GEOS RR 17

GEOS CIRCULAR ON RR TYPE VARIABLE

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GEOS
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LIST OF VISUAL AND CCD MAXIMA OF RR LYRAE STARS

ABSTRACT

160 instants of maximum light have been determined for 43 RR Lyrae variable stars from CCD measurements or from visual estimates. They are listed with the O-C relative to the most probable cycle number.

RESUME

160 instants de maxima de 43 étoiles variables du type RR Lyrae ont été déterminés à partir de mesures CCD ou d'estimations visuelles. Ils sont listés avec l'O-C relatif au numéro de cycle le plus vraisemblable.

RIASSUNTO

160 massimi di 43 stelle variabili del tipo RR Lyrae sono stati determinati sulla base di misure CCD o di stime visuali . Questi instanti di massimo sono raccolti in una lista con l'O-C relativo al numero di ciclo piú probabile.

RESUMEN

160 instantes de máximos de 43 estrellas variables del tipo RR Lyrae han sido determinados a partir de medidas CCD o de estimaciones visuales. Aparecen listados con los O-C relativos al número de ciclo más probable.

OBSERVATIONS

Most of the observations cover a time interval going from 1997 (JD 2450600) to the end of 2000 (JD 2451900) and were selected from lists issued by GEOS as Notes Circulaires.

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The instants of maximum were determined from direct visual estimates of the variable stars (vis) or, in one case from CCD measurements without filter. The O-C's were calculated from the GCVS 85 ephemerides whenever possible. They appear in notes when new or better ephemerides were used and after correction by a non linear relation.

The cycle numbers were chosen using the most probable solution extending the GEOS RR 14,15 and 16 lists. The GEOS database (http://webast.ast.obs-mip.fr/people/leborgne/dbRR/index.htm) was examined to avoid any unlikelihood. No complete bibliography research was made for some of the stars.

LIST

STARS	OBS.	MODE	JD HEL.	E(GC 85)	O-C (GC 85)	NOTES
SW And	DDL	vis	50463.242	73101	-0.620	+0.037 (O-C with non linear term of GCVS 85 notes)
SW And	DDL	vis	50692.338	73619	- 0.625	+0.042 idem
SW And	DDL	vis	50723.299	73689	- 0.623	+0.044 idem
SW And	DDL	vis	50742.318	73732	- 0.622	+0.046 idem
SW And	DDL	vis	50781.233	73820	- 0.628	+0.042 idem
SW And	DDL	vis	50807.317	73879	- 0.638	+0.033 idem
OV And	VBR	vis	51782.525	10664	+0.147	
OV And	VBR	vis	51798.519	10698	+0.142	
AA Aql	VBR	vis	51757.493	75763	+0.037	
V 341 Aql	VBR	vis	51780.413	18311	+0.028	
TY Ari	MRT	CCD	51166.333	0		+0.000 (O-C IBVS 4804)

STARS	OBS.	MODE	JD HEL.	E(GC 85)	O-C (GC 85)	NOTES
TZ Aur	VRR	vis	50524.341	78182	+0.004	
TZ Aur	VRR	vis	50535.305	78210	+0.001	
TZ Aur	VRR	vis	50553.326	78256	+0.005	
TZ Aur	VRR	vis	50569.394	78297	+0.014	
TZ Aur	VRR	vis	51570.499	80853	- 0.001	
TZ Aur	VRR	vis	51571.283	80855	-0.000	
TZ Aur	VRR	vis	51580.297	80878	+0.005	
TZ Aur	VRR	vis	51587.351	80896	+0.009	
TZ Aur	VRR	vis	51598.323	80924	+0.014	
TZ Aur	VRR	vis	51609.282	80952	+0.006	
TZ Aur	VRR	vis	51927.319	81764	+0.003	
ST Boo	VBR	vis	51697.492	52252	+0.073	
RW Cnc	VRR	vis	51600.323	22010	+0.159	
RW Cnc	VRR	vis	51601.414	22012	+0.156	
RW Cnc	VRR	vis	51606.345	22021	+0.162	
SS Cnc	VBR	vis	51899.610	78459	+0.055	
TT Cnc	VBR	vis	51902.510	21223	+0.056	
AQ Cnc	VBR	vis	51901.629	34457	- 0.043	
W CVn	FLB	vis	49887.438	51626	- 0.113	- 0.015 (O-C with non linear term of the GCVS 85 notes)
W CVn	VBR	vis	51716.522	54941	- 0.112	- 0.000 idem
UZ CVn	VBR	vis	51608.463	36087	+0.191	
UZ CVn	VRR	vis	51696.415	36213	+0.222	
UZ CVn	VBR	vis	51712.442	36236	+0.200	
DX Cep	VRR	vis	51747.419	24886	- 0.009	
DX Cep	VRR	vis	51756.378	24903	+0.007	
DX Cep	VRR	vis	51757.433	24905	+0.010	
DX Cep	VRR	vis	51776.353	24941	- 0.007	
DX Cep	VRR	vis	51786.345	24960	- 0.010	
DX Cep	VRR	vis	51805.308	24996	+0.015	
DX Cep	VRR	vis	51815.303	25015	+0.016	
DXCep	VRR	vis	51836.336	25055	+0.007	
DX Cep	VRR	vis	51845.280	25072	+0.008	
RV CrB	VBR	vis	51348.455	25401	+0.038	
RV CrB	VBR	vis	51424.367	25630	+0.022	
RV CrB	VBR	vis	51708.538	26487	+0.042	
RV CrB	VBR	vis	51715.503	26508	+0.044	
XZ Cyg	DDL	vis	50627.361	13935	- 0.544	
XZ Cyg	DDL	vis	50655.367	13995	- 0.540	
DM Cyg	FLB	vis	49893.471	17413	+0.043	
DX Del	VBR	vis	51722.525	26142	+0.038	
AW Dra	VRR	vis	51702.385	22740	+0.367	
AW Dra	VRR	vis	51717.429	22762	+0.293	
AW Dra	VRR	vis	51719.501	22765	+0.303	
AW Dra	VRR	vis	51726.398	22775	+0.328	
AW Dra	VRR	vis	51746.393	22804	+0.395	
AW Dra	VRR	vis	51748.373	22807	+0.313	
AW Dra	VRR	vis	51757.372	22820	+0.379	
AW Dra	VRR	vis	51779.341	22852	+0.357	
AW Dra	VRR	vis	51792.325	22871	+0.285	
AW Dra	VRR	vis	51805.372	22890	+0.275	
AW Dra	VRR	vis	51810.304	22897	+0.397	
AW Dra	VRR	vis	51836.308	22935	+0.287	

