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**COLLECTION OF MINIMA**

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**Observatory and telescope:**

CCD photometry with various ground-based and space telescopes as well as the data from the robotic/automatic photometric surveys were used for the times of minima determination.

**Method of data reduction:**

The CCD frames were reduced using the C-Munipack and IRAF routines.

**Method of minimum determination:**

The minima times were computed with the Kwee – van Woerden method (Kwee & van Woerden, 1956). Two remarkable minima observations are plotted in Figs. 1 and 2 below. The system V760 Oph shows one of the deepest primary minimum known among the eclipsing binaries, while V389 Cas was found to exhibit periodic pulsations of one of its components.

**Explanation of the remarks in the table:**

*BVRI* filters by the specification by Bessell (1990), *C* - unfiltered. Observers: PZ - Petr Zasche, RU - Robert Uhlař, HK - Hana Kučáková, PS - Petr Svoboda, MZ - Miloslav Zejda, MW - Marek Wolf. Instruments: OND - 65 cm telescope in Ondřejov Observatory, SPM - 84 cm telescope at San Pedro Mártir, Mexico, RF34/135 - 34 mm refractor, RF75/300 - 75 mm refractor, N254/1200 - 254 mm Newton reflector, N200/1000 - 200 mm Newton reflector, N200/2000 - 200 mm Newton reflector, M305/3050 - 30 cm Schmidt-Cassegrain reflector, Ath - 40 cm telescope at Athens University Observatory, OMC - Integral OMC camera. For V994 Her the following notation was used: period of pair A: 2.083268 day, period of pair B: 1.420025 day.

Table 1: Times of minima of eclipsing binaries

Star Name	HJD 24....	Error	Type	Filter	Instrument/Source	Observer
UU And	55456.62189	0.00003	Pri	R	OND	PZ
WZ And	55873.50864	0.00010	Pri	R	N200/2000	HK
V372 And	55561.32461	0.00082	Sec	C	RF34/135	RU
V372 And	55877.48043	0.00059	Pri	C	RF34/135	RU
V392 And	55848.47851	0.00140	Pri	R	RF34/135	RU
SU Aqr	55052.91784	0.00013	Pri	V	SPM	PZ
CZ Aqr	52065.41858	0.00178	Pri	V	ASAS	PZ
CZ Aqr	52064.98507	0.00217	Sec	V	ASAS	PZ
CZ Aqr	52550.28425	0.00060	Pri	V	ASAS	PZ
CZ Aqr	52549.85580	0.00229	Sec	V	ASAS	PZ
CZ Aqr	52887.61885	0.00050	Pri	V	ASAS	PZ
CZ Aqr	52887.19110	0.00196	Sec	V	ASAS	PZ
CZ Aqr	53426.83663	0.00115	Pri	V	ASAS	PZ
CZ Aqr	53426.40785	0.00195	Sec	V	ASAS	PZ
CZ Aqr	54161.89728	0.00084	Pri	V	ASAS	PZ
CZ Aqr	54161.46574	0.00248	Sec	V	ASAS	PZ
CZ Aqr	54710.60306	0.00045	Pri	V	ASAS	PZ
CZ Aqr	54710.17341	0.00260	Sec	V	ASAS	PZ
CZ Aqr	55057.42720	0.00091	Pri	V	ASAS	PZ
CZ Aqr	55056.99203	0.00300	Sec	V	ASAS	PZ
DD Aqr	55866.39277	0.00020	Pri	R	M305/3050	HK
DD Aqr	55874.32299	0.00020	Pri	R	M305/3050	HK
V803 Aql	55053.67726	0.00002	Pri	R	SPM	PZ
V887 Aql	55456.32489	0.00252	Sec	R	OND	PZ
V887 Aql	55873.24259	0.00112	Pri	R	OND	PZ
V1470 Aql	55482.28020	0.00062	Pri	C	RF34/135	RU
sigma Aql	55053.37814	0.00220	Sec	C	RF34/135	RU
sigma Aql	55399.54892	0.00031	Pri	I	RF34/135	RU
sigma Aql	55754.50503	0.00028	Pri	I	RF34/135	RU
TX Ari	55161.23757	0.00168	Pri	R	OND	PZ
AL Ari	55868.32794	0.00025	Pri	R	M305/3050	HK
AL Ari	55836.51605	0.00045	Sec	C	RF34/135	RU
AL Ari	55879.57035	0.00060	Pri	C	RF34/135	RU
CL Aur	55868.69614	0.00030	Pri	R	N200/2000	HK
FO Aur	54405.54149	0.00106	Sec	R	OND	PZ
V417 Aur	55619.35468	0.00031	Pri	C	RF34/135	RU
V560 Aur	55878.49067	0.00121	Pri	C	RF34/135	RU
AC Boo	55602.55269	0.00019	Sec	C	RF34/135	RU
DV Boo	55644.56349	0.00098	Pri	C	RF34/135	RU
EL Boo	55643.60973	0.00083	Sec	R	RF34/135	RU
EM Boo	55651.45876	0.00121	Pri	R	RF34/135	RU
EM Boo	55673.46951	0.00042	Pri	R	RF34/135	RU
ET Boo	55602.65861	0.00019	Sec	C	RF34/135	RU
GU Boo	55700.34562	0.00007	Pri	R	OND	PZ
SZ Cam	54840.54681	0.0004	Sec	R	RF34/135	PS
SZ Cam	54534.27515	0.001	Pri	R	RF34/135	PS
SZ Cam	55257.45166	0.00041	Pri	R	RF34/135	PS
SZ Cam	55852.46557	0.00071	Sec	R	RF34/135	PS
SZ Cam	54809.50648	0.0006	Pri	R	RF34/135	RU
SZ Cam	55141.41783	0.00239	Pri	R	RF75/300	RU
SZ Cam	55141.42664	0.00430	Pri	V	RF75/300	RU
SZ Cam	55462.51935	0.00023	Pri	I	N254/1200	RU
SZ Cam	55593.40996	0.00235	Sec	V	RF34/135	RU

Table 1: (cont.)

