

BAV Mitteilungen

Beobachtungsergebnisse der
Berliner Arbeitsgemeinschaft für Veränderliche Sterne e.V. (B A V)

(B A V - M I T T E I L U N G E N N R . 5 9)

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In this 24th compilation of BAV results of observations are given from the years 1990 and 1991 for 931 observed minima and maxima on 368 variables stars including 170 photoelectric results.

Die vorliegenden Ergebnisse wurden überwiegend in den Jahren 1990 und 1991 gewonnen. Insgesamt wurden 931 Ergebnisse aus rund 20.000 Einzelschätzungen bzw. -messungen von 31 Beobachtern abgeleitet. Es werden 323 beobachtete Minima an 128 Bedeckungssternen, 168 Maxima von 84 RR-Lyrae- und Delta Cephei Sternen, 155 Ergebnisse von 85 Mirasternen, 185 Ergebnisse von 37 Halbbregelmäßigen und RV Tauri Sternen, 92 Ergebnisse von 32 Eruptiven, sowie 8 Ergebnisse an 2 Veränderlichen unbekanntem Typs mitgeteilt.

B E O B A C H T E R :

AG	F. Agerer	Zweikirchen	MY	J. Meyer	Berlin
AW	D. Alteweier	Leverkusen	MZ	G. Maintz	Bonn
DM	M. Dahm	Bremen	PI	J. Pietz	Erfststadt
FR	P. Frank	Velden	PS	A. Paschke	Rueti <CH>
GI	D. Girrbach	Böblingen	QU	W. Quester	Esslingen
GS	J. Gensler	Bad Neustadt	RI	P. Ringe	Dortmund
HH	B. Hassforther	Heidelberg	SC	E. Schröder	Bremen
HO	P. Hoffmann	Hannover	SD	J. Schmidt	Mainz
KB	W. Kriebel	Moosburg	SF	K. Seifert	Hamburg
KI	W. Kleikamp	Marl	SG	P. Sterzinger	Wien <AU>
KR	G. Krisch	Bockenem	SH	O. Schall	Dortmund
KT	S. Korth	Monheim	SM	A. Sturm	Köln
MK	G. Marekfia	Saarbrücken	SO	R. Schertler	St.Peter <AU>
MO	M. Moeller	Timmendf.Str.	SU	H. Schubert	Grosshansdorf
MS	W. Moschner	Lennebstadt	TH	A. Thomas	Mainz
MX	H. Marx	Korntal			

Neben Privatinstrumenten wurden Instrumente von Volkssternwarten sowie der BAV eingesetzt. Alle angegebenen Zeiten sind heliozentrisch korrigiert. Die 170 lichtelektrischen Beobachtungen wurden von 6 Beobachtern gewonnen, die Geräte und Filter hierfür sind in den

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Zentrale der deutschen Veränderlichenbeobachter

jeweiligen Bemerkungen angegeben. Die Berechnungen für die Kurzperiodischen wurden von Joachim Hübscher vorgenommen. Der BAV liegen die Lichtkurven mit Einzelschätzungen und Auswertung vor. Die lichtelektrischen Messungen stellt die Geschäftsstelle auf Wunsch zur Einsicht zur Verfügung.

Für die Unterstützung unserer Arbeit danken wir besonders der AKADEMIE DER WISSENSCHAFTEN DER UdSSR, dem OBSERVATORIUM ASTRONOMICZNE KRAKOW der Uniwersyteyt Jagiellonski, sowie der IAU - Kommission 27.

2 1 . B E D E C K U N G S V E R A E N D E R L I C H E

Stern		Min	JD 24...	Ph	Obs	B-R 1	GCVS	B-R 2	Bem.
RT	And	48290.296	:		MZ	-0.006	85		
AA	And	48180.5793		LB	AG	-0.0755	85		1)
		48180.5803		LV	AG	-0.0746	85		1)
AB	And	48232.272			MZ	+0.000	85		
		48233.265			MZ	-0.003	85		
CN	And	48287.3375		LB	AG	-0.0372	85		1)
		48287.3389		LV	AG	-0.0358	85		1)
KN	And	48163.389		F	MS KI			+0.064	10) 4)
		48233.519		F	MS KI			+0.066	10) 4)
DD	Aqr	48188.349		F	MS KI	+0.268	85		4)
V346	Aql	48087.462			SO	-0.002	85		
V415	Aql	48042.491	:	LB	AG	+0.117	85		1)
		48042.498	:	LV	AG	+0.124	85		1)
V724	Aql	47412.4004		LB	AG	+0.0940	85		1)
		47413.4316		LB	AG	+0.0902	85		1)
		48097.4418		LB	AG	-0.0610	85		1)
		48098.4734		LB	AG	-0.0645	85		1)
V889	Aql	48095.400			SF	-0.033	85		
V1343	Aql	48087.0			KT	-1.3	85		13)
		48127.0			KT	-0.5	85		13)
SS	Ari	48177.372			PI	-0.089	85		
		48188.318	/		PI	+0.098	85		
		48205.376			PI	-0.099	85		
		48231.367			PI	-0.091	85		
		48233.384	/		PI	+0.099	85		
		48270.338	:		MZ	-0.095	85		
		48272.379			MZ	-0.084	85		
		48285.367			MZ	-0.089	85		
AH	Aur	48251.2964	/	LB	AG	-0.0586	85	-0.0347	7) 1)
		48251.2975	/	LV	AG	-0.0575	85	-0.0336	7) 1)
		48290.3329	/	LV	AG	-0.0689	85	-0.0370	7) 1)
		48290.3340	/	LB	AG	-0.0678	85	-0.0359	7) 1)
		48307.3803		LV	AG	-0.0736	85	-0.0382	7) 1)
		48307.3811		LB	AG	-0.0727	85	-0.0373	7) 1)
AP	Aur	48273.5736		LV	AG	+0.2046	85	-0.2336	7) 1)
		48273.5738		LB	AG	+0.2048	85	-0.2335	7) 1)
		48308.3039		LV	AG	+0.2069	85	-0.2340	7) 1)
		48308.3051		LB	AG	+0.2080	85	-0.2329	7) 1)
CG	Aur	48231.416		F	MS KI	+0.004	85		4)
EP	Aur	48275.3763		LV	AG	-0.0001	85		1)
		48275.3766		LB	AG	+0.0003	85		1)
		48275.380		F	MS KI	+0.004	85		4)
FP	Aur	48186.572		F	FR	-0.056	85		4)

