BBSAG

BULLETIN

128

October 1st, 2002

161. LIST OF MINIMA OF ECLIPSING BINARIES

The following table lists 197 electronically recorded (CCD; underlined) and 143 visual timings of minima of eclipsing binaries obtained primarily between April and September 2002 by the following observers:

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The O-C values given in the table below generally refer to the linear elements of the GCVS 1985, with the remarked exceptions. For the determinaton of the time of the minima, the tracing paper method was employed. For the reduction of some of the electronic observations, software based on the Kwee-van Woerden algorithm was used. All times are UTC. The complete set of BBSAG Bulletins is now available in the PDF-format at http://www.astronomie.info/bbsag/bulletins.html.

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Nr.	Star	Type	O	e.	O-C	n	Obs	Remarks
37794	**UU And**	p	52476.562	0.005	+0.042	7	KL	
37795	**XZ And**	p	52500.514	0.003	+0.125	6	KL	
37796	**EP And**	p	52500.422	0.003	+0.001	6	KL	elem. IBVS No. 5184
37797	**EX And**	p	52503.5324	0.0008	-0.0237	22	RD	CCD
37798	**KN And**	p	52194.598	0.007	+0.003	41	APs	CCD; elem. BAV Rdb. 36, 11
37799	**CX Aqr**	p	52476.523	0.005	+0.002	5	KL	
37800	**CZ Aqr**	p	52460.566	0.003	-0.016	5	KL	
37801	**EI Aqr**	p	52194.352	0.004	-0.011	30	APs	CCD
37802	**FS Aqr**	s	52503.3982	0.0016	-0.0968	23	EBl	CCD; elem. Per. Zv. 22, 327
37803		p	52503.5239	0.0003	-0.1021	14	EBl	CCD
37804	**GK Aqr**	p	52464.575	0.005	-0.051	5	KL	elem. P.Zv. 22, 327
37805	**GS Aqr**	s?	52503.5130	0.0020	+0.1052	15	EBl	CCD; elem. Per. Zv. 22, 327
37806	**LT Aql**	p	52485.418	0.004	+0.041	8	KL	
37807	**V479 Aql**	p	52464.494	0.005	-0.018	9	KL	
37808	**V616 Aql**	p	52455.4622	0.0015	+0.0147	12	RD	CCD; elem. MVS 11, 120
37809	**V803 Aql**	p	52404.572	0.008	-0.038	6	KL	
37810	**V873 Aql**	s	52483.4290	0.0009	+0.0217	17	RD	CCD
37811	**V917 Aql**	p	52464.508	0.009	+0.084	9	KL	
37812	**V1168 Aql**	p	52460.4705	0.0006	+0.0007	18	RD	CCD
37813	**V1355 Aql**	s	52460.4307	0.0016	-0.1879	8	RD	CCD
37814	**WW Aur**	p	52350.319	0.002	+0.007	10	CPa	
37815	**TU Boo**	s	52365.429	0.005	+0.007	6	KL	elem. A&ASS 117, 105
37816	**TY Boo**	p	52368.5842	0.0004	-0.0117	14	RD	CCD; elem. BAV Mitt. 68, 21
37817		s	52452.4714	0.0004	-0.0108	29	EBl	CCD
37818	**TZ Boo**	p	52452.4925	0.0001	+0.0820	24	EBl	CCD
37819	**AC Boo**	s	52452.377:	0.003	+0.034:	11	EBl	CCD
37820	**CV Boo**	p	52362.500	0.003	-0.012	7	RD	CCD; elem. IBVS No. 2788
37821	**GSC2016 :830 Boo**	s	52367.3979	0.0009	+0.0077	21	EBl	CCD; elem. IBVS No. 5125
37822	**GSC2020 :736 Boo**	s	52367.3593	0.0015	+0.0015	23	EBl	CCD; elem. IBVS No. 5125
37823	**GSC2020 :873 Boo**	s	52367.4171	0.0017	+0.0015	18	EBl	CCD; elem. IBVS No. 5125
37824	**GSC2022:79 Boo**	p	52367.3889	0.0012	+0.0058	21	EBl	CCD; elem. IBVS No. 5125

