



**BAV results of observations 2023:
Visual maxima and minima of variable stars**

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BAV Mitteilungen No. 262

April 2024

Abstract: *In this 100th compilation of BAV results, visual observations of variable stars, obtained mostly in the year 2023 are presented, giving 121 maxima and 70 minima of eclipsing binaries, pulsating and eruptive stars.*

We present 70 minima and 121 maxima of selected variable stars. The results were acquired by 4 observers in Germany, mostly observed in the year 2023. The observations were made at private observatories.

Please use the links in [1] and [2] for an easy access to all the publications of the BAV.

This paper contains only unpublished observations. The types of the variable stars are taken from the GCVS-catalog [3] or observer.

Table 1: Explanations to the table columns

column 1	Variable	designation from the GCVS
column 2		constellation
column 3	Ext	phase: maximum (max) or minimum (min)
column 4	HJD 24.....	heliocentric UTC timings of the observed max or min
column 5	U	if HJD uncertain, marked with „ : “
column 6	Mag	visual magnitude
column 7	Obs	abbreviations, see table at the end of the table
column 8	Type	type of the variable star
column 9	n	number of observations entering this maximum or minimum

Number of Maxima: 121

Number of Minima: 70

Table 2: Times of minima and maxima

Variable	Ext	HJD 24+	U	Mag	Obs	Type	n
AQ	And	max 59938.00		7.8	VOH	SRB	65
R	Aql	min 59827.00		10.6	VOH	M	64
R	Aql	max 59954.00		6.2	VOH	M	44
RV	Aql	max 59860.00		8.9	VOH	M	26
RV	Aql	max 60094.00		9.9	VOH	M	21
T	Ari	max 59903.00		8.1	VOH	M	33
R	Aur	max 60050.00		7.4	VOH	M	18
X	Aur	max 59939.00		8.8	VOH	M	26
UV	Aur	max 59983.00		8.4	VOH	M	42
R	Boo	max 59951.00		8.4	VOH	M	24
R	Boo	min 60079.00		12.2	VOH	M	47
V	Boo	max 60084.00		8.0	SM	SR	17
V	Boo	min 60015.00		9.9	VOH	SR	125
V	Boo	max 60182.00		7.9	VOH	SR	125
V	Boo	max 59903.00		7.9	VOH	SR	125
X	Cam	max 59898.00		8.3	VOH	M	24
X	Cam	max 60168.00		7.9	VOH	M	20
R	Cvn	max 60029.00		7.6	VOH	M	50
R	Cas	max 59999.00		5.3	VOH	M	49
T	Cas	min 59805.00		10.8	VOH	M	128
T	Cas	max 60060.00		8.2	VOH	M	128
U	Cas	max 59862.00		9.0	VOH	M	28
U	Cas	max 60135.00		8.2	VOH	M	34
V	Cas	max 59719.00		6.9	RCR	M	12
V	Cas	max 59946.00		7.8	VOH	M	15
V	Cas	max 60171.00		7.4	VOH	M	45
W	Cas	min 59807.00		12.0	VOH	M	63
W	Cas	max 60017.00		9.0	VOH	M	65
RZ	Cas	min 60103.56			SPI	EA	10
RZ	Cas	min 60133.43			SPI	EA	14
SV	Cas	min 60056.00		9.8	VOH	SR	53
V0667	Cas	max 60103.00		9.8	VOH	M	23
T	Cen	max 60033.00	:	6.3	SM	SR	5
T	Cen	max 60091.00		6.4	SM	SR	12
S	Cep	max 59757.00		7.6	VOH	M	32
S	Cep	min 59994.00		10.7	VOH	M	53
T	Cep	max 59743.50		6.5	RCR	M	66
T	Cep	max 59739.00		6.5	VOH	M	132
T	Cep	min 59937.00		9.5	VOH	M	99
W	Cep	max 59782.00		6.9	VOH	SRC	166
RU	Cep	min 59834.00	:	9.2	SM	SR	8
RW	Cep	min 59995.00	:	7.9	VOH	LC	60
PQ	Cep	min 59784.00		11.5	VOH	M	95
PQ	Cep	max 60015.00		9.2	VOH	M	74
R	CrB	min 60115.00		10.1	VOH	RCB	50
R	CrB	max 60131.00		8.6	VOH	RCB	50
R	CrB	min 60141.00		9.1	VOH	RCB	50
S	CrB	max 59779.00		6.0	VOH	M	72
S	CrB	max 60171.00		8.4	VOH	M	46
T	CrB	min 60167.00		10.7	VOH	NR	56
R	Cyg	max 59975.00		7.2	VOH	M	36
U	Cyg	max 59963.00		8.0	VOH	M	58
W	Cyg	min 60065.00		6.6	VOH	SRB	64
W	Cyg	max 60151.00		5.8	VOH	SRB	64
Z	Cyg	max 60144.00		8.4	VOH	M	29
RS	Cyg	min 60002.00		9.3	VOH	SRA	42
RT	Cyg	max 59820.00		6.5	RCR	M	38
RT	Cyg	max 59807.00		7.0	VOH	M	49
RT	Cyg	max 60000.00		8.7	VOH	M	24

