



BAV Mitteilungen

BAV-results of observations

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Abstract: *This 70th compilation contains the results of visual and CCD-observations of BAV-members mostly from the years 2010 and 2011. Here we publish altogether 350 minima and maxima of 114 eclipsing binaries and pulsating stars, 55 of them have been observed using CCD-Technique. The data were acquired by 13 observers.*

We introduce 4 minima timings from 4 eclipsing binaries, 6 maxima from 6 cepheids, 211 maxima and minima from 76 mirastars, 113 maxima and minima from 24 semiregular, longperiod and RV-Tauri-stars and 16 maxima and minima from 4 cataclysmic variables. The results were acquired by 12 observers in Germany and one in Austria mostly in the years 2010 and 2011.

This paper contains only unpublished observations. All the lightcurves with evaluations can be obtained from the office of the BAV for inspection.

Table 1 – Eclipsing Binaries

Var		Min JDhel	Ph	Observer	O-C	QU	n	Remarks
OO	Aql	55420.398	vis	Flehsig, G.	+0,043	GCVS 09	7	
RX	Cas	55040.8	vis	Kriebel, W.	+1,1	AA 54.207	76	normal minimum
U	Sge	55429.438	vis	Rätz, K.	-0,010	GCVS 09	20	
RS	Vul	55429.408	vis	Rätz, K.	-0,005	GCVS 09	20	

Table 2 – Cepheids

Var		Max JDhel	Ph	Observer	O-C	QU	n	Remarks
LO	Cam	55450.57	vis	Kriebel, W.			39	normal maximum
TW	Cap	55155.13	vis	Kriebel, W.	+9.92	GCVS 09	56	normal maximum
BP	Cas	55413.23	vis	Kriebel, W.	-1.11	GCVS 09	44	normal maximum
MM	Per	55286.56	vis	Kriebel, W.			34	normal maximum
X	Vul	55393.57	vis	Kriebel, W.	-0.06	GCVS 09	41	normal maximum
SV	Vul	55410.00	vis	Dumont, M. & Krieberl, W.	-10.20	GCVS 09	72	normal maximum

Table 3 – Mirastars

Variable			JDhel	Mag	Observer	n	Rem	PH	Filter	Error
R	And	Max	55058	6.7	Pagel, L.	106	1)	C	V	± 2 d
		Min	55332	14.8	Pagel, L.	123	3)	C	V	± 10 d
		Max	55477	6.7	Pagel, L.	123	3)	C	V	± 10 d
		Max	55492	7.8	Vohla, F.	23				
TU	And	Max	55581	8.6	Vohla, F.	28				
YZ	And	Max	55549	10.4	Marx, H.	11				
R	Aql	Max	55348	6.1	Vohla, F.	20				
EU	Aql	Max	55467	11.3	Marx, H.	10				
HI	Aql	Max	55388	11.7	Marx, H.	7				
R	Ari	Max	55143	9.0	Pagel, L.	32	2)	C	V	± 7 d
		Max	55480	7.8	Pagel, L.	82	3)	C	V	± 10 d
		Min	55597	13.6	Marx, H.	7				
RT	Ari	Max	55534	10.7	Marx, H.	9				
R	Aur	Max	54936	7.2	Vohla, F.	24				
		Min	55162	13.1	Pagel, L.	34	3)	C	V	± 3 d
		Max	55404	7.4	Vohla, F.	49				
X	Aur	Max	55191	8.9	Vohla, F.	10				
RU	Aur	Max	55272	10.5	Marx, H.	10				
UV	Aur	Max	55219	7.7	Vohla, F.	27				
		Min	55492	10.5	Vohla, F.	26				
		Max	55632	8.6	Vohla, F.	27				
		Max	55637	8.2	Neumann, J.	17				
AZ	Aur	Max	55324	9.3	Marx, H.	11				
GO	Aur	Max	55293	10.1	Marx, H.	10				
R	Boo	Max	55043	7.9	Vohla, F.	27				
		Max	55704	6.6	Krisch, G.	21				
		Max	55707	7.0	Schubert, M.	36				
S	Boo	Max	55023	8.5	Vohla, F.	13				
RR	Boo	Max	55671	9.4	Schubert, M.	18				
W	Cam	Max	55300	10.6	Marx, H.	11				
		Max	55600	10.9	Marx, H.	10				
X	Cam	Min	55229	12.8	Marx, H.	7				
		Max	55304	8.2	Marx, H.	9				
		Min	55377	12.8	Marx, H.	9				
		Max	55443	8.3	Marx, H.	11				
		Min	55526	12.3	Marx, H.	10				
		Max	55584	8.0	Marx, H.	8				
R	CVn	Max	55097	7.8	Vohla, F.	18				
R	Cas	Max	55266	5.3	Winkler, R.	16				
V	Cas	Min	55011	12.7	Pagel, L.	14	2)	C	V	± 2 d
		Max	55113	7.7	Vohla, F.	30				
		Max	55117	7.5	Pagel, L.	14	2)	C	V	± 2 d
		Min	55358	7.8	Pagel, L.	188	3)	C	V	± 7 d
		Max	55362	7.8	Rätz, K.	15				
		Max	55362	8.0	Vohla, F.	21				
		Min	55477	13.3	Pagel, L.	188	3)	C	V	± 3 d
		Max	55589	7.3	Pagel, L.	188	3)	C	V	± 3 d
		Max	55590	7.8	Vohla, F.	21				
		W	Cas	Max	55166	9.2	Vohla, F.	33		
Max	55179	8.7		Pagel, L.	290	3)	C	V	± 4 d	
Max	55179	8.7		Pagel, L.	290	1)	C	V	± 4 d	
Min	55576	11.5		Pagel, L.	29	3)	C	V	± 10 d	