STARS	OBS.	MODE	JD HEL.	E(GC 85)	O-C (GC 85)	NOTES
AW Dra	VRR	vis	51845.258	22948	+0.304	
RR Gem	MAA	vis	51511.423	25558	- 0.246	
RR Gem	FLG	vis	51587.320	25749	- 0.236	
VX Her	VBR	vis	51704.577	65780	- 0.330	- 0.007 (O-C with non linear term of the GCVS 85 notes)
VX Her	VBR	vis	51735.536	65848	- 0.336	- 0.013 idem
VZ Her	VRR	vis	51757.456	33994	+0.052	
VZ Her	VRR	vis	51780.369	34046	+0.068	
VZ Her	VRR	vis	51784.331	34055	+0.067	
AR Her	VRR	vis	51747.414	21899	- 0.076	+0.040 (O-C with eph. AJ,118, 572, 1999)
AR Her	VRR	vis	51748.405	21901	- 0.025	+0.091 idem
AR Her	VRR	vis	51755.424	21916	- 0.057	+0.060 idem
AR Her	VRR	vis	51811.319	22035	- 0.095	+0.028 idem
V 394 Her	VRR	vis	51696.389	50335	- 0.059	
V 394 Her	VRR	vis	51719.462	50388	- 0.097	
V 394 Her	VRR	vis	51726.443	50404	- 0.093	
V 394 Her	VRR	vis	51730.383	50413	- 0.078	
V 394 Her	VRR	vis	51747.371	50452	- 0.096	
V 394 Her	VRR	vis	51757.402	50475	- 0.094	
V 394 Her	VRR	vis	51819.313	50617	- 0.103	
RR Leo	DDL	vis	50499.338	15924	+0.025	
RR Leo	DDL	vis	50518.332	15966	+0.019	
RR Leo	DDL	vis	50542.314	16019	+0.024	
RX Leo	VRR	vis	51611.344	23423	+0.087	
AA Leo	VBR	vis	51249.436	19465	- 0.052	
X LMi	VRR	vis	50489.320	16497	+0.098	
X LMi	VRR	vis	50506.429	16522	+0.099	
X LMi	VRR	vis	50515.329	16535	+0.102	
X LMi	VRR	vis	51599.346	18119	+0.158	
X LMi	VRR	vis	51601.388	18122	+0.147	
X LMi	VRR	vis	51610.308	18135	+0.170	
RR Lyr	FLB	vis	49211.427	11093	- 0.256	+0.115 (O-C with eph. GCVS 74)
RR Lyr	DDL	vis	50623.369	13584	- 0.382	+0.143 idem
RR Lyr	DDL	vis	50627.337	13591	- 0.382	+0.143 idem
RR Lyr	DDL	vis	50640.348	13614	- 0.409	+0.117 idem
RR Lyr	DDL	vis	50644.317	13621	- 0.408	+0.119 idem
RR Lyr	DDL	vis	50653.395	13637	- 0.400	+0.127 idem
RR Lyr	DDL	vis	50661.349	13651	- 0.382	+0.146 idem
RR Lyr	DDL	vis	50670.421	13667	- 0.380	+0.148 idem
RR Lyr	DDL	vis	50678.333	13681	- 0.404	+0.125 idem
RR Lyr	DDL	vis	50691.378	13704	- 0.397	+0.133 idem
RR Lyr	DDL	vis	50695.349	13711	- 0.394	+0.136 idem
RR Lyr	DDL	vis	50703.294	13725	- 0.385	+0.145 idem
RR Lyr	DDL	vis	50720.286	13755	- 0.399	+0.132 idem
RR Lyr	DMT	vis	51697.471	15479	- 0.494	+0.042 idem
RR Lyr	DDL	vis	51700.353	15484	- 0.447	+0.090 idem
RR Lyr	DDL	vis	51705.401	15493	- 0.501	+0.037 idem
RR Lyr	DDL	vis	51709.378	15500	- 0.492	+0.046 idem
RR Lyr	DMT	vis	51710.509	15502	- 0.494	+0.043 idem
RR Lyr	DMT	vis	51714.494	15509	- 0.477	+0.060 idem
RR Lyr	DDL	vis	51721.347	15521	- 0.427	+0.116 idem
RR Lyr	DMT	vis	51722.415	15523	- 0.493	+0.046 idem