Stern		Min	JD 24...	Ph	Obs	B-R 1	GCVS	B-R 2	Bem.
FR	Aur	47823.365		F	FR	-1.073	85		4)
		47849.484	/:	F	FR	+0.279	85		4)
		47862.507	/:	F	FR	+0.267	85		4)
		48274.372		F	FR	-1.094	85		4)
IM	Aur	48189.4813		LV	AG	+0.5698	85		1)
		48189.4839		LB	AG	+0.5725	85		1)
IU	Aur	48151.5656	/	LB	AG	-0.0085	85		1)
		48151.5681	/	LV	AG	-0.0060	85		1)
		48189.6038	/	LB	AG	-0.0112	85		1)
		48189.6052	/	LV	AG	-0.0099	85		1)
		48326.373			MZ	-0.009	85		
KO	Aur	48231.672		F	MS	KI	+0.055	85	4)
AK	Cam	48329.3719		LV	AG		-0.1332	85	1)
		48329.3793		LB	AG		-0.1258	85	1)
VZ	CVn	48287.5076		LB	AG		+0.0006	85	1)
		48287.5082		LV	AG		+0.0012	85	1)
		48405.450	:	LB	AG		-0.001	85	1)
		48405.452	:	LV	AG		+0.000	85	1)
BO	CVn	47651.4684		LV	AG				1)
		47651.4690		LB	AG				1)
YY	CMi	48307.374			GI		+0.007	85	
AC	CMi	48273.563		F	MS	KI	+0.195	85	4)
RX	Cas	48024.41			KB		+10.70	85	red
RZ	Cas	48177.321			SF		+0.007	85	
		48189.277			HO		+0.009	85	
		48189.278			SF		+0.011	85	
		48113.435			SF		-0.016	85	
TV	Cas	48187.318			SF		+0.001	85	
		48274.4351		LV	AG		-0.0096	85	1)
TX	Cas	48274.4353		LB	AG		-0.0094	85	1)
		48274.4338		LV	AG		-0.1262	85	-0.0033 5)
		48274.4360		LB	AG		-0.1240	85	-0.0011 5)
ZZ	Cas	48176.3875		LB	AG		+0.6105	85	1)
		48176.3882		LV	AG		+0.6112	85	1)
AB	Cas	48306.359			MZ		+0.016	85	
CW	Cas	48176.3880	/	LB	AG		+0.0703	85	1)
		48176.3894	/	LV	AG		+0.0717	85	1)
		48176.5449		LV	AG		+0.0678	85	1)
		48176.5493		LB	AG		+0.0721	85	1)
KR	Cas	48328.358			MZ		-0.110	85	
OX	Cas	48085.4915		LV	AG		+0.0357	85	1)
		48187.5543		LV	AG		+0.0355	85	1)
		48187.5544		LB	AG		+0.0356	85	1)
		48232.3641		LV	AG		+0.0371	85	1)
		48232.3650		LB	AG		+0.0379	85	1)
PV	Cas	48119.379	/		SO		-0.019	85	
V381	Cas	48305.305			MZ		-0.013	85	+0.009 5)
V384	Cas	48273.310		F	MS	KI	-0.072	85	4)
V520	Cas	48174.332		F	MS	KI	+0.045	85	4)
		48189.492		F	FR		+0.027	85	4)
V541	Cas	48181.4272		LV	AG		+0.0844	85	1)
		48181.4281		LB	AG		+0.0853	85	1)
V651	Cas	47470.4860		LB	AG				+0.0009 9)
		47769.5291		LB	AG				+0.0011 9)
		47975.3693		LB	AG				+0.0001 9)
		47983.3429		LB	AG				-0.0007 9)
		48093.4912		LB	AG				+0.0000 9)

Stern	Min	JD 24...	Ph	Obs	B-R 1	GCVS	B-R 2	Bem.
V651	Cas	48205.6326	LB	AG			+0.0004 9)	1)
VW	Cep	48372.4308	LV	AG	-0.0570	85		1)
		48372.4315	LB	AG	-0.0562	85		1)
		48372.5701 /	LB	AG	-0.0568	85		1)
		48372.5702 /	LV	AG	-0.0567	85		1)
WX	Cep	48119.4574	LV	AG	+0.0029	85		1)
		48119.4582	LB	AG	+0.0037	85		1)
ZZ	Cep	48151.311		SF	-0.016	85		
		48166.297		SF	-0.023	85		
AH	Cep	48273.4189	LV	AG	+0.0088	85		1)
		48273.4205	LB	AG	+0.0104	85		1)
		48289.3871	LV	AG	+0.0043	85		1)
		48289.3887	LB	AG	+0.0058	85		1)
EI	Cep	48289.513		DM	-0.008	85		
EO	Cep	48176.508	F	MS	KI	+0.175	85	4)
		48233.341	F	MS	KI	+0.164	85	4)
NN	Cep	48319.349		MZ		-0.035	85	
UX	Com	48308.567	LB	AG	-0.924	85		1)
		48308.568	LV	AG	-0.923	85		1)
		48359.5674	LB	AG	-0.9197	85		1)
		48359.5683	LV	AG	-0.9188	85		1)
U	CrB	48097.453		KB	+0.041	85		
CG	Cyg	48101.4458	LB	AG	+0.0284	85		1)
		48120.394		SO	+0.042	85		
GO	Cyg	48043.472	: LB	AG	-0.323	85		1)
		48043.479	: LV	AG	-0.316	85		1)
		48095.511		PI	+0.036	85		
		48146.475		PI	+0.039	85		
		48177.3395	LB	AG	+0.0398	85		1)
		48177.340		PI	+0.040	85		
		48177.3415	LV	AG	+0.0419	85		1)
		48205.319		PI	+0.027	85		
V367	Cyg	48159.19		DM	+0.25	85		red
		48159.20		SO	+0.26	85		red
		48168.50 /		SO	+0.26	85		red
V382	Cyg	48167.4747	LV	AG	+0.0207	85		1)
		48167.4765	LB	AG	+0.0225	85		1)
		48186.3306	LB	AG	+0.0214	85		1)
		48186.3316	LV	AG	+0.0224	85		1)
V388	Cyg	48101.4540	LB	AG	-0.0125	85	-0.0385 5)	1)
		48101.4546	LV	AG	-0.0120	85	-0.0380 5)	1)
V466	Cyg	48015.581	F	FR	+0.005	85		4)
		48043.413	F	FR	+0.005	85		4)
V477	Cyg	48127.507		SO	-0.007	85		
V498	Cyg	48167.3824	LV	AG	+0.6165	85		1)
V500	Cyg	48039.540	F	MS	KI	+0.035	85	4)
V513	Cyg	48040.549	F	MS	KI	-0.256	85	4)
		48151.455	F	MS	KI	-0.251	85	4)
		48187.374	F	MS	KI	-0.243	85	4)
		48205.320	F	MS	KI	-0.252	85	4)
V680	Cyg	48174.4632	LV	AG	+0.0453	85	+0.0164 5)	1)
		48174.4634	LB	AG	+0.0455	85	+0.0167 5)	1)
V877	Cyg	48038.407	F	MS	KI	+0.018	85	4)
V891	Cyg	48116.3995	LB	AG	+0.0319	85		1)
		48116.3996	LV	AG	+0.0320	85		1)
V909	Cyg	48187.307		PI	-0.037	85	-0.036 5)	
V963	Cyg	48038.434	F	MS	KI	+0.002	85	4)