Nr.	Star	Type	O	e.	O-C	n	Obs	Remarks
37825	**Y Cam**	p	52505.504	0.005	+0.238	7	KL	
37826	**GQ Cnc**	s	52362.3700	0.0006	-0.1524	12	RD	CCD; elem. IBVS No. 4393
37827	**DF CVn**	s	52363.4065	0.0007	+0.0131	23	EBl	CCD; elem. IBVS No. 5021
37828	**GSC2530 :488 CVn**	p	52363.318	0.003	+0.005	19	EBl	CCD; elem. IBVS No. 5149
37829	**R CMa**	p	52310.292	0.008	-0.012	15	CPa	elem. AJ 117, 2980
37830		p	52344.376	0.003	-0.006	10	CPa	
37831	**TY CMi**	p	52251.578	0.004	+0.735	48	APs	CCD
37832	**AK CMi**	p	52365.403	0.003	-0.011	6	KL	
37833	**RZ Cas**	p	52285.421	0.004	+0.042	8	KT	
37834		p	52296.179	0.003	+0.043	13	KT	
37835		p	52321.277	0.003	+0.041	14	KT	
37836		p	52327.252	0.002	+0.040	8	KT	
37837		p	52340.403	0.003	+0.043	7	KT	
37838		p	52341.598	0.003	+0.043	12	KT	
37839		p	52364.304	0.003	+0.039	12	KT	
37840	**AB Cas**	p	52442.565	0.006	+0.062	6	KL	
37841	**AE Cas**	p	52366.371	0.004	+0.073	6	KL	
37842	**AH Cas**	p	52476.580	0.006	-0.193	7	KL	
37843	**AT Cas**	p	52503.5200	0.0014	-0.0767	21	RD	CCD
37844	**BW Cas**	p	52503.5237	0.0006	+0.0021	21	RD	CCD; elem. BBSAG Bull. 122, 8
37845	**IR Cas**	p	52452.509	0.003	+0.017	7	KL	
37846	**V523 Cas**	p	52451.534	0.003	+0.016	8	KL	elem. MNRAS 317, 111
37847	**WY Cep**	s	52500.5304	0.0009	+0.0164	23	RD	CCD
37848	**XY Cep**	p	52500.5302	0.0016	-0.0261	11	RD	CCD
37849	**DK Cep**	p	52484.5087	0.0005	+0.0354	17	RD	CCD
37850	**DV Cep**	p	52503.5038	0.0007	-0.0047	14	RD	CCD; elem. AAVSO EB No. 2
37851	**FL Cep**	p	52502.5082	0.0009	-0.1376	20	RD	CCD
37852	**HI Cep**	p	52436.525	0.003	+0.017	6	KL	elem. BBSAG Bull. 114, 12
37853	**IO Cep**	p	52411.510	0.003	-0.009	7	KL	
37854	**V357 Cep**	p	52464.473	0.009	-0.187	8	KL	elem. Brno Contr. 28, 34
37855	**V358 Cep**	p	52367.492	0.008	+0.017	6	KL	elem. BBSAG Bull. 96, 10
37856	**V489 Cep**	p	52504.438	0.004	+0.052	22	RD	CCD; elem. IBVS No. 4406
37857	**TW Cet**	p	52500.572	0.007	-0.026	6	KL	
37858	**VY Cet**	p	52501.557	0.002	+0.015	6	KL	