Table 3 – Mirastars (cont.)

Variable			JDhel	Mag	Observer	n	Rem	PH	Filter	Error
W	Cas	Max	55603	9.0	Vohla, F.	56				
V667	Cas	Max	55258	9.8	Vohla, F.	14				
		Max	55599	9.6	Vohla, F.	45				
VZ	Cas	Min	55254	13.3	Marx, H.	9				
S	Cep	Max	54883	7.0	Vohla, F.	56				
		Max	55381	8.2	Vohla, F.	65				
		Min	55597	10.8	Vohla, F.	65				
T	Cep	Min	55031	10.9	Vohla, F.	34				
		Max	55229	6.2	Vohla, F.	34				
		Max	55231	6.1	Vohla, F.	32				
		Max	55233	6.3	Marx, H.	19				
		Min	55410	10.2	Schubert, M.	30				
		Min	55410	10.5	Vohla, F.	32				
		Min	55412	10.2	Pagel, L.	81	3)	C	V	± 4 d
		Min	55416	10.0	Marx, H.	14				
		Max	55598	5.65	Pagel, L.	81	3)	C	V	± 4 d
		Max	55601	6.1	Vohla, F.	32				
		Max	55602	5.9	Marx, H.	15				
		Max	55609	6.2	Schubert, M.	23				
		Max	55615	5.4	Neumann, J.	15				
omikr	Cet	Max	55494	2.9	Schubert, M.	18				
S	CrB	Max	55101	7.5	Vohla, F.	19				
		Min	55328	12.55	Pagel, L.	64	3)	C	V	± 8 d
		Max	55455	7.85	Pagel, L.	166	3)	C	V	± 2 d
R	Cyg	Max	55229	7.5	Vohla, F.	10				
U	Cyg	Min	55038	11.0	Vohla, F.	33				
		Max	55273	7.8	Vohla, F.	36				
		Min	55500	10.7	Vohla, F.	36				
Z	Cyg	Max	55168	9.5	Vohla, F.	11				
		Max	55427	8.7	Vohla, F.	19				
		Max	55680	9.0	Vohla, F.	26				
RT	Cyg	Min	54959	12.0	Vohla, F.	16				
		Max	55039	7.2	Vohla, F.	16				
		Max	55218	7.0	Vohla, F.	10				
		Max	55222	6.65	Winkler, R.	12				
		Max	55425	7.3	Schubert, M.	14				
		Max	55431	7.65	Winkler, R.	14				
BG	Cyg	Max	55556	9.5	Pagel, L.	122	3)	C	V	± 7 d
CN	Cyg	Max	54931	9.2	Vohla, F.	19				
		Max	55130	9.4	Vohla, F.	20				
		Max	55516	9.2	Vohla, F.	13				
		Max	55720	9.0	Schubert, M.	20				
IZ	Cyg	Max	55740	10.5	Schubert, M.	16				
chi	Cyg	Max	55192	5.3	Krisch, G.	19				
		Max	55195	5.4	Vohla, F.	34				
		Max	55592	4.45	Sturm, A.	17				
		Max	55598	4.4	Vohla, F.	74				
R	Dra	Max	55370	7.6	Schubert, M.	12				
		Max	55371	7.9	Winkler, R.	12				
		Max	55378	7.8	Rätz, K.	23				
R	Equ	Max	55468	8.8	Marx, H.	12				
X	Gem	Max	55634	8.1	Neumann, J.	11				
ST	Gem	Max	55638	10.4	Marx, H.	7				