Star Name	HJD 24.....	Error	Type	Filter	Instrument/Source	Observer
AT Cam	55500.37739	0.00049	Sec	R	N254/1200	RU
CV Cam	55496.47080	0.00052	Sec	C	RF34/135	RU
CV Cam	55879.44866	0.00052	Pri	C	RF34/135	RU
FZ CMa	55868.57263	0.00101	Pri	R	N200/2000	HK
BF CMi	55873.57009	0.00019	Pri	R	M305/3050	HK
RS CVn	55688.48534	0.00735	Sec	C	RF34/135	RU
DE CVn	54193.40825	0.00004	Pri	R	OND	PZ
TX Cas	55878.41211	0.00043	Pri	R	RF34/135	RU
CC Cas	55839.33773	0.00093	Sec	R	RF34/135	RU
CC Cas	55876.38437	0.00043	Sec	C	RF34/135	RU
CR Cas	55866.23094	0.00027	Pri	R	M305/3050	HK
CR Cas	55836.40797	0.00049	Sec	R	N200/1000	RU
DN Cas	55872.46075	0.00363	Sec	VRI	M305/3050	HK
V389 Cas	55851.56898	0.00239	Sec	R	M305/3050	HK
V389 Cas	55483.58449	0.00010	Pri	R	OND	PZ
V649 Cas	55461.50591	0.00061	Pri	R	RF34/135	PS
V772 Cas	55875.39469	0.00431	Pri	R	RF34/135	PS
V772 Cas	55880.41033	0.00228	Pri	R	RF34/135	RU
V785 Cas	55800.44136	0.00118	Pri	C	RF34/135	RU
V1018 Cas	55832.61170	0.00033	Pri	R	OND	PZ
AH Cep	55829.31526	0.00055	Sec	R	RF34/135	RU
CO Cep	54748.25653	0.00019	Sec	V	OND	PZ
CQ Cep	55811.54449	0.00073	Pri	C	RF34/135	RU
EM Cep	54995.45633	0.00295	Sec	BVRI	N254/1200	RU
EM Cep	55022.46170	0.00080	Pri	BVRI	N254/1200	RU
EM Cep	55819.37896	0.00160	Sec	I	N200/1000	RU
GT Cep	55834.40694	0.00128	Sec	C	RF34/135	RU
LP Cep	54364.35949	0.00007	Pri	R	OND	PZ
LP Cep	55357.51444	0.00004	Pri	R	OND	PZ
V338 Cep	55819.37283	0.00045	Pri	R	RF34/135	RU
V338 Cep	55839.36732	0.00058	Sec	C	RF34/135	RU
V383 Cep	55834.48375	0.00079	Pri	R	RF34/135	RU
TV Cet	55481.58714	0.00048	Pri	C	RF34/135	RU
WY Cet	55828.45940	0.00093	Sec	R	RF34/135	RU
KK Com	55623.47596	0.00052	Pri	C	RF34/135	RU
KR Com	55567.69969	0.00202	Sec	C	RF34/135	RU
KR Com	55584.62855	0.00142	Pri	C	RF34/135	RU
KR Com	55616.65167	0.00077	Sec	R	N200/1000	RU
KR Com	55619.50680	0.00087	Sec	C	RF34/135	RU
KR Com	55643.57679	0.00154	Sec	R	N200/1000	RU
KR Com	55662.34698	0.00069	Sec	R	RF34/135	RU
KR Com	55662.54314	0.00063	Sec	R	RF34/135	RU
VV Crt	54535.49078	0.00012	Pri	R	Ath	PZ+MZ
SW Cyg	55806.40772	0.00056	Pri	R	N200/1000	RU
GV Cyg	54748.37494	0.00003	Pri	V	OND	PZ
V382 Cyg	55811.43990	0.00030	Pri	C	RF34/135	RU
V442 Cyg	55700.45038	0.00007	Sec	B	OND	PZ
V1187 Cyg	55034.47375	0.00054	Sec	R	N254/1200	RU
V1187 Cyg	55413.48497	0.00053	Pri	R	N254/1200	RU
V1187 Cyg	55817.36114	0.00049	Pri	R	N200/1000	RU
V1191 Cyg	55028.51632	0.00041	Sec	R	N254/1200	RU
V1191 Cyg	55034.46897	0.00029	Sec	R	N254/1200	RU
V1191 Cyg	55413.51520	0.00041	Pri	R	N254/1200	RU

Table 1: (cont.)