Nr.	Star	Type	O	e.	O-C	n	Obs	Remarks
37859	**GSC1991 :1390 Com**	p	52363.3862	0.0009	+0.0023	22	EBl	CCD; elem. IBVS No. 5052
37860	**GSC1991 :1633 Com**	s	52363.3867	0.0016	-0.0005	21	EBl	CCD; elem. IBVS No. 5052
37861	**U CrB**	p	52395.5014	0.0014	+0.0987	20	EBl	CCD
37862	**RT CrB**	p	52395.5234	0.0014	-0.0071	16	EBl	CCD
37863	**RW CrB**	p	52360.4956	0.0009	-0.0151	20	EBl	CCD
37864	**TW CrB**	p	52360.5358	0.0005	+0.0291	22	EBl	CCD
37865	**GSC2040**	s	52360.5379	0.0005	+0.0004	18	EBl	CCD; elem. IBVS No. 5295
37866	**:1361 CrB**	p	52365.5046	0.0007	+0.0002	31	EBl	CCD
37867		s	52368.4846	0.0004	+0.0001	27	EBl	CCD
37868		s	52395.5049	0.0015	+0.0004	14	EBl	CCD
37869		s	52409.4117	0.0005	-0.0001	24	EBl	CCD
37870		p	52409.6101	0.0009	-0.0004	9	EBl	CCD
37871		p	52415.5700	0.0005	-0.0008	19	EBl	CCD
37872	**GSC2579**	s	52360.5321	0.0008	-0.0000	23	EBl	CCD; elem. IBVS No. 5295
37873	**:1125 CrB**	s	52365.4792	0.0009	-0.0015	25	EBl	CCD
37874		p	52368.341	0.006	+0.005	5	EBl	CCD
37875		s	52368.5276	0.0012	+0.0016	18	EBl	CCD
37876		p	52395.3639	0.0021	+0.0015	10	EBl	CCD
37877		s	52395.5523	0.0024	-0.0004	13	EBl	CCD
37878		p	52409.4459	0.0004	-0.0008	33	EBl	CCD
37879		p	52415.5358	0.0008	-0.0014	14	EBl	CCD
37880	**GSC2580**	s	52359.3965	0.0008	+0.0003	24	EBl	CCD; elem. IBVS No. 5295
37881	**:2086 CrB**	p	52360.4736	0.0003	-0.0013	16	EBl	CCD
37882		s	52360.6273	0.0019	-0.0017	14	EBl	CCD
37883		p	52365.4051	0.0014	-0.0009	17	EBl	CCD
37884		s	52365.5593	0.0008	-0.0008	18	EBl	CCD
37885		p	52368.4874	0.0006	-0.0005	27	EBl	CCD
37886		s	52368.6459	0.0015	+0.0039	15	EBl	CCD
37887		s	52395.4557	0.0012	+0.0009	16	EBl	CCD
37888		p	52409.4776	0.0005	+0.0000	23	EBl	CCD
37889	**W Crv**	p	52367.522	0.007	+0.019	5	KL	
37890	**WW Cyg**	p	52484.469	0.002	+0.044	8	KL	
37891	**WZ Cyg**	p	52443.542	0.002	+0.054	5	KL	
37892	**ZZ Cyg**	p	52425.534	0.002	-0.040	7	KL	
37893	**BR Cyg**	p	52386.544	0.003	+0.006	10	KL	
37894	**PW Cyg**	p	52484.5286	0.0011	-0.0362	14	RD	CCD
37895	**V370 Cyg**	p	52404.457	0.002	-0.013	6	KL	
37896	**V445 Cyg**	p	52412.554	0.006	+0.234	6	KL	
37897		p	52455.4019	0.0017	+0.2315	12	RD	CCD
37898	**V488 Cyg**	s	52460.4344	0.0009	+0.0906	16	RD	CCD

Nr.	Star	Type	O	e.	O-C	n	Obs	Remarks
37899	**V726 Cyg**	p	52495.470	0.004	+0.040	6	KL	
37900		p	52504.4357	0.0010	+0.0425	13	RD	CCD
37901	**V728 Cyg**	p	52449.548	0.004	-0.011	6	KL	
37902	**V753 Cyg**	p	52483.4392	0.0007	+0.0028	15	RD	CCD; elem. BAV Mitt. 69
37903	**V807 Cyg**	s	52484.4851	0.0018	-0.1459	12	RD	CCD
37904	**V853 Cyg**	p	52504.457	0.004	+0.011	19	RD	CCD
37905	**V869 Cyg**	p	52460.4486	0.0006	+0.0873	16	RD	CCD
37906	**V884 Cyg**	s	52483.4417	0.0018	+0.0047	15	RD	CCD
37907	**V1416 Cyg**	p	52484.5004	0.0017	+0.1442	18	RD	CCD
37908		p	52502.494	0.004	+0.132	15	RD	CCD
37909	**V1723 Cyg**	p	52455.4311	0.0008	+0.0507	16	RD	CCD
37910	**V1763 Cyg**	s	52460.512	0.002	+0.062	8	RD	CCD; elem. ROTSE1
37911	**V1823 Cyg**	p	52501.426	0.004	-0.013	6	KL	elem. IBVS No. 4997
37912	**V1870 Cyg**	p	52460.4732	0.0003	-0.0292	17	RD	CCD; elem. A&AS 81, 393
37913	**GSC3547**	s	52443.4351	0.0020	+0.0203	15	EBl	CCD; elem. IBVS No. 4996
37914	**:216 Cyg**	s	52502.434	0.004	0.009	6	KL	
37915	**GSC3551**	p	52443.3691	0.0013	+0.0005	6	EBl	CCD; elem. IBVS No. 4985
37916	**:81 Cyg**	s	52443.5229	0.0009	+0.0009	14	EBl	CCD
37917	**GSC3564 :3059 Cyg**	s	52443.430	0.003	+0.015	10	EBl	CCD; elem. IBVS No. 4995
37918	**GSC3921 :1531 Cyg**	s	52443.402	0.003	-0.007	10	EBl	CCD; elem. IBVS No. 4996
37919	**BH Del**	p	52230.315	0.005	+0.090	34	APs	CCD
37920	**FZ Del**	p	52505.492	0.003	-0.038	6	KL	
37921	**Z Dra**	p	52370.568	0.003	-0.143	7	KL	
37922	**RR Dra**	p	52456.441	0.008	+0.048	5	KL	
37923	**RZ Dra**	p	52411.5025	0.0005	+0.0363	16	RD	CCD
37924	**TW Dra**	p	52301.445	0.004	+0.032	16	KT	norm. min.
37925		p	52363.196	0.003	+0.032	16	KT	norm. min.
37926	**BX Dra**	p	52362.360	0.003	+0.002	14	RD	CCD; elem. IBVS No. 4266
37927	**CV Dra**	s	52427.4963	0.0011	+0.0020	22	RD	CCD; elem. BAV Mitt. 69
37928	**DW Dra**	p	52426.447	0.004	+0.016	6	KL	elem. BBSAG Bull. 118, 7
37929	**EF Dra**	p	52415.5014	0.0008	-0.0781	18	RD	CCD; elem. AAc 41, 291
37930	**IV Dra**	p	52360.6526	0.0017		12	EBl	CCD; refined p.: 0.268105d (IBVS 4610)