Stern	Min	JD 24...	Ph	Obs	B-R 1	GCVS	B-R 2	Bem.
V1073	Cyg	48133.5045	LB	AG	-0.0420	85		1)
		48133.5079	LV	AG	-0.0386	85		1)
V1083	Cyg	48189.2934	LV	AG	-0.0419	85		1)
		48189.2936	LB	AG	-0.0417	85		1)
V1143	Cyg	48409.4185	LV	QU	-0.0041	85		3)
TZ	Dra	48099.474		PI	+0.004	85		
		48119.387		SO	-0.002	85		
AI	Dra	48102.477		SF	+0.007	85		
		48186.391		SU	+0.004	85		
		48192.387		SF	+0.006	85		
		48270.313		DM	+0.009	85		
AX	Dra	48312.422	F	MS	KI	-0.047	85	-0.006 5) 4)
		48362.4186	LV	AG		-0.0489	85	-0.0071 5) 1)
		48362.4190	LB	AG		-0.0485	85	-0.0067 5) 1)
CV	Dra	48188.2965	LB	AG				-0.0329 11) 1)
		48188.2978	LV	AG				-0.0316 11) 1)
		48332.5056	LB	AG				-0.0384 11) 1)
		48332.5058	LV	AG				-0.0382 11) 1)
S	Equ	48094.538		KB	+0.039	85		
YY	Gem	48344.355		MZ	-0.012	85		
		48357.376		MZ	-0.020	85		
EG	Gem	48275.587	F	FR	+0.207	85		4)
UX	Her	48107.424		MZ	+0.020	85		
AK	Her	48030.443		SF	+0.001	85		
		48037.402	/	SF	+0.005	85		
		48100.430		SF	+0.016	85		
		48104.424	/	SF	+0.005	85		
		48105.478		SF	+0.006	85		
		48108.430		SF	+0.007	85		
		48127.382	:	MZ	-0.009	85		
		48150.368	/	SF	+0.004	85		
AW	Her	48108.683		KB	+0.115	85		15)
DK	Her	48014.483	F	MS	KI	-0.017	85	4)
LT	Her	48014.499	F	MS	KI	-0.031	85	4)
PW	Her	48032.498	F	MS	KI	+0.191	85	4)
V359	Her	48015.447	F	MS	KI	+0.082	85	4)
V387	Her	48027.394	:	F	MS	KI	-0.140	85 4)
		48037.406		F	MS	KI	-0.149	85 4)
V728	Her	48084.4606	LB	AG	+0.0419	85	-0.0006 8)	1)
		48084.4615	LV	AG	+0.0428	85	+0.0015 8)	1)
		48358.516	:	LV	AG	+0.095	85	+0.003 8) 1)
		48358.516	:	LB	AG	+0.095	85	+0.003 8) 1)
FG	Hya	48271.4955	LB	AG	-0.0162	85		1)
		48271.4964	LV	AG	-0.0152	85		1)
		48290.5041	LB	AG	-0.0218	85		1)
		48290.5087	LV	AG	-0.0172	85		1)
		48358.3677	LB	AG	-0.0195	85		1)
		48358.3686	LV	AG	-0.0186	85		1)
SW	Lac	47849.4427	L	RI	SH	-0.0109	85	1)
		48086.457		SF	-0.009	85		
		48087.4166	LB	AG	-0.0119	85		1)
		48087.4172	LV	AG	-0.0113	85		1)
		48099.452	/	SF	-0.004	85		
		48107.460	/	SF	-0.013	85		
		48131.355		SF	-0.012	85		
		48148.354		GI	-0.011	85		
		48179.463	F	FR	-0.012	85		4)

Stern		Min	JD 24...	Ph	Obs	B-R 1	GCVS	B-R 2	Bem.
SW	Lac	48179.4636		LB	AG	-0.0118	85		1)
		48179.4636		LV	AG	-0.0118	85		1)
		48179.6213	/	LV	AG	-0.0145	85		1)
		48179.6230	/	LB	AG	-0.0128	85		1)
		48179.628	/	F	FR	-0.008	85		4)
		48186.361	/		SF	-0.010	85		
		48186.363	/:		MZ	-0.008	85		
		48187.325	/		MZ	-0.008	85		
		48188.286	/		SF	-0.009	85		
VY	Lac	48180.3473		LV	AG	-0.1247	85		1)
		48180.3474		LB	AG	-0.1246	85		1)
		48237.3404		LB	AG	-0.1253	85		1)
		48237.3407		LV	AG	-0.1250	85		1)
CM	Lac	48179.363			GI	+0.002	85		
		V364	Lac	48087.4665		LB	AG	+0.0370	85
		48087.4671		LV	AG	+0.0376	85		1)
		48179.4897		LB	AG	-3.5096	85		1)
		48179.4905		LV	AG	-3.5088	85		1)
		48179.502	/	F	FR	+0.178	85		4)
UV	Leo	47982.395	/:		DM	+0.021	85		
UZ	Leo	48359.3957	/	LB	AW	+0.0570	85		2)
		48359.3957	/	LV	AW	+0.0570	85		2)
		48359.4010	/	LV	AG	+0.0623	85		1)
		48359.4017	/	LB	AG	+0.0630	85		1)
XY	Leo	48328.439	/		PI	+0.045	85		
		48329.425			PI	+0.036	85		
AG	Leo	47990.383	:	F	MS	KI	-0.064	85	4)
AM	Leo	47983.4531	/	L	RI	SH	-0.0062	85	1)
		48329.328	:		GI		+0.007	85	
		48348.346	:		GI		+0.004	85	
		48356.386	:		MZ		-0.004	85	
UV	Lyn	48272.3457		LV	AG	+0.0111	85		1)
		48272.3460		LB	AG	+0.0114	85		1)
beta	Lyr	47400.10			AW	-2.59	85		red
		48162.70			DM	-1.91	85		red
		48188.40			SU	-2.04	85		red
DD	Mon	48305.363		F	FR	+0.085	85		4)
HI	Mon	47929.313		F	FR	+0.786	85		4)
V453	Mon	48290.326		F	MS	KI	-0.078	87	4)
V458	Mon	47947.426	/	F	FR	+0.046	85		4)
		48332.436	:	F	FR	+0.028	85		4)
V464	Mon	48232.523		F	MS	KI	-0.072	85	4)
U	Oph	48034.428	:	LV	AG	+0.006	85		1)
		48034.429	:	LB	AG	+0.007	85		1)
		48086.4267		LB	AG	+0.0069	85		1)
		48086.4288		LV	AG	+0.0090	85		1)
V566	Oph	48035.439			SF	+0.000	85		
		48087.462			SF	-0.003	85		
		48103.442			SF	+0.001	85		
V839	Oph	48069.4906	/	LB	AG	+0.0634	85		1)
		48069.4909	/	LV	AG	+0.0637	85		1)
		48362.5423		LB	AG	+0.0700	85		1)
		48362.5444		LV	AG	+0.0720	85		1)
FH	Ori	48205.586		F	MS	KI	-0.179	85	4)
		48274.416		F	MS	KI	-0.186	85	4)
U	Peg	48148.386	/:		PI		-0.058	87	
		48151.391	/		PI		-0.052	87	

