BBSAG Bulletin 43

1979 June 7

76th List of Minima of Eclipsing Binaries

The following table lists 184 minima obtained visually mainly during 1979 April and May by the observers

RD Roger Diethelm, Flüh, Switzerland
MFi Maurizio Franchini, Cerro Maggiore, Italy
RG Robert Germann, Wald, Switzerland
KL Kurt Locher, Grüt, Switzerland
EN Edmond Nezry, Toulouse, France
CPa Carlo Pampaloni, Firenze, Italy
HP Hermann Peter, Otelfingen, Switzerland
EP Ennio Poretti, Arconate, Italy
GS Γιῶργος Στεφανόπουλος, Ἁγία Παρασκευή, Greece
NS Νικόλαος Στωϊκίδης, Λάρισα, Greece
GT Gilles Troispoux, Fleury-les-Aubrais, France

The O - C values refer to the linear elements of the GCVS 1969, disregarding improved elements in the 1971, 1974, and 1976 supplements to the GCVS. Reductions were made mainly using the tracing paper method.

(footnotes to page 2 :)

* GCVS 1969 period erroneous, O - C according to the GCVS 1976: +.002

** O - C according to the GCVS 1969 exceeds 1 period, O - C according to the elements of BBSAG Bulletin 38, p.6 : -.003

*** GCVS period erroneous, O - C according to Berthold's elements IVBS 1396 : -.004

**** no period given by the GCVS, O - C according to the elements of BBSAG Bulletin 27, p. 7 : +.039 +.055 +.056 +.055

***** not contained in the GCVS 1969, O - C according to the GCVS 1976 : -.007

****** GCVS elements incomplete, O - C according to Martins' elements PASP 87, p.168, 1975 : -.344

current no.	star	minimum order	JD hel 244...	O-C	n	ob-ser-ver
14135	EP And	II	4019.552	.*	6	KL
14136	OO Aql	I	3978.599	-.043	8	RG
14137	V 803 Aql	II	4022.542	**	6	KL
14138	TT Aur	I	3977.376	+.022	10	HP
14139	WW Aur	II	3953.359:	-.001:	13	CPa
14140		I	3977.346	-.002	8	HP
14141		I	3977.363	+.015	9	RG
14142		II	4001.357	+.021	8	RG
14143	AR Aur	II	3932.290	+.005	14	EN
14144	KO Aur	I	3977.334	***	7	RD
14145	TU Boo	I	3978.336	+.005	6	KL
14146		I	3983.518	-.001	6	KL
14147		I	3988.389	+.005	9	HP
14148		II	3992.440	+.003	6	KL
14149		I	4010.438	+.003	8	HP
14150		II	4010.597	.000	6	KL
14151		I	4022.440	+.007	7	HP
14152	TZ Boo	I	4010.441	+.033	9	HP
14153	AC Boo	II	3976.414	-.004	7	RG
14154		I	3978.347	-.010	6	RG
14155		II	4006.372	-.003	7	RG
14156	Y Cam	I	3983.386	+.146	7	KL
14157	SV Cam	I	4001.378	-.011	7	KL
14158	WX Cnc	I	4017.372	+.129	8	RG
14159	WY Cnc	I	3977.363	+.006	7	RG
14160		I	4001.413	+.004	9	HP
14161	VZ CVn	I	3983.374	-.025	7	RG
14162	YZ CVn	I	3976.420	****	9	KL
14163		I	3977.611	****	6	KL
14164		I	3983.490	****	11	KL
14165		I	4010.526	****	9	KL
14166	R CMa	I	3971.294:	+.008:	6	EP
