5 + CCD ST7 + R
V 400 Cyg							
55102.32013	0.0005	I	+0.0166	CCD+Clear	137/88	Trnka J.	Newton 200/1000, ST-9E
V 401 Cyg							
54978.41721	0.0011	II	-0.0006	CCD+I	36/26	Šmelcer L.	Celestron 280/1765 + CCD ST7
54978.41791	0.0014	II	+0.0001	CCD+R	45/29	Šmelcer L.	Celestron 280/1765 + CCD ST7
54996.48297	0.0010	II	+0.0006	CCD+I	33/12	Šmelcer L.	Celestron 280/1765 + CCD ST7
54996.48377	0.0007	II	+0.0014	CCD+R	32/11	Šmelcer L.	Celestron 280/1765 + CCD ST7
55071.36356	0.0005	I	+0.0011	CCD+R	61/26	Šmelcer L.	Celestron 280/1765 + CCD ST7
55071.36386	0.0003	I	+0.0014	CCD+I	61/29	Šmelcer L.	Celestron 280/1765 + CCD ST7
55071.36396	0.0004	I	+0.0015	CCD+V	62/28	Šmelcer L.	Celestron 280/1765 + CCD ST7
55094.38345	0.0003	II	+0.0033	CCD+V	99/71	Šmelcer L.	Celestron 280/1765 + CCD ST7
55094.38455	0.0004	II	+0.0044	CCD+R	98/66	Šmelcer L.	Celestron 280/1765 + CCD ST7
55497.34522	0.0002	I	+0.0108	CCD+R	272/148	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
V 454 Cyg							
55352.36258	0.0004	II	+0.0012	CCD+I	27/8	Šmelcer L.	Celestron 280/1765 + CCD ST7
V 463 Cyg							
55374.52115	0.0005	I	+0.0070	CCD+I	137/73	Poddaný S.	Meade LX 200 40,6 cm, SBIG ST10XME
55374.52275	0.0002	I	+0.0086	CCD+R	119/71	Poddaný S.	Meade LX 200 40,6 cm, SBIG ST10XME
V 466 Cyg							
55350.52763	0.0003	I	-0.0003	CCD+R	71/71	Zejda M.	RL300+CCD G2
V 477 Cyg							
55093.35820	0.0001	I	-0.0073	CCD+V	177/116	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
55093.35830	0.0001	I	-0.0072	CCD+R	176/114	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
55093.35830	0.0001	I	-0.0072	CCD+I	175/114	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
V 700 Cyg							
55456.30815	0.0022	I	-0.0063	CCD+I	32/13	Šmelcer L.	Celestron 280/1765 + CCD ST7
55456.30905	0.0014	I	-0.0054	CCD+R	32/12	Šmelcer L.	Celestron 280/1765 + CCD ST7
55463.28379	0.0002	I	-0.0058	CCD+I	33/24	Šmelcer L.	Celestron 280/1765 + CCD ST7
55463.28409	0.0002	I	-0.0055	CCD+R	33/24	Šmelcer L.	Celestron 280/1765 + CCD ST7

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

<http://var.astro.cz/oejv>

ISSN 1801-5964

March 2011

V 749 Cyg							
55058.52051	0.0007	II	-0.0104	CCD+Clear	109/53	Brát L.	RL200, f/6 + ST8, guider RF80/600+G1-0300
55101.46049	0.0001	I	-0.0138	CCD+Clear	112/68	Trnka J.	Newton 200/1000, ST-9E
55310.42164	0.0001	I	-0.0158	CCD+Clear	69/32	Trnka J.	Newton 200/1000, ST-9E
V 789 Cyg							
55388.50073	0.0016	I	-0.0142	CCD+R	327/235	Lomoz F.	Newton 300/1200+ST2000XM
V 828 Cyg							
55304.55478	0.0001	II	-0.0130	CCD+Clear	296/145	Trnka J.	Newton 200/1000, ST-9E
V 836 Cyg							
55126.45488	0.0003	I	+0.0022	CCD+V	37/18	Šmelcer L.	Celestron 280/1765 + CCD ST7
55126.45488	0.0004	I	+0.0022	CCD+I	39/19	Šmelcer L.	Celestron 280/1765 + CCD ST7
55126.45488	0.0003	I	+0.0022	CCD+R	39/19	Šmelcer L.	Celestron 280/1765 + CCD ST7
V 842 Cyg							
55063.43575	0.0007	II	-0.0001	CCD+R	146/66	Lehky M.	0.40-m f/5 + CCD ST7 + R
55377.45122	0.0003	I	+0.0003	CCD+R	143/42	Lehky M.	0.40-m f/5 + CCD ST7 + R
55386.46551	0.0005	II	-0.0064	CCD+R	187/99	Lehky M.	0.40-m f/5 + CCD ST7 + R
V 865 Cyg							
55359.44906	0.0002	II	+0.0036	CCD+Clear	196/90	M. Klos, T. Smyčka, J. Trnka	Newton 150/750, ST-7
V 880 Cyg							
55374.45298	0.0003	II	-0.0024	CCD+R	179/124	Lehky M.	0.40-m f/5 + CCD ST7 + R
V 887 Cyg							
55057.45605	0.0010	I	-0.0130	CCD+Clear	128/43	Trnka J.	Newton 200/1000, ST-9E
V 889 Cyg							
55060.39620	0.0003	II	-0.0104	CCD+Clear	163/45	Brát L.	RL200, f/6 + ST8,RF80/600+G1-0300
V 906 Cyg							
55380.42249	0.0003	I	-0.0028	CCD+Clear	61/25	Trnka J.	Newton 200/1000, ST-9E
V 922 Cyg							
55385.51135	0.0015	II	-----	CCD+R	173/115	Lehky M.	0.40-m f/5 + CCD ST7 + R
55390.48608	0.0007	I	+0.0042	CCD+R	212/128	Lehky M.	0.40-m f/5 + CCD ST7 + R
V 963 Cyg							
55392.51400	0.0001	II	-0.0006	CCD+R	209/145	Lehky M.	0.40-m f/5 + CCD ST7 + R
V 964 Cyg							
55155.25145	0.0004	I	+0.0080	CCD+R	116/53	Lehky M.	0.40-m f/5 + CCD ST7 + R
55463.31558	0.0004	I	+0.0088	CCD+R	190/39	Lehky M.	0.40-m f/5 + CCD ST7 + R
V 965 Cyg							
55063.47255	0.0005	II	-0.0030	CCD+Clear	117/52	Trnka J., Klos M.	Newton 200/1000, ST-9E
55108.31448	0.0005	II	-0.0009	CCD+Clear	156/51	Trnka J.	Newton 200/1000, ST-9E
55392.40755	0.0004	I	-0.0005	CCD+R	214/61	Lehky M.	0.40-m f/5 + CCD ST7 + R

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

<http://var.astro.cz/oejv>

ISSN 1801-5964

March 2011

V 995 Cyg							
55169.24182	0.0003	I	+0.0255	CCD+I	116/65	Šmelcer L.	Celestron 280/1765 + CCD ST7
55464.43242	0.0005	I	+0.0405	CCD+I	91/51	Šmelcer L.	Celestron 280/1765 + CCD ST7
55464.43322	0.0003	I	+0.0413	CCD+R	102/57	Šmelcer L.	Celestron 280/1765 + CCD ST7
V1009 Cyg							
55045.53420	0.0016	I	+0.0006	CCD+R	244/183	Lomoz F.	Newton 300/1200+ST2000XM
55355.40074	0.0016	I	+0.0012	CCD+R	534/77	Lomoz F.	Newton-Schmidt 254/1016+ST2000XM
V1061 Cyg							
55059.50301	0.0006	I	-0.0017	CCD+V	44/20	Šmelcer L.	Celestron 280/1765 + CCD ST7
55059.50321	0.0005	I	-0.0015	CCD+R	41/19	Šmelcer L.	Celestron 280/1765 + CCD ST7
55059.50331	0.0004	I	-0.0014	CCD+I	44/21	Šmelcer L.	Celestron 280/1765 + CCD ST7
V1143 Cyg							
55064.50902	0.0004	I	-0.0012	CCD+Clear	265/81	Mašek M., Hladík B.	Vixen 80/910mm + SBIG ST-7
V1147 Cyg							
54977.40849	0.0003	II	+0.7894	CCD+R	48/22	Šmelcer L.	Celestron 280/1765 + CCD ST7
54977.40969	0.0009	II	+0.7906	CCD+I	43/19	Šmelcer L.	Celestron 280/1765 + CCD ST7
55038.41231	0.0009	II	+0.7879	CCD+R	25/14	Šmelcer L.	Celestron 280/1765 + CCD ST7
55038.41471	0.0010	II	+0.7903	CCD+I	31/16	Šmelcer L.	Celestron 280/1765 + CCD ST7
V1187 Cyg							
55059.33676	0.0011	I	-0.0024	CCD+I	59/16	Šmelcer L.	Celestron 280/1765 + CCD ST7
55059.33856	0.0006	I	-0.0006	CCD+V	57/13	Šmelcer L.	Celestron 280/1765 + CCD ST7
55059.33936	0.0012	I	+0.0002	CCD+R	56/13	Šmelcer L.	Celestron 280/1765 + CCD ST7
55358.47805	0.0005	II	-0.0007	CCD+R	57/22	Šmelcer L.	Celestron 280/1765 + CCD ST7
55358.47845	0.0005	II	-0.0003	CCD+V	58/24	Šmelcer L.	Celestron 280/1765 + CCD ST7
55358.47905	0.0005	II	+0.0003	CCD+I	55/20	Šmelcer L.	Celestron 280/1765 + CCD ST7
55441.36265	0.0023	II	-0.0010	CCD+V	121/53	Corfini G.	GSO 200/800 CCD-UAI
V1191 Cyg							
55059.38256	0.0004	I	+0.0049	CCD+I	62/36	Šmelcer L.	Celestron 280/1765 + CCD ST7
55059.38336	0.0002	I	+0.0057	CCD+R	58/31	Šmelcer L.	Celestron 280/1765 + CCD ST7
55059.38356	0.0002	I	+0.0059	CCD+V	59/32	Šmelcer L.	Celestron 280/1765 + CCD ST7
55136.32088	0.0002	II	+0.0083	CCD+V	54/27	Šmelcer L.	Celestron 280/1765 + CCD ST7
55136.32108	0.0002	II	+0.0085	CCD+I	54/29	Šmelcer L.	Celestron 280/1765 + CCD ST7
55136.32188	0.0003	II	+0.0093	CCD+R	51/28	Šmelcer L.	Celestron 280/1765 + CCD ST7
55357.41670	0.0006	I	+0.0155	CCD+V	54/30	Šmelcer L.	Celestron 280/1765 + CCD ST7
55357.41690	0.0005	I	+0.0157	CCD+I	56/31	Šmelcer L.	Celestron 280/1765 + CCD ST7
55357.41706	0.0007	I	+0.0158	CCD+R	55/30	Šmelcer L.	Celestron 280/1765 + CCD ST7
55358.51539	0.0006	II	+0.0170	CCD+I	54/35	Šmelcer L.	Celestron 280/1765 + CCD ST7
55358.51649	0.0003	II	+0.0181	CCD+R	58/39	Šmelcer L.	Celestron 280/1765 + CCD ST7
55358.51709	0.0007	II	+0.0187	CCD+V	58/39	Šmelcer L.	Celestron 280/1765 + CCD ST7
V1193 Cyg							
55082.49745	0.0004	I	-0.0070	CCD+Clear	104/22	Trnka J.	Newton 200/1000, ST-9E
V1200 Cyg							
55093.39254	0.0001	II	-0.0009	CCD+Clear	105/45	Trnka J.	Newton 200/1000, ST-9E

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

http://var.astro.cz/oejv

ISSN 1801-5964

	March 2011							
V1321 Cyg 55428.38565	0.0010	II	-0.0032	CCD+Clear	38/10	Starzomski J.	refractor 80ED and Canon 300D	
V1508 Cyg 55083.49802	0.0016	II	+0.1193	CCD+R	268/164	Lomož F.	Newton-Schmidt 254/1012+ST2000XM	
55093.45672	0.0016	II	+0.1053	CCD+R	700/508	Lomož F.	Newton-Schmidt 254/1012+ST2000XM	
V2021 Cyg 55093.32646	0.0001	II	-0.0002	CCD+Clear	91/43	Vrašťák M.	RF65/300+CCD G2	
V2165 Cyg 55063.41863	0.0001	I	+0.0286	CCD+Clear	361/173	Vrašťák M.	RF75/300, ccd G2 0402	
V2197 Cyg 55309.59784	0.0001	I	-0.0008	CCD+Clear	133/98	Trnka J.	Newton 200/1000, ST-9E	
V2240 Cyg 55480.47537	0.0006	II	-0.0062	CCD+R	101/77	Šmelcer L.	Celestron 280/1765 + CCD ST7	
55480.47647	0.0004	II	-0.0051	CCD+I	106/80	Šmelcer L.	Celestron 280/1765 + CCD ST7	
V2469 Cyg 55419.41217	0.0002	I	+0.0134	CCD+Clear	190/130	Vrašťák M.	RL 150/750 + CCD G2	
V2477 Cyg 54978.52242	0.0004	I	-0.0013	CCD+R	55/28	Kučáková H.	Newton 200/1200 + SBIG ST8-XME	
55063.49322	0.0000	I	-0.0018	CCD+R	728/411	Kučáková H., Speil J.	Newton 150 + G2	
55084.34752	0.0003	I	-0.0012	CCD+R	141/66	Ehrenberger R.	RL 96/400 + HX516 + R	
55421.43559	0.0003	I	+0.0031	CCD+Clear	57/37	Starzomski J.	refractor 80ED and Canon 300D	
V2480 Cyg 55101.32283	0.0002	I	+0.0322	CCD+Clear	115/90	Trnka J.	Newton 200/1000, ST-9E	
CzeV053 Cyg 55359.43591	\$	0.0002	I	-----	CCD+Clear	185/61	M. Klos, T. Smyčka, J. Trnka Newton 150/750, ST-7	
G2200.1190 Cyg 55102.27502	\$	0.0005	I	-----	CCD+Clear	128/32	Trnka J.	Newton 200/1000, ST-9E
G2200.1413 Cyg 55102.31748	\$	0.0004	I	-----	CCD+Clear	105/65	Trnka J.	Newton 200/1000, ST-9E
USNO-A2.0 1200-12449302 Cyg 55067.39291	\$	0.0016	I	-----	CCD+R	462/133	Lomož F.	Newton-Schmidt 254/1016+ST2000XM
USNO-A2.0 1275-15134722 Cyg 55071.61525	\$	0.0005	II	-----	CCD+R	192/173	Lehky M.	0.40-m f/5 + CCD ST7 + R
55083.50124	\$	0.0004	I	-----	CCD+R	277/181	Lehky M.	0.40-m f/5 + CCD ST7 + R
55094.37482	\$	0.0010	II	-----	CCD+R	191/81	Lehky M.	0.40-m f/5 + CCD ST7 + R
YY Del 55118.41889	0.0011	I	-0.0019	CCD+Clear	127/102	Corfini G.	GSO 200/800 CCD-UAI	