Variable	Ext	HJD 24+	U	Mag	Obs	Type	n
RU	Cyg	min	59812.00		8.7	VOH SRA	126
RU	Cyg	max	59939.00		8.5	VOH SRA	126
RU	Cyg	min	60031.00		8.6	VOH SRA	126
RU	Cyg	max	60157.00		8.1	VOH SRA	126
TY	Cyg	max	59838.00	10.2	VOH	M	32
TY	Cyg	max	60184.00	10.2	VOH	M	34
AA	Cyg	max	59852.00		8.7	VOH SRB	111
AA	Cyg	min	59950.00		9.7	VOH SRB	111
AA	Cyg	max	61025.00		9.0	VOH SRB	111
AF	Cyg	min	59825.00		7.4	SM SRB	14
AF	Cyg	min	59918.00		8.6	SM SRB	11
AF	Cyg	min	60012.00		7.4	SM SRB	9
AF	Cyg	min	60087.00		7.8	SM SRB	13
BG	Cyg	max	59982.00		9.1	VOH M	27
CH	Cyg	max	59780.00		6.9	VOH ZAND+SR	166
CN	Cyg	max	59904.00		9.4	VOH M	13
CN	Cyg	max	60106.00		9.5	VOH M	28
R	Del	max	59781.00		7.8	VOH M	32
U	Del	max	59895.00		7.0	VOH SRB	30
EU	Del	min	59835.00		6.6	VOH SRB	41
EU	Del	max	59873.00		5.8	VOH SRB	41
EU	Del	min	59898.00		6.7	VOH SRB	22
EU	Del	max	59932.00		5.8	VOH SRB	22
EU	Del	max	60061.00		5.7	VOH SRB	11
R	Dra	max	60078.00		7.5	VOH M	24
SV	Dra	max	59899.00		9.0	VOH M	22
R	Gem	max	59679.00		7.4	RCR M	21
R	Gem	max	60045.00		6.9	VOH M	26
S	Her	max	59784.00		7.4	VOH M	69
S	Her	max	60093.00		7.5	VOH M	47
T	Her	max	59783.00		7.9	RCR M	25
T	Her	max	60118.00		8.3	VOH M	47
T	Her	max	59946.00		8.7	VOH M	20
U	Her	max	59963.00		6.7	VOH M	51
W	Her	max	59903.00		8.1	VOH M	33
X	Her	max	59746.00		6.1	VOH SRB	28
X	Her	min	59822.00		7.1	VOH SRB	57
X	Her	max	59869.00		6.2	VOH SRB	30
RS	Her	max	59879.00		8.0	VOH M	16
RS	Her	max	60105.00		8.3	VOH M	28
RU	Her	max	59441.00		8.6	VOH M	40
RU	Her	max	59931.00		8.0	VOH M	22
SX	Her	max	59782.00		8.2	VOH SRD	153
SX	Her	min	59832.00		8.8	VOH SRD	153
SX	Her	max	59882.00		8.5	VOH SRD	153
SX	Her	min	60032.00		8.7	VOH SRD	153
SX	Her	max	60082.00		8.3	VOH SRD	153
SX	Her	min	60132.00		8.7	VOH SRD	153
SX	Her	max	60182.00		8.3	VOH SRD	153
AC	Her	min	59816.00		7.9	SM RVA	10
AC	Her	max	59832.00		7.4	SM RVA	9
AC	Her	min	59857.00		8.2	SM RVA	10
AC	Her	max	59877.00		7.1	SM RVA	6
AC	Her	min	59893.00		7.9	SM RVA	6
AC	Her	max	59913.00		7.3	SM RVA	5
AC	Her	min	60079.00		8.7	SM RVA	15
R	Hya	min	60005.00		8.0	SM M	14
W	Hya	max	60024.00		5.9	SM SRA	9
RT	Hya	min	59933.00		8.3	SM SRB	15