Star Name	HJD 24.....	Error	Type	Filter	Instrument/Source	Observer
V1191 Cyg	55817.32750	0.00051	Sec	R	N200/1000	RU
V1191 Cyg	55054.68353	0.00012	Pri	R	SPM	PZ
V1191 Cyg	54219.49614	0.00023	Pri	R	OND	PZ
V1193 Cyg	54035.41966	0.00016	Sec	R	OND	PZ
V2154 Cyg	55799.55051	0.00010	Pri	I	N200/1000	RU
V2154 Cyg	55803.49189	0.00099	Sec	R	RF34/135	RU
TY Del	55049.43614	0.0053	Pri	BVRI	N254/1200	RU
TY Del	55068.49505	0.00007	Pri	VR	N254/1200	RU
TY Del	55071.47644	0.00198	Sec	VR	N254/1200	RU
TY Del	55054.79863	0.00034	Sec	I	SPM	PZ
DM Del	55836.43193	0.00045	Sec	R	RF34/135	PS
DM Del	55828.40298	0.00029	Pri	C	RF34/135	RU
DM Del	55831.36000	0.00040	Sec	C	RF34/135	RU
DM Del	55878.23688	0.00015	Pri	R	N200/1000	RU
MR Del	55083.45820	0.00025	Sec	R	N254/1200	RU
MR Del	55029.46271	0.0002	Pri	R	N254/1200	RU
MR Del	55045.37612	0.00087	Sec	R	N254/1200	RU
MR Del	55112.41118	0.00025	Pri	R	RF75/300	RU
MR Del	55141.36525	0.00014	Sec	R	N254/1200	RU
MR Del	55156.23370	0.00078	Pri	V	RF75/300	RU
MR Del	55355.52025	0.00032	Pri	R	N254/1200	RU
MR Del	55373.51796	0.00021	Sec	R	N254/1200	RU
MR Del	55378.47419	0.00019	Pri	R	N254/1200	RU
MR Del	55390.47109	0.00060	Pri	R	RF34/135	RU
MR Del	55455.42345	0.00035	Sec	R	RF75/300	RU
MR Del	55739.48259	0.00048	Pri	R	RF34/135	RU
MR Del	55770.52293	0.00017	Sec	R	N200/1000	RU
MR Del	55776.52223	0.00009	Pri	R	N200/1000	RU
MR Del	55791.39029	0.00014	Sec	R	N200/1000	RU
MR Del	55051.89565	0.00007	Pri	B	SPM	PZ
MR Del	55052.68010	0.00006	Sec	B	SPM	PZ
RX Dra	55862.37284	0.00044	Pri	R	M305/3050	HK
WW Dra	55076.41776	0.00008	Pri	R	N200/2000	HK
WX Dra	55456.49117	0.00005	Pri	R	OND	PZ
BE Dra	54193.48730	0.00012	Pri	R	OND	PZ
BE Dra	54763.27267	0.00012	Sec	R	OND	PZ
BV Dra	55323.43098	0.00041	Sec	I	RF34/135	RU
BV Dra	55329.55416	0.00017	Pri	I	RF34/135	RU
BV Dra	55664.39737	0.00112	Sec	R	RF34/135	RU
CM Dra	54252.36453	0.00003	Pri	R	OND	PZ
W Equ	54692.43944	0.00219	Sec	V	OND	PZ
QT Gem	55617.37801	0.00057	Pri	C	RF34/135	RU
QT Gem	55551.75812	0.00403	Sec	C	RF34/135	RU
GU Her	54223.54030	0.00019	Pri	R	OND	PZ
V338 Her	54035.26464	0.00033	Pri	R	OND	PZ
V501 Her	55648.59428	0.00087	Pri	R	RF34/135	RU
V624 Her	54950.55606	0.00460	Sec	RI	RF34/135	RU
V624 Her	54954.45122	0.00449	Sec	VRI	RF34/135	RU
V624 Her	55069.35237	0.00181	Pri	I	RF34/135	RU
V624 Her	55770.46916	0.01087	Pri	VRI	RF34/135	RU
V681 Her	53138.54781	0.00039	Sec	C	SWASP	PZ
V681 Her	53139.70576	0.00042	Sec	C	SWASP	PZ
V681 Her	53142.60272	0.00054	Pri	C	SWASP	PZ

Table 1: (cont.)