Nr.	Star	Type	O	e.	O-C	n	Obs	Remarks
37931	**KK Dra**	p	52411.484	0.002	+0.007	8	KL	elem. JAAVSO 28, 81
37932		p	52411.4850	0.0006	+0.0082	21	RD	CCD
37933	**GSC3549 :929 Dra**	p	52502.4673	0.0014	0.0000	15	EBl	CCD; elem. IBVS No. 5232
37934	**RU Eri**	p	52230.480	0.005	-0.029	25	APs	CCD
37935	**WW Eri**	p	52251.392	0.010	+0.046	24	APs	CCD
37936	**BT Gem**	p	52362.3646	0.0015	-0.0074	14	RD	CCD
37937	**SZ Her**	p	52427.563	0.004	-0.027	9	KL	
37938	**TU Her**	p	52442.441	0.003	-0.122	10	KL	
37939	**CC Her**	p	52425.554	0.003	+0.132	13	KL	
37940	**GL Her**	p	52460.500	0.005	+0.059	5	KL	
37941	**MT Her**	p	52366.648	0.005	+0.020	6	KL	
37942		p	52368.5920	0.0002	+0.0133	13	RD	CCD
37943	**V687 Her**	s	52368.5094	0.0011	-0.0811	13	EBl	CCD
37944		p	52427.4980	0.0012	-0.0804	13	RD	CCD
37945	**V718 Her**		52427.542	0.005		12	RD	CCD; GCVS period erroneous
37946			52475.516	0.003		15	EBl	CCD
37947	**V731 Her**	s	52426.4162	0.0009	+0.1006	21	EBl	CCD; elem. ROTSE1
37948	**V732 Her**		52483.463	0.009		23	EBl	CCD; probably pulsating var.
37949	**V842 Her**	p	52359.4217	0.0009	+0.0537	25	EBl	CCD; elem. IBVS No. 3946
37950		s	52427.5141	0.0009	+0.0537	20	RD	CCD
37951	**V1005 Her**	s	52362.514	0.005	+0.002	8	RD	CCD; elem. IBVS No. 4611
37952	**GSC983**	p	52395.439	0.005	+0.003	6	KL	elem. IBVS No. 5231
37953	**:1044 Her**	p	52412.566	0.004	+0.008	6	KL	
37954		p	52426.431	0.003	+0.013	6	KL	
37955		p	52501.434	0.003	+0.009	7	KL	
37956	**GSC1522**	p	52426.5097	0.0012	+0.0001	24	EBl	CCD; elem. see note p. 10
37957	**:599 Her**	s	52442.5037	0.0008	-0.0003	22	EBl	CCD
37958		p	52463.5755	0.0014	-0.0006	13	EBl	CCD
37959		p	52483.3802	0.0022	+0.0014	10	EBl	CCD
37960	**GSC2056**	p	52367.482	0.007		6	KL	
37961	**:117 Her**	s	52382.575	0.005		6	KL	
37962		s	52409.397	0.005		5	KL	
37963		p	52415.552	0.005		5	KL	
37964		s	52438.530	0.006		6	KL	
37965		p	52485.408	0.007		5	KL	
37966	**GSC2063 :902 Her**	p	52411.3939	0.0018	+0.0014	14	EBl	CCD; elem. IBVS No. 5146
37967	**GSC2066 :1210 Her**	p	52411.3936	0.0013	-0.0010	10	EBl	CCD; elem. IBVS No. 5146

