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LIST OF VISUAL MAXIMA OF RR LYRAE STARS

ABSTRACT

165 instants of maximum light have been determined for 78 RR Lyrae variable stars (66 RRab and 12 RRc) from visual estimates. They are listed with the O-C relative to the most probable cycle number.

RESUME

165 instants de maxima de 78 étoiles variables du type RR Lyrae (66 RRab et 12 RRc) ont été déterminés à partir d'estimations visuelles. Ils sont listés avec l'O-C relatif au numéro de cycle le plus vraisemblable.

RIASSUNTO

165 massimi di 78 stelle variabili del tipo RR Lyrae (66 RRab e 12 RRc) sono stati determinati sulla base di stime visuali. Questi instanti di massimo sono raccolti in una lista con l'O-C relativo al numero di ciclo più probabile.

RESUMEN

165 instantes de máximos de 78 estrellas variables del tipo RR Lyrae (66 RRab y 12 RRc) han sido determinados a partir 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 October 2015 (JD 2457300) to October 2016 (JD 2457650). The observers are: Roland Boninsegna (BNN), Michel Dumont (DMT), Stéphane Ferrand (FND) and Jacqueline Vandebroere (VBR).

<u>OBS.</u>	<u>METHOD</u>	<u>N. MAX</u>	<u>SITE</u>	<u>INSTRUMENTS</u>
BNN	vis	6	Dourbes, Belgium	N400 mm
DMT	vis	12	Levesville and Crozet, France	R80 mm and binoculars
FND	vis	25	Saint-Piat, France	N305 mm and binoculars
VBR	vis	122	Heure, Belgium	N350 mm

The times were determined by the observers from their visual estimates (vis). The ephemerides used are those of GEOS RR 53 (Vandebroere and Le Borgne, 2014) when the star is listed in it. If other ephemerides are used, it is indicated in notes where we find also the non linear O-C's.

LIST

<u>RRab</u>	<u>OBS.</u>	<u>MODE</u>	<u>HJD</u>	<u>ACC.</u>	<u>E (RR53)</u>	<u>O-C (RR53)</u>	<u>NOTES</u>
GV And	VBR	vis	57615.500	0.01	29335	-0.222	
GV And	VBR	vis	57616.562	0.01	29337	-0.216	
V550 And	VBR	vis	57643.399	0.01	7943	-0.184	eph. GCVS
V550 And	VBR	vis	57646.486	0.01	7947	-0.212	idem
V550 And	VBR	vis	57656.622	0.01	7960	-0.202	idem
V569 And	VBR	vis	57638.533	0.01	11237	-0.042	idem
V569 And	VBR	vis	57643.509	0.01	11246	-0.042	idem
V708 And	VBR	vis	57607.580	0.01	3989	-0.003	idem
V708 And	VBR	vis	57613.456	0.01	4000	-0.001	idem
GX Aqr	VBR	vis	57627.572	0.01	25338	+0.057	
GX Aqr	VBR	vis	57655.502	0.01	25389	+0.073	
GY Aqr	VBR	vis	57626.582	0.01	21782	-0.051	eph. GCVS
OZ Aql	FND	vis	57603.386	0.008	34732	-0.088	
OZ Aql	FND	vis	57639.441	0.004	34807	-0.093	
V672 Aql	VBR	vis	57660.330	0.01	28997	-0.108	
V706 Aql	VBR	vis	57614.519	0.01	42408	+0.039	
V706 Aql	VBR	vis	57639.420	0.01	42474	+0.042	