Table 3 – Mirastars (cont.)

Variable			JDhel	Mag	Observer	n	Rem	PH	Filter	Error
VV	Gem	Max	55231	10.5	Marx, H.	9				
S	Her	Max	55449	7.1	Krisch, G.	18				
T	Her	Max	55012	8.4	Vohla, F.	14				
		Max	55336	7.45	Pagel, L.	76	3)	C	V	± 2 d
		Min	55436	13.4	Pagel, L.	171	3)	C	V	± 2 d
		Max	55670	7.5	Vohla, F.	31				
		Max	55670	7.25	Pagel, L.	171	3)	C	V	± 2 d
		Max	55672	7.1	Krisch, G.	22				
W	Her	Max	55111	8.4	Vohla, F.	20				
		Max	55384	8.0	Schubert, M.	12				
		Max	55397	8.2	Vohla, F.	21				
		Max	55674	8.1	Vohla, F.	36				
RS	Her	Max	55446	7.85	Pagel, L.	137	3)	C	V	± 3 d
		Max	55667	7.85	Pagel, L.	137	3)	C	V	± 3 d
VY	Her	Max	55423	9.3	Marx, H.	12				
AZ	Her	Max	55467	11.7	Marx, H.	10				
FU	Her	Max	55385	10.9	Marx, H.	12				
SU	Lac	Max	55580	11.1	Marx, H.	11				
R	Leo	Max	55700	4.9	Sturm, A.	7				
		Max	55705	5.1	Krisch, G.	24				
		Max	55706	5.0	Vohla, F.	56				
V	Leo	Max	55289	8.6	Marx, H.	11				
W	Lyn	Max	55292	10.3	Marx, H.	11				
W	Lyr	Max	54956	8.2	Vohla, F.	22				
		Max	55151	7.9	Vohla, F.	20				
		Max	55319	8.2	Vohla, F.	21				
		Max	55330	7.95	Winkler, R.	13				
		Max	55726	8.3	Schubert, M.	22				
		Max	55729	8.5	Krisch, G.	19				
EL	Lyr	Max	55461	11.9	Marx, H.	9				
TT	Mon	Max	55631	8.0	Neumann, J.	10				
X	Oph	Min	55017	8.5	Vohla, F.	22				
		Max	55181	6.9	Vohla, F.	22				
		Max	55521	6.7	Vohla, F.	62				
AY	Oph	Max	55383	10.8	Marx, H.	10				
U	Ori	Max	54897	7.3	Vohla, F.	25				
		Max	55268	6.8	Vohla, F.	19				
		Max	55654	6.9	Vohla, F.	31				
R	Per	Min	55568	14.0	Marx, H.	10				
U	Per	Min	54084	10.8	Vohla, F.	19				
		Max	55284	8.0	Vohla, F.	33				
		Min	55429	11.0	Vohla, F.	32				
		Max	55602	8.1	Vohla, F.	33				
Y	Per	Max	55133	9.1	Vohla, F.	22				
U	Psc	Max	55573	11.0	Marx, H.	10				
R	Ser	Min	55322	13.8	Marx, H.	12				
RX	Tau	Max	55635	9.6	Marx, H.	11				
VX	Tau	Max	55600	10.6	Marx, H.	12				
R	Tri	Max	55073	6.8	Pagel, L.	28	2)	C	V	± 10 d
		Max	55078	6.55	Rätz, K.	22				
		Max	55089	6.5	Vohla, F.	16				
		Min	55196	11.0	Pagel, L.	209	1)	C	V	± 7 d
		Min	55475	11.2	Pagel, L.	170	3)	C	V	± 4 d

Table 3 – Mirastars (cont.)