Nr.	Star	Type	O	e.	O-C	n	Obs	Remarks
37968	**GSC2083**	p	52411.4455	0.0020	+0.0007	19	EBl	CCD; elem. IBVS No. 5306
37969	**:1870 Her**	p	52415.4139	0.0002	-0.0002	26	EBl	CCD
37970		s	52426.4205	0.0003	+0.0005	22	EBl	CCD
37971		p	52442.4772	0.0009	-0.0005	26	EBl	CCD
37972		p	52463.4064	0.0008	+0.0004	15	EBl	CCD
37973		s	52463.5857	0.0013	-0.0015	12	EBl	CCD
37974		s	52475.4953	0.0006	+0.0001	19	EBl	CCD
37975		s	52483.4344	0.0008	+0.0006	18	EBl	CCD
37976	**GSC2593 :1348 Her**	s	52483.511	0.003		17	EBl	CCD; ROTSE1 J165631.26+322055.4
37977	**GSC2594**	s	52411.3697	0.0005	+0.0015	9	EBl	CCD; elem. IBVS No. 5146
37978	**:1289 Her**	p	52411.505	0.003	+0.003	7	EBl	CCD
37979	**GSC2604**	s	52370.540	0.003	-0.040	6	KL	elem. IBVS No. 5192; see note p. 10
37980	**:1671 Her**	s	52382.606	0.006	-0.064	5	KL	
37981		p	52395.423	0.002	-0.056	6	KL	
37982		p	52409.526	0.004	-0.058	6	KL	
37983		p	52411.547	0.005	-0.052	6	KL	
37984		p	52415.561	0.006	-0.067	5	KL	
37985		s	52438.466	0.005	-0.046	6	KL	
37986		s	52442.4740	0.0009	-0.0682	24	EBl	CCD
37987		p	52460.475	0.004	-0.058	5	KL	
37988		s	52465.506	0.004	-0.064	5	KL	
37989	**GSC2613**	s	52411.462	0.003	+0.003	17	EBl	CCD; elem. IBVS No. 5306
37990	**:1412 Her**	s	52415.3808	0.0011	+0.0002	26	EBl	CCD
37991		s	52426.365	0.004	+0.005	12	EBl	CCD
37992		p	52426.5554	0.0005	-0.0007	16	EBl	CCD
37993		s	52442.4360	0.0006	-0.0011	19	EBl	CCD
37994		p	52463.4162	0.0007	+0.0004	17	EBl	CCD
37995		p	52483.4150	0.0003	+0.0009	15	EBl	CCD
37996	**GSC2625 :1563 Her**	p	52495.4558	0.0008	+0.0003	13	EBl	CCD; elem. IBVS No. 4975
37997	**GSC3073**	p	52367.502	0.002	-0.003	5	KL	elem. IBVS No. 5192
37998	**:837 Her**	s	52382.553	0.004	+0.008	6	KL	
37999		p	52395.421	0.002	+0.002	6	KL	
38000		s	52409.501	0.003	+0.004	6	KL	
38001		p	52411.545	0.003	+0.003	6	KL	
38002		s	52415.518	0.004	+0.005	6	KL	
38003		s	52430.445	0.006	+0.013	4	KL	
38004		p	52438.499	0.004	+0.005	6	KL	
38005		s	52442.463	0.002	-0.002	13	EBl	CCD
38006		s	52460.507	0.002	-0.005	6	KL	
38007		p	52465.447	0.005	+0.001	6	KL	
38008		s	52483.372	0.004	-0.002	6	KL	
38009		p	52485.420	0.004	+0.001	6	KL	
38010		p	52492.389	0.004	-0.011	5	KL	
38011	**GSC3094 :120 Her**	p	52442.4363	0.0006	-0.0006	14	EBl	CCD;elem. IBVS No. 5192
38012	**GSC3098**	p	52411.4195	0.0013	+0.0007	17	EBl	CCD;elem. IBVS No. 5306
38013	**:683 Her**	s	52415.3662	0.0004	+0.0013	23	EBl	CCD
38014		p	52426.3725	0.0014	0.0000	12	EBl	CCD
38015		p	52442.5718	0.0009	-0.0006	14	EBl	CCD
38016		s	52463.5488	0.0003	-0.0003	18	EBl	CCD
38017		s	52483.4866	0.0010	-0.0008	21	EBl	CCD