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

March 2011

http://var.astro.cz/oejv

ISSN 1801-5964

EX Del							
55136.21752	0.0007	II	+0.0023	CCD+R	16/8	Šmelcer L.	Celestron 280/1765 + CCD ST7
55136.21782	0.0007	II	+0.0026	CCD+I	18/9	Šmelcer L.	Celestron 280/1765 + CCD ST7
FZ Del							
55089.31051	0.0004	I	+0.0010	CCD+R	25/14	Šmelcer L.	Celestron 280/1765 + CCD ST7
55089.31061	0.0002	I	+0.0011	CCD+I	27/15	Šmelcer L.	Celestron 280/1765 + CCD ST7
55089.31071	0.0002	I	+0.0012	CCD+V	27/14	Šmelcer L.	Celestron 280/1765 + CCD ST7
55098.31871	0.0011	II	+0.0022	CCD+V	53/25	Šmelcer L.	Celestron 280/1765 + CCD ST7
55100.27519	0.0003	I	+0.0007	CCD+R	31/17	Šmelcer L.	Celestron 280/1765 + CCD ST7
55100.27579	0.0002	I	+0.0013	CCD+V	31/18	Šmelcer L.	Celestron 280/1765 + CCD ST7
55100.27579	0.0004	I	+0.0013	CCD+I	30/17	Šmelcer L.	Celestron 280/1765 + CCD ST7
55446.45533	0.0001	I	+0.0013	CCD+R	52/18	Šmelcer L.	Celestron 280/1765 + CCD ST7
55446.45573	0.0002	I	+0.0017	CCD+I	52/19	Šmelcer L.	Celestron 280/1765 + CCD ST7
GG Del							
55480.30561	0.0004	II	-0.0014	CCD+I	65/30	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55480.30636	0.0009	II	-0.0006	CCD+V	63/30	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55480.30698	0.0005	II	-0.0000	CCD+R	66/33	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
MR Del							
55022.42012	0.0011	II	+0.0027	CCD+V	43/29	Šmelcer L.	Celestron 280/1765 + CCD ST7
55022.42232	0.0007	II	+0.0049	CCD+I	46/31	Šmelcer L.	Celestron 280/1765 + CCD ST7
55022.42242	0.0005	II	+0.0050	CCD+R	45/30	Šmelcer L.	Celestron 280/1765 + CCD ST7
55023.46346	0.0011	II	+0.0026	CCD+R	26/10	Šmelcer L.	Celestron 280/1765 + CCD ST7
55023.46426	0.0012	II	+0.0034	CCD+V	24/9	Šmelcer L.	Celestron 280/1765 + CCD ST7
55023.46566	0.0006	II	+0.0048	CCD+I	26/11	Šmelcer L.	Celestron 280/1765 + CCD ST7
55145.27847	0.0006	I	+0.0033	CCD+I	56/23	Šmelcer L.	Celestron 280/1765 + CCD ST7
55145.27847	0.0005	I	+0.0033	CCD+R	47/27	Šmelcer L.	Celestron 280/1765 + CCD ST7
55389.42889	0.0003	I	+0.0030	CCD+R	51/28	Šmelcer L.	Celestron 280/1765 + CCD ST7
55389.42900	0.0004	I	+0.0032	CCD+R	132/36	Lehky M.	EQ6 + 2.8/80 + CCD ST5C + VRI
55389.42909	0.0003	I	+0.0032	CCD+V	44/28	Šmelcer L.	Celestron 280/1765 + CCD ST7
55389.42919	0.0002	I	+0.0033	CCD+I	50/26	Šmelcer L.	Celestron 280/1765 + CCD ST7
AI Dra							
55036.43310	0.0050	I	-0.0043	vis	13/6	Mašek M.	Somet-Binar 25x100
55036.43950	0.0085	I	+0.0021	vis	18/9	Moudrá M.	SB 25x100
AU Dra							
55479.32296	0.0002	I	-0.0024	CCD+V	36/19	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55479.32307	0.0002	I	-0.0023	CCD+R	36/17	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55479.32319	0.0003	I	-0.0022	CCD+I	39/19	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
BF Dra							
55258.63269	0.0002	II	+0.1797	CCD+R	392/343	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
BL Dra							
55168.29462	0.0004	I	-0.0049	CCD+R	124/75	Ehrenberger R.	RL 96/400 + HX516 + R
BS Dra							
55060.44533	0.0005	II	+0.0026	CCD+Clear	237/13	Hladík B.	Vixen 80/910 ST7

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

http://var.astro.cz/oejv

ISSN 1801-5964

March 2011

BV Dra							
55304.52393	0.0001	II	-0.0008	CCD+Clear	221/97	Polák J.	ED 120/900
55619.40965	0.0001	I	-0.0004	CCD+Clear	751/311	Polák J.	ED 120/900
BW Dra							
55000.36626	0.0005	I	-0.0071	CCD+I	21/12	Šmelcer L.	Celestron 280/1765 + CCD ST7
55000.36656	0.0002	I	-0.0068	CCD+V	23/11	Šmelcer L.	Celestron 280/1765 + CCD ST7
55000.36676	0.0004	I	-0.0066	CCD+R	22/11	Šmelcer L.	Celestron 280/1765 + CCD ST7
55304.50633	0.0002	I	-0.0111	CCD+Clear	118/55	Polák J.	ED 120/900
55619.45500	0.0001	I	-0.0166	CCD+Clear	648/442	Polák J.	ED 120/900
BX Dra							
54954.38439	0.0003	II	-0.0033	CCD+R	108/51	Ehrenberger R.	RL 96/400 + HX516 + R
CV Dra							
55484.30372	0.0003	I	+0.0044	CCD+I	53/33	Šmelcer L.	Celestron 280/1765 + CCD ST7
55484.30442	0.0006	I	+0.0051	CCD+R	54/36	Šmelcer L.	Celestron 280/1765 + CCD ST7
FU Dra							
55460.29229	0.0005	I	-0.0042	CCD+R	30/21	Šmelcer L.	Celestron 280/1765 + CCD ST7
55460.29279	0.0005	I	-0.0037	CCD+I	31/21	Šmelcer L.	Celestron 280/1765 + CCD ST7
FX Dra							
55076.38217	0.0001	II	-----	CCD+R	626/258	Lehky M.	0.40-m f/5 + CCD ST7 + R
55279.30306	0.0001	I	+0.0015	CCD+R	389/191	Lehky M.	0.40-m f/5 + CCD ST7 + R
55296.45335	0.0010	I	+0.0032	CCD+Clear	291/59	Vieira J.	WO102 APO, ATIK 16HR and CG5
LN Dra							
54950.33173	0.0003	I	-0.0005	CCD+R	98/46	Lehky M.	0.40-m f/5 + CCD ST7 + R
55357.40750	0.0010	I	+0.0009	CCD+Clear	56/21	Přibík V.	Newton 254/1200, CCD G2-1600, EQ6
USNO-B1.0 1394-0302975 Dra §							
55059.56082	0.0030	I	-----	CCD+R	550/505	Lomoz F.	Newto-Schmidt 254/1016+ST2000XM
WW Gem							
55278.31473	0.0006	I	-0.0011	CCD+R	48/27	Šmelcer L.	Celestron 280/1765 + CCD ST7
55278.31523	0.0007	I	-0.0006	CCD+V	52/27	Šmelcer L.	Celestron 280/1765 + CCD ST7
55278.31563	0.0004	I	-0.0002	CCD+I	52/28	Šmelcer L.	Celestron 280/1765 + CCD ST7
55554.34417	0.0005	I	-0.0037	CCD+R	109/49	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
YY Gem							
55627.30338	0.0001	I	+0.0058	CCD+B	49/22	Trnka J.	Newton 200/1000, G2 - 1600
55627.30368	0.0001	I	+0.0061	CCD+V	57/31	Trnka J.	Newton 200/1000, G2 - 1600
55627.30368	0.0001	I	+0.0061	CCD+I	50/31	Trnka J.	Newton 200/1000, G2 - 1600
55627.30378	0.0002	I	+0.0062	CCD+R	50/31	Trnka J.	Newton 200/1000, G2 - 1600
AL Gem							
55257.40004	0.0003	I	+0.0068	CCD+V	58/36	Šmelcer L.	Celestron 280/1765 + CCD ST7
55257.40014	0.0002	I	+0.0069	CCD+R	56/36	Šmelcer L.	Celestron 280/1765 + CCD ST7
55257.40024	0.0002	I	+0.0070	CCD+I	54/34	Šmelcer L.	Celestron 280/1765 + CCD ST7
55264.35722	0.0002	I	+0.0073	CCD+I	88/47	Šmelcer L.	Celestron 280/1765 + CCD ST7

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

ISSN 1801-5964

55264.35722	March 2011 0.0002	I	+0.0073	CCD+R 89/50	http://var.astro.cz/oejv Šmelcer L.	Celestron 280/1765 + CCD ST7	
EN Gem 55162.45949	0.0005	I	-0.0155	CCD+Clear 113/59	Trnka J.	Newton 200/1000, ST-9E	
FG Gem 55294.33547 55312.35712 55515.50114	0.0015 0.0017 0.0001	I I I	+0.0071 +0.0079 +0.0082	CCD+V CCD+V CCD+Clear	38/22 49/34 131/89	Corfini G. Corfini G. Brát L.	GSO 200/800 CCD-UAI GSO 200/800 CCD-UAI RL200, f/6 + ST8, guider RF80/600+G1-0300
GW Gem 55257.28014	0.0002	I	+0.0045	CCD+I	62/22	Šmelcer L.	Celestron 280/1765 + CCD ST7
HR Gem 55625.26080 55625.26090 55625.26150 55626.32935 55626.33065 55626.33075 55626.33165	0.0007 0.0004 0.0003 0.0005 0.0004 0.0003 0.0005	I I I I I I I	-0.0090 -0.0089 -0.0083 -0.0094 -0.0081 -0.0080 -0.0071	CCD+V CCD+I CCD+R CCD+V CCD+I CCD+R CCD+B	34/8 34/7 31/8 52/31 49/30 45/26 50/34	Šmelcer L. Šmelcer L. Šmelcer L. Trnka J. Trnka J. Trnka J. Trnka J.	Celestron 280/1765 + CCD G2 1600 Celestron 280/1765 + CCD G2 1600 Celestron 280/1765 + CCD G2 1600 Newton 200/1000, G2 - 1600 Newton 200/1000, G2 - 1600 Newton 200/1000, G2 - 1600 Newton 200/1000, G2 - 1600
HY Gem 55602.45643	0.0016	I	+0.0474	CCD+Clear	434/235	Lomoz F.	Newton-Schmidt 254/1016+G2-8300
IV Gem 55602.36292	0.0003	I	+0.0047	CCD+Clear	202/107	Vrašťák M.	RL240/1200+CCD G2 1600
KV Gem 55249.32530 55578.26636 55578.26636	0.0003 0.0002 0.0002	II I I	-0.0015 -0.0044 -0.0044	CCD+I CCD+I CCD+R	63/37 44/18 46/21	Šmelcer L. Šmelcer L. Šmelcer L.	Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD G2 1600 Celestron 280/1765 + CCD G2 1600
V 388 Gem § 55593.40318 55593.40318 55601.28064 55627.33533	0.0016 0.0016 0.0016 0.0005	I I I I	-0.0114 -0.0114 -0.0112 -0.0122	CCD+R CCD+Clear CCD+Clear CCD+Clear	246/209 332/213 509/15 154/33	Lomoz F. Lomoz F. Lomoz F. Audejean M.	Newton 300/1200+ST2000XM Newton-Schmidt 254/1016+G2-8300 Newton-Schmidt 254/1016+G2-8300 0.32-m f/6 Newtonian reflector + CCD
V 389 Gem 55546.43884	0.0003	I	-0.0046	CCD+V	208/37	Ruocco N.	Meade LX200 f/10 + ST7
CzeV149 Gem 54499.41937 55263.35058	§ 0.0016 0.0016	II II	----- -----	CCD+R CCD+R	232/27 182/130	Lomoz F. Lomoz F.	Newton-Schmidt 254/1016+ST2000XM Newton-Schmidt 254/1016+ST2000XM
CzeV176 Gem 55155.48044	0.0002	II	-----	CCD+Clear	325/17	Trnka J.	Newton 200/1000, ST-9E
CzeV177 Gem 55155.53282	§ 0.0001	I	-----	CCD+Clear	200/86	Trnka J.	Newton 200/1000, ST-9E

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

http://var.astro.cz/oejv

ISSN 1801-5964

	March 2011						
G1330.0287 Gem 55578.31236	0.0003	I	-----	CCD+R	50/42	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
AM Her 55279.54707	0.0016	I	+0.0089	CCD+R	299/167	Lomoz F.	Newton-Schmidt 254/1016+ST2000XM
CC Her 54969.39380 54969.39390 54969.39390 55340.48551 55340.48611	0.0002 0.0003 0.0002 0.0002 0.0002	I I I I I	+0.0183 +0.0184 +0.0184 +0.0301 +0.0307	CCD+R CCD+I CCD+V CCD+R CCD+I	33/18 31/19 34/19 35/18 34/19	Šmelcer L. Šmelcer L. Šmelcer L. Šmelcer L. Šmelcer L.	Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD ST7
DD Her 55315.48473	0.0007	I	-0.0137	CCD+R	90/58	Kocián R.	Newton 200/1200 + SBIG ST8-XME
DK Her 54979.47141 54979.47171 54979.47171	0.0002 0.0002 0.0001	I I I	-0.0091 -0.0088 -0.0088	CCD+I CCD+V CCD+R	46/22 49/22 47/24	Kučáková H. Kučáková H. Kučáková H.	Newton 200/1200 + SBIG ST8-XME Newton 200/1200 + SBIG ST8-XME Newton 200/1200 + SBIG ST8-XME
FW Her 55265.65279 55278.60681	0.0003 0.0005	I II	+0.0048 -----	CCD+R CCD+R	81/55 103/51	Lehky M. Lehky M.	0.40-m f/5 + CCD ST7 + R 0.40-m f/5 + CCD ST7 + R
HS Her 55060.34097 55060.34157 55082.46936 55082.47036 55101.27761 55101.27851 55353.44219 55353.44279 55353.44289 55462.35347 55462.35417 55462.35687	0.0003 0.0004 0.0007 0.0007 0.0002 0.0004 0.0003 0.0002 0.0003 0.0008 0.0007 0.0011	I I II II I I I I I II II II	-0.0099 -0.0093 +0.0131 +0.0141 -0.0091 -0.0082 -0.0094 -0.0088 -0.0087 +0.0125 +0.0132 +0.0159	CCD+I CCD+R CCD+I CCD+R CCD+R CCD+I CCD+R CCD+I CCD+V CCD+R CCD+I CCD+V	74/37 69/37 78/42 75/45 71/30 73/31 74/35 75/36 70/34 94/49 91/46 92/49	Šmelcer L. Šmelcer L.	Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD ST7
IK Her 55278.50206 55312.58137	0.0200 0.0003	I I	+0.0076 +0.0047	CCD+Clear CCD+Clear	140/41 111/67	Přibík V. Trnka J.	Newton 254/1200, CCD G2-1600, EQ6 Newton 200/1000, ST-9E
LT Her 55340.38666 55353.39666	0.0011 0.0025	I I	+0.0064 +0.0080	CCD+V CCD+V	72/37 77/35	Corfini G. Corfini G.	GSO 200/800 CCD-UAI GSO 200/800 CCD-UAI
MX Her 55072.34961 55370.48647	0.0002 0.0001	I I	-0.0238 -0.0321	CCD+Clear CCD+Clear	107/49 95/43	Trnka J. T. Smyčka, J. Trnka	Newton 200/1000, ST-9E Newton 200/1000, ST-9E

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

http://var.astro.cz/oejv

ISSN 1801-5964

March 2011

OS Her 54925.60807	0.0100	I	+0.1119	CCD+B	216/194	Přibík V.	Newton 254/1200, CCD G2-1600, EQ6
PW Her 55045.45101	0.0023	I	+0.0343	CCD+I	255/153	Šmelcer L.	Celestron 280/1765 + CCD ST7
55434.39750	0.0016	I	+0.0363	CCD+R	104/46	Šmelcer L.	Celestron 280/1765 + CCD ST7
55434.39790	0.0017	I	+0.0367	CCD+V	100/45	Šmelcer L.	Celestron 280/1765 + CCD ST7
55434.40000	0.0010	I	+0.0388	CCD+I	100/41	Šmelcer L.	Celestron 280/1765 + CCD ST7
TX Her 55370.42099	0.0001	I	-0.0021	CCD+Clear	45/23	Starzomski J.	refractor 80ED and Canon 300D
UX Her 55025.40539	0.0011	II	+0.0006	CCD+V	61/22	Šmelcer L.	Celestron 280/1765 + CCD ST7
55025.40909	0.0007	II	+0.0043	CCD+R	60/25	Šmelcer L.	Celestron 280/1765 + CCD ST7
55025.41259	0.0011	II	+0.0078	CCD+I	63/26	Šmelcer L.	Celestron 280/1765 + CCD ST7
V 366 Her 55310.43420	0.0002	II	+0.0143	CCD+Clear	189/85	Trnka J.	Newton 150/750, ST-7
V 381 Her 55380.53886	0.0003	I	+0.0116	CCD+Clear	204/181	Vrašťák M.	RL 150/750 + CCD G2
V 681 Her 55260.55894	0.0001	I	+0.0008	CCD+Clear	131/63	Trnka J.	Newton 200/1000, ST-9E
V 728 Her 55050.37868	0.0005	I	+0.0029	CCD+R	34/20	Šmelcer L.	Celestron 280/1765 + CCD ST7
55050.37878	0.0005	I	+0.0030	CCD+I	37/22	Šmelcer L.	Celestron 280/1765 + CCD ST7
55050.37918	0.0009	I	+0.0034	CCD+V	36/21	Šmelcer L.	Celestron 280/1765 + CCD ST7
55352.47568	0.0022	I	+0.0035	CCD+R	30/9	Šmelcer L.	Celestron 280/1765 + CCD ST7
55352.47698	0.0016	I	+0.0048	CCD+V	30/10	Šmelcer L.	Celestron 280/1765 + CCD ST7
55352.47758	0.0008	I	+0.0054	CCD+I	29/11	Šmelcer L.	Celestron 280/1765 + CCD ST7
V 829 Her 55279.44004	0.0003	I	-0.0008	CCD+R	160/81	Lehky M.	0.40-m f/5 + CCD ST7 + R
55306.48394	0.0009	II	+0.0017	CCD+R	60/26	Šmelcer L.	Celestron 280/1765 + CCD ST7
55306.48484	0.0007	II	+0.0026	CCD+I	62/28	Šmelcer L.	Celestron 280/1765 + CCD ST7
V 842 Her 55376.46332	0.0001	I	-0.0057	CCD+Clear	168/71	Trnka J.	Orestegor 90/300, ST-9E
V 856 Her 55387.45059	0.0003	II	+0.0116	CCD+R	252/130	Lehky M.	0.40-m f/5 + CCD ST7 + R
55428.43086	0.0002	I	+0.0114	CCD+R	234/151	Lehky M.	0.40-m f/5 + CCD ST7 + R
V 921 Her 55374.39315	0.0004	I	+0.0115	CCD+I	122/46	Poddaný S.	Meade LX 200 40,6 cm, SBIG ST10XME
V 972 Her 55390.53963	0.0005	I	+0.0923	CCD+R	206/166	Lehky M.	EQ6 + 2.8/80 + CCD ST5C + VRI