Variable			JDhel	Mag	Observer	n	Rem	PH	Filter	Error						
R	Tri	Max	55589	6.2	Pagel, L.	170	3)	C	V	± 4 d						
		Max	55592	5.9	Vohla, F.	37										
R	UMa	Max	54937	7.8	Vohla, F.	21										
		Max	55229	7.2	Vohla, F.	26										
		Max	55237	7.3	Rätz, K.	13										
		Min	55404	13.0	Pagel, L.	133					3)	C	V	± 10 d		
		Max	55516	6.9	Pagel, L.	133					3)	C	V	± 10 d		
		Max	55518	7.8	Vohla, F.	30										
S	UMa	Max	55015	8.2	Vohla, F.	22										
		Max	55020	7.9	Pagel, L.	298					1)	C	V	± 2 d		
		Max	55248	8.2	Vohla, F.	36										
		Min	55261	7.95	Krisch, G.	14										
		Max	55261	7.95	Krisch, G.	14										
		Max	55479	7.7	Pagel, L.	254					3)	C	V	± 9 d		
		Max	55484	7.75	Krisch, G.	14										
		Min	55606	12.1	Pagel, L.	254					3)	C	V	± 9 d		
		Max	55716	7.75	Krisch, G.	38										
		Max	55716	7.7	Schubert, M.	32										
		T	UMa	Max	55095	7.25					Krisch, G.	19				
Max	55099			7.5	Vohla, F.	31										
Max	55343			7.9	Schubert, M.	14										
RS	UMa	Max	55634	8.0	Schubert, M.	17										
S	UMi	Max	54330	8.1	Pagel, L.	56	3)	C	V	± 3 d						
		Max	54987	8.7	Vohla, F.	42										
		Max	54990	8.1	Pagel, L.	218					1)	C	V	± 4 d		
		Max	55319	8.4	Vohla, F.	40										
		Min	55482	11.8	Pagel, L.	212					3)	C	V	± 9 d		
		Max	55653	8.35	Pagel, L.	212					3)	C	V	± 9 d		
T	UMi	Max	54903	10.7	Vohla, F.	8										
		Min	54957	11.9	Vohla, F.	8										
		Max	55002	11.2	Vohla, F.	8										
		Min	55063	11.9	Vohla, F.	8										
		Max	55128	11.1	Vohla, F.	8										
		Max	55348	10.7	Vohla, F.	22										
		Max	55350	10.0	Pagel, L.	85					3)	C	V	± 2 d		
		Min	55441	11.5	Pagel, L.	85					3)	C	V	± 2 d		
		Min	55443	11.9	Vohla, F.	22										
		Max	55495	10.8	Pagel, L.	147					3)	C	V	± 10 d		
		Min	55533	11.0	Pagel, L.	147					3)	C	V	± 10 d		
		Max	55572	10.6	Pagel, L.	147					3)	C	V	± 10 d		
		Min	55661	11.6	Pagel, L.	147					3)	C	V	± 10 d		
		U	UMi	Max	54132	8.4					Vohla, F.	29				
				Min	54956	11.1					Vohla, F.	29				
Min	55276			11.5	Vohla, F.	28										
Max	55444			7.5	Schubert, M.	17										
Max	55452			8.0	Vohla, F.	28										
R	Vir	Max	54901	7.0	Vohla, F.	22										
		Max	55333	7.0	Krisch, G.	11										
U	Vir	Max	55626	7.8	Schubert, M.	24										
V	Vir	Max	55621	8.7	Vohla, F.	33										
SU	Vir	Max	55655	9.5	Schubert, M.	14										