Stern		Min	JD 24...	Ph	Obs	B-R 1	GCVS	B-R 2	Bem.
U	Peg	48163.391	/		PI	-0.045	87		
		48176.318			PI	-0.048	87		
		48233.281			PI	-0.051	87		
AW	Peg	48128.542			KB	+0.012	87		red
BG	Peg	48187.3423		LB	AG	-0.8749	87	+0.0188 12)	1)
		48187.3429		LV	AG	-0.8742	87	+0.0194 12)	1)
BN	Peg	48117.399			SO	+0.010	87		
DI	Peg	48148.395			PI	+0.003	87		
		48205.336			PI	-0.001	87		
AX	Per	47545.0			KT	-40.0	87		14)
		48220.0	:		MO	-46.6	87		14)
IQ	Per	48288.352			DM	+0.000	87		
IZ	Per	48132.5032		LV	AG	-0.0009	87		1)
		48132.5040		LB	AG	-0.0002	87		1)
V482	Per	48222.3276		LB	AG			-0.0005 9)	1)
		48299.4003		LB	AG			-0.0046 9)	1)
		48299.4004		LV	AG			-0.0005 9)	1)
23229	Per	47922.5921		LB	AG			-0.0019 16)	1)
		47922.5948		LV	AG			+0.0008 16)	1)
		48127.374	/:		SO			+0.012 16)	
		48186.4708	/	LB	AG			+0.0007 16)	1)
		48186.4708	/	LV	AG			+0.0007 16)	1)
		48281.4657		LB	AG			+0.0002 16)	1)
		48281.4660		LV	AG			+0.0005 16)	1)
Y	Sex	48279.4782		LB	AG	+0.0593	87	+0.0593 5)	1)
		48279.4828		LV	AG	+0.0639	87	+0.0639 5)	1)
CD	Tau	48254.377			MY	-1.715	87		
		48290.454			DM	+0.011	87		
EQ	Tau	48176.639		F	MS	-0.004	87		4)
		48312.323	/	F	MS	-0.006	87		4)
GR	Tau	48288.3119		LV	AG	-0.0104	87	-0.0104 6)	1)
		48288.3125		LB	AG	-0.0098	87	-0.0098 6)	1)
V781	Tau	48289.2631		LV	AW	+0.1509	87		2)
		48289.2686		LB	AW	+0.1564	87		2)
W	UMa	48292.373			MZ	-0.002	87		
		48305.381			GI	-0.006	87		
		48306.385			MZ	-0.003	87		
		48308.380			GI	-0.010	87		
AF	UMa	48000.520		F	MS	+0.400	87		4)
AW	UMa	48011.4263		LV	QU	-0.0046	87		3)
AG	Vir	47982.448			DM	-0.005	87		
		48036.426			SF	-0.009	87		
		48358.406			GI	+0.002	87		
		48359.353	/		MZ	-0.014	87		
AH	Vir	48035.418			MZ	+0.043	87		
		48359.395			GI	+0.041	87		
		48359.404			MZ	+0.051	87		
HT	Vir	48380.5094		LV	QU				3)
Z	Vul	48095.462			PI	-0.012	87		
		48095.469			KB	-0.006	87		
RS	Vul	48099.485			KB	+0.008	87		
BU	Vul	48120.392			SO	+0.004	87		

B e m e r k u n g e n :

- : = unsicher
 / = Nebenminimum
 L = Lichtelektrische Beobachtung Filter : ohne
 LV = Lichtelektrische Beobachtung Filter : V
 LU = Lichtelektrische Beobachtung Filter : U
 LB = Lichtelektrische Beobachtung Filter : B
 F = Fotografische Beobachtung
 red = reduzierte Ergebnisse
 1) = Photometer: EMI 9781B Filter: V = GG495/1mm
 B = BG12 /1mm + GG385 /2mm
 2) = Photometer: 1P21 Filter: V = GG11
 B = BG3 + GG13
 3) = Photometer: Mueller
 4) = Auswertung: Messung mit Mikrophotometer
 5) = BAV - Rundbrief 32, 36 ff
 6) = BAV - Rundbrief 35, 1 ff
 7) = BAV - Rundbrief 35, 41 ff
 8) = BAV - Mitteilung Nr. 51 = IBVS No. 3234
 9) = BAV - Mitteilung Nr. 55 = IBVS No. 3554
 10) = BAV - Rundbrief 39, 19 f
 11) = BAV - Mitteilung Nr. 49
 12) = BAV - Rundbrief 37, 24 ff
 13) = V1343 Aql: Bedeckungsminima Typ: E + XJ
 14) = AX Per: Bedeckungsminima Typ: E + ZAND
 15) = Ergebnis mit Periode 8,8009 Tage reduziert und
 die Minimumszeit mit d = 3,2 Stunden extrapoliert
 16) = IBVS No. 3479

Stern		Max	JD 24...	Ph	Obs	B-R 1	GCVS	B-R 2	Bem.	
SW	And	48187.322			PI	-0.128	85	-0.014	S86	
		48187.345			HO	-0.105	85	+0.009	S86	
		48233.318			PI	-0.128	85	-0.013	S86	
OV	And	48233.404	:		PI		+0.009	7)		
SW	Aqr	48189.296			MZ	-0.007	85			
RS	Boo	48012.439			PI	+0.008	85	+0.016	5)	
UU	Boo	48017.397		F	MS KI	+0.051	85		4)	
CS	Boo	48002.416		F	MS KI			+0.015	8) 4)	
SS	Cnc	48289.402		F	MS KI	+0.044	85		4)	
VZ	Cnc	47946.4483			LB RI SH	+0.0048	85	+0.0104	S90 1)	
		47946.4496			LV RI SH	+0.0061	85	+0.0117	S90 1)	
		47968.382				DM	+0.000	85	+0.006	S90
		48268.3838			LV	SG	-0.0062	85	+0.0003	S90 2)
		48271.420	:			DM	-0.002	85	+0.005	S90
		48273.3812			LV	QU	-0.0030	85	+0.0034	S90 3)
		48290.337				SF	+0.008	85	+0.015	S90
		48308.3372			LV	QU	-0.0062	85	+0.0003	S90 3)
		48329.344				MZ	-0.046	85	-0.039	S90
		48329.3931			LV	QU	+0.0027	85	+0.0093	S90 3)
		48357.405			MZ	+0.012	85	+0.019	S90	
ST	CVn	47983.318		F	FR	+0.137	85		4)	
XY	CVn	47983.516		F	FR	+0.000	85		4)	
XZ	CVn	47983.391		F	FR	+0.003	85		4)	
X	CMi	47946.379			PS	+0.121	85			