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

http://var.astro.cz/oejv

ISSN 1801-5964

March 2011						
V 994 Her	§					
55392.44298	B	0.0005	I	+0.9103	CCD+R	83/15 Šmelcer L.
55392.44428	B	0.0007	I	+0.9116	CCD+I	91/17 Šmelcer L.
55413.40408	A	0.0007	I	-0.0030	CCD+I	60/30 Šmelcer L.
55413.40458	A	0.0006	I	-0.0025	CCD+R	60/28 Šmelcer L.
55413.40478	A	0.0004	I	-0.0023	CCD+V	50/26 Šmelcer L.
V1002 Her						
55416.46417		0.0062	I	-0.0176	CCD+V	135/92 Corfini G.
V1038 Her						
55386.42358		0.0001	I	+0.0054	CCD+Clear	56/31 Starzomski J.
V1045 Her						
55303.40713		0.0002	II	-0.0039	CCD+Clear	111/57 Trnka J.
55365.41380		0.0003	I	+0.0032	CCD+Clear	40/20 Starzomski J.
V1049 Her						
55385.42640		0.0003	II	-0.0969	CCD+Clear	202/96 Vrašťák M.
55413.41924		0.0004	I	-0.1147	CCD+Clear	181/102 Vrašťák M.
V1052 Her						
54972.45149		0.0002	I	+0.0010	CCD+I	64/47 Šmelcer L.
54972.45189		0.0003	I	+0.0014	CCD+R	59/46 Šmelcer L.
55387.41097		0.0002	I	+0.0029	CCD+Clear	65/26 Starzomski J.
V1054 Her						
55280.63450		0.0005	I	-0.2427	CCD+Clear	308/258 Trnka J.
V1057 Her						
55312.45668		0.0001	I	-0.0075	CCD+Clear	85/46 Trnka J.
55353.49935		0.0002	II	+0.0034	CCD+Clear	133/52 Trnka J.
V1060 Her §						
55062.42607		0.0003	I	-0.2247	CCD+R	300/151 Lehky M.
55355.38412		0.0008	I	+0.0074	CCD+R	285/51 Lehky M.
55388.45766		0.0003	I	+0.0977	CCD+R	297/146 Lehky M.
V1064 Her						
55265.56264		0.0200	I	+0.0015	CCD+Clear	343/117 Přibík V.
55312.57482		0.0001	I	+0.0020	CCD+R	72/35 Brát L.
V1066 Her §						
54959.48845		0.0005	I	-0.0066	CCD+I	66/34 Dřevěný R.
54959.48924		0.0003	I	-0.0059	CCD+R	68/37 Dřevěný R.
54969.47575		0.0008	II	-0.0025	CCD+B	70/46 Dřevěný R.
54969.47582		0.0006	II	-0.0024	CCD+V	66/43 Dřevěný R.
55446.49952		0.0005	II	-0.0063	CCD+I	91/64 Dřevěný R.
55446.50081		0.0006	II	-0.0050	CCD+R	98/72 Dřevěný R.
V1068 Her						
54959.43959		0.0002	I	+0.0095	CCD+I	68/19 Dřevěný R.

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

http://var.astro.cz/oejv

ISSN 1801-5964

March 2011						
54959.44118	0.0002	I	+0.0111	CCD+R	66/19	Dřevěný R.
55410.52555	0.0003	I	+0.0620	CCD+I	60/38	Dřevěný R.
55410.52854	0.0008	I	+0.0650	CCD+R	62/41	Dřevěný R.
55431.42522	0.0006	I	+0.0659	CCD+V	25/14	Dřevěný R.
55431.42531	0.0006	I	+0.0660	CCD+B	28/15	Dřevěný R.
55446.40766	0.0003	I	+0.0665	CCD+I	94/36	Dřevěný R.
55446.40899	0.0005	I	+0.0678	CCD+R	96/39	Dřevěný R.
V1069 Her						
55279.48994	0.0001	II	-0.0593	CCD+Clear	306/68	Trnka J.
V1071 Her						
55385.42652	0.0002	I	-0.0029	CCD+Clear	69/35	Starzomski J.
V1072 Her §						
54947.45934	0.0005	II	+0.0776	CCD+R	233/131	Lehky M.
55323.50446	0.0002	I	+0.0803	CCD+Clear	137/108	Trnka J.
55436.40231	0.0001	I	+0.0783	CCD+V	48/43	Corfini G.
55439.34557	0.0012	I	+0.0814	CCD+V	61/24	Corfini G.
V1073 Her						
55026.42749	0.0002	II	-0.0029	CCD+V	27/18	Šmelcer L.
55026.42779	0.0002	II	-0.0026	CCD+R	36/22	Šmelcer L.
55026.42849	0.0002	II	-0.0019	CCD+I	36/23	Šmelcer L.
55058.35711	0.0003	I	-0.0029	CCD+I	32/15	Šmelcer L.
55058.35741	0.0002	I	-0.0026	CCD+R	31/14	Šmelcer L.
55342.48625	0.0003	II	-0.0028	CCD+I	22/12	Šmelcer L.
55342.48625	0.0004	II	-0.0028	CCD+R	22/11	Šmelcer L.
55342.48675	0.0003	II	-0.0023	CCD+V	19/11	Šmelcer L.
V1091 Her						
55371.38609	0.0032	I	+0.0330	CCD+V	53/25	Corfini G.
55372.56588	0.0043	I	+0.0322	CCD+V	56/32	Corfini G.
V1098 Her §						
55417.39515	0.0003	I	+0.0498	CCD+V	74/47	Corfini G.
55454.38121	0.0003	I	+0.0481	CCD+R	89/57	Corfini G.
V1100 Her §						
55018.47116	0.0003	II	+0.0057	CCD+R	133/74	Ehrenberger R.
55075.36947	0.0002	II	+0.0077	CCD+R	105/53	Dřevěný R.
55075.37094	0.0002	II	+0.0092	CCD+R	138/82	Ehrenberger R.
55353.43800	0.0002	I	+0.0129	CCD+Clear	328/148	Trnka J.
55394.37855	0.0010	I	+0.0158	CCD+V	35/24	Corfini G.
V1106 Her §						
54971.43296	0.0016	I	+0.0063	CCD+R	292/103	Lomoz F.
G3089.1247 Her						
55310.57511	0.0001	II	+0.0025	CCD+Clear	210/146	Trnka J.
G3089.1273 Her	§					
55310.49172	0.0006	I	-----	CCD+R	64/9	Brát L.

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

http://var.astro.cz/oejv

ISSN 1801-5964

[55310.49226](#)

March 2011

0.0002 I

CCD+Clear 210/35 Trnka J.

Newton 200/1000, ST-9E

CU Hya

[55278.30707](#)

0.0003 I

+0.0037

CCD+R

69/33

Lehky M.

0.40-m f/5 + CCD ST7 + R

DF Hya

[55295.38537](#)

0.0002 I

+0.0055

CCD+R

56/33

Šmelcer L.

Celestron 280/1765 + CCD ST7

[55295.38547](#)

0.0002 I

+0.0056

CCD+I

59/34

Šmelcer L.

Celestron 280/1765 + CCD ST7

[55578.54972](#)

0.0001 II

+0.0109

CCD+Clear

97/52

Mašek M.

R70/700mm, 0,5x reducer + Meade DSI

[55629.46329](#)

0.0002 II

+0.0120

CCD+R

71/37

Šmelcer L.

Celestron 280/1765 + CCD G2 1600

[55629.46360](#)

0.0002 II

+0.0123

CCD+I

69/37

Šmelcer L.

Celestron 280/1765 + CCD G2 1600

[55629.46410](#)

0.0002 II

+0.0128

CCD+V

69/38

Šmelcer L.

Celestron 280/1765 + CCD G2 1600

SW Lac

[55030.45163](#)

0.0001 II

+0.0029

CCD+R

29/18

Šmelcer L.

Celestron 280/1765 + CCD ST7

[55030.45183](#)

0.0001 II

+0.0031

CCD+V

30/18

Šmelcer L.

Celestron 280/1765 + CCD ST7

[55030.45183](#)

0.0001 II

+0.0031

CCD+I

34/21

Šmelcer L.

Celestron 280/1765 + CCD ST7

UW Lac

[55095.42516](#)

0.0003 I

+0.0340

CCD+R

547/320

Kučáková H.

Newton 200/1200 + SBIG ST8-XME

VX Lac

[55093.38244](#)

0.0001 I

-0.0066

CCD+R

50/24

Šmelcer L.

Celestron 280/1765 + CCD ST7

[55093.38264](#)

0.0002 I

-0.0064

CCD+I

51/24

Šmelcer L.

Celestron 280/1765 + CCD ST7

[55354.48810](#)

0.0002 I

-0.0038

CCD+I

32/17

Šmelcer L.

Celestron 280/1765 + CCD ST7

[55354.48850](#)

0.0002 I

-0.0034

CCD+R

33/18

Šmelcer L.

Celestron 280/1765 + CCD ST7

AR Lac

[55060.49804](#)

0.0001 II

+0.0223

CCD+Clear

520/278

Vrašták M.

75/300+ccd G2 402

[55062.48124](#)

0.0002 II

+0.0223

CCD+Clear

382/211

Vrašták M.

RF75/300 ccd G2 402

AU Lac

[55480.26643](#)

0.0002 I

-0.0036

CCD+I

44/17

Šmelcer L.

Celestron 280/1765 + CCD ST7

CO Lac

[55130.32719](#)

0.0005 I

-0.0066

CCD+I

38/14

Šmelcer L.

Celestron 280/1765 + CCD ST7

[55130.32739](#)

0.0004 I

-0.0064

CCD+V

43/14

Šmelcer L.

Celestron 280/1765 + CCD ST7

[55130.32809](#)

0.0002 I

-0.0057

CCD+R

42/14

Šmelcer L.

Celestron 280/1765 + CCD ST7

DG Lac

[55204.23673](#)

0.0003 I

-0.0039

CCD+I

62/23

Šmelcer L.

Celestron 280/1765 + CCD ST7

[55204.23893](#)

0.0003 I

-0.0017

CCD+R

60/23

Šmelcer L.

Celestron 280/1765 + CCD ST7

[55473.43280](#)

0.0004 I

+0.0012

CCD+R

42/24

Šmelcer L.

Celestron 280/1765 + CCD ST7

[55473.43330](#)

0.0004 I

+0.0017

CCD+I

44/25

Šmelcer L.

Celestron 280/1765 + CCD ST7

EM Lac

[55083.41422](#)

0.0002 I

+0.0016

CCD+I

68/36

Šmelcer L.

Celestron 280/1765 + CCD ST7

[55164.35586](#)

0.0002 I

+0.0031

CCD+R

60/36

Šmelcer L.

Celestron 280/1765 + CCD ST7

[55164.35586](#)

0.0002 I

+0.0031

CCD+I

53/31

Šmelcer L.

Celestron 280/1765 + CCD ST7

[55473.52535](#)

0.0002 II

+0.0049

CCD+I

30/15

Šmelcer L.

Celestron 280/1765 + CCD ST7

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

ISSN 1801-5964

55473.52745	March 2011 0.0003	II	+0.0070	CCD+R	http://var.astro.cz/oejv 37/18 Šmelcer L.	Celestron 280/1765 + CCD ST7
IL Lac						
55075.53868	0.0003	I	+0.0077	CCD+R	220/122 Kučáková H.	Meade 12' LX200GPS + SBIG ST8-XME
LZ Lac						
55071.47561	0.0006	I	+0.0042	CCD+R	80/36 Ehrenberger R.	RL 96/400 + HX516 + R
MZ Lac						
55459.50252	0.0009	II	+0.1257	CCD+I	47/22 Šmelcer L.	Celestron 280/1765 + CCD ST7
55459.50322	0.0007	II	+0.1264	CCD+R	53/29 Šmelcer L.	Celestron 280/1765 + CCD ST7
55459.50352	0.0007	II	+0.1267	CCD+V	51/28 Šmelcer L.	Celestron 280/1765 + CCD ST7
OP Lac						
55457.42362	0.0008	II	+0.0172	CCD+R	214/116 Lehky M.	0.40-m f/5 + CCD ST7 + R
55462.50320	0.0007	I	+0.0078	CCD+R	180/53 Lehky M.	0.40-m f/5 + CCD ST7 + R
PP Lac						
55042.37295	0.0001	I	+0.0026	CCD+R	114/63 Lehky M.	0.40-m f/5 + CCD ST7 + R
55067.44549	0.0002	II	+0.0021	CCD+R	40/20 Šmelcer L.	Celestron 280/1765 + CCD ST7
55067.44569	0.0002	II	+0.0023	CCD+I	39/20 Šmelcer L.	Celestron 280/1765 + CCD ST7
55098.33536	0.0002	II	+0.0026	CCD+R	127/67 Ehrenberger R.	RL 96/400 + HX516 + R
55350.46462	0.0001	I	+0.0026	CCD+R	99/99 Zejda M.	RL300+CCD G2
55462.38812	0.0001	I	+0.0022	CCD+R	86/49 Lehky M.	0.40-m f/5 + CCD ST7 + R
V 345 Lac						
54976.45496	0.0006	II	-0.1190	CCD+R	94/28 Kučáková H.	Newton 200/1200 + SBIG ST8-XME
54976.46106	0.0013	II	-0.1129	CCD+Clear	127/25 Brát L.	RL200, f/6 + ST8, RF80/600+G1-0300
55126.29354	0.0005	II	-0.1182	CCD+R	65/34 Šmelcer L.	Celestron 280/1765 + CCD ST7
55126.29374	0.0009	II	-0.1180	CCD+I	58/33 Šmelcer L.	Celestron 280/1765 + CCD ST7
55156.25593	0.0009	II	-0.1234	CCD+R	137/90 Kučáková H.	Meade 12' LX200GPS + SBIG ST8-XME
V 364 Lac						
55071.44345	0.0001	I	+0.0305	CCD+R	213/112 Kučáková H.	Meade 12, LX200GPS + SBIG ST8-XME
55446.37151	0.0004	I	+0.0302	CCD+I	62/39 Šmelcer L.	Celestron 280/1765 + CCD ST7
55446.37241	0.0003	I	+0.0311	CCD+V	61/38 Šmelcer L.	Celestron 280/1765 + CCD ST7
55446.37261	0.0003	I	+0.0313	CCD+R	53/36 Šmelcer L.	Celestron 280/1765 + CCD ST7
V 398 Lac						
55156.31076	0.0005	I	+0.0040	CCD+I	250/138 Kučáková H.	Newton 200/1200 + SBIG ST8-XME
55156.31306	0.0005	I	+0.0063	CCD+V	240/134 Kučáková H.	Newton 200/1200 + SBIG ST8-XME
55156.31686	0.0003	I	+0.0101	CCD+R	277/148 Kučáková H.	Newton 200/1200 + SBIG ST8-XME
55169.26805	0.0007	II	-----	CCD+I	260/113 Kučáková H.	Newton 200/1200 + SBIG ST8-XME
55169.26855	0.0005	II	-----	CCD+V	269/122 Kučáková H.	Newton 200/1200 + SBIG ST8-XME
55169.26925	0.0003	II	-----	CCD+R	258/121 Kučáková H.	Newton 200/1200 + SBIG ST8-XME
V 401 Lac						
55041.50743	0.0002	II	-0.0099	CCD+R	401/103 Kučáková H.	Newton 200/1200 + SBIG ST8-XME
V 402 Lac						
55433.49292	0.0004	I	+0.1069	CCD+B	279/140 Naves R.	S/C 305mm f6 + CCD ST8XME+AO8
55443.56147	0.0004	II	+0.7205	CCD+B	102/35 Naves R.	S/C 305mm f6 + CCD ST8XME+AO8

