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PHOTOELECTRIC MINIMA OF SELECTED ECLIPSING BINARIES AND MAXIMA OF PULSATING STARS

(BAV Mitteilungen No. 102)

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In this 35rd compilation of BAV results, photoelectric observations obtained in the years 1996 and 1997 are presented on 104 variable stars giving 150 minima and maxima. All moments of minima and maxima are heliocentric. The errors are tabulated in column "±". The values in column "O−C" are determined without incorporating nonlinear terms. The references are given in the section "remarks". All information about photometers and filters are specified in the column "Rem". The observations were made at private observatories. The photoelectric measurements and all the lightcurves with evaluations can be obtained from the office of the BAV for inspection.

Table 1. Eclipsing binaries

Variable		Min JD 24..	±	Ph	Obs	O−C		Rem
V699	Aql	50315.3981	.0010	L	FR	+0.0193 s	GCVS 85	5)
AP	Aur	50486.4297	.0005	LBV	AG	+0.0051 s	BAVM 67	2)
MP	Aur	50464.4604	.0010	L	FR	−0.2022	GCVS 85	5)
NSV2733	Aur	50446.2729	.0009	L	MS			1)
VW	Boo	50456.7071	.0004	L	MS	−0.0229	BAVR 2)	1)
FF	Cnc	50138.5328	.0010	L	FR	−0.0328 s	BAVM 65	1)
		50502.3866	.0010	L	FR	−0.0444 s	BAVM 65	5)
		50510.3204	.0010	L	FR	−0.0496 s	BAVM 65	5)
		50541.4162	.0010	L	FR	−0.0477	BAVM 65	5)
		50547.3671	.0010	L	FR	−0.0511 s	BAVM 65	5)
XZ	CMi	50515.3161	.0002	L	KI	−0.0053	GCVS 85	1)
AK	CMi	50489.4516	.0005	LBV	AG	−0.0123	GCVS 85	2)
		50516.3346	.0005	L	KI	+0.2736	GCVS 85	1)
V651	Cas	50489.3250	.0003	LBV	AG	+0.0020	BAVM 55	2)
WW	Cep	50412.3821	.0002	L	AG	+0.0005	BAVM 71	1)
AH	Cep	50464.3068	.0020	LBV	AG	−0.0328 s	GCVS 85	2)
CQ	Cep	50344.571 :	.001	LBV	AG	−0.070	GCVS 85	2)
TT	Cet	50446.2471	.0003	L	KI	−0.0336 s	GCVS 85	1)
TV	Cet	50470.2917	.0004	L	KI	+0.0084	GCVS 85	1)
TX	Cet	50450.3114	.0006	L	KI	+0.0208	GCVS 85	1)
VV	Cet	50441.2519	.0003	L	KI	+0.0860	GCVS 85	1)
NSV6177	Com	50520.4737	.0015	L	MS	+0.0129	BAVM 88	1)
		50540.4113	.0017	L	MS	+0.0126	BAVM 88	5)
CG	Cyg	50316.4416	.0002	LBV	AG	+0.0348 s	GCVS 85	2)
GO	Cyg	50397.399 :	.003	LBV	AG	+0.056	GCVS 85	2)
V478	Cyg	50343.396 :	.001	LBV	AG	+0.023	GCVS 85	2)

Table 1 (cont.)