Stern		Max	JD 24...	Ph	Obs	B-R 1	GCVS	B-R 2	Bem.
RV	CMi	47940.393	:		PS	+0.081	85		
		48309.404			PS	+0.041	85		
AL	CMi	47981.411	:		PS	+0.266	85		
		48308.463			PS	-0.230	85		
U	Com	47945.497		F	MS KI	+0.005	85		4)
SZ	CrB	48012.460		F	MS KI	+0.162	85		4)
		48017.413		F	MS KI	+0.181	85		4)
UY	Cyg	48035.536		F	MS KI	+0.029	85		4)
XZ	Cyg	48132.418			MZ	-0.041	85	-0.013	5)
		48189.356			MZ	-0.041	85	-0.002	5)
		48231.349			MZ	-0.051	85	-0.005	5)
		48232.288			MZ	-0.046	85	+0.000	5)
DM	Cyg	48035.563		F	MS KI	+0.015	85		4)
		48038.505			PI	+0.018	85		
		48038.507		F	MS KI	+0.020	85		4)
		48088.456			PI	+0.006	85		
		48093.500			PI	+0.011	85		
		48096.435			PI	+0.008	85		
		48146.403			PI	+0.013	85		
		48146.408			MZ	+0.017	85		
		48151.437			PI	+0.007	85		
		48178.304			PI	+0.004	85		
		48186.277			PI	-0.001	85		
		48186.280			MZ	+0.003	85		
DX	Del	48098.501	:		KB	+0.039	85		
		48099.440			KB	+0.034	85		
SU	Dra	48343.378			MZ	+0.007	85		
		48345.373			SF	+0.021	85		
SW	Dra	48328.374			PI	+0.023	85		
DD	Dra	48205.538		LV	AG	-0.158	85	-0.041	9) 1)
		48205.540		LB	AG	-0.156	85	-0.039	9) 1)
SV	Eri	47927.395			PS	+0.198	85	+0.031	S88 red
		48289.278			PS	+0.186	85	+0.054	S88
TW	Her	48099.453			PI	-0.007	85		
		48107.451			MZ	-0.001	85		
VX	Her	48105.401			MZ	+0.216	85	+0.007	6)
VZ	Her	47944.634		F	MS KI	+0.029	85		4)
AR	Her	48098.501		F	MS KI	-0.162	85		4)
RR	Leo	48018.386			MZ	-0.002	85		
SS	Leo	48362.402			GI	-0.004	85		
ST	Leo	48390.392			PS	-0.014	85		
DL	Leo	48275.494		F	MS KI			-0.013	10) 4)
SZ	Lyn	47946.3188		L	RI SH	+0.0120	85		1)
RR	Lyr	47982.460			DM	-0.254	85	-0.012	S90
		48012.516			DM	-0.242	85	+0.002	S90
		48088.485			SO	-0.233	85	+0.014	S90
		48117.378			SO	-0.250	85	-0.001	S90
		48176.331			GI	-0.252	85	+0.000	S90
CN	Lyr	47945.636		F	MS KI	-0.012	85		4)
		48011.465	:	F	MS KI	-0.004	85		4)
		48032.444		F	MS KI	-0.006	85		4)
LX	Lyr	48030.461		F	MS KI	-0.027	85		4)
NQ	Lyr	48013.461		F	MS KI	+0.003	85		4)
		48030.504		F	MS KI	+0.001	85		4)
VV	Peg	48187.270			HO	-0.009	87		
AV	Peg	48148.479			PI	+0.020	87	+0.068	S87
BH	Peg	48197.463			PS	-0.059	87	-0.035	S89

Stern		Max	JD 24...	Ph	Obs	B-R 1	GCVS	B-R 2	Bem.
DY	Peg	48174.278	:		PI	+0.004	87		
		48174.349			PI	+0.002	87		
		48174.420	:		PI	+0.000	87		
		48176.315			PI	-0.001	87		
		48176.387			PI	-0.002	87		
		48177.335			PI	-0.001	87		
		48177.406			PI	-0.004	87		
		48188.281			HO	+0.005	87		
		48261.280			SF	+0.005	87		
		48095.454			MZ	+0.020	87		
		48103.408			MZ	+0.017	87		
		48178.299			MZ	+0.019	87		
RV	Uma	48358.508			KB	+0.024	87		
		48359.437			SF	+0.017	87		
		48360.376			SF	+0.020	87		
		48319.385			PI	-0.029	87		
		48329.407			PI	-0.045	87		
TU	Uma	48358.436			KB	-0.014	87		
		48387.411			SF	-0.037	87		
		48087.531	:		PI	+0.003	87		
		48093.473			PI	+0.003	87		
BN	Vul	48096.447			PI	+0.007	87		
		48187.347			PI	+0.005	87		

B e m e r k u n g e n :

- : = unsicher
- L = Lichtelektrische Beobachtung Filter: ohne
- LV = Lichtelektrische Beobachtung Filter: V
- LB = Lichtelektrische Beobachtung Filter: B
- F = Fotografische Beobachtung
- red = reduzierte Ergebnisse
- Sxx = Krakauer Katalog (SAC) nit xx = Jahr der Herausgabe
- 1) = Photometer: EMI 9781B Filter: V = GG495/1mm
B = BG12 /1mm + GG385 /2mm
- 2) = Photometer: SSP3
- 3) = Photometer: Mueller
- 4) = Auswertung: Messung mit Mikrophotometer
- 5) = BAV - Rundbrief 36, 157 ff
- 6) = BAV - Rundbrief 39, 9 ff
- 7) = MVS 11, S. 133
- 8) = IBVS No. 2855
- 9) = Elemente von E. Wunder: Epoche = 47271.458; Periode = 0.32673
- 10) = IBVS No. 2533

Stern		Max	JD 24...	Ph	Obs	B-R 1	GCVS	B-R 2	Bem.
U	Aql	48127.68			KB	+0.38	85		red
SZ	Aql	48109.55			KB	+1.37	85		red
TT	Aql	48075.58			DM	+0.86	85		red
		48116.45			KB	+0.46	85		red
FF	Aql	48183.80			SF	-0.64	85		red
		48207.00			SC	+0.20	85		red