RRab	OBS.	MODE	HJD	ACC.	E (RR53)	O-C (RR53)	NOTES
V882 Aql	VBR	vis	57665.337	0.01	37379	-0.020	eph. GCVS
V1094 Aql	FND	vis	57657.360	0.01	67657	+0.232	idem
V1094 Aql	FND	vis	57661.352	0.008	67666	+0.228	idem
V1094 Aql	FND	vis	57665.350	0.008	67675	+0.229	idem
TU Ari	BNN	vis	57640.520	0.005	40865	-0.065	
TU Ari	FND	vis	57640.497	0.008	40865	-0.088	
RS Boo	DMT	vis	57533.437	0.006	57722	+0.002	-0.022 with quadratic eph.
RS Boo	DMT	vis	57576.453	0.01	57836	+0.002	-0.023 idem
V1041 Cas	VBR	vis	57371.240	0.015	188	+0.012	eph. Le Borgne priv. comm.
V1041 Cas	VBR	vis	57639.545	0.01	661	-0.004	idem
V1041 Cas	VBR	vis	57643.514	0.01	668	-0.006	idem
EL Cep	VBR	vis	57626.570	0.01	51867	-0.024	
EL Cep	VBR	vis	57631.588	0.01	51879	-0.005	
V740 Cep	VBR	vis	57632.618	0.01	12872	+0.027	eph. GCVS
V740 Cep	VBR	vis	57653.411	0.01	12915	+0.012	idem
V742 Cep	VBR	vis	56949.392	0.01	12831	-0.131	idem
V742 Cep	VBR	vis	57361.230	0.01	13787	-0.147	idem
V742 Cep	VBR	vis	57615.426	0.01	14377	-0.129	idem
V857 Cep	BNN	vis	57625.378	0.006	11031	-0.042	idem
V357 Cyg	VBR	vis	57641.541	0.01	42770	-0.016	
V357 Cyg	VBR	vis	57653.497	0.01	42793	-0.023	
V802 Cyg	VBR	vis	57611.505	0.01	28200	-0.029	
V838 Cyg	BNN	vis	57623.412	0.008	24773	+0.017	
V838 Cyg	BNN	vis	57632.540	0.005	24792	+0.020	
V1962 Cyg	VBR	vis	57665.358	0.01	14058	+0.106	
V1962 Cyg	VBR	vis	57666.389	0.01	14060	+0.120	
V2470 Cyg	VBR	vis	57614.425	0.01	6882	+0.032	
V2470 Cyg	VBR	vis	57643.507	0.01	6935	+0.039	
RV Del	VBR	vis	57623.603	0.01	33654	+0.088	
RV Del	VBR	vis	57653.496	0.01	33714	+0.094	
ZZ Del	VBR	vis	57623.555	0.01	32618	+0.014	
FF Del	VBR	vis	57286.385	0.01	26068	+0.046	
FF Del	VBR	vis	57614.420	0.01	26601	+0.052	
AE Dra	VBR	vis	57644.452	0.01	24600	-0.000	
AE Dra	VBR	vis	57667.361	0.01	24638	+0.007	
CY Dra	VBR	vis	57210.430	0.01	6836	-0.013	
CY Dra	VBR	vis	57233.412	0.015	6879	-0.034	
CY Dra	VBR	vis	57256.401	0.01	6922	-0.047	
CY Dra	VBR	vis	57257.435	0.015	6924	-0.083	
CY Dra	VBR	vis	57579.444	0.01	7526	-0.114	
OS Dra	VBR	vis	57435.355	0.01	16839	-0.028	eph. GCVS
OS Dra	VBR	vis	57489.467	0.01	16994	-0.019	idem
V363 Dra	VBR	vis	57644.314	0.01	11671	-0.093	idem
V363 Dra	VBR	vis	57677.298	0.01	11732	-0.098	idem
V394 Dra	VBR	vis	57638.427	0.01	10910	-0.139	eph. VSX
RW Equ	VBR	vis	57624.474	0.01	92826	-0.016	eph. GCVS
AF Her	VBR	vis	57589.444	0.01	32659	-0.023	
AF Her	VBR	vis	57601.424	0.01	32678	-0.020	
IP Her	VBR	vis	57645.310	0.015	7217	+0.097	
IP Her	VBR	vis	57655.304	0.01	7240	+0.113	
V486 Her	VBR	vis	57623.438	0.01	19558	+0.018	
V534 Her	VBR	vis	57653.330	0.01	6560	-0.071	
V534 Her	VBR	vis	57665.313	0.01	6580	-0.084	
V734 Her	VBR	vis	57632.472	0.01	15050	-0.013	
V1129 Her	VBR	vis	57607.432	0.01	13566	-0.117	eph. GCVS
V1129 Her	VBR	vis	57626.402	0.01	13607	-0.114	idem
V1131 Her	VBR	vis	57638.362	0.01	3032	-0.024	idem.
V1303 Her	VBR	vis	57308.322	0.01	4041	-0.011	idem
V1303 Her	VBR	vis	57616.454	0.01	4563	-0.008	idem
DM Leo	VBR	vis	57473.449	0.01	6613	+0.006	
RR Lyr	DMT	vis	57584.482	0.009	38588	-0.189	
RR Lyr	DMT	vis	57588.430	0.007	38595	-0.209	
RR Lyr	DMT	vis	57613.383	0.009	38639	-0.196	
RR Lyr	DMT	vis	57639.437	0.006	38685	-0.217	