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

http://var.astro.cz/oejv

ISSN 1801-5964

March 2011

V 430 Lac							
55068.45584	0.0006	II	-----	CCD+R	194/95	Lehky M.	0.40-m f/5 + CCD ST7 + R
55075.42894	0.0003	I	+0.2248	CCD+R	166/109	Lehky M.	0.40-m f/5 + CCD ST7 + R
55381.47225	0.0006	II	-----	CCD+R	158/79	Lehky M.	0.40-m f/5 + CCD ST7 + R
55461.28480	0.0004	I	+0.2331	CCD+R	39/18	Lehky M.	0.40-m f/5 + CCD ST7 + R
V 458 Lac §							
55161.20198	0.0004	I	-0.0784	CCD+R	66/23	Lehky M.	0.40-m f/5 + CCD ST7 + R
55375.52452	0.0002	I	-0.0799	CCD+R	134/70	Lehky M.	0.40-m f/5 + CCD ST7 + R
CzeV137 Lac							
55399.40750	0.0004	II	+0.0031	CCD+R	172/50	Lehky M.	0.40-m f/5 + CCD ST7 + R
55457.30320	0.0009	I	+0.0064	CCD+R	123/36	Lehky M.	0.40-m f/5 + CCD ST7 + R
55462.52947	0.0006	II	+0.0049	CCD+R	107/66	Lehky M.	0.40-m f/5 + CCD ST7 + R
CzeV138 Lac	§						
55399.43453	0.0003	I	+0.0236	CCD+R	184/73	Lehky M.	0.40-m f/5 + CCD ST7 + R
55457.48692	0.0020	II	+0.0205	CCD+R	193/142	Lehky M.	0.40-m f/5 + CCD ST7 + R
55462.47174	0.0009	I	+0.0291	CCD+R	180/34	Lehky M.	0.40-m f/5 + CCD ST7 + R
CzeV139 Lac							
55462.53859	0.0006	II	+0.0002	CCD+R	168/92	Lehky M.	0.40-m f/5 + CCD ST7 + R
CzeV159 Lac	§						
55364.45303	0.0003	I	-----	CCD+Clear	177/44	Trnka J.	Newton 200/1000, ST-9E
CzeV161 Lac	§						
55381.40392	0.0005	I	-----	CCD+R	146/22	Lehky M.	0.40-m f/5 + CCD ST7 + R
55381.53072	0.0007	II	-----	CCD+R	146/115	Lehky M.	0.40-m f/5 + CCD ST7 + R
55461.26829	0.0003	II	-----	CCD+R	36/11	Lehky M.	0.40-m f/5 + CCD ST7 + R
G3210.1456 Lac	§						
55381.50384	0.0004	I	-----	CCD+R	165/138	Brát L.	RL200, f/6 + ST8, RF80/600+G1-0300
G3984.0503 Lac	§						
55102.57303	0.0002	I	-----	CCD+Clear	82/31	Trnka J.	Newton 200/1000, ST-9E
RW Leo							
55304.41665	0.0009	I	-0.0108	CCD+I	36/15	Šmelcer L.	Celestron 280/1765 + CCD ST7
55622.41356	0.0006	I	-0.0128	CCD+I	37/24	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55622.41426	0.0003	I	-0.0121	CCD+R	56/26	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
UU Leo							
55301.37679	0.0001	I	+0.0025	CCD+V	90/53	Corfini G.	GSO 200/800 CCD-UAI
UV Leo							
55304.34498	0.0007	I	+0.0060	CCD+Clear	26/9	Starzomski J.	refractor 80ED and Canon 300D
UZ Leo							
55279.46573	0.0002	I	-0.0005	CCD+R	119/74	Šmelcer L.	Celestron 280/1765 + CCD ST7
55280.39109	0.0002	II	-0.0022	CCD+R	145/82	Ehrenberger R.	RL 96/400 + HX516

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

March 2011

<http://var.astro.cz/oejv>

ISSN 1801-5964

XY Leo							
54964.37103	0.0006	I	<u>-0.0100</u>	CCD+R	21/11	Šmelcer L.	Celestron 280/1765 + CCD ST7
54964.37153	0.0013	I	<u>-0.0095</u>	CCD+V	20/11	Šmelcer L.	Celestron 280/1765 + CCD ST7
54964.37273	0.0008	I	<u>-0.0083</u>	CCD+I	20/11	Šmelcer L.	Celestron 280/1765 + CCD ST7
55623.49869	0.0002	I	<u>-0.0011</u>	CCD+Clear	111/72	Trnka J.	Orestegor 300/4, ST-9E
XZ Leo							
55269.30996	0.0002	I	<u>-0.0003</u>	CCD+V	52/52	Marchi F.	Mak.200 mm F3.3 - CCD Fli Kaf 3200
55534.63843	0.0001	I	<u>-0.0007</u>	CCD+R	159/52	Brát L.	RL200, f/6 + ST8, RF80/600+G1-0300
AM Leo							
55289.35827	0.0030	I	<u>+0.0039</u>	CCD+Clear	149/37	Mašek M.	R70/700mm, 0,5 reducer + Meade DSI
AP Leo							
55290.39438	0.0001	II	<u>-0.0015</u>	CCD+Clear	185/78	Mašek M.	R70/700mm, 0,5 reducer + Meade DSI
55317.50720	0.0014	II	<u>-0.0011</u>	CCD+V	104/81	Corfini G.	GSO 200/800 CCD-UAI
BG Leo	§						
55223.54248	0.0002	I	<u>-0.0597</u>	CCD+Clear	364/82	Trnka J.	Newton 200/1000, ST-9E
55601.49082	0.0005	I	<u>-0.0663</u>	CCD+V	104/51	Trnka J.	Newton 200/1000, G2-1600
55601.49242	0.0007	I	<u>-0.0647</u>	CCD+R	92/48	Trnka J.	Newton 200/1000, G2-1600
55601.49372	0.0031	I	<u>-0.0634</u>	CCD+I	87/33	Trnka J.	Newton 200/1000, G2-1600
BZ Leo							
55223.51437	0.0004	I	-----	CCD+Clear	337/37	Trnka J.	Newton 200/1000, ST-9E
55223.65160	0.0003	II	-----	CCD+Clear	337/222	Trnka J.	Newton 200/1000, ST-9E
CE Leo							
55272.37459	0.0003	I	<u>-0.0015</u>	CCD+V	69/36	Marchi F.	Mak. 200 mm F3.3 - CCD Fli Kaf 3200
55278.44253	0.0002	I	<u>-0.0021</u>	CCD+R	34/17	Šmelcer L.	Celestron 280/1765 + CCD ST7
55278.44263	0.0002	I	<u>-0.0020</u>	CCD+I	36/20	Šmelcer L.	Celestron 280/1765 + CCD ST7
GU Leo							
55265.39084	0.0001	I	<u>+0.0013</u>	CCD+Clear	109/69	Trnka J.	Newton 200/1000, ST-9E
HI Leo							
55597.48461	0.0017	II	<u>+0.0017</u>	CCD+B	126/54	Magris M.	Meade 200, EMC 12 - S.L. exp.716 CCD
HS Leo							
55258.47737	0.0001	I	<u>-0.0029</u>	CCD+Clear	94/52	Trnka J.	Newton 200/1000, ST-9E
G0267.0253 Leo	§						
55625.49044	0.0005	II	<u>+0.0084</u>	CCD+Clear	62/47	Mašek M.	R70/700mm, 0,5x reducer + Meade DSI
VW LMi							
55168.71379	0.0001	I	<u>+0.0078</u>	CCD+R	121/80	Brát L.	RL200, f/6 + ST8, RF80/600+G1-0300
55192.58931	0.0002	I	<u>+0.0058</u>	CCD+R	184/86	Brát L.	RL200, f/6 + ST8, RF80/600+G1-0300
55220.52522	0.0001	II	<u>+0.0048</u>	CCD+R	216/98	Brát L.	RL200, f/6 + ST8, RF80/600+G1-0300
55235.56593	0.0002	I	<u>+0.0029</u>	CCD+R	157/113	Brát L.	RL200, f/6 + ST8, RF80/600+G1-0300
55249.41444	0.0003	I	<u>+0.0024</u>	CCD+I	42/14	Šmelcer L.	Celestron 280/1765 + CCD ST7
55249.41534	0.0002	I	<u>+0.0033</u>	CCD+R	53/17	Šmelcer L.	Celestron 280/1765 + CCD ST7

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

http://var.astro.cz/oejv

ISSN 1801-5964

March 2011

55253.47405	0.0002	II	+0.0026	CCD+R	55/30	Šmelcer L.	Celestron 280/1765 + CCD ST7
55253.47435	0.0002	II	+0.0029	CCD+I	56/30	Šmelcer L.	Celestron 280/1765 + CCD ST7
55274.48388	0.0002	II	+0.0002	CCD+I	66/42	Šmelcer L.	Celestron 280/1765 + CCD ST7
55274.48538	0.0002	II	+0.0017	CCD+R	71/43	Šmelcer L.	Celestron 280/1765 + CCD ST7
55280.45389	0.0001	I	+0.0011	CCD+R	164/91	Brát L.	RL200, f/6 + G2-0402,
55290.48229	0.0002	I	+0.0009	CCD+R	211/188	Brát L.	RL200, f/6 + G2-0402
55295.49734	0.0003	II	+0.0014	CCD+I	50/26	Šmelcer L.	Celestron 280/1765 + CCD ST7
55295.49734	0.0005	II	+0.0014	CCD+R	52/28	Šmelcer L.	Celestron 280/1765 + CCD ST7
55304.33372	0.0002	I	+0.0033	CCD+R	83/42	Šmelcer L.	Celestron 280/1765 + CCD ST7
55356.38642	0.0003	I	+0.0030	CCD+I	44/30	Šmelcer L.	Celestron 280/1765 + CCD ST7
55356.38732	0.0002	I	+0.0039	CCD+R	50/32	Šmelcer L.	Celestron 280/1765 + CCD ST7
55534.52032	0.0001	I	+0.0105	CCD+R	110/38	Brát L.	RL200, f/6 + ST8, RF80/600+G1-0300
55535.71393	0.0005	II	+0.0100	CCD+R	272/231	Brát L.	RL200, f/6 + ST8, RF80/600+G1-0300
55560.54460	0.0001	II	+0.0081	CCD+R	171/110	Brát L.	RL200, f/6 + ST8, RF80/600+G1-0300
55589.43133	0.0002	I	+0.0032	CCD+I	80/22	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55589.43183	0.0002	I	+0.0037	CCD+R	94/36	Šmelcer L.	Celestron 280/1765 + CCD G2 1600

WZ Lmi

55315.36568	0.0002	I	+0.0067	CCD+R	160/67	Kocián R.	Meade 300/f6.3 + SBIG ST8-XME
55315.36728	0.0002	I	+0.0083	CCD+Clear	202/104	J. Trnka, M. Klos	Newton 200/1000, ST-9E

SW Lyn

55601.44235	0.0002	I	+0.0142	CCD+I	41/21	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55601.44245	0.0001	I	+0.0143	CCD+V	44/22	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55601.44285	0.0002	I	+0.0147	CCD+R	42/21	Šmelcer L.	Celestron 280/1765 + CCD G2 1600

UV Lyn

55620.47578	0.0008	I	+0.0203	CCD+R	31/12	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55620.47668	0.0007	I	+0.0212	CCD+I	56/31	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55620.47738	0.0008	I	+0.0219	CCD+V	61/32	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55622.34265	0.0001	II	+0.0198	CCD+V	71/46	Trnka J.	Newton 200/1000, G2-1600
55622.34445	0.0002	II	+0.0216	CCD+I	81/45	Trnka J.	Newton 200/1000, G2-1600
55622.34455	0.0006	II	+0.0217	CCD+R	88/50	Trnka J.	Newton 200/1000, G2-1600

EL Lyn

55304.44052	0.0006	I	+0.0581	CCD+Clear	181/134	Klos M.	Newton 150/750, ST-7
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AA Lyr

55063.37175	0.0001	I	+0.0145	CCD+Clear	123/72	Trnka J., Klos M.	Newton 200/1000, ST-9E
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DT Lyr

55398.37672	0.0008	I	-0.0074	CCD+V	26/11	Marchi F., Garofalo R.	Newton 300mm F4, Sbig 8300
55450.38144	0.0003	I	-0.0046	CCD+V	22/9	Marchi F., Garofalo R.	Newton 300 F4 and Sbig 8300

G3109.0859 Lyr

55100.31972	0.0003	II	-0.0135	CCD+R	128/55	Ehrenberger R.	RL 96/400 + HX516 + R
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HT Lyr

54955.42335	0.0200	I	+0.0067	CCD+Clear	81/45	Přibík V.	Newton 254/1200, CCD G2-1600, EQ6
54968.35319	0.0500	I	+0.0068	CCD+Clear	70/36	Přibík V.	Newton 254/1200, CCD G2-1600, EQ6

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

March 2011

http://var.astro.cz/oejv

ISSN 1801-5964

IW Lyr 55029.44841	0.0004	I	+0.0058	CCD+R	236/122	Lehky M.	0.40-m f/5 + CCD ST7 + R
MN Lyr 55355.42147	0.0001	I	+0.0014	CCD+Clear	266/88	Trnka J.	Newton 200/1000, ST-9E
V 406 Lyr 55310.36100	0.0001	I	+0.0007	CCD+Clear	102/60	Trnka J.	Newton 200/1000, ST-9E
V 412 Lyr 55375.41072	0.0003	I	+0.0042	CCD+R	145/81	Lehky M.	0.40-m f/5 + CCD ST7 + R
V 417 Lyr 55351.50332	0.0001	II	+0.0024	CCD+Clear	93/47	Trnka J.	Newton 200/1000, ST-9E
55352.40537	0.0002	II	+0.0025	CCD+Clear	233/32	Trnka J.	Newton 200/1000, ST-9E
55352.55412	0.0002	I	+0.0006	CCD+Clear	233/219	Trnka J.	Newton 200/1000, ST-9E
V 507 Lyr 54969.38107	0.0200	I	+0.0093	CCD+Clear	87/48	Přibík V.	Newton 254/1200, CCD G2-1600, EQ6
V 556 Lyr 55415.36461	0.0054	I	-0.0055	CCD+V	98/37	Corfini G.	GSO 200/800 CCD-UAI
V 571 Lyr 54941.36742	0.0020	I	-0.0598	CCD+Clear	50/11	Přibík V.	Newton 254/1200, CCD G2-1600, EQ6
V 573 Lyr 55000.40751	0.0500	II	+0.0113	CCD+Clear	81/58	Přibík V.	Newton 254/1200, CCD G2-1600, EQ6
55380.39538	0.0003	I	+0.0194	CCD+R	94/44	Lehky M.	0.40-m f/5 + CCD ST7 + R
V 574 Lyr 55075.36882	0.0002	II	-0.0056	CCD+I	41/22	Šmelcer L.	Celestron 280/1765 + CCD ST7
55156.21330	0.0002	II	-0.0067	CCD+I	32/20	Šmelcer L.	Celestron 280/1765 + CCD ST7
55156.21380	0.0003	II	-0.0062	CCD+R	35/21	Šmelcer L.	Celestron 280/1765 + CCD ST7
55312.44042	0.0003	II	-0.0082	CCD+I	34/12	Šmelcer L.	Celestron 280/1765 + CCD ST7
55312.44092	0.0005	II	-0.0077	CCD+R	34/12	Šmelcer L.	Celestron 280/1765 + CCD ST7
55430.43171	0.0002	II	-0.0078	CCD+I	34/12	Šmelcer L.	Celestron 280/1765 + CCD ST7
55430.43261	0.0002	II	-0.0069	CCD+R	33/12	Šmelcer L.	Celestron 280/1765 + CCD ST7
55461.29650	0.0005	II	-0.0064	CCD+R	26/15	Šmelcer L.	Celestron 280/1765 + CCD ST7
55461.29710	0.0007	II	-0.0058	CCD+I	27/16	Šmelcer L.	Celestron 280/1765 + CCD ST7
V 577 Lyr § 54971.35886	0.0003	I	-0.0401	CCD+Clear	102/39	Trnka J.	Newton 200/1000 CCD ST-9E
V 589 Lyr 54942.41942	0.0200	I	+0.0045	CCD+Clear	129/68	Přibík V.	Newton 254/1200, CCD G2-1600, EQ6
55274.61675	0.0500	I	+0.0038	CCD+Clear	219/75	Přibík V.	Newton 254/1200, CCD G2-1600, EQ6
V 594 Lyr § 55408.40869	0.0000	I	-0.0404	CCD+V	42/10	Marchi F., Garofalo R.	Newton 300 F5 and Sbig 8300
55430.42361	0.0005	I	-0.0416	CCD+V	58/15	Marchi F., Garofalo R.	Newton 300 mm+Sbig 8300 CCD