Variable		Min JD 24..	±	Ph	Obs		O−C		Rem
V478	Cyg	50369.3181	.0009	LBV	AG		+0.0172	GCVS 85	2)
V680	Cyg	50360.4971	.0009	LBV	AG		+0.0163	BAVR 1)	2)
V828	Cyg	50370.3457	.0008	LBV	AG		−0.0439 s	GCVS 85	2)
V934	Cyg	50369.2723	.0010	L	FR		−0.0689 s	GCVS 85	5)
		50370.3289	.0010	L	FR		−0.0634	GCVS 85	5)
V934	Cyg	50371.3791	.0010	L	FR		−0.0643 s	GCVS 85	5)
		50390.2959	.0010	L	FR		−0.0663 s	GCVS 85	5)
		50391.3531	.0010	L	FR		−0.0602	GCVS 85	5)
		50392.4029	.0010	L	FR		−0.0614 s	GCVS 85	5)
V1004	Cyg	50402.2380	.0012	L	MS		−0.0982	GCVS 85	1)
		50428.2935	.0008	L	MS		−0.0993	GCVS 85	1)
YY	Del	50346.3760	.0002	L	KI		+0.0032	GCVS 85	1)
UX	Eri	50451.2875	.0004	L	KI		+0.0860	GCVS 85	1)
YY	Eri	50481.2888	.0002	L	KI		+0.0637	GCVS 85	1)
BL	Eri	50485.3256	.0005	L	KI		−0.0094	GCVS 85	1)
EN	Gem	50422.5289	.0010	L	FR		−0.0394	GCVS 85	5)
NSV7457	Her	50516.4872	.0005	L	MS				1)
		50541.4204	.0010	L	MS				1)
NSV7968	Her	50539.4455	.0024	L	MS				1)
WY	Hya	50465.4841	.0001	L	KI		+0.0148	GCVS 85	1)
AV	Hya	50540.3276	.0006	L	KI		−0.0436	GCVS 85	1)
DF	Hya	50481.4469	.0002	L	KI		−0.0614	GCVS 85	1)
NSV4539	Hya	49841.4072	.0017	LBV	AG		+0.0034	BAVM 96	2)
CO	Lac	50369.5259	.0004	LBV	AG		−0.0019	SAC 68	2)
UZ	Leo	50541.4396	.0007	L	KI		+0.1008	GCVS 85	1)
XY	Leo	50519.3375	.0004	LBV	AG		−0.0122 s	GCVS 85	2)
		50519.4807	.0004	LBV	AG		−0.0111	GCVS 85	2)
		50519.6212	.0004	LBV	AG		−0.0126 s	GCVS 85	2)
		50539.3671	.0002	L	KI		−0.0115	GCVS 85	1)
AL	Leo	50519.4784	.0005	LBV	AG		+0.0072 s	BAVM 53	2)
AP	Leo	50546.3526	.0003	L	KI		−0.0279	GCVS 85	1)
V404	Lyr	50346.4006	.0021	L	MS		−0.0675	GCVS 85	1)
		50379.2939	.0014	L	MS		−0.0667	GCVS 85	1)
NS	Mon	50481.4314	.0005	LBV	AG		+0.0017	BAVM 76	2)
V453	Mon	50444.4482	.0008	L	MS		−0.1236 s	GCVS 87	1)
		50508.3218	.0019	L	MS		+0.1433 s	GCVS 87	1)
		50519.3087	.0012	L	MS		−0.1488 s	GCVS 87	1)
		50530.2991	.0024	L	MS		−0.1508 s	GCVS 87	1)
V530	Mon	50442.5430	.0054	L	MS		+0.1003	GCVS 85	1)
		50443.5890	.0017	L	MS		+0.0953	GCVS 85	1)
		50446.4834	.0029	L	MS		+0.0992 s	GCVS 85	1)
V532	Mon	50439.5660	.0011	L	MS		+0.0807	GCVS 85	1)
		50462.4492	.0015	L	MS		+0.0817	GCVS 85	1)
NSV2980	Mon	50380.5737	.0007	L	MS				1)
		50464.4617	.0002	L	KI				1)
		50465.4964	.0010	L	MS				1)
DZ	Ori	50464.4577	.0011	L	MS		−0.2913	GCVS 85	1)
		50466.2910	.0020	L	MS		−0.2942	GCVS 85	1)
V343	Ori	50428.5065	.0007	LBV	AG		+0.1158	GCVS 85	2)
U	Peg	50368.3978	.0003	L	KI		−0.0646	GCVS 87	1)
		50402.3150	.0002	L	KI		−0.0651 s	GCVS 87	1)
BB	Peg	50359.4028	.0004	L	KI		+0.0058 s	GCVS 87	1)
DI	Peg	50376.3686	.0001	L	KI		−0.0103	GCVS 87	1)
IM	Per	50380.4335	.0008	L	MS		+0.0601	GCVS 87	1)
V482	Per	50380.3383	.0007	LBV	AG		+0.0495	BAVM 68	2)
Y	Sex	50548.3789	.0004	L	KI		+0.0277 s	BAVR 1)	1)
CU	Tau	49659.520 :	.0007	L	MS		+0.071 s	GCVS 87	1)
		50422.3284	.0002	L	AG		+0.0666	GCVS 87	1)
		50422.5384	.0003	L	AG		+0.0705 s	GCVS 87	1)
GR	Tau	50422.5188	.0007	LBV	AG		−0.0211	BAVR 3)	2)
NSV1651	Tau	50381.6571	.0037	L	MS				1)
NSV1651	Tau	50457.3057	.0031	L	MS				1)
		50465.3591	.0003	L	KI				1)
TY	UMa	50192.5278	.0010	L	FR	MS	−0.0583 s	GCVS 87	1)
		50193.5894	.0010	L	FR	MS	−0.0603 s	GCVS 87	1)