Star Name	HJD 24.....	Error	Type	Filter	Instrument/Source	Observer
V681 Her	53152.45100	0.00040	Sec	C	SWASP	PZ
V681 Her	53156.50777	0.00087	Pri	C	SWASP	PZ
V681 Her	53160.55879	0.00159	Sec	C	SWASP	PZ
V681 Her	53163.45872	0.00073	Pri	C	SWASP	PZ
V822 Her	55364.54469	0.00914	Pri	V	RF34/135	RU
V822 Her	55394.45839	0.00028	Sec	I	N254/1200	RU
V822 Her	55410.45443	0.00039	Pri	I	N254/1200	RU
V822 Her	55716.49916	0.00059	Pri	R	RF34/135	RU
V822 Her	55725.54637	0.00115	Sec	R	RF34/135	RU
V822 Her	55739.46812	0.00101	Sec	I	N200/1000	RU
V822 Her	55787.45865	0.00112	Pri	R	RF34/135	RU
V822 Her	55808.31573	0.00049	Pri	R	RF34/135	RU
V822 Her	53498.33531	0.00277	Sec	V	ASAS	PZ
V822 Her	53499.03693	0.00428	Pri	V	ASAS	PZ
V822 Her	54652.98276	0.00263	Sec	V	ASAS	PZ
V822 Her	54653.67866	0.00149	Pri	V	ASAS	PZ
V994 Her	55424.47871	0.00079	SecB	R	RF34/135	PS
V994 Her	55779.48535	0.00125	SecB	R	N200/1000	RU
V994 Her	55799.36956	0.00033	SecB	I	N200/1000	RU
V994 Her	55313.40261	0.00068	PriA	R	RF34/135	RU
V994 Her	55314.48274	0.00046	SecA	I	RF34/135	RU
V994 Her	55315.48964	0.00042	PriA	I	RF34/135	RU
V994 Her	55375.40806	0.00037	PriA	I	RF34/135	RU
V994 Her	55389.48381	0.00225	SecA	I	RF34/135	RU
V994 Her	55392.44779	0.00055	PriB	I	RF34/135	RU
V994 Her	55397.49810	0.00032	SecB	I	RF34/135	RU
V994 Her	55641.55985	0.00012	SecA	R	N200/1000	RU
V994 Her	55642.56748	0.00042	PriA	R	N200/1000	RU
V994 Her	55654.51845	0.00097	SecB	C	RF34/135	RU
V994 Her	55681.50533	0.00036	SecB	R	RF34/135	RU
V994 Her	55683.55108	0.00024	PriB	R	RF34/135	RU
V994 Her	55688.39802	0.00029	PriA	R	RF34/135	RU
V994 Her	55691.56016	0.00011	Sec	I	N200/1000	RU
V994 Her	55691.44530	0.00013	Sec	I	N200/1000	RU
KY Hya	52070.15039	0.01230	Sec	V	ASAS	PZ
KY Hya	52071.68718	0.00722	Pri	V	ASAS	PZ
KY Hya	52816.76765	0.00132	Sec	V	ASAS	PZ
KY Hya	52818.30357	0.00081	Pri	V	ASAS	PZ
KY Hya	53594.09677	0.00267	Sec	V	ASAS	PZ
KY Hya	53595.63795	0.00243	Pri	V	ASAS	PZ
KY Hya	54629.52233	0.00768	Sec	V	ASAS	PZ
KY Hya	54631.06000	0.00157	Pri	V	ASAS	PZ
RT Lac	55802.39433	0.00105	Pri	C	RF34/135	RU
AR Lac	55062.47453	0.00113	Sec	C	RF34/135	RU
AU Lac	54298.08919	0.00206	Pri	C	SWASP	PZ
AU Lac	54338.46793	0.00043	Pri	C	SWASP	PZ
ES Lac	55168.27112	0.00014	Pri	R	OND	PZ
V398 Lac	55837.46515	0.00082	Pri	R	RF34/135	PS
V401 Lac	55827.38073	0.00084	Sec	C	RF34/135	RU
V402 Lac	55500.29383	0.00052	Sec	V	RF34/135	PS
V402 Lac	55500.28830	0.00062	Sec	C	RF34/135	RU
V402 Lac	55815.48162	0.00033	Pri	R	RF34/135	RU
TX Leo	54974.39005	0.0031	Pri	R	RF34/135	PS

Table 1: (cont.)

Star Name	HJD 24....	Error	Type	Filter	Instrument/Source	Observer
TX Leo	55304.49248	0.00136	Pri	R	RF34/135	PS
TX Leo	55287.37194	0.00635	Pri	I	RF34/135	RU
TX Leo	55590.54927	0.00069	Pri	R	RF34/135	RU
FK Leo	55636.33518	0.00052	Sec	R	RF34/135	RU
FK Leo	55642.41375	0.00031	Pri	C	RF34/135	RU
FM Leo	54534.58810	0.00077	Pri	I	Ath	PZ+MZ
FM Leo	54534.58768	0.00326	Pri	VR	Ath	PZ+MZ
FM Leo	55641.44522	0.00200	Sec	R	RF34/135	RU
FS Leo	55592.47240	0.00049	Pri	C	RF34/135	RU
FS Leo	55617.60629	0.00029	Pri	R	RF34/135	RU
T LMi	54535.44069	0.00050	Pri	VR	Ath	PZ+MZ
T LMi	55616.55458	0.00002	Pri	B	OND	PZ
VW LMi	55648.40821	0.00023	Sec	C	RF34/135	RU
VW LMi	55649.36211	0.00027	Sec	C	RF34/135	RU
IV Lib	55329.51713	0.00077	Pri	R	N254/1200	RU
DI Lyn	55303.39155	0.00044	Sec	R	RF34/135	PS
DI Lyn	55250.42199	0.00068	Pri	V	RF34/135	RU
DI Lyn	55255.46441	0.00087	Pri	VRI	N254/1200	RU
DI Lyn	55534.60115	0.00421	Pri	C	RF34/135	RU
DI Lyn	55561.50867	0.00048	Pri	C	RF34/135	RU
DI Lyn	55567.37941	0.00139	Sec	C	RF34/135	RU
DI Lyn	55599.33984	0.00058	Sec	C	RF34/135	RU
DI Lyn	55614.49151	0.00169	Sec	C	RF34/135	RU
DI Lyn	55872.59930	0.00100	Pri	R	RF75/300	RU
RV Lyr	55312.05371	0.00008	Pri	B	OND	PZ
V412 Lyr	55616.66689	0.00012	Pri	R	OND	PZ
AO Mon	55223.50760	0.00089	Pri	V	N254/1200	RU
IM Mon	55595.31194	0.00080	Pri	C	RF34/135	RU
V450 Mon	54531.26083	0.00020	Pri	R	Ath	PZ
V515 Mon	54138.17674	0.00102	Pri	C	COROT	PZ
V515 Mon	54138.61505	0.00057	Sec	C	COROT	PZ
V515 Mon	54139.05164	0.00119	Pri	C	COROT	PZ
V515 Mon	54139.48802	0.00021	Sec	C	COROT	PZ
V515 Mon	54146.04318	0.00022	Pri	C	COROT	PZ
V515 Mon	54146.48020	0.00012	Sec	C	COROT	PZ
V515 Mon	54149.54043	0.00050	Pri	C	COROT	PZ
V515 Mon	54149.97538	0.00078	Sec	C	COROT	PZ
V515 Mon	54156.53084	0.00094	Pri	C	COROT	PZ
V515 Mon	54156.96800	0.00057	Sec	C	COROT	PZ
V515 Mon	54157.84216	0.00083	Sec	C	COROT	PZ
V515 Mon	54158.27860	0.00145	Pri	C	COROT	PZ
V515 Mon	54160.02675	0.00125	Pri	C	COROT	PZ
KO Nor	52461.93059	0.02047	Sec	V	ASAS	PZ
KO Nor	53486.55317	0.00772	Pri	V	ASAS	PZ
KO Nor	53502.36514	0.02181	Sec	V	ASAS	PZ
KO Nor	54661.22432	0.01678	Pri	V	ASAS	PZ
KO Nor	54677.02581	0.00973	Sec	V	ASAS	PZ
V451 Oph	54535.63717	0.00049	Sec	BV	Ath	PZ+MZ
V760 Oph	55050.80621	0.00008	Pri	V	SPM	PZ
V2373 Oph	55461.30082	0.00234	Sec	I	N254/1200	RU
V2373 Oph	55641.60948	0.00138	Sec	R	RF34/135	RU
V2373 Oph	55697.56539	0.00245	Pri	C	RF34/135	RU
V2377 Oph	55698.49786	0.00048	Sec	C	RF34/135	RU