Nr.	Star	Type	O	e.	O-C	n	Obs	Remarks
38018	**GSC3098**	s	52411.409	0.003	+0.004	10	EBl	CCD; elem. IBVS No. 5306
38019	**:1253 Her**	p	52411.5252	0.0008	-0.0006	17	EBl	CCD
38020		p	52415.3878	0.0011	-0.0006	21	EBl	CCD
38021		s	52426.376	0.002	+0.003	8	EBl	CCD
38022		p	52426.4918	0.0008	-0.0017	24	EBl	CCD
38023		p	52442.4264	0.0006	-0.0005	11	EBl	CCD
38024		s	52442.548	0.002	+0.0004	13	EBl	CCD
38025		p	52463.4289	0.0011	-0.0011	11	EBl	CCD
38026		s	52463.5515	0.0010	+0.0008	14	EBl	CCD
38027		s	52475.379	0.004	-0.001	7	EBl	CCD
38028		p	52475.5031	0.0010	+0.0023	17	EBl	CCD
38029		p	52483.465	0.002	-0.002	18	EBl	CCD
38030	**GSC3099 :905 Her**	s	52463.4426	0.0017	-0.0038	16	EBl	CCD; elem. IBVS No. 4965
38031	**GSC3100 :1616 Her**	p	52463.4416	0.0012	-0.0002	18	EBl	CCD; elem. IBVS No. 4966
38032	**J1712+331 Her**	p	52442.5293	0.0020	-0.0031	13	EBl	CCD; elem. IBVS No. 5192
38033	**SX Hya**	p	52368.44	0.02	-0.10	6	KL	
38034	**SY Hya**	p	52368.362	0.009	-0.086	5	KL	
38035	**DG Lac**	p	52439.486	0.005	-0.184	5	KL	
38036	**HX Lac**	p	52502.502	0.002	-0.051	16	RD	CCD
38037	**OO Lac**	p	52475.549	0.003	+0.128	8	KL	
38038	**Y Leo**	p	52366.350	0.003	+0.020	7	KL	
38039	**RW Leo**	p	52395.347	0.007	-0.046	5	KL	
38040	**UZ Leo**	p	52368.4090	0.0008	+0.1357	16	RD	CCD
38041	**BL Leo**	p	52367.432	0.004	-0.020	7	KL	
38042	**BW Leo**		52368.3975	0.0011	-0.0609	13	RD	CCD
38043	**CE Leo**	s	52368.4068	0.0009	-0.0089	16	RD	CCD
38044	**RT LMi**	p	52368.4239	0.0004	-0.0047	18	RD	CCD
38045	**RV Lyr**	p	52382.531	0.009	-0.090	6	KL	
38046	**TT Lyr**	p	52443.426	0.007	-0.034	7	KL	
38047	**UZ Lyr**	p	52448.399	0.007	-0.026	4	KL	
38048	**DF Lyr**	s	52415.5219	0.0011	+0.0384	15	RD	CCD
38049	**EW Lyr**	p	52476.411	0.002	+0.236	7	KL	
38050	**PY Lyr**	s	52415.431	0.003	-0.025	6	RD	CCD
38051	**QU Lyr**	s	52411.5024	0.0005	-0.0036	22	RD	CCD
38052	**V361 Lyr**	p	52404.536	0.002	-0.003	5	KL	elem. IBVS No. 4177

Nr.	Star	Type	O	e.	O-C	n	Obs	Remarks
38053	**V400 Lyr**	s	52443.4259	0.0009	-0.0056	15	EBl	CCD; elem. IBVS No. 4995
38054	**V507 Lyr**	s	52415.4968	0.0007	-0.0980	18	RD	CCD; elem. AJ 112, 742
38055	**GSC2632 :319 Lyr**	s	52502.4172	0.0016	+0.0038	17	EBl	CCD; elem. IBVS No. 5232
38056	**GSC2636 :1753 Lyr**	p	52443.3857	0.0007	-0.0004	10	EBl	CCD; elem. IBVS No. 4976
38057	**GSC2646 :1938 Lyr**	s	52443.4303	0.0017	-0.0017	13	EBl	CCD; elem. IBVS No. 4982
38058	**GSC3104 :1384 Lyr**	s	52502.4252	0.0015	-0.0022	14	EBl	CCD; elem. IBVS No. 5232
38059	**GSC3123**	s	52436.527	0.008	-0.005	4	KL	elem. IBVS No. 4985
38060	**:1618 Lyr**	p	52443.453	0.002	+0.012	14	EBl	CCD
38061	**GSC3540 :85 Lyr**	p	52502.4716	0.0017	-0.0017	17	EBl	CCD; elem. IBVS No. 5232
38062	**RV Oph**	p	52443.526	0.003	-0.005	8	KL	
38063	**V449 Oph**	p	52460.485	0.002	+0.059	6	KL	
38064	**V451 Oph**	s	52411.542	0.003	+0.019	19	RD	CCD; displaced secondary
38065	**V508 Oph**	p	52386.622	0.005	+0.002	5	KL	
38066	**V577 Oph**	p	52427.5226	0.0014	+0.0042	19	RD	CCD
38067	**V913 Oph**	p	52426.474	0.004	+0.177	6	KL	
38068	**EG Ori**	p	52229.625	0.005	-0.073	44	APs	CCD
38069	**TY Peg**	p	52483.394	0.002	-0.218	6	KL	
38070	**CW Peg**	p	52475.526	0.002	+0.048	7	KL	
38071	**DK Peg**	p	52147.517	0.008	+0.055	38	APs	CCD
38072	**DO Peg**	p	52475.48	0.01	-0.05	5	KL	
38073	**RT Per**	p	52504.602	0.003	+0.049	7	KL	
38074	**DK Per**	p	52500.473	0.003	-0.027	8	KL	elem. IBVS No. 3875
38075	**DM Per**	p	52261.328	0.008	+0.001	12	CPa	
38076	**KW Per**	p	52495.462	0.002	+0.010	6	KL	
38077	**UZ Sge**	p	52404.513	0.006	+0.041	6	KL	
38078	**GSC1621**	s	52401.521	0.007	-0.017	5	KL	elem. see note p. 10
38079	**:2192 Sge**	p	52409.485	0.007	+0.010	5	KL	
38080		s	52415.569	0.003	+0.004	8	KL	
38081		p	52426.445	0.004	-0.010	6	KL	
38082		s	52438.454	0.006	+0.003	6	KL	
38083		s	52445.468	0.005	+0.003	6	KL	
38084		p	52460.417	0.002	+0.002	7	KL	
38085		p	52464.474	0.004	-0.001	9	KL	
38086		s	52465.399	0.003	+0.001	5	KL	
38087		p	52475.553	0.003	+0.004	10	KL	
38088		s	52476.472	0.002	0.000	6	KL	