Table 1 (cont.)

Variable		Min JD 24..	±	Ph	Obs		O−C		Rem
TY	UMa	50194.4797	.0010	L	FR	MS	−0.0564	GCVS 87	1)
		50195.3651	.0010	L	FR	MS	−0.0573 s	GCVS 87	1)
		50195.5417	.0010	L	FR	MS	−0.0580	GCVS 87	1)
UY	UMa	50445.6650	.0010	L	MS		+0.0583	GCVS 87	1)

Table 2. RR Lyrae and Delta Scuti type stars

Variable		Max JD 24..	±	Ph	Obs	O−C		Rem
SW	Aqr	50361.3466	.0003	L	KI	−0.0019	GCVS 85	1)
CY	Aqr	50439.2230	.0001	L	KI	+0.0095	GCVS 85	1)
FY	Aqr	50315.5558	.0040	L	BK			4)
		50396.3642	.0040	L	BK			4)
AA	Aql	50336.3812	.0004	L	KI	+0.0002	BAVM 78	1)
RV	Ari	50462.2737	.0003	L	KI	−0.0025	GCVS 85	1)
RW	Ari	50464.3012	.0080	L	BK	−0.0952	GCVS 85	4)
UU	Boo	50509.4855	.0001	L	QU	+0.0953	GCVS 85	4)
CM	Boo	50539.5145	.0005	L	QU	−0.0431	BAVM 75	4)
		50547.4313	.0005	L	QU	−0.0433	BAVM 75	4)
AH	Cam	50518.4083	.0007	L	QU	+0.1364	GCVS 85	4)
SS	Cnc	50486.4554	.0005	L	QU	+0.0495	GCVS 85	4)
		50489.3907	.0005	L	QU	+0.0461	GCVS 85	4)
		50519.5128	.0005	L	QU	+0.0465	GCVS 85	4)
		50546.3289	.0005	L	QU	+0.0469	GCVS 85	4)
TT	Cnc	50520.3885	.0008	L	KI	+0.0763	GCVS 85	1)
VW	CVn	50502.6204	.0011	L	AG	+0.0946	BAVM 74	1)
		50519.6162	.0007	L	AG	+0.0912	BAVM 74	1)
X	CMi	50460.526	.004	L	PS	+0.005	BAVR 4)	3)
RV	CMi	50478.453	.004	L	PS	−0.179	GCVS 85	3)
AD	CMi	50517.3688	.0004	L	KI	+0.0053	GCVS 85	1)
AL	CMi	50391.617	.005	L	PS	−0.168	GCVS 85	3)
		50487.404	.005	L	PS	−0.168	GCVS 85	3)
		50488.498	.005	L	PS	−0.175	GCVS 85	3)
BB	CMi	50470.5080	.0012	L	KI	+0.0550	GCVS 85	1)
RR	Cet	50440.3014	.0005	L	KI	−0.0048	GCVS 85	1)
RZ	Cet	50456.2409	.0007	L	KI	−0.0558	GCVS 85	1)
S	Com	50540.377	.003	L	PS	+0.012	SAC 60	3)
RY	Com	50548.5550	.0040	L	BK			4)
DX	Del	50380.2962	.0006	L	KI			1)
RT	Equ	50391.334	.003	L	PS	−0.085	GCVS 85	3)
SZ	Gem	50515.3827	.0020	L	BK	−0.0336	GCVS 85	4)
KV	Gem	50463.5013	.0040	L	BK	−0.0386	GCVS 85	4)
SS	Leo	50541.4513	.0040	L	BK	−0.0063	GCVS 85	4)
ST	Leo	50550.4074	.0005	L	KI	−0.0094	GCVS 85	1)
SU	Leo	50515.407	.003	L	PS	−0.051	GCVS 85	3)
SW	Leo	50546.5513	.0010	L	FR			1)
AA	Leo	50539.4387	.0040	L	BK	−0.0438	GCVS 85	4)
AX	Leo	50540.4657	.0080	L	BK	−0.0322	GCVS 85	4)
BX	Leo	50554.4182	.0008	L	KI	−0.1289	GCVS 85	1)
RW	Lyn	50464.5241	.0020	L	BK	+0.0152	BAVM 75	4)
CM	Ori	50465.4799	.0020	L	BK	−0.0442	GCVS 85	4)
VV	Peg	50370.3425	.0004	L	KI	−0.0271	GCVS 87	1)
BH	Peg	50363.3647	.0007	L	KI	−0.0732	GCVS 87	1)
BP	Peg	50363.3307	.0040	L	BK	+0.0348	GCVS 87	4)
		50363.4432	.0040	L	BK	+0.0378	GCVS 87	4)
DH	Peg	50365.3689	.0011	L	KI	+0.0187	GCVS 87	1)