Table 1: (cont.)

Star Name	HJD 24.....	Error	Type	Filter	Instrument/Source	Observer
Z Ori	55640.34147	0.00074	Pri	R	N200/1000	RU
VV Ori	55515.52057	0.00138	Pri	I	RF34/135	RU
VV Ori	55553.40262	0.01020	Sec	I	RF34/135	RU
VV Ori	55544.48355	0.00158	Sec	I	RF34/135	RU
VV Ori	55591.27618	0.00425	Pri	I	RF34/135	RU
EF Ori	55168.43385	0.00022	Pri	R	OND	PZ
V643 Ori	52121.20335	0.04141	Pri	V	ASAS	PZ
V643 Ori	52697.78540	0.03827	Pri	V	ASAS	PZ
V643 Ori	52671.57191	0.03250	Sec	V	ASAS	PZ
V643 Ori	53064.70369	0.1898	Pri	V	ASAS	PZ
V643 Ori	53038.54694	0.08545	Sec	V	ASAS	PZ
V643 Ori	53431.67806	0.04141	Pri	V	ASAS	PZ
V643 Ori	53405.52748	0.07129	Sec	V	ASAS	PZ
V643 Ori	53798.59786	0.04299	Pri	V	ASAS	PZ
V643 Ori	53772.48842	0.02778	Sec	V	ASAS	PZ
V643 Ori	54427.67544	1.258	Pri	V	ASAS	PZ
V643 Ori	54401.49642	0.11847	Sec	V	ASAS	PZ
V643 Ori	55004.35238	0.04613	Pri	V	ASAS	PZ
V643 Ori	54978.10783	0.05033	Sec	V	ASAS	PZ
V1031 Ori	55255.35357	0.00379	Pri	BVR	RF75/300	RU
V1031 Ori	55599.34852	0.00093	Pri	R	RF34/135	RU
V1031 Ori	55616.39163	0.00256	Pri	C	RF34/135	RU
V1031 Ori	55645.32473	0.00202	Sec	R	RF34/135	RU
V1031 Ori	55878.60668	0.00064	Pri	VC	RF34/135	RU
V1804 Ori	55891.59140	0.00099	Pri	C	RF34/135	RU
V1834 Ori	55867.47221	0.00110	Pri	C	RF34/135	RU
V1834 Ori	55876.53932	0.00233	Pri	C	RF34/135	RU
V1834 Ori	55876.53888	0.00047	Pri	R	RF75/300	RU
delta Ori	55578.39624	0.00285	Pri	I	RF34/135	RU
AW Peg	55394.40088	0.00066	Pri	R	RF34/135	RU
AW Peg	54364.00387	0.00488	Pri	C	SWASP	PZ
AW Peg	54172.80122	0.00180	Pri	V	ASAS	PZ
KP Peg	55033.40866	0.0003	Pri	R	RF34/135	RU
KP Peg	55446.46482	0.00022	Pri	C	RF34/135	RU
KP Peg	55806.42826	0.00069	Pri	C	RF34/135	RU
KW Peg	54384.44946	0.00014	Pri	R	OND	PZ
PU Peg	55848.31676	0.00092	Sec	R	N200/1000	RU
V421 Peg	55829.45113	0.00019	Pri	C	RF34/135	RU
RW Per	54084.0680	0.0119	Pri	C	SWASP	PZ
RW Per	54387.6359	0.0035	Pri	C	SWASP	PZ
AG Per	55514.38896	0.00054	Sec	C	RF34/135	RU
AG Per	55515.41716	0.00068	Pri	C	RF34/135	RU
IQ Per	55834.52580	0.00027	Pri	R	RF34/135	PS
IZ Per	55830.51881	0.00094	Sec	R	RF34/135	RU
V511 Per	55831.58225	0.00073	Pri	C	RF34/135	RU
V572 Per	55096.60260	0.00079	Pri	RI	N254/1200	RU
V572 Per	55528.49141	0.00022	Pri	R	RF34/135	RU
V572 Per	55561.25110	0.00032	Pri	V	RF75/300	RU
V572 Per	55872.45001	0.00027	Sec	V	RF75/300	RU
V572 Per	55880.31685	0.00028	Pri	C	RF34/135	RU
V578 Per	55827.60450	0.00075	Pri	C	RF34/135	RU
V578 Per	55828.57453	0.00049	Pri	C	RF34/135	RU
V592 Per	55108.47238	0.00020	Pri	R	RF75/300	RU

Table 1: (cont.)