Nr.	Star	Type	O	e.	O-C	n	Obs	Remarks
38089	**GSC1621**	s	52483.486	0.002	0.000	8	KL	elem. see note p. 10
38090	**:2192 Sge**	p	52484.405	0.004	-0.003	6	KL	
38091		p	52485.514	0.005	-0.002	6	KL	
38092	**WX Sgr**	p	52502.439	0.004	-0.108	6	KL	
38093	**XY Sgr**	p	52465.497	0.004	+0.012	5	KL	
38094	**AK Ser**	p	52465.423	0.007	+0.027	5	KL	
38095	**AO Ser**	p	52412.463	0.003	+0.004	6	KL	
38096	**AU Ser**	s	52367.578	0.004	-0.077	5	KL	
38097	**BI Ser**	p	52362.454	0.003	-0.596	8	RD	CCD
38098		s	52365.470	0.002	-0.592	30	EBl	CCD
38099		p	52368.4809	0.0008	-0.5938	9	EBl	CCD
38100	**CC Ser**	s	52360.6056	0.0010	+0.0007	15	EBl	CCD; new elements see p 10
38101		p	52365.5043	0.0014	-0.0030	45	EBl	CCD
38102		p	52368.6017	0.0006	-0.0018	24	EBl	CCD
38103		p	52395.4424	0.0011	+0.0051	13	EBl	CCD
38104		p	52409.3701	0.0012	-0.0002	7	EBl	CCD
38105		p	52415.5627	0.0004	0.0000	19	EBl	CCD
38106		s	52452.4590	0.0011	-0.0003	35	EBl	CCD
38107	**CX Ser**	s	52362.480	0.008	-0.078	13	RD	CCD
38108		s	52395.403	0.004	-0.066	12	EBl	CCD
38109	**GSC2035**	s	52359.4103	0.0011	-0.0008	20	EBl	CCD; elem. IBVS No. 5295
38110	**:175 Ser**	s	52360.4871	0.0007	+0.0011	15	EBl	CCD
38111		p	52360.6191	0.0011	-0.0013	16	EBl	CCD
38112		p	52365.4569	0.0008	-0.0006	25	EBl	CCD
38113		s	52365.5911	0.0005	-0.0008	16	EBl	CCD
38114		p	52368.4142	0.0018	+0.0007	23	EBl	CCD
38115		s	52368.5471	0.0003	-0.0008	16	EBl	CCD
38116		s	52395.4223	0.0017	+0.0015	18	EBl	CCD
38117		p	52395.5545	0.0033	-0.0006	13	EBl	CCD
38118		s	52409.3972	0.0007	-0.0009	16	EBl	CCD
38119		p	52409.5282	0.0006	-0.0009	23	EBl	CCD
38120		s	52415.5762	0.0002	+0.0007	17	EBl	CCD
38121	**AH Tau**	s	52501.499	0.005	-0.109	6	KL	
38122	**RV Tri**	p	52463.581	0.004	-0.010	4	KL	
38123	**RW Tri**	p	52229.3815	0.0010	0.0042	16	APs	CCD
38124	**TX UMa**	p	52313.340	0.004	+0.180	16	CPa	
38125	**UX UMa**	p	52367.450	0.001	+0.003	6	KL	
38126	**GSC3002 :454 UMa**	p	52368.408	0.005	+0.076	10	KL	elelem. IBVS No. 5084
38127	**HW Vir**	p	52423.370	0.001	0.000	8	KL	elem. A&A 364, 199
38128	**AY Vul**	p	52501.582	0.004	-0.041	10	KL	
38129	**BE Vul**	p	52386.544	0.004	+0.047	7	KL	