Stern		Max	JD 24...	Ph	Obs	B-R 1	GCVS	B-R 2	Bem.
FN	Aql	48107.20			KB	+0.64	85		red
V1162	Aql	48096.25			TH SD	-1.84	85		red
		48113.67			KB	-0.55	85		red
eta	Aql	47388.10			AW	+0.23	85		red
		48141.71			DM	+0.30	85		red
RT	Aur	47551.20			AW	+0.51	85		red
		47920.50			DM	+0.73	85		red
		48274.29			SM	+0.34	85		red
		48300.48			SC	+0.44	85		red
RX	Aur	48305.27			SM	+0.57	85		red
SY	Aur	48276.51			KB	+0.12	85		red
RY	CMa	48281.42			SM	+0.44	85		red
RW	Cas	48179.73			KB	-0.75	85		red
SU	Cas	47525.00			AW	+0.03	85		red
		47870.42			SM	+0.42	85		red
TU	Cas	48206.43			SU	+0.26	85		red
CP	Cep	48181.55			KB	+2.65	85		red
delta	Cep	47387.50			AW	-0.19	85		red
		47763.16			DM	-0.18	85		red
		48085.30			SF	-0.02	85		red
		48187.29			SM	+0.01	85		red
X	Cyg	48074.60			SF	+0.16	85		red
		48123.38			DM	-0.23	85		red
SU	Cyg	47389.85			AW	+0.26	85		red
		48178.00			KB	+0.07	85		red
		48216.48			SF	+0.09	85		red
SZ	Cyg	48173.50			KB	+1.40	85		red
TX	Cyg	48164.20			KB	+0.42	85		red
VX	Cyg	48173.20			KB	+0.48	85		red
TX	Del	48163.75	:		KB	+0.38	85		red
W	Gem	47915.03			DM	+0.06	85		red
		48279.29			SM	+0.28	85		red
zeta	Gem	47916.43			DM	-0.54	85		red
		48292.38			SM	-0.17	85		red
AP	Her	48116.05			KB	-3.85	85		red
V	Lac	48171.44			KB	-0.88	85		red
Z	Lac	48171.72			KB	-0.24	85		red
RR	Lac	48166.51			KB	+0.18	85		red
BG	Lac	48127.51			KB	-0.34	85		red
T	Mon	47948.23			DM	+1.82	85		red
		48271.29			SM	+0.58	85		red
		48271.80	:		KB	+1.09	85		red
AU	Peg	48177.56			KB	-0.12	87		red
AW	Per	48274.25			SM	+0.04	87		red
BM	Per	48273.63	:		KB	+3.54	87		red
S	Sge	48035.64			DM	+0.69	87		red
		48169.31			KB	+0.25	87		red
RU	Sct	48099.40			KB	+1.90	87		red
S	Vul	48199.00			HH	+12.42	87		red
T	Vul	48034.74			DM	+0.22	87		red
		48167.75			KB	+0.16	87		red
U	Vul	48040.03			DM	+0.07	87		red
		48200.00			SM	+0.22	87		red
X	Vul	48170.20			KB	-0.14	87		red
SV	Vul	47769.46			SM	+1.31	87		red
		48084.29			DM	+1.05	87		red
		48174.00			HH	+0.74	87		red

12 3 . DELTA - CEPHEI - S T E R N E

Stern	Max	JD 24...	Ph	Obs	B-R 1	GCVS	B-R 2	Bem.
SV	Vul	48175.25		KB	+1.99	87		red

B e m e r k u n g e n :

: = unsicher
red = reduzierte Ergebnisse

12 4 . M I R A S T E R N E

Stern	Phase	JD 24..	Magn.	Beob.	Stern	Phase	JD 24..	Magn.	Beob.		
W	And	Max	48259	7.3	MZ	T	Cep	Max	48129	6.3	SO
RW	And	Max	47801	9.9	MX			Max	48137	5.8	MX
SV	And	Max	47886	8.3	MX			Max	48143	6.0	MK
SX	And	Max	47860	9.0	MX			Max	48146	6.0	KR
TU	And	Min	47832	12.9	MX			Max	48151	6.5	DM
R	Aqr	Max	48229	6.7	HH			Max	48197	6.1	GS
R	Aql	Max	47684	6.6	SH	Z	Cep	Max	47728	11.2	MX
		Max	47685	6.9	RI	RR	Cep	Max	47845	10.0	MX
		Min	48125	10.7	MX	o	Cet	Max	47815	2.5	SH
TU	Aql	Max	47790	9.4	MX			Max	47827	3.1	DM
R	Ari	Max	48255	9.0	MZ	R	Cyg	Max	48020	6.55	HH
S	Ari	Max	47870	11.5	MX			Max	48031	6.5	MK
X	Aur	Max	47905	8.9	MX	U	Cyg	Max	48252	6.7	MZ
		Min	47985	12.2	MX	RT	Cyg	Max	48017	7.2	HH
		Max	48229	8.8	MO			Max	48204	8.35	DM
R	Boo	Max	47633	6.9	SH			Max	48208	7.95	HH
		Min	47992	12.3	MX			Max	48208	8.0	MZ
		Max	48084	7.0	MX	UX	Cyg	Max	47820	11.0	MX
		Max	48085	7.1	DM	BG	Cyg	Max	47808	9.9	MX
		Max	48086	6.7	MK	CM	Cyg	Max	47890	9.6	MX
		Max	48091	6.7	MO	CU	Cyg	Min	47711	14.1	MX
S	Boo	Max	47676	8.5	MX			Max	47833	10.7	MX
RR	Boo	Min	47724	9.4	MX	DD	Cyg	Max	47828	10.0	MX
X	Cam	Min	47914	13.9	MX	V369	Cyg	Max	47769	9.7	MX
		Max	47985	8.1	MX			Min	47819	13.8	MX
		Min	48063	13.6	MX			Max	47880	10.4	MX
		Max	48132	7.8	MX	chi	Cyg	Max	48269	5.7	HH
		Min	48204	12.7	MX			Max	48283	5.5	KR
R	CVn	Min	47991	12.6	MX	S	Del	Min	47850	12.7	MX
U	CVn	Max	47971	9.9	PI	RX	Del	Max	47843	11.4	MX
S	CMi	Max	47866	7.0	DM	R	Dra	Max	48219	7.85	SU
		Max	48210	7.1	DM			Max	48222	8.1	MO
R	Cas	Max	47927	5.8	DM			Max	48226	7.9	GS
		Min	48192	11.7	MX	W	Dra	Max	48064	9.8	MX
V	Cas	Min	47907	12.7	MX	X	Dra	Max	48045	11.3	MX
		Min	48145	12.8	MX	RV	Dra	Max	47695	10.2	MX
		Max	48228	7.8	MX	R	Equ	Max	47839	10.0	MX
W	Cas	Min	47650	11.6	MX	V	Gem	Max	47927	8.3	PI
		Max	47859	9.2	MX	S	Her	Max	48119	7.25	KR
		Max	48267	8.6	GS			Max	48124	7.3	DM
RR	Cas	Min	47877	14.9	MX	T	Her	Max	48109	8.25	KR
VZ	Cas	Min	47825	13.7	MX			Max	48112	8.2	DM
T	Cep	Min	47943	10.4	PI	RS	Her	Max	47807	7.9	MX
		Min	47952	10.6	MX	RT	Her	Max	47776	10.3	MX