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

March 2011

<http://var.astro.cz/oejv>

ISSN 1801-5964

CzeV194 Lyr	§						
55352.52780	0.0006	I	-----	CCD+Clear	234/189	Trnka J.	Newton 200/1000, ST-9E
AO Mon							
55275.35018	0.0004	II	+0.0069	CCD+I	52/28	Šmelcer L.	Celestron 280/1765 + CCD ST7
55275.35118	0.0004	II	+0.0079	CCD+R	59/31	Šmelcer L.	Celestron 280/1765 + CCD ST7
DD Mon							
55253.36001	0.0002	I	+0.0027	CCD+I	44/17	Šmelcer L.	Celestron 280/1765 + CCD ST7
55253.36071	0.0002	I	+0.0034	CCD+R	36/16	Šmelcer L.	Celestron 280/1765 + CCD ST7
55571.45110	0.0008	I	+0.0051	CCD+R	44/31	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
IZ Mon							
55259.30425	0.0003	I	-0.0113	CCD+I	44/19	Šmelcer L.	Celestron 280/1765 + CCD ST7
55259.30455	0.0003	I	-0.0110	CCD+R	34/15	Šmelcer L.	Celestron 280/1765 + CCD ST7
55620.35026	0.0006	I	-0.0150	CCD+R	45/23	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55620.35116	0.0004	I	-0.0141	CCD+V	55/30	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55620.35226	0.0005	I	-0.0130	CCD+I	53/28	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55629.31635	0.0005	II	-0.0168	CCD+V	76/36	Trnka J.	Newton 200/1000, G2-1600
55629.31673	0.0007	II	-0.0164	CCD+B	73/34	Trnka J.	Newton 200/1000, G2-1600
55629.31879	0.0006	II	-0.0144	CCD+R	76/37	Trnka J.	Newton 200/1000, G2-1600
55629.32317	0.0007	II	-0.0100	CCD+I	73/37	Trnka J.	Newton 200/1000, G2-1600
V 498 Mon							
55600.34597	0.0008	I	+0.0442	CCD+R	82/54	Trnka J.	Newton 200/1000, G2-1600
55600.34687	0.0005	I	+0.0451	CCD+V	77/55	Trnka J.	Newton 200/1000, G2-1600
55600.34887	0.0003	I	+0.0471	CCD+I	76/55	Trnka J.	Newton 200/1000, G2-1600
USNO-A2.0 0825-03243265 Mon	§						
54829.55734	0.0016	I	-----	CCD+R	134/99	Lomoz F.	Newton-Schmidt 254/1016+ST2000XM
ASAS J155227-5500.6 Nor	§						
55297.65097	0.0010	I	-----	CCD+V	88/52	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55297.65607	0.0010	I	-----	CCD+R	95/66	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55300.63131	0.0005	I	-----	CCD+R	139/18	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55300.63182	0.0004	I	-----	CCD+V	136/19	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55300.77875	0.0004	II	-----	CCD+R	139/73	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55300.77903	0.0004	II	-----	CCD+V	136/76	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55301.67418	0.0006	II	-----	CCD+V	157/73	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55301.67506	0.0006	II	-----	CCD+R	179/75	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55301.81961	0.0005	I	-----	CCD+V	157/118	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55301.82348	0.0004	I	-----	CCD+R	179/130	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55305.69125	0.0004	I	-----	CCD+R	64/48	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55305.69153	0.0005	I	-----	CCD+V	65/48	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
EN Oct	§						
55308.63604	0.0035	II	-----	CCD+R	94/20	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55308.63648	0.0011	II	-----	CCD+I	78/20	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55308.63772	0.0010	II	-----	CCD+V	89/20	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55308.77627	0.0004	I	-0.0234	CCD+V	89/62	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

http://var.astro.cz/oejv

ISSN 1801-5964

March 2011

55308.77816	0.0006	I	-0.0215	CCD+R	94/65	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55309.49925	0.0003	II	-----	CCD+R	171/13	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55309.49978	0.0004	II	-----	CCD+V	165/14	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55309.64246	0.0004	I	-0.0239	CCD+I	171/64	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55309.64316	0.0003	I	-0.0232	CCD+V	165/68	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55309.64348	0.0003	I	-0.0229	CCD+R	171/69	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55309.79023	0.0004	II	-----	CCD+V	165/124	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI
55309.79128	0.0004	II	-----	CCD+R	171/119	Lehky M., Hanzl D.	0.20-m f/4 + CCD ST8 + VRI

V 449 Oph

55354.39208	0.0002	I	+0.0075	CCD+R	37/18	Šmelcer L.	Celestron 280/1765 + CCD ST7
55354.39238	0.0002	I	+0.0078	CCD+I	35/19	Šmelcer L.	Celestron 280/1765 + CCD ST7
55428.35827	0.0011	II	+0.0098	CCD+R	48/25	Šmelcer L.	Celestron 280/1765 + CCD ST7
55428.35917	0.0013	II	+0.0107	CCD+I	56/27	Šmelcer L.	Celestron 280/1765 + CCD ST7

V 508 Oph

55386.46382	0.0006	II	0.0067	CCD+R	57/40	Šmelcer L.	Celestron 280/1765 + CCD ST7
55386.46432	0.0004	II	0.0062	CCD+I	59/41	Šmelcer L.	Celestron 280/1765 + CCD ST7
55386.46442	0.0003	II	0.0061	CCD+V	57/40	Šmelcer L.	Celestron 280/1765 + CCD ST7

V 566 Oph

55067.36340	0.0003	II	+0.0025	CCD+I	48/30	Šmelcer L.	Celestron 280/1765 + CCD ST7
55067.36340	0.0003	II	+0.0025	CCD+V	40/27	Šmelcer L.	Celestron 280/1765 + CCD ST7
55067.36350	0.0003	II	+0.0026	CCD+R	48/31	Šmelcer L.	Celestron 280/1765 + CCD ST7

V 839 Oph

55042.42266	0.0003	I	+0.0026	CCD+V	28/15	Šmelcer L.	Celestron 280/1765 + CCD ST7
55042.42286	0.0001	I	+0.0028	CCD+R	27/15	Šmelcer L.	Celestron 280/1765 + CCD ST7
55042.42296	0.0003	I	+0.0029	CCD+I	28/15	Šmelcer L.	Celestron 280/1765 + CCD ST7
55353.47167	0.0001	II	+0.0059	CCD+Clear	221/108	Mašek M.	R70/700mm, 0,5 reducer + Meade DSI
55430.36550	0.0002	II	+0.0075	CCD+I	44/29	Šmelcer L.	Celestron 280/1765 + CCD ST7
55430.36570	0.0004	II	+0.0077	CCD+V	40/26	Šmelcer L.	Celestron 280/1765 + CCD ST7
55430.36580	0.0002	II	+0.0078	CCD+R	43/28	Šmelcer L.	Celestron 280/1765 + CCD ST7

V2388 Oph

54975.47239	0.0006	I	-0.0028	CCD+R	103/66	Šmelcer L.	Celestron 280/1765 + CCD ST7
54975.47289	0.0005	I	-0.0023	CCD+V	90/57	Šmelcer L.	Celestron 280/1765 + CCD ST7
54975.47299	0.0005	I	-0.0022	CCD+I	112/70	Šmelcer L.	Celestron 280/1765 + CCD ST7
55040.45425	0.0004	I	-0.0072	CCD+R	101/54	Šmelcer L.	Celestron 280/1765 + CCD ST7
55040.45455	0.0007	I	-0.0069	CCD+V	80/54	Šmelcer L.	Celestron 280/1765 + CCD ST7
55040.45475	0.0009	I	-0.0067	CCD+I	92/61	Šmelcer L.	Celestron 280/1765 + CCD ST7

EF Ori

55181.38938	0.0014	I	+0.0007	CCD+Clear	54/21	Corfini G.	GSO 200/800 CCD-UAI
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FF Ori

55628.28975	0.0005	I	+0.0110	CCD+R	50/21	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55628.29125	0.0008	I	+0.0125	CCD+V	45/28	Šmelcer L.	Celestron 280/1765 + CCD G2 1600

FR Ori

55625.27353	0.0001	I	+0.0025	CCD+R	78/25	Trnka J.	Newton 200/1000, G2 - 1600
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OPEN EUROPEAN JOURNAL ON VARIABLE STARS

ISSN 1801-5964

March 2011						
http://var.astro.cz/oejv						
55625.27363	0.0002	I	+0.0026	CCD+V	78/25	Trnka J.
55625.27413	0.0002	I	+0.0031	CCD+I	75/25	Trnka J.
FT Ori						
55168.57560	0.0002	II	-0.0952	CCD+R	219/128	Kučáková H.
						Newton 200/1200 + SBIG ST8-XME
FZ Ori						
55200.42566	0.0004	I	-0.0018	CCD+R	46/17	Šmelcer L.
55200.42576	0.0004	I	-0.0017	CCD+I	43/17	Šmelcer L.
55200.42616	0.0004	I	-0.0013	CCD+V	40/17	Šmelcer L.
						Celestron 280/1765 + CCD ST7
GU Ori						
55181.42097	0.0017	I	-0.0028	CCD+Clear	55/34	Corfini G.
						GSO 200/800 CCD-UAI
OS Ori						
55597.35669	0.0017	I	+0.0112	CCD+B	91/35	Magris M.
55628.34217	0.0008	I	+0.0109	CCD+B	50/27	Trnka J.
55628.34257	0.0008	I	+0.0113	CCD+I	37/28	Trnka J.
55628.34597	0.0010	I	+0.0147	CCD+R	54/32	Trnka J.
55628.34737	0.0008	I	+0.0161	CCD+V	53/34	Trnka J.
						Meade lx 200 + mx 716 CCD
V 343 Ori						
55279.32258	0.0009	I	+0.0206	CCD+V	47/24	Šmelcer L.
55279.32378	0.0007	I	+0.0218	CCD+R	51/23	Šmelcer L.
						Celestron 280/1765 + CCD ST7
						Celestron 280/1765 + CCD ST7
V 517 Ori						
55231.37106	0.0003	I	-0.0000	CCD+R	223/112	Lehky M.
						0.40-m f/5 + CCD ST7 + R
V1202 Ori						
55602.31929	0.0002	I	-0.0004	CCD+I	59/30	Trnka J.
55602.31949	0.0002	I	-0.0002	CCD+R	50/24	Trnka J.
55602.31969	0.0001	I	-0.0000	CCD+V	57/27	Trnka J.
						Newton 200/1000, G2-1600
						Newton 200/1000, G2-1600
						Newton 200/1000, G2-1600
V1363 Ori						
55470.62055	0.0006	II	+0.0131	CCD+Clear	75/38	Mašek M.
						R70/700mm, + CCD Orion SS monochrome
V1638 Ori §						
55601.34138	0.0010	I	-0.0613	CCD+Clear	192/32	Cagaš P.
						Newton 250/1340, G2-3200
ASAS J045235-0313.8 Ori §						
55601.38456	0.0005	I	-----	CCD+Clear	186/106	Cagaš P.
						Newton 250/1340, G2-3200
VW Peg						
55112.56222	0.0001	I	+0.0022	CCD+R	364/306	Kučáková H.
						Meade 12'' LX200GPS + SBIG ST8-XME
BB Peg						
55159.23841	0.0002	I	-0.0007	CCD+R	33/13	Šmelcer L.
55159.23851	0.0002	I	-0.0006	CCD+V	32/13	Šmelcer L.
55159.23861	0.0002	I	-0.0005	CCD+I	33/14	Šmelcer L.
						Celestron 280/1765 + CCD ST7
						Celestron 280/1765 + CCD ST7
						Celestron 280/1765 + CCD ST7
BX Peg						
55000.45870	0.0002	II	-0.0023	CCD+V	30/17	Šmelcer L.
						Celestron 280/1765 + CCD ST7

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

ISSN 1801-5964

March 2011						
http://var.astro.cz/oejv						
55000.45870	0.0001	II	<u>-0.0023</u>	CCD+R	30/17	Šmelcer L.
55000.45900	0.0002	II	<u>-0.0020</u>	CCD+I	30/17	Šmelcer L.
BY Peg						
55100.41102	0.0002	I	<u>+0.0050</u>	CCD+R	81/26	Šmelcer L.
55192.22214	0.0004	II	<u>+0.0064</u>	CCD+R	69/48	Šmelcer L.
55460.30295	0.0001	II	<u>+0.0096</u>	CCD+R	84/41	Lehky M.
55461.49656	0.0002	I	<u>+0.0065</u>	CCD+R	187/71	Lehky M.
CC Peg						
55097.30790	0.0004	I	<u>-0.0025</u>	CCD+R	124/36	Šmelcer L.
55390.41671	0.0002	I	<u>-0.0059</u>	CCD+R	49/20	Šmelcer L.
55390.41691	0.0003	I	<u>-0.0057</u>	CCD+I	43/20	Šmelcer L.
DF Peg						
55083.41806	0.0001	I	<u>+0.0224</u>	CCD+R	712/332	Kučáková H.
DI Peg						
55561.24397	0.0002	I	<u>+0.0112</u>	CCD+V	50/35	Šmelcer L.
55561.24407	0.0001	I	<u>+0.0113</u>	CCD+R	59/40	Šmelcer L.
KV Peg						
55105.54561	0.0032	I	<u>+0.0179</u>	CCD+V	132/96	Lomoz F.
55105.54771	0.0032	I	<u>+0.0200</u>	CCD+R	118/89	Lomoz F.
55105.55881	0.0032	I	<u>+0.0311</u>	CCD+I	127/104	Lomoz F.
KW Peg						
55000.42369	0.0008	II	<u>-0.0008</u>	CCD+R	30/6	Šmelcer L.
55000.42429	0.0011	II	<u>-0.0002</u>	CCD+V	26/7	Šmelcer L.
55000.42539	0.0012	II	<u>+0.0009</u>	CCD+I	30/7	Šmelcer L.
V 351 Peg						
55074.51567	0.0004	II	<u>+0.0128</u>	CCD+Clear	212/62	Trnka J., Klos M.
V 407 Peg						
55075.46266	0.0004	II	<u>+0.0061</u>	CCD+I	76/33	Šmelcer L.
55075.46346	0.0003	II	<u>+0.0069</u>	CCD+R	83/33	Šmelcer L.
55076.41357	0.0003	I	<u>+0.0023</u>	CCD+R	82/39	Šmelcer L.
55076.41457	0.0004	I	<u>+0.0033</u>	CCD+I	89/40	Šmelcer L.
55096.48091	0.0005	II	<u>+0.0072</u>	CCD+R	56/24	Šmelcer L.
55096.48151	0.0006	II	<u>+0.0078</u>	CCD+I	56/25	Šmelcer L.
55200.28993	0.0005	II	<u>+0.0039</u>	CCD+R	58/33	Šmelcer L.
55200.29003	0.0004	II	<u>+0.0040</u>	CCD+I	53/32	Šmelcer L.
55200.29063	0.0007	II	<u>+0.0047</u>	CCD+V	52/33	Šmelcer L.
55460.45394	0.0006	I	<u>+0.0010</u>	CCD+R	63/46	Šmelcer L.
55460.45614	0.0006	I	<u>+0.0032</u>	CCD+I	64/49	Šmelcer L.
55476.37173	0.0010	I	<u>-0.0033</u>	CCD+R	65/23	Šmelcer L.
55476.37403	0.0008	I	<u>-0.0010</u>	CCD+I	66/28	Šmelcer L.
55477.33711	0.0004	II	<u>+0.0062</u>	CCD+R	69/37	Šmelcer L.
55477.33717	0.0005	II	<u>+0.0062</u>	CCD+I	72/40	Šmelcer L.
55483.38284	0.0014	I	<u>+0.0020</u>	CCD+Clear	55/28	Mašek M.