14167	AK CMi	I	3966.357	+.014	8	KL
14168		I	3979.379	+.020	11	KL
14169	RZ Cas	I	3941.363	+.004	27	EN
14170		I	3990.365	.000	10	GT
14171	TV Cas	I	3955.371	-.009	60	MFi
14172	U Cep	I	3918.347	+.051		GS
14173		I	4010.579	+.041	8	KL
14174	XX Cep	I	3972.632	-.025	8	KL
14175	BR Cep	I	4006.414	-.080	6	KL
14176	EG Cep	I	4022.383	+.020	6	RG
14177	RW Com	II	3983.365	-.046	7	RG
14178		I	4008.405	-.046	7	RG
14179		II	4010.424	-.044	11	HP
14180		I	4017.421	-.048	7	RG
14181	RZ Com	II	3988.426	+.003	10	HP
14182		II	4008.383	-.012	10	HP
14183	CC Com	II	3981.411	+.133	6	HP
14184		II	3983.394	+.130	6	RG
14185		I	3988.360	+.131	8	HP
14186		I	4008.442	+.130	9	HP
14187		II	4017.387	+.138	7	RG
14188	U CrB	I	3982.365	-.038	9	KL
14189	TW CrB	II	4022.355	*****	11	KL
14190	W Crv	I	3966.331:	-.002:	6	KL
14191		I	3978.363	-.001	11	KL
14192		I	3983.405	-.004	6	KL
14193		I	3988.451	-.003	6	KL
14194		I	3988.454	.000	9	HP
14195		I	4009.405	-.006	8	HP
14196		II	4022.420	+.009	7	HP
14197	WW Cyg	I	3977.647	+.011	8	KL
14198		I	4017.470	+.020	7	KL
14199	ZZ Cyg	I	4016.566	-.039	6	KL
14200	FZ Del	I	3971.648	+.001	7	KL
14201	Z Dra	I	3965.333	-.002	7	KL
14202		I	3965.344	+.009	7	HP
14203		I	3988.420	+.008	11	HP
14204		I	3992.494	+.010	7	KL
14205	RR Dra	I	3979.416	+.158	9	KL
14206		I	4010.549	+.147	6	KL
14207	RZ Dra	I	4002.371	-.027	9	RG
14208		I	4024.403	-.030	7	RG
14209	SX Dra	I	3976.532	+.187	6	KL
14210	TW Dra	I	3973.510	-.026	6	KL
14211		I	4001.567	-.038	6	KL
14212	AI Dra	I	3971.361	+.012	8	EP
14213		I	3983.346	+.009	6	RG
14214		I	4001.336	+.016	7	RG
14215	CM Dra	I	3988.558	******	6	KL
14216	FG Gem	I	3981.371	-.084	7	HP
14217	GW Gem	I	3981.427	-.021	7	HP
14218	RX Her	II	4022.351	-.006	7	RG
14219	SZ Her	I	3985.640	+.040	7	KL
14220		I	4008.544	+.038	7	KL
14221		I	4022.453	+.039	8	HP
14222	TU Her	I	3968.513	-.087	6	KL
14223		I	3977.586	-.082	10	KL
14224	UX Her	I	4001.398	-.066	8	RG
14225	CC Her	I	4022.426	+.078	8	KL
14226		I	4022.429	+.080	10	HP
14227	DQ Her	I	4024.531	+.005	7	KL
14228	ES Her	I	3977.523	-.136	8	KL
14229	neu	I	3988.477	-.132	8	KL
14230		I	4006.472	-.123	7	KL
14231	MT Her	I	3992.519	+.038	6	KL
14232	V 338 Her	I	4025.387	+.093	8	HP
14233	WY Hya	II	3982.385	+.005	7	KL
14234	UU Leo	I	3966.308	-.034	6	KL
14235	UV Leo	II	3968.414	.000	15	EP
14236		II	3971.413	-.002	13	EP
14237		II	3977.392	-.024	8	RG
14238		I	3978.298	-.019	6	RG
14239		II	3983.399:	-.016:	8	CPa
14240		II	3983.407	-.010	7	RG
14241		II	3983.413:	-.004:	12	EP
14242		II	4001.419	-.001	10	HP
14243		II	4016.405	-.017	17	EP
14244		II	4022.417	-.006	14	EP

