

COMMISSIONS 27 AND 42 OF THE IAU
INFORMATION BULLETIN ON VARIABLE STARS

Number 5017

Konkoly Observatory
Budapest

16 January 2001

HU ISSN 0374 – 0676

**PHOTOELECTRIC MINIMA OF SELECTED ECLIPSING BINARIES
AND MAXIMA OF PULSATING STARS**

(BAV MITTEILUNGEN NO. 133)

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In this 44th compilation of BAV results, photoelectric observations obtained in the years 1999 and 2000 are presented on 126 variable stars giving 168 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 incorporation of 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. . .	±	Obs	$O - C$		Fil	Rem
RR Dra	51315.4247	.0003	AG	+0.0549	GCVS 85	<i>BV</i>	2)
	51414.5215	.0002	RAT RCR	+0.0555	GCVS 85		1)
CV Dra	51354.4155	.0008	AG	-0.0010	BAVM 69	<i>BV</i>	2)
EF Dra	51331.481 :	.003	AG	+0.017	s BAVM 63	<i>BV</i>	2)
FN Her	51330.4364	.0007	KI	+0.1044	GCVS 85	<i>-Ir</i>	1)
HS Her	51397.4074	.0005	AG	-0.0165	GCVS 85	<i>BV</i>	2)
V878 Her	51323.436 :	.002	AG			<i>BV</i>	2)
	51386.4451	.0040	AG			<i>BV</i>	2)
SW Lac	51426.392 :	.002	MZ	-0.062	GCVS 85		6)
EK Lac	51436.5339	.0001	RAT RCR	-0.0039	GCVS 85		1)
NW Lac	51465.392	.002	RAT RCR				1)
V364 Lac	50660.5116	.0015	FR	-0.0037	BAVR 4)		1)
	51035.4382	.0004	FR	-0.0068	BAVR 4)		5)
SW Lyn	51557.3317	.0005	DIE	+0.0273	GCVS 85		7)
TZ Lyr	51316.4827	.0001	RAT RCR	+0.0035	GCVS 85		1)
UZ Lyr	51457.3885	.0028	ATB	-0.0099	GCVS 85		1)
FG Lyr	51326.5050	.0008	RAT RCR				1)
NY Lyr	51420.4986	.0002	RAT RCR	+0.0699	GCVS 85		1)
QU Lyr	51467.3191	.0012	AG	-0.0028	s GCVS 85		1)
V406 Lyr	51399.3920	.0007	AG	-0.0131	s BAVM 72		1)
IX Mon	51554.3656	.0002	RAT RCR				1)
V527 Mon	51555.4683	.0006	KI	-0.0192	GCVS 85	<i>-Ir</i>	1)
V714 Mon	50849.2784	.0004	MS				1)
	51208.4297	.0005	KI			<i>-Ir</i>	1)
RV Oph	51348.4503	.0003	KI	-0.0055	GCVS 85	<i>-Ir</i>	1)
V456 Oph	51354.4711	.0003	KI	+0.0148	GCVS 85	<i>-Ir</i>	1)
V501 Oph	51387.4106	.0004	KI	-0.0072	GCVS 85	<i>-Ir</i>	1)
V506 Oph	51346.5063	.0006	KI	+0.0258	s GCVS 85	<i>-Ir</i>	1)
V508 Oph	51358.4538	.0004	KI	+0.0045	GCVS 85	<i>-Ir</i>	1)

Table 1 (cont.)

Variable	Min JD 24. . .	\pm	Obs	$O - C$		Fil	Rem
V839 Oph	51390.4060	.0004	AG	-0.0632	s	GCVS 85	<i>BV</i> 2)
ER Ori	51555.3516	.0003	KI	+0.0254	s	GCVS 85	<i>-Ir</i> 1)
GU Ori	50904.3750	.0005	FR				5)
	51165.3671	.0002	FR				5)
	51165.6013	.0003	FR				5)
	51176.4278	.0003	FR				5)
	51225.3767	.0002	FR				5)
U Peg	51480.3591	.0005	KI	-0.0798		GCVS 87	<i>-Ir</i> 1)
AT Peg	51469.418 :	.002	MZ	+0.008		GCVS 87	6)
BB Peg	51471.3810	.0005	KI	+0.0036	s	GCVS 87	<i>-Ir</i> 1)
BN Peg	51486.2945	.0004	DIE	-0.0002		GCVS 87	7)
BO Peg	51486.2571	.0009	KI	-0.0185		GCVS 87	<i>-Ir</i> 1)
BY Peg	51426.4458	.0008	AG				1)
DK Peg	51465.4217	.0006	KI	+0.0565		GCVS 87	<i>-Ir</i> 1)
IK Per	51470.4169	.0070	HSR	-0.0951		GCVS 87	4)
KR Per	51512.3087	.0002	DIE	-0.0054		GCVS 87	7)
Y Psc	51468.3976	.0004	KI	-0.0165		GCVS 87	<i>-Ir</i> 1)
SX Psc	51470.3551	.0002	RAT RCR				1)
UZ Sge	50688.4351	.0050	FR				5)
CU Sge	51389.4128	.0003	KI	+0.0154		GCVS 87	<i>-Ir</i> 1)
GR Tau	51486.3991	.0004	DIE	-0.0258		BAVR 1)	7)
X Tri	51518.5302	.0014	ATB	-0.0375		GCVS 87	1)
BP Vul	51397.4114	.0003	KI	-0.0071		GCVS 87	<i>-Ir</i> 1)
	51464.3104	.0001	DIE	+0.9200		GCVS 87	7)
HI Vul	51354.4765	.0006	AG	-0.0476		GCVS 87	1)