Star Name	HJD 24.....	Error	Type	Filter	Instrument/Source	Observer
V592 Per	55155.35195	0.00028	Sec	R	RF75/300	RU
V592 Per	55459.53447	0.00007	Sec	I	N254/1200	RU
V592 Per	55479.57125	0.00016	Sec	R	RF75/300	RU
V592 Per	55501.39909	0.00056	Pri	C	RF34/135	RU
V592 Per	55578.34227	0.00066	Sec	C	RF34/135	RU
V592 Per	55579.41526	0.00036	Pri	C	RF34/135	RU
V592 Per	55592.29655	0.00037	Pri	C	RF34/135	RU
V592 Per	55819.53848	0.00071	Sec	R	RF34/135	RU
V592 Per	55848.52375	0.00059	Pri	R	RF34/135	RU
V592 Per	54913.07857	0.00062	Pri	V	OMC	PZ
V592 Per	54083.56428	0.00049	Pri	C	SWASP	PZ
V592 Per	54084.63815	0.00086	Sec	C	SWASP	PZ
V592 Per	54092.51202	0.00063	Sec	C	SWASP	PZ
V592 Per	54111.48271	0.00088	Pri	C	SWASP	PZ
V592 Per	54115.41629	0.00078	Sec	C	SWASP	PZ
V592 Per	54121.49636	0.00151	Pri	C	SWASP	PZ
V592 Per	54135.45425	0.00085	Sec	C	SWASP	PZ
V592 Per	54140.46378	0.00090	Sec	C	SWASP	PZ
V592 Per	54396.69228	0.00034	Sec	C	SWASP	PZ
V592 Per	54406.71299	0.0015	Sec	C	SWASP	PZ
V592 Per	54410.64861	0.00196	Pri	C	SWASP	PZ
beta Per	55063.58012	0.00130	Pri	C	RF34/135	RU
beta Per	55565.36181	0.00029	Pri	C	RF34/135	RU
UV Psc	55483.56825	0.00082	Pri	R	N254/1200	RU
EU Psc	55879.49388	0.00068	Pri	R	RF34/135	RU
EU Psc	55885.41642	0.00027	Sec	R	RF34/135	RU
EY Psc	55837.42981	0.00062	Pri	C	RF34/135	RU
UZ Sge	54035.31348	0.00028	Pri	R	OND	PZ
UZ Sge	54252.45613	0.00019	Pri	R	OND	PZ
RS Sgr	52508.45123	0.0073	Pri	V	ASAS	PZ
RS Sgr	52507.23849	0.0041	Sec	V	ASAS	PZ
RS Sgr	52820.06436	0.00229	Pri	V	ASAS	PZ
RS Sgr	52818.86002	0.00698	Sec	V	ASAS	PZ
RS Sgr	53180.00925	0.00133	Pri	V	ASAS	PZ
RS Sgr	53178.79772	0.00263	Sec	V	ASAS	PZ
RS Sgr	53547.19518	0.00060	Pri	V	ASAS	PZ
RS Sgr	53545.98960	0.00698	Sec	V	ASAS	PZ
RS Sgr	53853.99261	0.00483	Pri	V	ASAS	PZ
RS Sgr	53852.75657	0.00768	Sec	V	ASAS	PZ
RS Sgr	54648.73918	0.00249	Pri	V	ASAS	PZ
RS Sgr	54647.54073	0.00464	Sec	V	ASAS	PZ
XY Sgr	55051.79217	0.00008	Sec	V	SPM	PZ
V505 Sgr	55376.47257	0.00345	Sec	BI	N254/1200	RU
V505 Sgr	55389.48432	0.00556	Sec	VI	N254/1200	RU
V505 Sgr	55392.44322	0.00052	Pri	VI	N254/1200	RU
V505 Sgr	55456.31537	0.00132	Pri	R	RF75/300	RU
V505 Sgr	55748.48040	0.00016	Pri	I	N200/1000	RU
V505 Sgr	55815.31167	0.00142	Sec	R	RF34/135	RU
V505 Sgr	55828.32514	0.00242	Sec	I	N200/1000	RU
V505 Sgr	55831.28028	0.00024	Pri	C	RF34/135	RU
BI Ser	54533.60975	0.00015	Pri	R	Ath	PZ+MZ
EQ Tau	54035.52240	0.00044	Pri	R	OND	PZ
V1121 Tau	55880.47701	0.00099	Pri	C	RF34/135	RU



Table 1: (cont.)