current no.	star	minimum order	JD hel 244...	O-C	n	observer
14245	AM Leo	I	3976.340	-.030	6	RG
14246		II	4001.394	-.032	7	HP
14247		II	4008.348	-.029	6	RG
14248	BL Leo	I	3978.339	+.007	7	KL
14249	TY Lib	I	4010.502	+.042	10	KL
14250	δ Lib	I	3982.392	-.005	4	KL
14251	SX Lyn	I	3991.324	-.337	8	NS
14252	UU Lyn	I	4008.393	-.004	9	HP
14253	TZ Lyr	I	3971.602	+.030	7	KL
14254		I	4022.370	+.031	7	RG
14255	LZ Lyr	I	3977.493	+.282	7	KL
14256		I	4006.490	+.278	6	KL
14257	RW Mon	I	3973.350	-.011	12	KL
14258	BO Mon	I	3979.333	+.144	7	KL
14259	U Oph	I	3978.599	+.003	7	RG
14260	SZ Oph	I	3983.528	+.267	6	KL
14261	V 391 Oph	I	4024.429	-.021	7	KL
14262	V 449 Oph	I	4017.460	+.058	6	KL
14263		I	4022.430	+.055	11	HP
14264		I	4022.434	+.059	6	KL
14265	V 502 Oph	I	4008.396	-.041	6	RG
14266	V 508 Oph	I	3971.624	+.011	7	KL
14267		I	4017.480	+.009	6	KL
14268		I	4024.372	+.005	7	RG
14269		I	4025.413	+.012	8	HP
14270	V 586 Oph	I	3988.553	+.012	5	KL
14271	V 752 Oph	I	3968.496	-*	6	KL
14272	V 916 Oph	I	4024.580	+.081	6	KL
14273	V 1010 Oph	I	4009.587	-.082	8	RG
14274	XZ Pup	I	3940.322	+.027		GS
14275	EG Sgr	I	3968.620	**	6	KL
14276		I	3983.577	**	6	KL
14277	AO Ser	I	3971.598	-.006	7	KL
14278		I	3979.519	+.002	11	KL
14279		I	4008.535	-.001	7	KL
14280		I	4023.479	-.005	6	KL
14281	AU Ser	II	4008.409	***	7	RG
14282		II	4008.413	***	7	KL
14283		II	4016.531	***	6	KL
14284		I	4024.448	***	9	HP
14285	UX UMa	I	3966.438	+.001	7	KL
14286		I	3968.602	+.001	5	KL
14287		I	3977.451	.000	6	KL
14288		I	3979.415	-.002	6	KL
14289		I	3983.350	.000	5	KL
14290		I	3988.463	-.002	6	KL
14291		I	3992.594	.000	7	KL
14292		I	4019.538	-.001	6	KL
14293		I	4022.488	-.001	6	KL
14294		I	4023.472	.000	6	KL
14295	VV UMa	I	3981.406	+.093	8	HP
14296		I	4025.394	+.090	8	HP
14297	XZ UMa	I	4007.368	-.077	7	KL
14298		I	4007.373	-.072	8	HP
14299	AC UMa	I	3988.539	+.265	6	KL
14300	UW Vir	I	3981.447	+.311	9	HP
14301		I	4010.422	+.315	7	HP
14302	VV Vir	I	3983.382	****	6	KL
14303		I	4024.423	****	6	KL
14304	AH Vir	I	3983.398	+.068	6	RG
14305		I	4001.327	+.066	7	RG
14306		II	4002.345	+.065	7	RG
14307		II	4017.428	+.070	7	RG
14308	AK Vir	I	3988.436	+.044	11	HP
14309	AZ Vir	II	3983.371	*****	6	RG
14310		I	4022.356	*****	6	RG
14311	BH Vir	I	4025.422	+.002	8	HP
14312	AX Vul	I	3968.538	-.002	7	KL
14313		I	3974.610	-.004	7	KL
14314	BO Vul	I	4002.518	-.079	7	KL
14314	BU Vul	I	4002.582	+.003	8	KL
14315		I	4010.554	+.009	10	KL
14316	NO Vul	I	3985.623	******	6	KL
14317		II	4006.589	******	7	KL
14318		I	4017.516	******	6	KL

* no period given by the GCVS, O - C according to the elements of BBSAG Bulletin 27, page 4, footnote 1 : +.028

** O - C according to the GCVS but with half its period (cf. BBSAG Bulletin 42 p.4) : -.152 -.112

*** GCVS 1969 period too inaccurate for reasonable reduction, O - C according to the GCVS 1974 : -.008 -.004 -.003 -.009

**** O - C according to the GCVS exceeding 2 periods, O - C according to the elements of BBSAG Bulletin 31, p.5 : +.004 .000

***** GCVS 1969 period erroneous, O - C according to the GCVS 1976 : +.028 +.026

****** not contained in the GCVS 1969, O - C according to the GCVS 1976 : +.008 +.026 +.014

Preliminary (poor) Results on 5 Suspected K3II Eclipsing Binaries

The K3II suggests amplitudes of more than one magnitude and eclipsing character for all 5 stars of table 17.

My surveys confirm for all but one case the variablility and the behaviour consistent with the eclipsing hypothesis, i.e. normal brightness at maximum and rare weakening.

K. Locher

Table 17

star	number of nights surveyed	number of nights found with distinct ($> .2^m$) weakening	maximum weakening found	maximum variation speed found in one night
K3II				
1442 Hya	52	4	$.9^m$	$.1^m$/hour
2503 Lib	16	1	$.4^m$:	none
7965 Lyr	17	0	0	none
1265 UMa	9	2	$.5^m$	none
1450 UMa	11	1	$.3^m$	none