2MASS J21394308+2822392 Peg §

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

http://var.astro.cz/oejv

ISSN 1801-5964

March 2011

55097.35630	0.0011	I	-----	CCD+R	94/48	Šmelcer L.	Celestron 280/1765 + CCD ST7
55390.40842	0.0017	I	-----	CCD+I	46/16	Šmelcer L.	Celestron 280/1765 + CCD ST7
55390.40862	0.0007	I	-----	CCD+R	41/14	Šmelcer L.	Celestron 280/1765 + CCD ST7
bet Per							
55063.56604		I	+0.0121	vis	10/7	Sobotka P.	oko
55063.57471	0.0006	I	+0.0208	CCD+Clear	79/52	Klementová J., Kliment P.	Mak.-Cass. 80/500+Canon EOS 300D
55198.34484	0.0264	I	+0.0266	vis	18/10	Suchan J.	oko
 RT Per							
55461.38501	0.0001	I	+0.0032	CCD+R	103/52	Lehky M.	0.40-m f/5 + CCD ST7 + R
 DK Per							
55430.35733	0.0007	II	-0.0013	CCD+R	139/70	Lehky M.	0.40-m f/5 + CCD ST7 + R
55478.44788	0.0001	I	-0.0011	CCD+R	50/25	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55478.44789	0.0001	I	-0.0011	CCD+V	42/21	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55478.44796	0.0001	I	-0.0011	CCD+I	48/24	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
 EQ Per							
55075.57861	0.0003	II	-----	CCD+R	117/64	Lehky M.	0.40-m f/5 + CCD ST7 + R
 IK Per							
55629.30240	0.0003	I	-0.0060	CCD+V	90/44	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55629.30280	0.0004	I	-0.0056	CCD+R	89/44	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
 IM Per							
55531.36082	0.0008	I	+0.0020	CCD+I	35/17	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55531.36132	0.0005	I	+0.0025	CCD+R	36/15	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55531.36202	0.0004	I	+0.0032	CCD+V	38/17	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
 PS Per							
55481.40492	0.0002	I	-0.0019	CCD+R	158/93	Lehky M.	EQ6 + 0.25-m f/4 + CCD ST7 + R
55499.31045	0.0004	II	-0.0019	CCD+R	170/94	Lehky M.	EQ6 + 0.25-m f/4 + CCD ST7 + R
 QT Per							
55231.41335	0.0001	II	-0.0026	CCD+Clear	157/83	Trnka J.	Newton 200/1000, ST-9E
 V 364 Per							
55059.55846	0.0003	II	+0.0047	CCD+Clear	70/41	Trnka J.	Newton 200/1000, ST-9E
55075.51255	0.0002	II	+0.0045	CCD+Clear	105/28	Trnka J.	Newton 200/1000, ST-9E
55096.39050	0.0200	I	+0.0058	CCD+Clear	104/43	Přibík V.	Newton 254/1200, CCD G2-1600, EQ6
55101.48256	0.0003	I	+0.0061	CCD+Clear	240/110	Brát L.	RL200, f/6 + ST8, RF80/600+G1-0300
 V 366 Per							
55101.49552	0.0003	II	+0.0064	CCD+Clear	178/124	Brát L.	RL200, f/6 + ST8, RF80/600+G1-0300
 V 450 Per							
55156.24664	0.0003	I	-0.0025	CCD+R	112/58	Lehky M.	0.40-m f/5 + CCD ST7 + R
55463.61810	0.0003	I	-0.0008	CCD+R	126/74	Lehky M.	0.40-m f/5 + CCD ST7 + R

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

http://var.astro.cz/oejv

ISSN 1801-5964

March 2011						
V 592 Per 55126.36629	0.0004	I	<u>-0.0001</u>	CCD+Clear 126/66	Vrašťák M.	RF65/300+ccdg2
V 616 Per 55523.91311	0.0002	I	-----	CCD+V	246/191 Pejcha O.	2.4m + RETROCAM
V 723 Per 55479.37535	0.0003	I	<u>+0.0348</u>	CCD+R	236/166 Lehky M.	EQ6 + 0.25-m f/4 + CCD ST7 + R
V 737 Per 55421.57196	0.0003	I	<u>-0.0016</u>	CCD+Clear 172/146	Vrašťák M.	RL 150/750 + CCD G2
55483.52737	0.0002	I	<u>-0.0015</u>	CCD+R	215/173 Lehky M.	EQ6 + 0.25-m f/4 + CCD ST7 + R
55497.45842	0.0001	I	<u>-0.0012</u>	CCD+Clear 147/118	Vrašťák M.	RL240/1200 + CCD G2
55499.47391	0.0002	II	<u>-0.0017</u>	CCD+R	251/114 Lehky M.	EQ6 + 0.25-m f/4 + CCD ST7 + R
G2337.1479 Per 55101.46118	\$	0.0002	I	-----	CCD+Clear 192/87 Brát L.	RL200, f/6 + ST8, RF80/600+G1-0300
SX Psc						
55131.48513	0.0010	I	<u>-0.0008</u>	CCD+Clear 101/76	Corfini G.	GSO 200/800 CCD-UAI
55155.43514	0.0006	I	<u>-0.0013</u>	CCD+Clear 142/123	Corfini G.	GSO 200/800 CCD-UAI
55175.25630	0.0019	I	<u>-0.0013</u>	CCD+Clear 60/29	Corfini G.	GSO 200/800 CCD-UAI
VZ Psc						
55063.45883	0.0002	I	<u>-0.0025</u>	CCD+Clear 468/179	Mašek M., Hladík B.	Vixen 80/910mm + SBIG ST-7
55063.58718	0.0002	II	<u>-0.0052</u>	CCD+Clear 468/406	Mašek M., Hladík B.	Vixen 80/910mm + SBIG ST-7
CP Psc						
55462.30325	0.0002	I	<u>-0.0009</u>	CCD+R	165/81 Lehky M.	0.40-m f/5 + CCD ST7 + R
KW Pup						
55265.30781	0.0002	II	<u>+0.0002</u>	CCD+R	135/54 Lehky M.	0.40-m f/5 + CCD ST7 + R
55601.32775	0.0006	I	<u>+0.0015</u>	CCD+I	65/38 Trnka J.	Newton 200/1000, G2-1600
55601.32885	0.0007	I	<u>+0.0026</u>	CCD+R	66/38 Trnka J.	Newton 200/1000, G2-1600
55601.32895	0.0003	I	<u>+0.0027</u>	CCD+V	65/39 Trnka J.	Newton 200/1000, G2-1600
RS Sct						
55016.47125	0.0001	I	<u>-0.0046</u>	CCD+Clear 301/108	Mašek M.	R70/700mm, 0.5x reducer + Meade DSI
AU Ser						
55052.38321	0.0006	I	<u>+0.0020</u>	CCD+I	30/15 Šmelcer L.	Celestron 280/1765 + CCD ST7
55052.38371	0.0006	I	<u>+0.0025</u>	CCD+R	27/14 Šmelcer L.	Celestron 280/1765 + CCD ST7
55052.38421	0.0004	I	<u>+0.0030</u>	CCD+V	31/16 Šmelcer L.	Celestron 280/1765 + CCD ST7
MX Ser						
55304.41925	0.0001	II	<u>-0.1489</u>	CCD+Clear 108/50	Trnka J.	Newton 200/1000, ST-9E
OU Ser	\$					

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

March 2011

http://var.astro.cz/oejv

ISSN 1801-5964

55294.43535	0.0004	I	+0.0309	CCD+I	76/32	Šmelcer L.	Celestron 280/1765 + CCD ST7
55294.43655	0.0004	I	+0.0321	CCD+R	80/35	Šmelcer L.	Celestron 280/1765 + CCD ST7
55309.41933	0.0007	II	+0.0283	CCD+I	61/37	Šmelcer L.	Celestron 280/1765 + CCD ST7
55309.42023	0.0007	II	+0.0292	CCD+R	71/41	Šmelcer L.	Celestron 280/1765 + CCD ST7

Y Sex

55244.48245	0.0003	I	+0.0107	CCD+I	48/24	Šmelcer L.	Celestron 280/1765 + CCD ST7
55244.48255	0.0004	I	+0.0108	CCD+R	49/25	Šmelcer L.	Celestron 280/1765 + CCD ST7

WY Sex

55627.38345	§	I	-0.0289	CCD+Clear	112/9	Mašek M.	R70/700mm, 0,5x reducer + Meade DSI
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U Sge

55429.42514	0.0019	I	-0.0076	vis	26/18	Starzomski J.	refractor 80ED and Canon 300D
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UU Sge

55084.33276	0.0002	I	+0.0005	CCD+R	88/50	Lehky M.	0.40-m f/5 + CCD ST7 + R
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UZ Sge

55473.33709	0.0002	I	+0.0043	CCD+R	27/17	Šmelcer L.	Celestron 280/1765 + CCD ST7
55473.33719	0.0002	I	+0.0044	CCD+I	28/18	Šmelcer L.	Celestron 280/1765 + CCD ST7

CW Sge

55155.22909	0.0006	II	+0.0082	CCD+I	69/36	Šmelcer L.	Celestron 280/1765 + CCD ST7
55155.23009	0.0004	II	+0.0092	CCD+R	65/35	Šmelcer L.	Celestron 280/1765 + CCD ST7
55374.46689	0.0010	II	+0.0065	CCD+Clear	66/25	Přibík V.	Newton 254/1200, CCD G2-1600, EQ6
55376.45066	0.0010	II	+0.0092	CCD+Clear	110/57	Přibík V.	Newton 254/1200, CCD G2-1600, EQ6
55379.42439	0.0009	I	+0.0111	CCD+R	43/17	Šmelcer L.	Celestron 280/1765 + CCD ST7
55379.42599	0.0006	I	+0.0127	CCD+I	41/19	Šmelcer L.	Celestron 280/1765 + CCD ST7
55381.40025	0.0010	I	+0.0059	CCD+Clear	125/40	Přibík V.	Newton 254/1200, CCD G2-1600, EQ6

DK Sge

55034.40899	0.0002	I	+0.0011	CCD+R	34/19	Šmelcer L.	Celestron 280/1765 + CCD ST7
55034.40939	0.0004	I	+0.0015	CCD+I	34/19	Šmelcer L.	Celestron 280/1765 + CCD ST7
55381.38620	0.0006	I	+0.0005	CCD+R	21/10	Šmelcer L.	Celestron 280/1765 + CCD ST7
55381.38700	0.0006	I	+0.0013	CCD+V	23/12	Šmelcer L.	Celestron 280/1765 + CCD ST7

EI Sge

55388.40543	0.0010	II	+0.0018	CCD+Clear	65/40	Přibík V.	Newton 254/1200, CCD G2-1600, EQ6
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GN Sge

55096.37349	0.0002	I	+0.0011	CCD+Clear	246/133	Vrašták M.	RF65/300+CCD G2
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V 369 Sge §

55402.43173	0.0001	I	-0.0118	CCD+V	68/45	Marchi F.	Celestron 9.25 F 6,3 FLI Kaf 3200
55404.40629	0.0006	I	-0.0164	CCD+V	44/22	Marchi F.	Celestron 9.25 F 6,3 FLI Kaf 3200

RW Tau

55225.37688	0.0022	I	+0.0125	CCD+V	169/97	Marchi F.	Mak.200 mm F3.3 - CCD Fli Kaf 3200
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OPEN EUROPEAN JOURNAL ON VARIABLE STARS

March 2011

<http://var.astro.cz/oejv>

ISSN 1801-5964

AH Tau							
55478.58939	0.0002	II	+0.0063	CCD+R	54/22	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55478.58942	0.0002	II	+0.0063	CCD+I	54/22	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55478.58970	0.0002	II	+0.0066	CCD+V	50/21	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55478.58975	0.0003	II	+0.0066	CCD+B	51/22	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
CT Tau							
55263.39170	0.0002	I	-0.0025	CCD+R	40/25	Šmelcer L.	Celestron 280/1765 + CCD ST7
55263.39170	0.0003	I	-0.0025	CCD+I	41/24	Šmelcer L.	Celestron 280/1765 + CCD ST7
CU Tau	\$						
55136.50488	0.0008	II	-0.0084	CCD+V	56/32	Šmelcer L.	Celestron 280/1765 + CCD ST7
55136.50508	0.0002	II	-0.0082	CCD+R	47/26	Šmelcer L.	Celestron 280/1765 + CCD ST7
55136.50549	0.0004	II	-0.0078	CCD+I	57/32	Šmelcer L.	Celestron 280/1765 + CCD ST7
55602.23871	0.0006	II	-0.0209	CCD+R	54/7	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
GQ Tau							
55181.27357	0.0018	I	-0.0072	CCD+Clear	43/15	Corfini G.	GSO 200/800 CCD-UAI
55253.26582	0.0002	I	-0.0088	CCD+I	52/25	Šmelcer L.	Celestron 280/1765 + CCD ST7
55305.34695	0.0003	I	-0.0084	CCD+V	53/36	Corfini G.	GSO 200/800 CCD-UAI
HU Tau							
55519.30853	0.0080	I	-0.0208	vis	13/6	Smyčka T.	76/300+EQ 6
V1022 Tau							
55192.35156	0.0016	I	+0.1480	CCD+Clear	147/98	Lomoz F.	Newton-Schmidt 254/1016+ST2000XM
V1128 Tau							
55476.45069	0.0002	II	-0.0059	CCD+I	33/12	Šmelcer L.	Celestron 280/1765 + CCD ST7
UCAC3 233-039894 Tau	\$						
55541.52733	0.0003	I	-----	CCD+Clear	71/60	Corfini G.	GSO 200/800 CCD-UAI
55546.46047	0.0004	II	-----	CCD+Clear	71/46	Corfini G.	GSO 200/800 CCD-UAI
V Tri							
55069.44003	0.0002	I	-0.0042	CCD+R	46/19	Šmelcer L.	Celestron 280/1765 + CCD ST7
55069.44033	0.0002	I	-0.0039	CCD+I	46/19	Šmelcer L.	Celestron 280/1765 + CCD ST7
55102.50403	0.0016	II	-0.0047	CCD+R	161/82	Lomoz F.	Newton-Schmidt 254/1016+ST2000XM
55102.50478	0.0016	II	-0.0039	CCD+B	164/84	Lomoz F.	Newton-Schmidt 254/1016+ST2000XM
55102.50478	0.0016	II	-0.0039	CCD+V	166/84	Lomoz F.	Newton-Schmidt 254/1016+ST2000XM
55514.48500	0.0016	II	-0.0085	CCD+R	390/247	Lomoz F.	Newton 300/1200+ST2000XM
RV Tri							
55446.57045	0.0001	I	-0.0023	CCD+R	294/232	Lehky M.	0.40-m f/5 + CCD ST7 + R
55460.51182	0.0006	II	-0.0039	CCD+R	166/55	Lehky M.	0.40-m f/5 + CCD ST7 + R
VW Tri							
55481.40571	0.0016	I	-0.0056	CCD+Clear	356/90	Lomoz F.	Newton 300/1200+ST2000XM
55481.55575	0.0016	II	-0.0046	CCD+Clear	356/283	Lomoz F.	Newton-Schmidt 300/1200+ST2000XM