Table 2 (cont.)

Variable		Max JD 24..	±	Ph	Obs	O−C		Rem
KN	Per	50470.3274	.0040	L	BK	+0.1154	GCVS 87	4)
RY	Psc	50444.3339	.0005	L	KI	−0.2517	GCVS 87	1)
SS	Psc	50396.3352	.0006	L	KI	−0.0630	GCVS 87	1)
		50466.2812	.0080	L	BK	−0.0507	GCVS 87	4)
SY	Psc	50465.3427	.0040	L	BK	+0.0676	GCVS 87	4)
RV	Sex	50545.3884	.0008	L	KI			1)
SS	Tau	50439.3912	.0006	L	KI	−0.0892	GCVS 87	1)
UX	Tri	50446.2713	.0040	L	BK			4)

R e m a r k s :

AG	Agerer, F.	Tiefenbach	MS	Moschner, W.	Lennestadt
BK	Birkner, C.	Hagen	PS	Paschke, A.	Rueti CH
FR	Frank, P.	Velden	QU	Quester, W.	Esslingen
KI	Kleikamp, W.	Marl			

:	=	uncertain
s	=	secondary minimum
L	=	photoelectric observation - without filter
LBV	=	as above - filter: B and V
1)	=	photometer CCD 375x242 uncoated - without filter
2)	=	photometer EMI 9781A - filter: V=GG495,1mm;B=BG12,1mm+GG385,2m
3)	=	photometer Cryocam 89A - without filter
4)	=	photometer ST-7 - without filter
5)	=	photometer OES-LcCCD11 without filter
BAVM 53	=	BAV Mitteilungen No. 53 = IBVS No. 3401
BAVM 55	=	BAV Mitteilungen No. 55 = IBVS No. 3554
BAVM 65	=	BAV Mitteilungen No. 65 = IBVS No. 3859
BAVM 67	=	BAV Mitteilungen No. 67 = IBVS No. 3942
BAVM 71	=	BAV Mitteilungen No. 71 = IBVS No. 4131
BAVM 74	=	BAV Mitteilungen No. 74 = IBVS No. 4134
BAVM 76	=	BAV Mitteilungen No. 76 = IBVS No. 4143
BAVM 88	=	BAV Mitteilungen No. 88 = IBVS No. 4386
BAVM 96	=	BAV Mitteilungen No. 96 = IBVS No. 4432
BAVM nn	=	BAV Mitteilungen No. nn
BAVR 1)	=	BAV Rundbrief 32, 36 ff
BAVR 2)	=	BAV Rundbrief 32,122 ff
BAVR 3)	=	BAV Rundbrief 35, 1 ff
BAVR 4)	=	BAV Rundbrief 44,162 f
GCVS nn	=	General Catalogue of Variable Stars, 4th ed. 1900+nn
SAC xx	=	Rocznik Astronomiczny Nr. xx, Krakow (SAC)