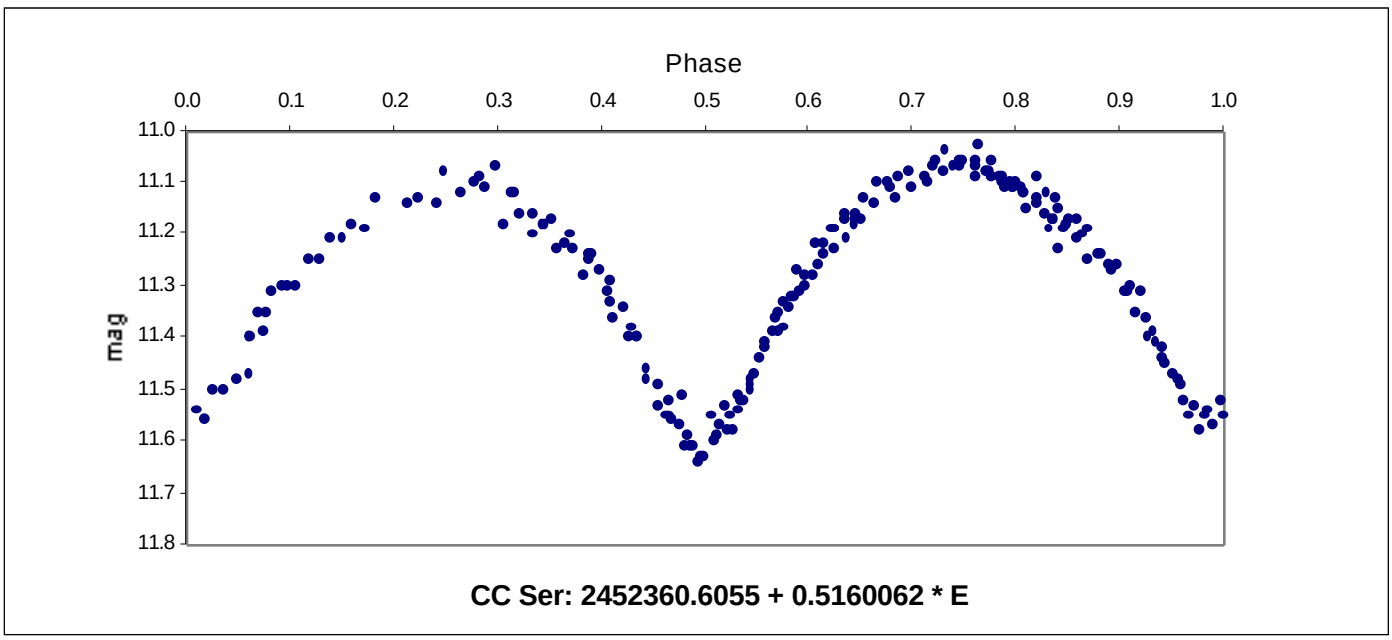
Nr.	Star	Type	O	e.	O-C	n	Obs	Remarks
38130	**BO Vul**	p	52412.564	0.003	-0.002	6	KL	
38131	**BP Vul**	p	52503.402	0.005	-0.015	6	KL	
38132	**GI Vul**	p	52483.4194	0.0011	-0.0169	14	RD	CCD
38133	**NO Vul**	s	52483.3936	0.0004	-0.0630	12	RD	CCD

CCD light curve of CC Serpentis, refinement of the elements of variation

The EW type eclipsing binary CC Serpentis has been observed rather sparsly in the past. In order to ameliorate this situation, we have obtained a CCD survey (ST-7 camera, no filter) during the 2002 observing season. The following Figure shows our data, folded with the newly determined elements of variation:

Min (JD, hel) = 2452360.6055 + 0.5160062 * E .

These elements are derived from a linear fit to the available timings of minima. The assignment of the primary and secondary minimum is not entirely secure.



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Refinement of elements of variation for ROTSE1 variables

New timings of minima of recently discovered EW type stars during the past observing season lead to the following refined elements of variation:

Star	IBVS paper	Elements
GSC1522:599 Her	IBVS No. 5146	2452065.4915 + 0.507761 * E
GSC2604:1671 Her	IBVS No. 5192	2452056.3966 + 0.2877954 * E
GSC1621:2192 Sge	IBVS No. 5221	2452122.659 + 0.369132 * E .

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