Star Name	HJD 24.....	Error	Type	Filter	Instrument/Source	Observer
V1121 Tau	55885.42210	0.00037	Pri	C	RF34/135	RU
V1268 Tau	55888.27374	0.00052	Pri	C	RF34/135	RU
lambda Tau	55579.31478	0.00189	Sec	I	RF34/135	RU
RS Tri	55055.86369	0.00003	Pri	B	SPM	PZ
AC UMa	55621.28361	0.00269	Pri	R	N200/1000	RU
AC UMa	55662.39936	0.00018	Pri	R	N200/1000	RU
HV UMa	55645.41050	0.00055	Pri	C	RF34/135	RU
LP UMa	55644.32685	0.00038	Sec	R	OND	PZ
AZ Vir	55672.46514	0.00036	Pri	R	RF34/135	RU
DL Vir	55258.57347	0.00012	Pri	R	RF75/300	RU
DL Vir	55308.55507	0.00036	Pri	I	N254/1200	RU
DL Vir	55600.59191	0.00028	Pri	R	RF34/135	RU
DL Vir	55621.63187	0.00125	Pri	C	RF34/135	RU
DL Vir	55650.57650	0.00008	Pri	R	RF75/300	RU
HT Vir	55578.58808	0.00024	Pri	R	RF34/135	RU
HT Vir	55599.58454	0.00021	Sec	R	RF34/135	RU
HT Vir	55672.35252	0.00018	Pri	R	RF34/135	RU
HT Vir	55672.55850	0.00018	Sec	R	RF34/135	RU
NY Vir	54195.41066	0.00006	Pri	R	OND	PZ
NY Vir	54195.46122	0.00021	Sec	R	OND	PZ
2MASS J19071662+4639532	55053.80435	0.00007	Sec	I	SPM	PZ
2MASS J22435517+2936475	55455.55597	0.00126	???	R	OND	PZ
BD-22 5866	55455.43138	0.00014	Pri	R	OND	PZ
GSC 00143-01246	55497.59070	0.00055	???	R	OND	PZ
GSC 01588-00632	55872.33165	0.00030	Sec	R	M305/3050	HK
GSC 01588-00632	55356.43822	0.00006	Pri	R	OND	PZ
GSC 02712-01201	55866.34828	0.00020	Pri	R	N200/2000	HK
GSC 04041-00673	52218.37777	0.00118	Pri	V	OND	MW
GSC 04041-00673	52219.70671	0.00207	Pri	R	OND	MW
GSC 04041-00673	51465.29835	0.00113	Pri	C	NSVS	PZ
GSC 04041-00673	51464.63045	0.00247	Sec	C	NSVS	PZ
GSC 04232-02830	54193.43729	0.00038	Sec	R	OND	PZ
GSC 04428-01574	54594.37573	0.00004	Pri	R	OND	PZ
GSC 04596-01254	54679.51034	0.00008	Sec	R	OND	PZ
HD 252984	54536.27139	0.00013	Pri	R	Ath	PZ+MZ
HD 252984	54536.27150	0.00012	Pri	V	Ath	PZ+MZ
HD 252984	54536.27145	0.00014	Pri	VR	Ath	PZ+MZ
HD 252984	55868.57561	0.00033	Pri	R	M305/3050	HK
HD 252984	55497.55228	0.00115	Sec	R	OND	PZ
LP 133-374	54600.32987	0.00033	Pri	R	OND	PZ
LP 133-374	55707.35836	0.00021	Sec	R	OND	PZ
NOMAD1 1322-0193464	55880.30762	0.00063	Pri	VRI	OND	PZ
NOMAD1 1322-0193464	55880.43012	0.00053	Sec	VRI	OND	PZ
NOMAD1 1322-0193464	55880.56146	0.00058	Pri	VRI	OND	PZ
NOMAD1 1322-0193464	55880.68394	0.00035	Sec	VRI	OND	PZ
NOMAD1 1322-0193464	55894.28031	0.00085	Sec	VRI	OND	PZ
NOMAD1 1322-0193464	55894.40461	0.00188	Pri	VRI	OND	PZ
NSVS 01286630	54384.28379	0.00007	Sec	R	OND	PZ
NSVS 2502726	54418.62531	0.00054	Pri	C	SWASP	PZ
NSVS 2502726	54437.65454	0.00093	Pri	C	SWASP	PZ
NSVS 2502726	54438.77370	0.00115	Pri	C	SWASP	PZ
NSVS 2502726	54439.61418	0.00163	Sec	C	SWASP	PZ
NSVS 2502726	54496.43210	0.00067	Pri	C	SWASP	PZ

Table 1: (cont.)

Star Name	HJD 24.....	Error	Type	Filter	Instrument/Source	Observer
NSVS 2502726	54501.46911	0.00016	Pri	C	SWASP	PZ
NSVS 2502726	54502.58799	0.00068	Pri	C	SWASP	PZ
NSVS 2502726	54524.41953	0.00019	Pri	C	SWASP	PZ
NSVS 2502726	54526.37965	0.00043	Sec	C	SWASP	PZ
NSVS 2502726	54527.49775	0.00027	Sec	C	SWASP	PZ
NSVS 2502726	54531.41661	0.00027	Sec	C	SWASP	PZ
NSVS 2502726	54532.53593	0.00114	Sec	C	SWASP	PZ
NSVS 2502726	54533.37699	0.00010	Pri	C	SWASP	PZ
NSVS 2502726	54534.49606	0.00046	Pri	C	SWASP	PZ
NSVS 2502726	54536.45305	0.00038	Sec	C	SWASP	PZ
NSVS 2502726	54539.53463	0.00109	Pri	C	SWASP	PZ
NSVS 2502726	54547.37041	0.00012	Pri	C	SWASP	PZ
NSVS 2502726	54554.36885	0.00045	Sec	C	SWASP	PZ
NSVS 2502726	54555.48444	0.00500	Sec	C	SWASP	PZ
NSVS 2502726	55280.40005	0.00012	Pri	R	OND	PZ
NSVS 2502726	55595.27551	0.00004	Pri	R	OND	PZ
NSVS 6507557	54763.37731	0.00007	Sec	R	OND	PZ
NSVS 6507557	54763.63632	0.00021	Pri	R	OND	PZ
NSVS 6507557	54763.37730	0.0008	Sec	V	OND	PZ
NSVS 7446320	54763.63620	0.00036	Sec	V	OND	PZ
NSVS 7446320	55280.50701	0.00013	Sec	V	OND	PZ
NSVS 10441882	54524.57292	0.00003	Pri	R	OND	PZ
NSVS 11868841	55054.97415	0.00006	Pri	R	SPM	PZ
NSVS 11868841	55154.26995	0.00026	Pri	R	OND	PZ