Table 2: Pulsating stars

Variable	Max JD 24. . .	\pm	Obs	$O - C$		Fil	Rem
CI And	51562.5002	.0021	ATB				1)
DU And	51469.4641	.0025	HSR	+0.1471		GCVS 85	4)
GP And	51467.5582	.0007	ATB	+0.0005		GCVS 85	1)
	51551.355	.001	MZ	+0.000		GCVS 85	6)
OV And	51562.2804	.0021	ATB	-0.0049		MVS11,133	1)
SX Aqr	51518.2041	.0008	KI	+0.0071		BAVR 7)	<i>-Ir</i> 1)
BR Aqr	51412.5253	.0005	KI	-0.1181		GCVS 85	<i>-Ir</i> 1)
CP Aqr	51467.2722	.0008	KI	-0.0794		GCVS 85	<i>-Ir</i> 1)
CY Aqr	51420.3560	.0005	RAT RCR	+0.0125		GCVS 85	1)
	51483.3450	.0004	KI	+0.0099		GCVS 85	<i>-Ir</i> 1)
	51518.383	.001	MZ	+0.012		GCVS 85	6)
HH Aqr	50700.518	.002	AG				1)
	51429.445	.002	AG				1)
AA Aql	51483.2477	.0008	KI	+0.0005		BAVM 78	<i>-Ir</i> 1)
	51782.4461	.0006	KI	+0.0007		BAVM 78	<i>-Ir</i> 1)
V341 Aql	51769.4325	.0017	MZ	+0.0298		GCVS 85	<i>-Ir</i> 6)
RV Ari	51555.2277	.0005	KI	-0.0018		GCVS 85	<i>-Ir</i> 1)
RW Ari	51467.3517	.0050	HSR	+0.1703		GCVS 85	4)
RS Boo	51685.4534:	.0016	MZ	+0.0161		BAVR 2)	6)
TW Boo	51708.4877	.0027	MZ	-0.0159		GCVS 85	<i>-Ir</i> 6)
	51716.4672	.0010	MZ	-0.0206		GCVS 85	<i>-Ir</i> 6)
UY Boo	51317.4759	.0040	HSR	+0.1460		SAC 68	4)
CM Boo	51703.4541	.0006	QU	-0.0007		BAV unsp	<i>V</i> 4)
CQ Boo	51679.4735	.0007	QU	-0.0008		BAVR 5)	<i>V</i> 4)
TT Cnc	51586.4316	.0009	KI	+0.0731		GCVS 85	<i>-Ir</i> 1)
AN Cnc	51644.5161	.0028	ATB				1)
AQ Cnc	51549.4653		RAT RCR	-0.0576		GCVS 85	1)
	51661.3591	.0035	ATB	-0.0618		GCVS 85	1)
RV CMi	51575.498	.008	PS	-0.278		GCVS 85	3)
AD CMi	51577.530	.002	MZ	+0.004		GCVS 85	6)
AL CMi	51551.540	.010	PS	-0.148		GCVS 85	3)
RV Cet	51497.4185	.0018	KI	+0.1549		GCVS 85	<i>-Ir</i> 1)

Table 2 (cont.)