Table 4 – Semiregular, Longperiod and RV-Tauri-Stars

Variable		JDhel	Mag	Observer	n	Rem	PH	Filter	Error		
T	Ari	Max	55113	:	8.2	Vohla, F.				8	
Z	Aur	Min	54908		11.0	Vohla, F.				31	
V	Boo	Max	55034		8.1	Vohla, F.				44	
		Min	55313	:	9.3	Winkler, R.				49	
WZ	Cas	Min	55206		7.1	Neumann, J.				15	
		Min	55404	:	7.4	Neumann, J.				15	
		Max	55516	:	6.5	Neumann, J.				15	
W	Cyg	Max	55000		5.7	Vohla, F.				22	
		Min	55070		7.3	Vohla, F.				22	
		Max	55140		5.8	Vohla, F.				22	
		Max	55151		5.45	Winkler, R.				26	
		Min	55218	:	6.95	Winkler, R.				26	
		Min	55339		7.2	Vohla, F.				54	
		Max	55414		5.8	Vohla, F.				54	
RS	Cyg	Min	55088		9.5	Vohla, F.				40	
		Max	55340	:	7.5	Vohla, F.				68	
		Min	55539		9.5	Vohla, F.				68	
RU	Cyg	Min	55120		9.0	Vohla, F.				36	
AF	Cyg	Min	54997		8.1	Vohla, F.				11	
		Max	55055		7.1	Vohla, F.				11	
		Min	55094		7.9	Vohla, F.				11	
		Max	55130		7.2	Vohla, F.				11	
		Min	55175		7.9	Vohla, F.				11	
		Max	55239		7.1	Vohla, F.				11	
CH	Cyg	Max	55187		8.3	Vohla, F.				39	
		Max	55346	:	9.3	Vohla, F.				29	
		Min	55546	:	10.0	Vohla, F.				29	
S	Dra	Max	55068		8.6	Vohla, F.				17	
		Min	55179	:	9.4	Vohla, F.				17	
TX	Dra	Min	54950		8.0	Vohla, F.				11	
		Max	55007		7.5	Vohla, F.				11	
		Min	55065		7.8	Vohla, F.				11	
		Min	55347		7.9	Pagel, L.	3)	C	V	± 2 d	
		Max	55389		6.9	Pagel, L.	3)	C	V	± 2 d	
		Max	55477		7.0	Pagel, L.	113	3)	C	V	± 2 d
		Min	55576		7.65	Pagel, L.	35	3)	C	V	± 4 d
		Max	55621		7.2	Pagel, L.	35	3)	C	V	± 4 d
UX	Dra	Max	55161		6.4	Neumann, J.				13	
		Min	55239		6.9	Neumann, J.				13	
		Max	55302		6.4	Neumann, J.				13	
SS	Gem	Min	55183		9.5	Vohla, F.				17	
		Min	55271		9.6	Vohla, F.				17	
		Min	55630		9.8	Vohla, F.				44	
X	Her	Min	54950		7.0	Vohla, F.				33	
		Max	55044		6.2	Vohla, F.				33	
		Max	55383		6.3	Vohla, F.				84	
ST	Her	Max	55391		6.7	Pagel, L.	237	3)	C	V	± 21 d
		Min	55477		7.55	Pagel, L.	237	3)	C	V	± 10 d
		Max	55525		6.9	Pagel, L.	237	3)	C	V	± 20 d
		Min	55644		7.7	Pagel, L.	237	3)	C	V	± 10 d
AC	Her	Max	55059		7.3	Vohla, F.				10	
		Min	55076		8.0	Vohla, F.				10	
		Max	55095		7.2	Vohla, F.				10	

Table 4 – Semiregular, Longperiod and RV-Tauri-Stars (cont.)