Notes on some systems:

V887 Aql – shows periodic pulsations with period about 0<sup>d</sup>045

SU Aqr – shows periodic pulsations with period about 0<sup>d</sup>024

V389 Cas – shows periodic pulsations with period about 0<sup>d</sup>041

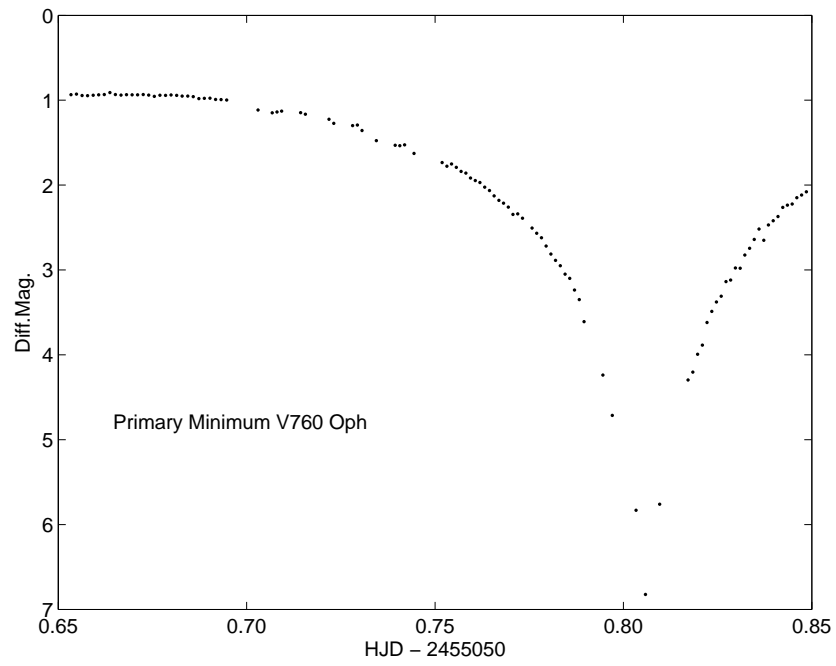
KO Nor – new eccentric binary with ephemerides:

$$\text{HJD}_{\text{Pri}} = 2453486.551 + 33.562146 \times E ,$$

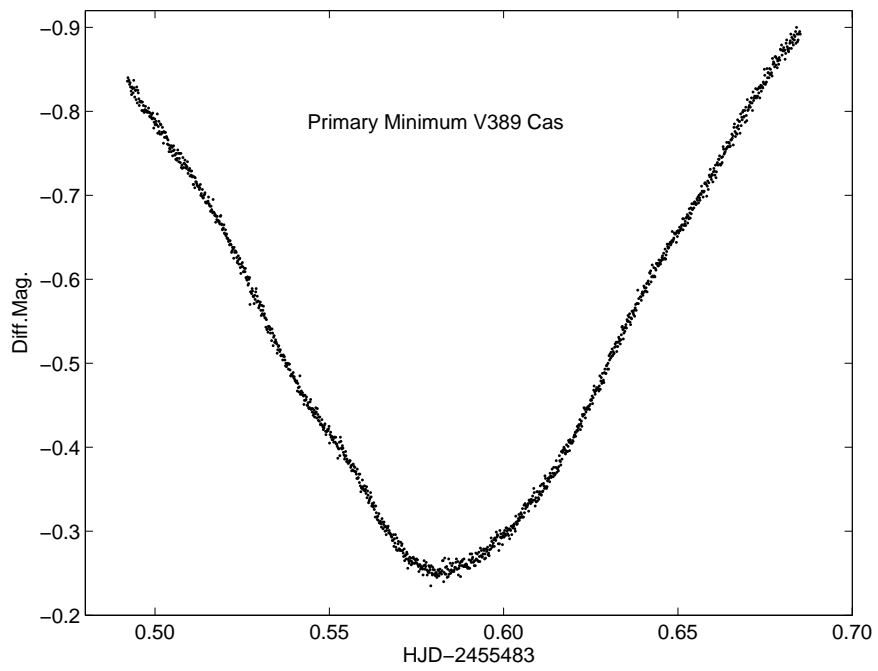
$$\text{HJD}_{\text{Sec}} = 2453502.355 + 33.562146 \times E .$$

NOMAD1 1322-0193464 – newly discovered W UMa type binary with large O’Connell effect and asymmetric minima, following the ephemerides:

$$\text{HJD}_{\text{Pri}} = 2455880.558 + 0.25407 \times E .$$



**Figure 1.** Primary minimum of V760 Oph, one of the deepest among known eclipsing binaries.



**Figure 2.** Primary minimum of V389 Cas, the periodic pulsations are clearly visible.

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## References:

Bessell, M. S. 1990, *PASP*, **102**, 1181

Kwee, K. K., van Woerden, H., 1956, *Bull. Astron. Inst. Neth.*, **12**, 327

Paschke, A., Brát, L., 2006, *Open European Journal on Variable Stars*, **23**, 13