Variable	Max JD 24. . .	\pm	Obs	$O - C$		Fil	Rem
V Com	51569.5500	.0090	RAT RCR	+0.0212	GCVS 85		1)
ST Com	51669.3880	.0014	KI	-0.0118	GCVS 85	-Ir	1)
RV CrB	50210.5020	.0010	QU	+0.0165	GCVS 85		4)
UY Cyg	51470.4293	.0020	MZ	+0.0446	GCVS 85		6)
	51483.324	.001	MZ	+0.043	GCVS 85		6)
KP Cyg	51352.4603	.0060	HSR				4)
V939 Cyg	51670.404	.002	AG	-0.023	BAVM 92		1)
CK Del	51467.3719	.0015	ATB				1)
DX Del	51458.3358	.0042	ATB	+0.0420	GCVS 85		1)
DD Dra	51315.5690	.0030	AG	-0.0017	BAVR 6)	BV	2)
	51326.3731	.0014	HSR	+0.0182	BAVR 6)		4)
	51352.5010	.0020	AG	+0.0026	BAVR 6)	BV	1)
	51748.507	.001	AG	-0.066	BAVR 6)	BV	2)
RT Equ	51496.250	.008	PS	+0.056	GCVS 85		3)
BK Eri	51471.4781	.0015	KI	-0.1168	GCVS 85	-Ir	1)
RR Gem	51513.4119	.0010	QU	+0.1533	GCVS 85	-Ir	4)
	51549.5674	.0010	QU	+0.1536	GCVS 85	-Ir	4)
SZ Gem	51626.3962	.0028	ATB	-0.0397	GCVS 85		1)
	51629.4042	.0007	QU	-0.0385	GCVS 85	V	4)
	51642.4377	.0030	MZ	-0.0346	GCVS 85		6)
GI Gem	51627.394	.004	ATB	+0.064	GCVS 85		1)
TW Her	51759.3901	.0023	MZ	-0.0074	GCVS 85	-Ir	6)
VX Her	51716.4101	.0009	KI	-0.0129	BAV unsp	-Ir	1)
	51716.415	.004	PS	-0.008	BAV unsp		3)
VZ Her	51679.5161	.0025	MZ	+0.0498	GCVS 85	-Ir	6)
	51746.4479	.0022	MZ	+0.0518	GCVS 85	-Ir	6)
CQ Lac	51472.4646	.0021	ATB				1)
CZ Lac	51768.5099	.0014	MZ	-0.0800	GCVS 85	-Ir	6)
ST Leo	51679.4061	.0032	MZ	-0.0096	GCVS 85	-Ir	6)
SU Leo	51575.624	.003	PS	-0.072	GCVS 85		3)
AA Leo	51643.355	.007	PS	-0.049	GCVS 85		3)
EH Lib	51704.4349	.0005	KI	+0.0040	GCVS 85	-Ir	1)
RZ Lyr	51481.3598	.0015	ATB	-0.0198	GCVS 85		1)
CN Lyr	51468.3310	.0035	ATB	+0.0059	BAVR 3)		1)
KX Lyr	51268.5507	.0035	HSR				4)
ST Oph	51327.4856	.0008	KI	-0.0175	GCVS 85	-Ir	1)
V445 Oph	51316.4890	.0007	KI	+0.0168	GCVS 85	-Ir	1)
V452 Oph	51296.5627	.0025	ATB				1)
V567 Oph	51377.4266	.0009	KI	-0.0703	GCVS 85	-Ir	1)
	51714.4458	.0011	KI	-0.0715	GCVS 85	-Ir	1)
V816 Oph	51715.4472	.0006	KI			-Ir	1)
VV Peg	51465.3043	.0005	KI	-0.0291	GCVS 87	-Ir	1)
AE Peg	51387.5886	.0007	KI	+0.1977	GCVS 87	-Ir	1)
	51398.5167	.0006	KI	+0.1983	GCVS 87	-Ir	1)
	51787.4488	.0009	KI	+0.2088	GCVS 87	-Ir	6)
AO Peg	51472.2781	.0013	KI			-Ir	1)
AV Peg	51482.3235	.0009	KI	+0.0644	GCVS 87	-Ir	1)
	51487.398	.003	MZ	+0.064	GCVS 87		6)
	51498.324	.003	MZ	+0.060	GCVS 87		6)
BH Peg	51470.3575	.0015	KI	-0.0753	GCVS 87	-Ir	6)
	51495.3528	.0008	ATB	-0.0787	GCVS 87		1)
	51511.3764	.0010	QU	-0.0800	GCVS 87	-Ir	4)
BP Peg	51468.3017	.0005	KI	+0.0418	GCVS 87	-Ir	1)
	51469.4004	.0021	ATB	+0.0450	GCVS 87		1)
DH Peg	51495.2334	.0021	KI	+0.0162	GCVS 87	-Ir	1)
DY Peg	51426.3476	.0010	HSR	-0.0018	GCVS 87		4)
	51458.4348	.0008	ATB	-0.0022	GCVS 87		1)
	51470.321	.000	MZ	-0.003	GCVS 87		6)
AR Per	51486.441 :	.003	MZ	+0.001	BAV unsp		6)
	51509.4266	.0007	QU	+0.0073	BAV unsp	-Ir	4)

Table 2 (cont.)