Stern	Phase	JD 24..	Magn.	Beob.	Stern	Phase	JD 24..	Magn.	Beob.		
RY	Her	Min	47788	13.9	MX	T	Peg	Max	48179	9.7	MO
SS	Her	Min	48063	12.7	MX	W	Peg	Min	47821	12.3	MX
		Max	48121	9.0	MX	X	Peg	Max	47882	10.0	MX
		Min	48171	12.7	MX	Y	Peg	Max	47802	11.4	MX
SY	Her	Min	47770	11.5	MX	RV	Peg	Max	47879	12.2	MX
		Max	47820	7.8	MX	RZ	Peg	Max	47871	7.7	MX
UZ	Her	Max	47732	8.9	MX	DL	Peg	Max	47854	10.7	MX
WZ	Her	Max	47799	11.3	MX	RX	Psc	Max	47817	9.7	MX
AS	Her	Max	47714	8.9	MX	R	Ser	Max	47652	5.9	SH
DS	Her	Max	47814	11.4	MX			Max	47656	6.1	RI
S	Lac	Max	47889	8.5	MX			Max	48010	7.05	HH
R	Leo	Max	47617	5.6	RI			Max	48016	7.2	PI
		Max	47629	5.0	SH			Max	48018	7.3	DM
		Max	47938	6.0	RI	V	Tau	Max	48226	10.1	MX
		Max	47940	5.8	SH	R	Tri	Max	47900	5.7	DM
		Max	47941	5.8	PI			Max	47903	5.8	KR
		Max	47946	5.7	DM			Max	48161	6.1	MK
		Max	48248	5.8	HH			Max	48166	6.25	SU
V	Leo	Max	47910	9.3	PI			Max	48169	6.4	DM
W	Lyr	Max	48058	7.8	DM	R	UMa	Max	47696	7.2	MX
		Max	48065	7.65	KR			Max	48001	7.6	PI
		Max	48070	7.7	MX	S	UMa	Max	48051	7.9	MX
		Min	48175	12.1	MX			Min	48163	12.0	MX
ST	Mon	Max	47868	10.2	MX	T	UMa	Min	48083	12.9	MX
X	Oph	Max	48059	6.9	DM			Max	48185	7.1	MK
		Max	48060	6.9	HH			Max	48189	7.4	MX
		Max	48063	6.5	MK	RS	UMa	Max	48075	8.6	MX
RU	Oph	Max	47736	8.8	MX	R	Vir	Max	47614	7.3	SH
RY	Oph	Min	48136	13.1	MX			Min	47989	11.2	DM
AY	Oph	Max	47793	11.4	MX			Max	48043	6.4	DM
V450	Oph	Max	47817	10.6	MX	R	Vul	Min	48124	13.4	MX
U	Ori	Max	48207	6.8	MO			Max	48189	8.4	DM
S	Peg	Max	47870	8.6	MX			Max	48189	8.3	MX
T	Peg	Max	47810	9.0	MX						

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Stern	Phase	JD 24..	Magn.	Beob.	Stern	Phase	JD 24..	Magn.	Beob.		
ST	And	Max	48150	8.85	HH	V	Boo	Min	48274	9.0	HH
TV	And	Max	48267	8.8	GS	T	Cnc	Max	48060	8.0	HH
S	Aql	Max	48138	9.2	MX	Y	CVn	Min	47238	6.3	DM
		Min	48205	11.5	MX			Min	47360	6.25	DM
T	Ari	Max	48314	8.0	MZ			Min	47998	6.3	DM
V	Boo	Max	47661	8.1	DM			Max	48012	6.0	DM
		Min	48028	9.1	DM			Min	48043	6.3	DM
		Min	48029	9.0	HH	rho	Cas	Min	47554	5.25	DM
		Max	48098	8.15	HH			Min	47658	5.3	DM
		Min	48160	8.6	HH	SS	Cep	Max	47694	7.2	TH
		Max	48210	8.4	HH	AR	Cep	Max	47760	7.1	TH

Stern	Phase	JD 24..	Magn.	Beob.	Stern	Phase	JD 24..	Magn.	Beob.						
W	Cyg	Max	48011	6.0	HH	V930	Cyg	Max	48146	12.1	KT				
		Max	48020	6.0	DM			Min	48159	12.7	KT				
		Min	48083	6.5	HH			Max	48188	11.7	KT				
		Min	48085	6.6	DM			EU	Del	Max	48039	6.7	DM		
		Max	48138	5.85	HH					Min	48065	6.3	DM		
		Max	48148	6.0	DM					Min	48134	5.9	DM		
		Min	48153	6.0	MO					Max	48168	6.6	DM		
		Min	48203	6.4	HH					Min	48190	6.0	DM		
				Min	48213			6.45	DM	Max	48213	6.5	DM		
				Max	48280			5.65	HH	TX	Dra	Max	48195	7.4	GS
		RS	Cyg	Max	48146			6.9	KR			Min	48215	7.7	GS
				Max	48150			7.0	HH	Max	48291	7.1	GS		
		RU	Cyg	Min	48330			8.6	HH	UX	Dra	Max	47615	6.1	TH
Max	48225			7.8	GS	Min	47684	6.8	TH						
RV	Cyg	Max	47980	8.0	HH			Max	47762	6.0	TH				
		Min	48175	8.35	HH	SS	Gem	Min	47909	9.2	PI				
Max	48285	8.05	HH	Max	47924			8.3	PI						
Max	47903	6.5	HH	Max	47943			8.6	PI						
Min	47943	7.55	HH	Min	47956			9.6	PI						
Max	47975	7.0	DM	Max	47982			8.5	PI						
AF	Cyg	Max	47983	6.9	HH			Min	47998	8.9	PI				
		Min	48030	7.35	HH			Min	48270	9.3	MO				
		Min	48045	7.7	DM	AC	Her	Max	48292	8.5	MO				
		Max	48070	7.1	HH			Max	48039	7.2	HH				
		Max	48074	7.2	DM			Min	48097	8.3	HH				
		Min	48125	7.8	DM			Min	48100	8.05	DM				
		Min	48135	7.6	HH			Min	48173	8.2	HH				
		Max	48182	7.0	DM	Min	48174	8.05	DM						
		Max	48185	6.95	HH	RS	Lac	Max	47797	9.6	MX				
		Max	48193	6.4	GS			Min	47899	11.9	MX				
		Min	48222	7.5	DM	U	Mon	Min	47947	7.3	KR				
		Min	48225	6.9	GS			Min	48270	7.5	KR				
		Min	48230	7.3	HH			Min	48271	6.6	HH				
		Max	48253	6.8	DM			Min	48271	6.9	SM				
		Max	48258	6.6	HH			Max	48285	6.1	SM				
		Max	48266	6.4	GS			Max	48286	5.8	HH				
		Min	48299	7.4	HH			Max	48287	6.4	KR				
AI	Cyg	Min	47700	9.2	HH			Min	48313	7.0	HH				
		Max	47770	8.1	HH			Min	48314	7.3	KR				
		Min	47836	9.2	HH			Min	48315	7.1	SM				
		Max	47916	8.15	HH	Max	48338	6.1	HH						
		Min	48000	9.15	HH	Max	48338	6.3	SM						
Max	48060	8.55	HH	X	Mon	Max	48210	7.1	HH						
Min	48132	9.3	HH			Min	48284	8.65	HH						
AW	Cyg	Max	47710	8.45	HH	S	Per	Max	48301	9.0	MZ				
		Min	47910	9.05	HH			rho	Per	Max	47182	3.3	DM		
		Max	48060	8.75	HH			Max	47220	3.25	DM				
		Min	48260	9.1	HH			Max	47390	3.25	DM				
CH	Cyg	Min	48040	9.3	HH	Max	47442	3.3	DM						
		Max	48104	8.85	HH	Max	47496	3.2	DM						
		Min	48140	9.2	HH	Max	47540	3.25	DM						
		Max	48180	8.8	HH	Max	47569	3.25	DM						
		Min	48210	8.95	HH	Max	47828	3.15	DM						
		Max	48250	8.85	HH	Max	47857	3.3	DM						
		Min	48320	9.1	HH	Max	47926	3.3	DM						
V930	Cyg	Max	48068	11.7	KT	T	Psc	Max	47890	11.1	MX				
		Min	48111	12.7	KT			TX	Psc	Max	47875	5.3	DM		