STARS	OBS.	MODE	JD HEL.	E(GC 85)	O-C (GC 85)	NOTES
RR Lyr	DDL	vis	51725.305	15528	- 0.437	+0.102 (O-C with eph. GCVS 74)
RR Lyr	VRR	vis	51730.370	15537	- 0.474	+0.065 idem
RR Lyr	DDL	vis	51730.374	15537	- 0.470	+0.069 idem
RR Lyr	VRR	vis	51743.383	15560	- 0.499	+0.041 idem
RR Lyr	DDL	vis	51747.347	15567	- 0.503	+0.037 idem
RR Lyr	DDL	vis	51751.329	15574	- 0.489	+0.052 idem
RR Lyr	VRR	vis	51752.442	15576	- 0.510	+0.031 idem
RR Lyr	DDL	vis	51756.455	15583	- 0.465	+0.076 idem
RR Lyr	FLB	vis	51756.457	15583	- 0.463	+0.078 idem
RR Lyr	DDL	vis	51756.455	15583	- 0.465	+0.076 idem
RR Lyr	DDL	vis	51759.310	15588	- 0.444	+0.097 idem
RR Lyr	DDL	vis	51764.366	15597	- 0.490	+0.052 idem
RR Lyr	DDL	vis	51768.320	15604	- 0.504	+0.038 idem
RR Lyr	DMT	vis	51781.394	15627	- 0.468	+0.046 idem
RR Lyr	DMT	vis	51798.397	15657	- 0.471	+0.073 idem
RR Lyr	DMT	vis	51803.481	15666	- 0.489	+0.055 idem
RR Lyr	DMT	vis	51849.382	15747	- 0.504	+0.043 idem
RZ Lyr	FLB	vis	49892.433	17035	- 0.006	
IO Lyr	FLB	vis	49893.436	17803	- 0.012	
AV Peg	DDL	vis	50670.339	17624	+0.059	
AV Peg	VRR	vis	51509.259	19773	+0.064	
AV Peg	VRR	vis	51779.400	20465	+0.066	
AV Peg	VRR	vis	51811.417	20547	+0.072	
AV Peg	VRR	vis	51815.314	20557	+0.065	
AV Peg	VRR	vis	51840.299	20621	+0.066	
AV Peg	VRR	vis	51842.259	20626	+0.074	
BH Peg	VRR	vis	51777.399	19364	- 0.069	
DH Peg	VBR	vis	51782.444	28644	+0.033	
DZ Peg	VBR	vis	51470.436	28944	+0.160	
DZ Peg	VBR	vis	51779.581	29453	+0.167	
AR Per	VBR	vis	51768.587	57647	+0.051	+0.011 (O-C with non linear term of the GCVS 85 notes)
AR Per	VBR	vis	51835.390	57804	+0.042	+0.003 idem
DF Ser	VBR	vis	51704.458	50248	+0.075	
SS Tau	VRR	vis	51547.317	33829	- 0.017	
U Tri	VRR	vis	51511.290	72467	- 0.021	
U Tri	VRR	vis	51845.388	73214	- 0.021	
U Tri	VRR	vis	51935.274	73415	- 0.032	
RV UMa	VBR	vis	51714.546	14184	+0.072	
RV UMa	VBR	vis	51715.492	14186	+0.082	
TU UMa	VBR	vis	51899.556	16261	- 0.027	
BN Vul	VRR	vis	51719.488	10417	+0.046	
BN Vul	VRR	vis	51725.439	10427	+0.056	
BN Vul	FLB	vis	51763.450	10491	+0.042	
FH Vul	VBR	vis	51704.516	38669	- 0.066	
FH Vul	VBR	vis	51728.458	38728	- 0.044	
FH Vul	VBR	vis	51734.520	38743	- 0.063	

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