Variable	Max JD 24. . .	\pm	Obs	$O - C$		Fil	Rem
AR Per	51569.425	.001	MZ	+0.003	BAV unp		6)
RY Psc	51487.3799	.0015	KI	-0.2058	GCVS 87	-Ir	1)
AN Ser	51715.4686	.0014	MZ	-0.0061	GCVS 87	-Ir	6)
AV Ser	51298.6120	.0005	KI			-Ir	1)
CW Ser	51325.4376	.0010	KI	+0.0283	GCVS 87	-Ir	1)
SS Tau	51197.3649	.0011	KI	-0.0427	GCVS 87	-Ir	1)
	51498.4753	.0006	KI	-0.0317	GCVS 87	-Ir	1)
U Tri	51433.4582	.0014	HSR	-0.0304	GCVS 87		4)
UX Tri	51471.6262	.0007	ATB	-0.0003	BAV unp		1)
	51494.5030	.0017	ATB	-0.0027	BAV unp		1)
	51522.5401	.0035	ATB	+0.0191	BAV unp		1)
RV UMa	51238.5288	.0005	QU	+0.0718	GCVS 87	V	4)
TU UMa	51270.5146	.0035	ATB	-0.0292	GCVS 87		1)
	51569.4226	.0010	QU	-0.0263	GCVS 87	-Ir	4)
ST Vir	51317.3819	.0009	KI	+0.1328	GCVS 87	-Ir	1)
UU Vir	51654.3929	.0009	KI	-0.0132	GCVS 87	-Ir	1)
AE Vir	51660.4919	.0011	KI			-Ir	1)
AF Vir	51308.3976	.0011	KI	+0.0472	GCVS 87	-Ir	1)
BB Vir	51299.5075	.0006	KI	+0.1828	GCVS 87	-Ir	1)
BC Vir	51301.4141	.0010	KI	+0.0121	GCVS 87	-Ir	1)
FU Vir	51255.4797	.0009	MS	+0.1622	GCVS 87		1)
	51266.3937	.0060	HSR	+0.1634	GCVS 87		4)

Remarks:

AG : Agerer, F., Tiefenbach ATB: Achterberg, Dr. H., Norderstedt
DIE : Dietrich, M., Radebeul FR : Frank, P., Velden
HSR: Husar, Dr. D., Hamburg KI : Kleikamp, W., Marl
MS : Moschner, W., Lennestadt MZ : Mainz, G., Bonn
PS : Paschke, A. Rüti (CH) QU : Quester, W., Esslingen
RAT: Rätz, M., Herges-Hallenberg RCR: Rätz, Ch., Herges-Hallenberg

-Ir = filter KG/2

: = uncertain

s = secondary minimum

1) = photometer CCD 375 × 242 uncoated

2) = photometer EMI 9781A, filter V = GG495, 1 mm; B = BG12, 1 mm + GG385, 2 mm

3) = photometer Cryocam 80A, without filter

4) = photometer ST-7

5) = photometer OES-LcCCD11

6) = photometer LC14

7) = photometer pictor 1616XT

GCVS *yy* = General Catalogue of Variable Stars, 4th ed. 19yy

MVS *vv, ppp* = Mitteilungen über Veränderliche Sterne; volume *vv*, page *ppp*

SAC *vv* = Rocznik Astronomiczny No. *vv*, Krakow (SAC)

BAVM *nnn* = BAV Mitteilungen No. *nnn*

BAVM 63 = BAV Mitteilungen No. 63 = IBVS No. 3811

BAVM 72 = BAV Mitteilungen No. 72 = IBVS No. 4132

BAVR 1) = BAV Rundbrief 35, 1f

BAVR 2) = BAV Rundbrief 36, 157f

BAVR 3) = BAV Rundbrief 43, 57f

BAVR 4) = BAV Rundbrief 47, 33f

BAVR 5) = BAV Rundbrief 48, 189f

BAVR 6) = BAV Rundbrief 49, 6

BAVR 7) = BAV Rundbrief 48, 57f

BAV unp = BAV unpublished

Correction to IBVS No. 4912

UY	CV _n	51245.410	HSR	must be deleted
DD	Dra	51273.6228	HSR	must be deleted
SY	Gem	51250.5464	ATB	must be deleted