Stern	Phase	JD 24..	Magn.	Beob.	Stern	Phase	JD 24..	Magn.	Beob.				
R	Sge	Max	48095	8.9	DM	R	Sct	Max	48166	5.3	DM		
		Min	48113	9.4	DM			Max	48167	5.2	KR		
		Max	48122	8.9	DM			Max	48168	5.0	HH		
		Min	48147	10.1	DM			Min	48201	7.5	DM		
		Max	48160	8.9	DM			Min	48204	7.5	HH		
	Min	48176	9.2	DM	Min		48207	8.0	SM				
	Min	48215	10.1	DM	Min		48209	7.9	SG				
	R	Sct	Max	47397	4.75		SH	Min	48336	6.5	HH		
			Max	47830	4.95		HH	RV	Tau	Max	48166	9.6	MO
			Max	47958	5.1		HH	Min		48190	10.6	MO	
Min			48008	5.6	HH	Max	48211	9.6		MO			
Min			48022	5.8	DM	Max	48247	9.5		MO			
Max			48044	5.35	HH	Min	48268	10.6		MO			
Max			48046	5.5	DM	Max	48287	9.8	MO				
Min			48076	6.0	HH	Z	UMa	Min	47992	8.75	KR		
Min			48083	5.9	DM	Min		47995	8.6	SO			
Max			48105	5.25	KR	Max		48104	6.95	KR			
Max			48107	5.6	DM	Max		48121	7.4	SO			
Max			48117	5.25	HH	Min		48191	8.35	KR			
Min			48138	6.55	KR	Max	48259	7.1	KR				
Min			48142	6.4	HH	Min	48285	7.4	KR				
Min			48143	6.6	SG	Max	48318	6.85	KR				
Min	48143	6.8	SM	SS	Vir	Max	47603	7.1	SH				
Min	48144	6.9	DM	V		Vul	Max	48227	8.5	GS			
Max	48161	4.8	SM										

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6 . E R U P T I V E U N D I R R E G U L A E R E

Stern	Phase	JD 24..	Magn.	Beob.	Stern	Phase	JD 24..	Magn.	Beob.		
AR	And	Max	48086	12.2	KT	SY	Cnc	Max	48010	12.7	KT
		Max	48159	12.3	MO			Max	48364	11.5	MO
		Max	48177	12.2	KT			YZ	Cnc	Max	47939
DX	And	Max	48032	13.2	KT	Max	47945	12.7		KT	
VY		Aqr	Max	48084	11.3	KT	Max	47963	12.5	KT	
RW	Aur		Max	48270	10.7	MO	Max	47978	12.8	KT	
		Min	48273	11.6	MO	Max	47991	11.8	KT		
		Max	48312	10.3	MO	Max	48292	10.6	MO		
SS	Aur	Max	47963	10.6	KT	Max	48344	12.9	KT		
		Max	48291	11.0	MO	Max	48357	12.5	KT		
		TT	Boo	Max	48059	13.0	KT	SV	Cmi	Max	47945
Z	Cam	Max		48111	10.6	MO	Max	47966		13.4	KT
Max		48130	10.9	MO	Max	47988	12.9	KT			
Max		48146	11.2	MO	V635	Cas	Max	48016	14.6	KT	
Max		48202	10.4	MO	R		CrB	Min	47773	8.3	MK
Max		48260	10.6	MO	SS	Cyg		Max	48018	8.7	KT
Max		48288	10.0	MO	Max		48028	8.35	MO		
Max		48365	11.2	MO	Max		48065	8.6	KT		
SY	Cnc	Max	47928	11.1	KT	Max	48116	8.5	KT		
		Max	47978	11.8	KT	Max	48119	8.7	KB		

Stern	Phase	JD 24..	Magn.	Beob.	Stern	Phase	JD 24..	Magn.	Beob.		
SS	Cyg	Max	48120	8.3	MO	X	Leo	Max	48010	12.0	KT
		Max	48173	8.35	MO	AY	Lyr	Max	48039	13.4	KT
		Max	48218	8.4	MO			Max	48068	12.6	KT
		Max	48221	8.5	GS			Max	48127	13.4	KT
		Max	48275	8.45	MO	CZ	Ori	Max	47944	12.0	KT
		Max	48276	8.7	GS			Max	47987	12.4	KT
EM	Cyg	Max	48011	12.5	KT			Max	48342	12.4	KT
		Max	48030	12.7	KT	V361	Ori	Min	48266	8.7	KR
		Max	48068	12.6	KT	RU	Peg	Max	48088	10.1	KT
		Max	48092	12.6	KT			Max	48088	10.6	MO
V482	Cyg	Min	48197	14.1	KT			Max	48214	10.6	MO
U	Gem	Max	48354	9.4	MO	AG	Peg	Max	47575	8.4	HH
AW	Gem	Max	47978	13.4	KT			Min	47962	8.8	HH
IR	Gem	Max	47968	12.1	KT	AX	Per	Min	48231	12.6	KT
		Max	47987	11.7	KT	FO	Per	Max	47945	12.3	KT
		Max	48344	13.0	KT			Max	47968	12.6	KT
AH	Her	Max	48012	11.6	KT	KT	Per	Max	47924	11.7	KT
		Max	48030	11.9	KT			Max	48178	12.6	KT
		Max	48068	12.2	KT	CQ	Tau	Min	47920	10.6	KT
		Max	48086	11.2	KT			Max	47963	9.7	KT
		Max	48106	11.7	KT			Min	47978	10.9	KT
AM	Her	Max	48159	11.2	KT	SU	Uma	Max	47687	11.4	KT
		Min	48065	15.3	KT			Max	47985	10.9	PI
		Min	48183	15.2	KT			Max	48016	12.6	KT
X	Leo	Max	47944	12.2	KT			Max	48363	12.3	MO
		Max	47963	11.9	KT	SW	Uma	Max	47965	9.2	KT

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Stern	Phase	JD 24..	Magn.	Beob.	
S	CMa	Max	48210	7.1	DM
pi	PsA	Max	47463		TH
pi	PsA	Max	47473		TH
pi	PsA	Max	47481 :		TH
pi	PsA	Max	47499		TH
pi	PsA	Max	47509		TH
pi	PsA	Max	47521 :		TH
pi	PsA	Max	47528:		TH

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