Variable	Ext	HJD 24+	U	Mag	Obs	Type	n
RT	Hya	max 60004.00		7.2	SM	SRB	13
S	Lac	max 59934.00		8.6	VOH	M	11
S	Lac	max 60154.00		7.9	VOH	M	23
AR	Lac	min 59785.51			RCR	EA/AR/RS	20
R	Leo	min 59632.00		10.4	VOH	M	71
R	Leo	min 59946.00		10.8	VOH	M	43
R	Leo	max 60082.00	:	6.4	VOH	M	41
W	Lyr	max 59826.00		8.6	VOH	M	59
W	Lyr	max 60007.00		8.2	VOH	M	39
W	Lyr	min 60134.00		12.0	VOH	M	62
RR	Lyr	max 59946.25			SPI	RRAB	11
RR	Lyr	max 60100.42			SPI	RRAB	16
RR	Lyr	max 60173.52			SPI	RRAB	22
U	Mon	min 59858.00		6.1	SM	RVB	11
U	Mon	min 59905.00	:	7.3	SM	RVB	8
U	Mon	min 59996.00		7.2	SM	RVB	11
U	Mon	min 60044.00		6.3	SM	RVB	10
U	Mon	min 59904.00		7.1	VOH	RVB	8
X	Mon	min 59867.00		8.4	SM	SRA	12
X	Oph	max 59852.50		6.7	RCR	M	37
X	Oph	max 59846.00		6.6	VOH	M	71
X	Oph	max 60171.00		6.6	VOH	M	63
Z	Oph	max 59749.00		7.7	VOH	M	61
Z	Oph	max 60116.00		8.4	VOH	M	46
U	Ori	min 59934.00		12.2	VOH	M	29
Y	Ori	max 59998.00		10.3	VOH	M	21
BK	Ori	max 59882.00		9.9	VOH	M	22
R	Per	max 59845.00		9.0	VOH	M	30
TW	Per	max 60020.00	:	10.6	VOH	M	13
SX	Phe	min 60085.65			SM	SXPHE(B)	8
SX	Phe	min 60088.62			SM	SXPHE(B)	15
SX	Phe	min 60088.68			SM	SXPHE(B)	15
R	Sge	min 59811.00		10.2	SM	RVB	14
R	Sge	min 59885.00		10.1	SM	RVB	12
R	Sge	min 59814.00		10.7	VOH	RVB	17
R	Sct	min 60066.00	:	6.8	SM	RVA	12
R	Sct	min 60068.00		6.5	VOH	RVA	23
R	Ser	max 60074.00		6.9	SM	M	8
R	Ser	max 60079.00		6.8	VOH	M	51
V	Tau	max 59938.00		9.4	VOH	M	24
R	Tri	max 59846.00		6.9	RCR	M	18
R	Tri	max 59852.00		6.4	VOH	M	55
R	Tri	min 59978.00		11.3	VOH	M	44
R	UMa	max 59722.00		7.7	VOH	M	33
R	UMa	max 60036.00		7.3	VOH	M	31
S	UMa	max 59814.00		8.0	VOH	M	36
S	UMa	max 60036.00		8.2	VOH	M	28
T	UMa	max 59722.00		7.4	RCR	M	13
T	UMa	max 59975.00	:	9.5	VOH	M	31
Z	UMa	min 59784.00		8.9	VOH	SRB	118
Z	UMa	max 59827.00		7.0	VOH	SRB	118
Z	UMa	min 59858.00		7.7	VOH	SRB	118
Z	UMa	max 59897.00		7.0	VOH	SRB	118
Z	UMa	min 59992.00		9.3	VOH	SRB	118
Z	UMa	max 60057.00		6.9	VOH	SRB	118
Z	UMa	min 60165.00		8.8	VOH	SRB	118
RS	UMa	max 59512.00		9.5	VOH	M	31
RS	UMa	max 60011.00		8.1	VOH	M	24
RY	UMa	max 59699.00		7.1	VOH	SRB	155

Variable	Ext	HJD 24+	U	Mag	Obs	Type	n
RY	UMa	min	59825.00		7.8	VOH SRB	155
RY	UMa	max	59978.00		7.1	VOH SRB	155
RY	UMa	min	60105.00		7.9	VOH SRB	155
S	UMi	max	59850.00		8.8	VOH M	49
U	UMi	max	60014.00		7.6	VOH M	37
R	Vir	max	59999.00		7.0	VOH M	31
R	Vir	min	60069.00	12.0		VOH M	31
V	Vul	min	59813.00		9.1	SM RVA	13
V	Vul	min	59889.00		9.2	SM RVA	14
BETA	Per	min	60144.50			SPI	14
BETA	Per	min	60167.44			SPI	14
BETA	Per	min	60213.32			SPI	11
BETA	Per	min	60233.39			SPI	23
CHI	Cyg	max	60084.00		4.8	VOH	78

Observer:

RCR	Raetz, Kerstin	Herges-Hallenberg
SM	Sturm, Arthur	Saarburg
SPI	Spiess, Wolfgang	Ertingen
VOH	Vohla, Frank	Altenburg

Remark

The type of the variable is marked by „!“, if specified by the observer, else it is taken from the GCVS Catalog [3]. Uncertain classifications are marked by „:“.

References:

- [1] BAV Services for Scientists, 2013, <http://www.bav-astro.de/sfs/index.php/>
- [2] Lichtenknecker Database of the BAV, <http://www.bav-astro.de/LkDB/index.php/>
- [3] Samus N.N., Kazarovets E.V., Durevich O.V., Kireeva N.N., Pastukhova E.N., General Catalogue of Variable Stars: Version GCVS 5.1, Astronomy Reports, 2017, vol. 61, No. 1, pp. 80-88 2017ARep...61...80S