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

http://var.astro.cz/oejv

ISSN 1801-5964

55591.23797	March 2011	0.0020	II	<u>-0.0051</u>	CCD+Clear	263/25	Cagaš P.	Newton 250/1340, G2-3200
55591.38717		0.0001	I	<u>-0.0057</u>	CCD+Clear	117/54	Cagaš P.	Newton 250/1340, G2-3200
AK Tri	§							
55423.50197		0.0006	II	<u>+0.0124</u>	CCD+Clear	86/55	Vrašták M.	RL 150/750 + CCD G2
AL Tri	§							
55062.56110		0.0003	I	<u>-0.0176</u>	CCD+Clear	80/13	Trnka J.	Newton 200/1000, ST-9E
55102.41513		0.0016	I	<u>+0.0124</u>	CCD+V	162/41	Lomoz F.	Newton-Schmidt 254/1016+ST2000XM
55102.41583		0.0016	I	<u>+0.0131</u>	CCD+R	160/41	Lomoz F.	Newton-Schmidt 254/1016+ST2000XM
55102.41653		0.0016	I	<u>+0.0138</u>	CCD+B	161/41	Lomoz F.	Newton-Schmidt 254/1016+ST2000XM
55135.47214		0.0050	I	<u>+0.0574</u>	CCD+R	259/204	Lomoz F.	Newton-Schmidt 254/1016+ST2000XM
55155.33762		0.0016	I	<u>+0.0109</u>	CCD+R	270/133	Lomoz F.	Newton-Schmidt 254/1016+ST2000XM
55514.44470		0.0032	I	<u>-0.0840</u>	CCD+R	265/189	Lomoz F.	Newton 300/1200+ST2000XM
BU Tri	§							
55186.25734		0.0008	II	-----	CCD+R	72/45	Lehky M.	0.40-m f/5 + CCD ST7 + R
55446.36091		0.0008	II	-----	CCD+R	186/32	Lehky M.	0.40-m f/5 + CCD ST7 + R
55446.50018		0.0005	I	-----	CCD+R	186/118	Lehky M.	0.40-m f/5 + CCD ST7 + R
55460.53985		0.0004	II	-----	CCD+R	131/53	Lehky M.	0.40-m f/5 + CCD ST7 + R
BV Tri	§							
55186.24599		0.0006	II	-----	CCD+R	83/44	Lehky M.	0.40-m f/5 + CCD ST7 + R
55446.43118		0.0009	I	-----	CCD+R	209/106	Lehky M.	0.40-m f/5 + CCD ST7 + R
55460.51198		0.0008	II	-----	CCD+R	135/38	Lehky M.	0.40-m f/5 + CCD ST7 + R
W UMa								
54976.41336		0.0014	I	<u>+0.0064</u>	vis	8/4	Klos M.	Somet 25x100
54976.41468		0.0005	I	<u>+0.0078</u>	vis	9/4	Trnka J.	Somet 25x100
55279.34905		0.0001	I	<u>+0.0016</u>	CCD+Clear	262/144	Polák J.	ED 80/600
55289.52493		0.0001	II	<u>+0.0016</u>	CCD+Clear	301/259	Polák J.	ED 80/600
TY UMa								
55309.39347		0.0004	II	<u>+0.0149</u>	CCD+R	121/76	Ehrenberger R.	RL 96/400 + HX516 + R
UY UMa								
55235.41315		0.0004	I	<u>+0.0117</u>	CCD+Clear	59/38	Brát L.	RL200, f/6 + ST8, RF80/600+G1-0300
VV UMa								
55311.44253		0.0004	I	<u>+0.0142</u>	CCD+I	73/60	Šmelcer L.	Celestron 280/1765 + CCD ST7
55311.44343		0.0003	I	<u>+0.0151</u>	CCD+R	76/61	Šmelcer L.	Celestron 280/1765 + CCD ST7
55600.48419		0.0006	II	<u>+0.0143</u>	CCD+R	69/37	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
55600.48589		0.0006	II	<u>+0.0160</u>	CCD+V	64/36	Šmelcer L.	Celestron 280/1765 + CCD G2 1600
AF UMa								
55592.58218		0.0013	I	<u>+0.0074</u>	CCD+Clear	36/21	Magris M.	Meade lx 200 EMC 12 - mx 716 CCD
BQ UMa								
55256.44288		0.0001	I	<u>-0.0090</u>	CCD+Clear	170/85	Trnka J.	Newton 500/2 430, ST-9E
55625.56189		0.0010	I	<u>-0.0132</u>	CCD+V	72/25	Trnka J.	Newton 200/1000, G2 - 1600
55625.56209		0.0005	I	<u>-0.0130</u>	CCD+I	88/36	Trnka J.	Newton 200/1000, G2 - 1600
55625.56259		0.0003	I	<u>-0.0125</u>	CCD+R	93/39	Trnka J.	Newton 200/1000, G2 - 1600

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

March 2011

http://var.astro.cz/oejv

ISSN 1801-5964

DN UMa 55613.37982	0.0001	I	+0.0175	CCD+R	293/134	Brát L.	RL200, f/6 + ST8, RF80/600+G1-0300
EQ UMa 55264.51320	\$						
	0.0002	II	+0.0288	CCD+Clear	145/92	Trnka J.	Newton 200/1000, ST-9E
GZ UMa 55259.58808	\$						
	0.0002	I	-0.0139	CCD+R	169/76	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
HR UMa 55274.40151							
	0.0003	I	-0.0047	CCD+R	156/96	Uhlař R.	RF75/300
HV UMa 55628.35243	0.0002	I	+0.0053	CCD+R	176/83	Hoňková K.	Newton 200/1200 + CCD SBIG-ST8 XME
	0.0002	II	+0.0053	CCD+R	2317/736	Hoňková K.	Newton 200/1200 + CCD SBIG-ST8 XME
II UMa 55280.52324							
	0.0003	II	+0.0125	CCD+R	158/79	Kocián R.	RF 80/400 + SBIG ST8-XME
IW UMa 55627.41532							
	0.0002	I	+0.0011	CCD+R	64/31	Trnka J.	Newton 200/1000, G2 - 1600
	0.0005	I	+0.0016	CCD+I	64/31	Trnka J.	Newton 200/1000, G2 - 1600
	0.0004	I	+0.0016	CCD+B	64/32	Trnka J.	Newton 200/1000, G2 - 1600
	0.0004	I	+0.0017	CCD+V	63/32	Trnka J.	Newton 200/1000, G2 - 1600
MQ UMa 55259.44479	\$						
	0.0003	I	-0.0102	CCD+R	121/45	Kučáková H.	Newton 200/1200 + SBIG ST8-XME
	0.0003	I	-0.0118	CCD+Clear	125/75	Trnka J.	Newton 200/1000, ST-9E
OQ UMa 55622.43820							
	0.0001	I	-0.0033	CCD+Clear	162/108	Vrašťák M.	RL240/1200+CCD G2-1600
W UMi 55346.39903							
	0.0007	I	-0.0024	CCD+R	120/120	Zejda M.	RF40+CCD G2
VW UMi 55614.46714	\$						
	0.0003	I	+0.1638	CCD+Clear	288/249	Vrašťák M.	RL240/1200+CCD G2-1600
	0.0002	I	+0.1650	CCD+Clear	106/39	Vrašťák M.	RL240/1200+CCD G2-1600
AW Vir 55264.50753							
	0.0002	I	+0.0040	CCD+I	50/30	Šmelcer L.	Celestron 280/1765 + CCD ST7
	0.0002	I	+0.0042	CCD+R	50/30	Šmelcer L.	Celestron 280/1765 + CCD ST7
BF Vir 55249.50466							
	0.0003	I	-0.0128	CCD+I	35/14	Šmelcer L.	Celestron 280/1765 + CCD ST7
	0.0003	I	-0.0123	CCD+R	37/15	Šmelcer L.	Celestron 280/1765 + CCD ST7
HT Vir 55312.37605							
	0.0002	I	-0.0014	CCD+R	58/32	Šmelcer L.	Celestron 280/1765 + CCD ST7
	0.0003	I	-0.0007	CCD+I	63/39	Šmelcer L.	Celestron 280/1765 + CCD ST7

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

March 2011

http://var.astro.cz/oejv

ISSN 1801-5964

HW Vir 55352.32972	0.0000	I	-0.0007	CCD+R	52/52	Zejda M.	RL300+CCD G2
IK Vir 55628.55746	§ 0.0007	I	+0.0750	CCD+Clear	110/80	Mašek M.	R70/700mm, 0,5x reducer + Meade DSI
PY Vir 55303.45657 55304.39176	0.0001 0.0001	II II	-0.0144 -0.0130	CCD+Clear CCD+Clear	418/196 447/202	Polák J. Polák J.	ED 80/600 ED 120/900
QS Vir 55304.42727	0.0016	I	-0.0010	CCD+R	400/163	Lomoz F.	Newton-Schmidt 254/1016+ST2000XM
G0330.1394 Vir 55313.36172 55352.46159	0.0016 0.0001	I II	-0.0006 -0.0004	CCD+R CCD+Clear	211/121 345/164	Lomoz F. Polák J.	Newton-Schmidt 254/1016+ST2000XM ED 120/900
AB Vul 55481.27345 55481.27356 55481.27362	0.0002 0.0002 0.0001	I I I	-0.0053 -0.0052 -0.0051	CCD+R CCD+I CCD+V	35/16 35/16 32/14	Lehky M. Lehky M. Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI 0.40-m f/5 + CCD G2-1600 + BVRI 0.40-m f/5 + CCD G2-1600 + BVRI
AY Vul 55068.38765 55512.26996 55512.27116	0.0007 0.0003 0.0007	I I I	-0.0079 -0.0133 -0.0121	CCD+R CCD+R CCD+I	36/12 66/21 54/19	Šmelcer L. Šmelcer L. Šmelcer L.	Celestron 280/1765 + CCD ST7 Celestron 280/1765 + G2 1600 Celestron 280/1765 + CCD G2 1600
AZ Vul 55389.48054	0.0001	I	+0.0042	CCD+R	238/100	Lehky M.	0.40-m f/5 + CCD ST7 + R
BB Vul 55380.45786	0.0001	I	+0.0164	CCD+R	54/29	Brát L.	RL200, f/6 + ST8, RF80/600+G1-0300
BE Vul 55068.50019 55068.50129	0.0006 0.0003	I I	+0.0033 +0.0044	CCD+I CCD+R	44/31 43/30	Šmelcer L. Šmelcer L.	Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD ST7
BK Vul 55083.31664 55388.49510 55431.34587 55431.34607	0.0002 0.0010 0.0006 0.0004	I I II II	-0.0057 -0.0082 -0.0100 -0.0098	CCD+I CCD+Clear CCD+I CCD+R	59/27 75/24 42/16 42/17	Šmelcer L. Přibík V. Šmelcer L. Šmelcer L.	Celestron 280/1765 + CCD ST7 Newton 254/1200, CCD G2-1600, EQ6 Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD ST7
BP Vul 55076.30746 55076.30826 55461.42785 55461.42805 55461.42815	0.0002 0.0002 0.0007 0.0007 0.0005	I I II II II	-0.0011 -0.0003 -0.0394 -0.0392 -0.0391	CCD+I CCD+R CCD+V CCD+R CCD+I	50/22 46/21 42/13 36/9 40/12	Šmelcer L. Šmelcer L. Šmelcer L. Šmelcer L. Šmelcer L.	Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD ST7 Celestron 280/1765 + CCD ST7

OPEN EUROPEAN JOURNAL ON VARIABLE STARS

<http://var.astro.cz/oejv>

ISSN 1801-5964

March 2011

BS Vul							
55483.31420	0.0005	II	<u>-0.0078</u>	CCD+I	57/35	Šmelcer L.	Celestron 280/1765 + CCD ST7
55483.31520	0.0008	II	<u>-0.0068</u>	CCD+R	57/30	Šmelcer L.	Celestron 280/1765 + CCD ST7
BU Vul							
55101.37709	0.0004	I	<u>-0.0045</u>	CCD+R	27/10	Šmelcer L.	Celestron 280/1765 + CCD ST7
55101.37749	0.0002	I	<u>-0.0041</u>	CCD+V	26/11	Šmelcer L.	Celestron 280/1765 + CCD ST7
55101.37789	0.0004	I	<u>-0.0037</u>	CCD+I	30/11	Šmelcer L.	Celestron 280/1765 + CCD ST7
55378.47826	0.0003	I	<u>-0.0032</u>	CCD+V	28/11	Šmelcer L.	Celestron 280/1765 + CCD ST7
55378.47836	0.0003	I	<u>-0.0031</u>	CCD+R	28/11	Šmelcer L.	Celestron 280/1765 + CCD ST7
55378.47846	0.0003	I	<u>-0.0030</u>	CCD+I	24/12	Šmelcer L.	Celestron 280/1765 + CCD ST7
55429.39834	0.0012	II	<u>-0.0075</u>	CCD+R	72/54	Šmelcer L.	Celestron 280/1765 + CCD ST7
55429.40084	0.0007	II	<u>-0.0050</u>	CCD+I	75/53	Šmelcer L.	Celestron 280/1765 + CCD ST7
CD Vul							
55046.33740	0.0004	I	<u>-0.0011</u>	CCD+R	18/11	Šmelcer L.	Celestron 280/1765 + CCD ST7
55046.33760	0.0003	I	<u>-0.0009</u>	CCD+I	18/12	Šmelcer L.	Celestron 280/1765 + CCD ST7
55463.42301	0.0002	I	<u>-0.0000</u>	CCD+I	44/19	Šmelcer L.	Celestron 280/1765 + CCD ST7
55463.42301	0.0002	I	<u>-0.0000</u>	CCD+R	47/22	Šmelcer L.	Celestron 280/1765 + CCD ST7
DZ Vul	§						
55428.43151	0.0016	I	<u>+0.0649</u>	CCD+R	392/194	Lomoz F.	Newton 300/1200+ST2000XM
ER Vul							
55387.46703	0.0007	I	<u>-0.0002</u>	CCD+R	40/18	Lehky M.	EQ6 + 2.8/80 + CCD ST5C + VRI
55387.46800	0.0024	I	<u>+0.0008</u>	CCD+V	33/18	Lehky M.	EQ6 + 2.8/80 + CCD ST5C + VRI
55387.46875	0.0008	I	<u>+0.0016</u>	CCD+I	50/22	Lehky M.	EQ6 + 2.8/80 + CCD ST5C + VRI
GP Vul							
55057.35419	0.0003	I	<u>-0.0018</u>	CCD+I	35/15	Šmelcer L.	Celestron 280/1765 + CCD ST7
55057.35499	0.0002	I	<u>-0.0010</u>	CCD+V	32/13	Šmelcer L.	Celestron 280/1765 + CCD ST7
55057.35509	0.0002	I	<u>-0.0009</u>	CCD+R	35/15	Šmelcer L.	Celestron 280/1765 + CCD ST7
55060.45214	0.0003	I	<u>-0.0014</u>	CCD+I	33/16	Šmelcer L.	Celestron 280/1765 + CCD ST7
55060.45244	0.0004	I	<u>-0.0011</u>	CCD+V	28/15	Šmelcer L.	Celestron 280/1765 + CCD ST7
55060.45254	0.0002	I	<u>-0.0010</u>	CCD+R	31/17	Šmelcer L.	Celestron 280/1765 + CCD ST7
55376.39567	0.0012	I	<u>-0.0028</u>	CCD+R	28/16	Šmelcer L.	Celestron 280/1765 + CCD ST7
55376.39587	0.0009	I	<u>-0.0026</u>	CCD+V	23/15	Šmelcer L.	Celestron 280/1765 + CCD ST7
55376.39637	0.0013	I	<u>-0.0021</u>	CCD+I	24/16	Šmelcer L.	Celestron 280/1765 + CCD ST7
55377.42850	0.0003	I	<u>-0.0025</u>	CCD+R	32/21	Šmelcer L.	Celestron 280/1765 + CCD ST7
55377.42860	0.0004	I	<u>-0.0024</u>	CCD+I	31/20	Šmelcer L.	Celestron 280/1765 + CCD ST7
55377.42880	0.0004	I	<u>-0.0022</u>	CCD+V	30/19	Šmelcer L.	Celestron 280/1765 + CCD ST7
HS Vul							
55084.41507	0.0002	I	<u>+0.0012</u>	CCD+Clear	41/22	Trnka J.	Newton 200/1000, ST-9E
KN Vul							
55100.33391	0.0002	I	<u>-0.0068</u>	CCD+R	51/19	Šmelcer L.	Celestron 280/1765 + CCD ST7
55374.40162	0.0003	I	<u>-0.0109</u>	CCD+I	57/32	Šmelcer L.	Celestron 280/1765 + CCD ST7
55482.31398	0.0003	I	<u>-0.0121</u>	CCD+V	63/33	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55482.31491	0.0002	I	<u>-0.0112</u>	CCD+I	59/30	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55482.31507	0.0002	I	<u>-0.0110</u>	CCD+R	62/31	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI
55499.29103	0.0003	II	<u>-0.0083</u>	CCD+I	60/32	Lehky M.	0.40-m f/5 + CCD G2-1600 + BVRI

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March 2011							
55499.29128	0.0003	II	-0.0080	CCD+V	64/30	Lehky M.	
55499.29145	0.0003	II	-0.0079	CCD+R	64/31	Lehky M.	
55500.35985	0.0010	II	-0.0115	CCD+V	70/57	Lehky M.	
55500.36189	0.0007	II	-0.0094	CCD+I	73/58	Lehky M.	
55500.36210	0.0009	II	-0.0092	CCD+R	79/66	Lehky M.	
V 384 Vul §							
55440.38172	0.0021	I	-0.0275	CCD+V	56/35	Corfini G.	GSO 200/800 CCD-UAI
55547.24511	0.0024	II	-----	CCD+Clear	130/36	Corfini G.	GSO 200/800 CCD-UAI
V 467 Vul							
55442.33964	0.0003	II	-0.0093	CCD+V	41/19	Corfini G.	GSO 200/800 CCD-UAI
UCAC3 224-294543 Vul §							
55545.23238	0.0012	II	-----	CCD+Clear	63/15	Corfini G.	GSO 200/800 CCD-UAI
55546.28650	0.0007	I	-----	CCD+Clear	58/44	Corfini G.	GSO 200/800 CCD-UAI

Table 2: List of 45 observers and corresponding amounts of obtained minima timings.