Variable			JDhel	Mag	Observer	n	Rem	PH	Filter	Error
AC	Her	Min	55113	8.5	Vohla, F.	10				
		Min	55641	8.9	Krisch, G.	10				
		Max	55659	7.3	Krisch, G.	10				
		Min	55679	7.8	Krisch, G.	10				
		Max	55734	7.3	Krisch, G.	10				
g	Her	Min	55753	7.9	Krisch, G.	10				
		Max	54955	4.9	Vohla, F.	11				
		Max	55060	5.2	Vohla, F.	11				
U	Mon	Max	55103	5.7	Vohla, F.	11				
		Min	55136	6.3	Vohla, F.	11				
		Max	55154	5.7	Vohla, F.	11				
R	Sct	Min	55182	6.9	Vohla, F.	11				
		Min	55262	6.25	Krisch, G.	9				
		Max	55619	5.9	Vohla, F.	38				
		Min	55641	6.85	Krisch, G.	17				
		Min	55014	6.8	Vohla, F.	42				
		Max	55067	4.95	Krisch, G.	10				
		Min	55071	5.1	Krisch, G.	10				
		Max	55082	4.75	Krisch, G.	10				
		Min	55102	5.5	Krisch, G.	10				
		Max	55112	5.2	Krisch, G.	10				
		Min	55119	5.4	Krisch, G.	10				
		Max	55126	5.2	Krisch, G.	10				
		Max	55342	5.05	Winkler, R.	24				
		Min	55376	6.25	Krisch, G.	16				
		Min	55385	5.9	Sterzinger, P.	11				
Max	55405	5.5	Krisch, G.	16						
Min	55425	6.75	Krisch, G.	16						
Max	55445	5.25	Krisch, G.	16						
Max	55449	5.0	Sterzinger, P.	11						
Min	55490	6.75	Krisch, G.	16						
Min	55493	6.65	Winkler, R.	24						
Min	55494	6.8	Vohla, F.	77						
Y	UMa	Max	54907	8.3	Neumann, J.	22				
		Max	55110	8.5	Neumann, J.	22				
		Min	55218	9.3	Neumann, J.	22				
Z	UMa	Max	55128	6.9	Krisch, G.	30				
		Min	55213	8.9	Vohla, F.	80				
		Min	55216	8.35	Krisch, G.	30				
		Max	55292	6.9	Pagel, L.	83	3)	C	V	± 7 d
		Max	55314	6.85	Krisch, G.	30				
		Max	55336	7.1	Vohla, F.	26				
		Min	55411	8.9	Vohla, F.	26				
		Min	55419	8.8	Pagel, L.	31	3)	C	V	± 4 d
		Min	55421	9.1	Krisch, G.	30				
		Max	55470	6.8	Pagel, L.	31	3)	C	V	± 4 d
		Max	55491	6.9	Vohla, F.	26				
		Min	55611	9.2	Vohla, F.	26				
		Min	55615	9.45	Krisch, G.	30				
		Max	55668	6.8	Schubert, M.	12				
		Min	55696	7.3	Schubert, M.	12				
Max	55724	7.0	Schubert, M.	12						
RY	UMa	Min	55022	7.8	Vohla, F.	40				

Table 4 – Semiregular, Longperiod and RV-Tauri-Stars (cont.)

Variable			JDhel	Mag	Observer	n	Rem	PH	Filter Error
RY	UMa	Max	55168	: 7.0	Neumann, J.	20			
		Max	55168	7.1	Vohla, F.	40			
		Min	55304	: 8.1	Neumann, J.	20			
		Max	55443	7.2	Schubert, M.	34			
		Max	55460	7.1	Vohla, F.	90			
V	UMi	Min	55150	: 8.5	Vohla, F.	60			
V	Vul	Min	55087	8.9	Vohla, F.	12			

Table 5 – Eruptive Variables

Variable			JDhel	Mag	Observer	n	Rem	PH	Filter Error
Z	And	Max	55180	: 8.3	Pagel, L.	39	3)	C	V ± 7 d
		Max	55203	8.3	Vohla, F.	33			
SS	Cyg	Max	55011	8.3	Vohla, F.	6			
		Max	55100	8.3	Vohla, F.	9			
		Max	55191	8.2	Vohla, F.	6			
		Max	55311	8.3	Vohla, F.	16			
		Max	55311	8.3	Vohla, F.	16			
		Max	55368	8.3	Vohla, F.	8			
		Max	55399	8.3	Vohla, F.	8			
		Max	55445	8.2	Vohla, F.	8			
		Max	55487	8.8	Vohla, F.	8			
		Max	55525	8.3	Vohla, F.	8			
		Max	55580	8.2	Vohla, F.	8			
		Max	55643	8.3	Vohla, F.	8			
		U	Gem	Max	55647	8.8	Krisch, G.	6	
X	Per	Min	55297	6.6	Neumann, J.	62			

Remarks for Tables 3 to 5

- 1) ccd-camera Artemis 4021
- 2) ccd-camera AICCD6c
- 3) ccd-camera QHY8

Correction to BAV Mitteilungen No. 213

Variable	JDhel	Observer
Z UMa Max	54640	Born, E. correct is Min