#	<i>Observer(s) name(s)</i>	<i>minima time totals</i>
1	Šmelcer L.	490
2	Lehký M.	192
3	Trnka J.	141
4	Kučáková H.	51
5	Lomoz F.	49
6	Lehký M., Hanžl D.	45
7	Vrašťák M.	40
8	Corfini G.	39
9	Přibík V.	33
10	Brát L.	28
11	Dřevěný R.	17
12	Ehrenberger R.	16
13	Kocián R.	14
14	Mašek M.	14
15	Polák J.	12
16	Starzomski J.	11
17	Marchi F.	9
18	Poddaný S.	8
19	Zejda M.	6
20	Cagaš P.	4
21	Klos M.	4
22	Marchi F., Garofalo R.	4
23	Trnka J., Klos M.	5
24	Klimentová J., Kliment P.	3
25	Kučáková H., Speil J.	3
26	Magris M.	3
27	Mašek M., Hladík B.	3
28	Hoňková K.	2
29	Juryšek J.	2
30	Trnka J., Klos M., Smyčka T.	2
31	Moudrá M.	2
32	Naves R.	2
33	Ruocco N.	2
34	Smyčka T.	2
35	Zahajský J.	2
36	Audejean M.	1
37	Hladík B.	1
38	Pejcha O.	1
39	Sobotka P.	1
40	Suchan J.	1
41	Smyčka T., Trnka J.	1
42	Uhlář R.	1
43	Vieira J.	1
44	Zasche P.	1
45	Zambelli R.	1

Section 2 - Notes on individual stars**DW And**

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 55093.3222 + 0.6287235(2) * E$

KP And

On 2455084.52441 (*M. Lehky*) first ever published secondary minimum for this object

SvkV 18 And

= GSC 2786-1409 a new EB type in field CN And. $M0 = 55411.069 + 0.290858 * E$, 13.7 – 14.2 mag (clear) (*M. Vrastak*, SvkV catalogue)

G3285.1748 And

New variable NSVS 3936038 at position RA (2000) = 02 12 02.49, DE (2000) = +47 23 28.2, 12.58 – 13.26 mag (R), P = 0.43823514, EW: (*J. Shaw* and VSX)

TYC 2409-1921-1 Aur

New variable near V 567 Aur reported by *J. Trnka* (this paper). Unknown orbital elements yet.

UCAC3 240-072567 Aur

= USNO-B1.0 1197-0128756. $M = 54821.3435 + 0.70360079 * E$, 13.6 – 13.8 mag (R), 13.7 secondary minimum, RA (2000) = 06 31 09.31, DE (2000) = +29 45 19.56 (*R. Zambelli*, *G. Corfini*, this paper)

VSX J0626.6+275559 Aur

= USNO-A2.0 1125-03954939 Aur, RA (2000) = 06 26 06.60, DE (2000) = +27 55 59.0,
 $M = 55479.5905 + 0.30497 * E$, 15.7-16.3 (C), EW (VSX)

DV Boo

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 48045.254 + 3.782634(2) * E$

GI Boo

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 51286.7052 + 1.033404(1) * E$

LT Cam

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 51830.431 + 0.2765934(2) * E$

LV Cam

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 51881.4668 + 0.3657282(1) * E$

CzeV208 Cam

= GSC 03725-00061 = USNO-A2.0 1425-04709315. New EW type variable discovered in field of MY Cam. 12,84 – 13,05 (R), RA (2000) = 03 58 49, DE (2000) = +57 15 18. Orbital elements unknown yet (*R. Kocijan*, CzeV catalogue).

V1094 Cas

= CzeV135 Cas = GSC 3682 2051 (*Kazarovets et al., 2011*).

CzeV131 Cas

= GSC 4041 0673. New variable near V 785 Cas at position RA (2000) = 02 11 27.81, DE (2000) = +64

49 39. Probably EA type eclipsing binary, 12.4 - 12.8 mag (I). Orbital elements unknown yet.
(*Kucakova, Truparova, Dreveny, CzeV catalogue*).

NSVS 1693237 Cas

New EW type binary near AX Cas at position RA (2000)= 01 23 15.37, DE (2000)= +61 35 02.8, 13.19 - 14.02 (R), M = 55482.3018 + 0.27339204*E (VSX)

G3957.0256 Cep

= NSVS 3275806, new variable at position RA (2000) = 21 17 32.05, DE (2000) = +55 38 55.1, 12.7 - 13.0 mag (R). Orbital elements unknown yet. Reported by *R. Ehrenberger* (this paper).

G4465.1210 Cep

New algol type binary near GK Cep, M = 2451414.125 + 2.02958*E (*Khruslov, 2007*)

G1395.0877 Cnc

= NSVS 10122684 Cnc. Recently discovered EW binary (presented in VSX) at coordinates RA (2000) = 08 41 21.50, DE (2000) = +19 00 26.0, M = 52623.1920 + 0.295142*E, 12.83-13.30 mag (V). Not known if reported time of minimum belongs to primary or secondary minimum.

CU CVn

According to shape of light curve, it is probably not an eclipsing binary, but RR Lyrae star!

DU CVn

Based on recent observation and O-C gateway, we have found new orbital elements
M = 51251.31 + 0.3071008(2) * E

G2533.0370 CVn

Based on recent observation and O-C gateway, we have found new orbital elements
M = 52337.526 + 0.3359695(1) * E

EM Cyg

Based on recent observation and O-C gateway, we have found new orbital elements
M = 37882.8595 + 0.29090915(2) * E

CzeV053 Cyg

New variable discovered by *M. Zejda* at position: RA (2000) = 19 27 33.6, DE (2000) = +33 03 08.1, near V 865 Cyg. 14,0 – 14,4 mag (R), M = 52255.2469 + 0.4020485 * E, type of minimum uncertain (*Zejda et al, 2006*)

G2200.1190 Cyg

New variable near V 400 Cyg at position RA (2000) = 21 31 51.10, DE (2000) = +29 21 43.5, 12,9 - 13,05 (R). Orbital elements unknown yet. (*J. Trnka*)

G2200.1413 Cyg

New variable near V 400 Cyg at position RA (2000) = 21 32 49.20, DE (2000) = +29 39 45.7, 12,5 - 12,7 (R). Orbital elements unknown yet. (*J. Trnka*)

USNO-A2.0 1200-12449302 Cyg

= VSX J193902.5 +303208, new EB variable star presented in VSX, 15,2 - 16,07 mag (V), M = 2454410.2460 + 0,67329 * E (VSX)

USNO-A2.0 1275-15134722 Cyg

New eclipsing binary at position RA (2000) = 21 15 23.80, DE (2000) = +43 32 09.5, 14.4-14.8 (R), M = 53621.5720 + 0.505856*E (VSX)

USNO-B1.0 1394-0302975 Dra

New variable near transiting exoplanet host star TrES-2 identified as T-Lyr1-22350 in the discovery paper (*Devor et al., 2008*). $M = 53579.1890 + 03063058 * E$. $14,380 - 14.674$ (R).

V 388 Gem

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 51548.725 + 0.6059443(1) * E$

CzeV149 Gem

New EW eclipsing binary variable near HY Gem at coordinates RA (2000) = 06 33 11.66, DE (2000) = +21 56 25.8, 11.9 – 12.25 mag (Clear). Orbital elements unknown yet. (*F. Lomoz, CzeV catalogue*).

CzeV176 Gem

New EA type eclipsing binary near MU Gem at coordinates RA (2000) = 06 59 20.30, DE (2000) = +14 09 10.3, 14.9 – 15.6 mag (Clear), 15.05 mag secondary minimum. $M = 2454834.5908 + 0.47999 * E$ (*J. Trnka, CzeV catalogue*)

CzeV177 Gem

New EW type eclipsing binary near MU Gem at position RA (2000) = 07 00 32.87, DE (2000) = +14 07 12.2, 12.8 - 13.1 mag (c), $M = 2454830.393 + 0.35985 * E$ (*J. Trnka, CzeV catalogue*)

G1330.0287 Gem

= NSVS 9801698 Gem

V 994 Her

Quadruple system made of 2 eclipsing binaries (*Lee, C.-U. et al., 2008*). Presented minimas belongs to both systems. A sample light curve obtained by L. Smelcer shows figure 1. Minimas are distinguished according to Lee et al. and the following orbital elements:

Min I_A = 53869.6858(6) + 2.083264(86) * E, Min I_B = 53870.1992(9) + 1.420033(90) * E

V1060 Her

Orbital elements 51286.899 + 0.82458 (O-C gateway) are wrong.

V1066 Her

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 51275.8589 + 0.3943035(3) * E$

V1072 Her

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 51277.8466 + 0.5880315(2) * E$

V1098 Her

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 51627.337 + 0.3522685(2) * E$

V1100 Her

Based on recent observation and O-C gateway, we have found new orbital elements $M = 55353.4380 + 0.346935(4) * E$. Possible period increasing. Further observation needed for confirmation.

V1106 Her

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 52556.038 + 0.2545737(3) * E$

G3089.1273 Her

New variable near transiting exoplanet TrES-3 b discovered by *Akerlof et al., 2000*,
 $M = 55310.49226 + 0.32130000 * E$ (*Akerlof 2000* and this paper)

V 458 Lac

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 51505.64 + 1.347922(2) * E$

CzeV137 Lac

= USNO-B1.0 1454-0411281. (*Lehky, 2009 A*)

CzeV138 Lac

= USNO-B1.0 1455-0409516 (*Lehky, 2009 A*). Based on recent observation and O-C gateway, we have found new orbital elements $M = 54387.5856 + 1.105845(2) * E$

CzeV139 Lac

= USNO-B1.0 1455-0409575. (*Lehky, 2009 A*)

CzeV159 Lac

= 2MASS 22115481+4739183, new short period EA eclipsing binary discovered near GO Lac at position RA (2000) = 22 11 54.81, DE (2000) = +47 39 18.3, 16.0 - 16.8 mag (Clear), 16.4 mag secondary minimum. $M = 54705.5818 + 0.359625 * E$ (*J. Trnka, this paper*)

CzeV161 Lac

= USNO-B1.0 1347-0483658 (*Lehky, 2009 B*).

G3210.1456 Lac

New EW type eclipsing binary near RT Lac at position RA (2000) = 22 02 10.57, DE (2000) = +44 01 23.2. 11.78 - 12.24 mag (c) $M = 55095.3968 + 0.3765 * E$ (*F. Agerer, 2010*)

G3984.0503 Lac

New eclipsing binary near FR Lac at position RA (2000) = 22 48 44.78, DE (2000) = +54 15 05.6, 13.4 - 13.8 mag (clear). Orbital elements unknown yet. (*J. Trnka*)

BG Leo

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 55601.4924 + 3.77950(4) * E$.

G0267.0253 Leo

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 52038.87 + 0.4464581(1) * E$.

WZ LMi

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 52355.9645 + 0.3891388(2) * E$.

V 577 Lyr

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 51421.021 + 0.3898472(2) * E$.

V 594 Lyr

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 52583.979 + 0.2559752(1) * E$.

CzeV194 Lyr

= 2MASS 19083595+3055118, new EW binary near V 417 Lyr at position RA (2000) = 19 08 35.95, DE (2000) = +30 55 11.8, 14.7 - 15.1 mag (V). Orbital elements unknown yet (*J. Trnka*)

USNO-A2.0 0825-03243265 Mon

New eclipsing binary near transiting exoplanet host star CoRoT-1 at position RA (2000) = 06 48 47.04, DE (2000) = -02 53 53.1, 13.35 – 13.459 mag (V), M = 54138.5108 + 1.24542 * E (*Carpano, 2009*)

ASAS J155227-5500.6 Nor

New southern EW type eclipsing binary at position RA (2000) = 15 52 27.00, DE (2000) = -55 00 36.0, 11.45 – 11.78 mag (V), M = 55300.6318 + 0.297646 * E (*Lehký, this paper and Pojmanski, 2002*)

EN Oct

Based on recent observation and O-C gateway, we have found new orbital elements
M = 52404.915 + 0.2889128(2) * E

V1638 Ori

Uncertain time of minimum. Based on recent observation and O-C gateway, we have found new orbital elements M = 50775.5051 + 0.614052(2) * E

ASAS J045235-0313.8 Ori

New eclipsing binary at position RA (2000) = 04 52 35.00, DE (2000) = -03 13 48.0, 12.2 – 12.51 mag (V), M = 55601.3846 + 0.462456 * E. (*P. Cagaš, this paper and Pojmanski, 2002*)

2MASS J21394308+2822392 Peg

New eclipsing binary near CC Peg at position RA (2000) = 21 39 43.1, DE (2000) = +28 22 39.5, 14.6 - ? mag (R), M = 53233.548 + 0.352655 * E (*Agerer, 2006*)

EQ Per

First ever published secondary minimum.

G2337.1479 Per

New EW type eclipsing binary near V364 Per and V366 Per at position RA (2000) = 02 44 48.81, DE (2000) = +36 34 46.52, 14.2 – 14.6 mag (Clear). Orbital elements unknown yet. (*L. Brát, this paper*)

OU Ser

Based on recent observation and O-C gateway, we have found new orbital elements
M = 48500.278 + 0.2967655(2) * E.

WY Sex

Based on recent observation and O-C gateway, we have found new orbital elements
M = 55627.3835 + 0.368055(2) * E.

V 369 Sge

Based on recent observation and O-C gateway, we have found new orbital elements
M = 52918.604 + 0.3958288(2) * E

CU Tau

Strong period decreasing.

UCAC3 233-039894 Tau

New EW type eclipsing binary at position RA (2000) = 05 41 43.79, DE (2000) = +26 06 40.9, 13.8 – 14.26 mag (Clear), M = 55541.5273 + 0.365286 * E (*G. Corfini, VSX, this paper*)

AK Tri

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 50416.4164 + 0.7017145(2) * E$

AL Tri

We have refined the published period 0.262 d (*Liu et al., 2000*) to $P = 0.268565(2)$ d. However, the O-C diagram remains scattered with range o about +/- 30 minutes while our CCD times of minima have uncertainties better than 1 minute. Such period changes seems unrealistic for eclipsing binary. This tend us (together with different brightness in maximas, this paper and *Liu et al., 2000*) to a finding, that AL Tri is not an eclipsing binary, but pulsating variable. Most probably RRc type.

BU Tri

= CzeV130 Tri (*Kazarovets et al., 2011*). Based on recent observation and O-C gateway, we have found new orbital elements $M = 53999.4197 + 0.295565(2) * E$

BV Tri

= CzeV128 Tri (*Kazarovets et al., 2011*)

EQ UMa

Possible period increasing.

GZ UMa

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 51556.83 + 6.541975(1) * E$

MQ UMa

Possible sinusoidal O-C diagram

VW UMi

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 51420.948 + 0.4888692(3) * E$

IK Vir

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 51275.365 + 0.7236025(2) * E$

DZ Vul

Based on recent observation and O-C gateway, we have found new orbital elements
 $M = 51353.847 + 1.594126(1) * E$

V 384 Vul

First ever published secondary minimum. Based on recent observation and O-C gateway, we have found new orbital elements $M = 51275.189 + 0.4388572(3) * E$.

UCAC3 224-294543 Vul : New EW type eclipsing binary at position RA (2000) = 21 16 56.62, DE (2000) = +21 48 21.32, 14.68 - 15.28 mag (clear), $M = 55546.2865 + 0.421713 * E$ (*G. Corfini, VSX* and this paper)

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 We often used a Variable Star Index (VSX) operated by AAVSO and would like to thank to its administrators.

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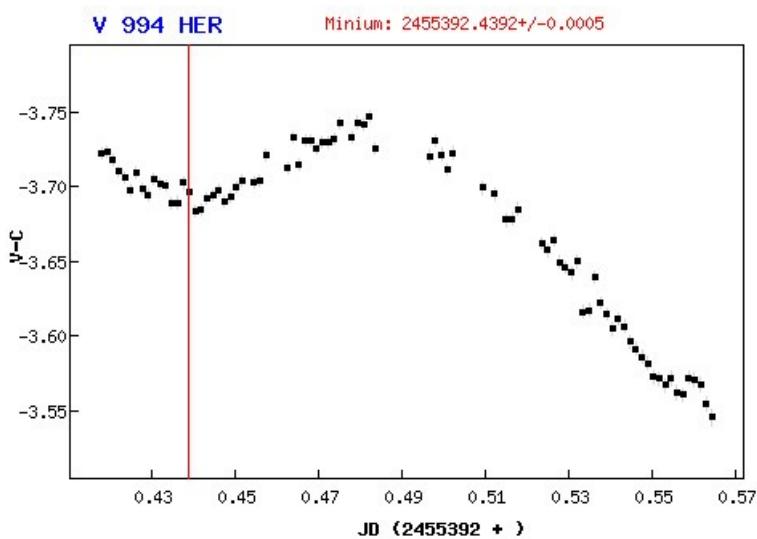


Figure 1: Light curve of V 994 Her – a quadruple system made of 2 eclipsing binaries. In the picture, there is derived minimum of eclipsing system B, while minimum of system A starts in second half of observation run. Author: Ladislav Smelcer, Valasske Mezirici Observatory.