<u>RRab</u>	<u>OBS.</u>	<u>MODE</u>	<u>HJD</u>	<u>ACC.</u>	<u>E (RR53)</u>	<u>O-C (RR53)</u>	<u>NOTES</u>
RR Lyr	DMT	vis	57656.460	0.006	38715	-0.199	
RR Lyr	DMT	vis	57660.430	0.006	38722	-0.197	
RR Lyr	DMT	vis	57664.394	0.009	38729	-0.201	
RR Lyr	DMT	vis	57673.451	0.008	38745	-0.213	
WW Lyr	VBR	vis	57611.525	0.01	25183	+0.006	
WW Lyr	VBR	vis	57623.399	0.01	25206	+0.017	
CX Lyr	VBR	vis	57617.423	0.01	35597	+0.156	
CX Lyr	VBR	vis	57667.370	0.01	35678	+0.153	
DD Lyr	VBR	vis	57610.451	0.01	54314	+0.097	-0.003 with quadratic eph.
DD Lyr	VBR	vis	57641.374	0.01	54397	+0.092	-0.008 idem
EN Lyr	VBR	vis	57640.440	0.01	22561	+0.010	
FN Lyr	VBR	vis	57632.464	0.01	39103	+0.019	
FN Lyr	VBR	vis	57640.353	0.01	39118	-0.003	
KR Lyr	VBR	vis	57292.326	0.015	37183	-0.145	
KR Lyr	VBR	vis	57616.461	0.015	38002	-0.146	
LX Lyr	VBR	vis	57588.482	0.01	27147	+0.023	
LX Lyr	VBR	vis	57617.409	0.01	27200	+0.039	
NQ Lyr	VBR	vis	57614.416	0.01	34788	+0.016	
NQ Lyr	VBR	vis	57624.402	0.01	34805	+0.009	
NR Lyr	VBR	vis	57588.482	0.01	21879	-0.026	
NR Lyr	VBR	vis	57601.437	0.01	21898	-0.030	
V408 Oph	VBR	vis	57626.399	0.01	8504	+0.020	
AL Peg	VBR	vis	57631.543	0.01	22692	-0.122	
AL Peg	VBR	vis	57639.524	0.01	22706	-0.107	
CS Peg	VBR	vis	57601.525	0.01	7037	-0.005	
CY Peg	VBR	vis	57614.605	0.01	6094	+0.056	
CY Peg	VBR	vis	57627.564	0.01	6114	+0.056	
IX Peg	FND	vis	57624.484	0.01	19886	+0.097	eph. GCVS
IX Peg	FND	vis	57653.360	0.01	19934	+0.128	idem
V438 Peg	VBR	vis	57307.458	0.01	3057	+0.028	idem
V438 Peg	VBR	vis	57625.515	0.01	3430	+0.020	idem
V491 Peg	VBR	vis	57640.547	0.01	5400	+0.000	idem
V491 Peg	VBR	vis	57667.473	0.01	5449	-0.003	idem
V505 Peg	BNN	vis	57667.500	0.015	5924	+0.025	idem
V509 Peg	VBR	vis	57584.496	0.01	11823	+0.011	idem
V509 Peg	VBR	vis	57588.516	0.01	11834	+0.017	idem
V517 Peg	VBR	vis	57615.584	0.01	6239	-0.001	idem
V517 Peg	VBR	vis	57631.519	0.01	6267	-0.011	idem
V550 Peg	VBR	vis	57666.467	0.01	5847	-0.012	idem
V550 Peg	VBR	vis	57667.443	0.01	5849	-0.022	idem
HX Psc	VBR	vis	57655.488	0.01	6992	+0.005	idem
BU Sct	VBR	vis	57624.422	0.01	42690	-0.025	
BO Tau	VBR	vis	57644.585	0.01	22724	+0.029	
BO Tau	VBR	vis	57656.614	0.01	22751	+0.039	
CE Vul	VBR	vis	57626.483	0.01	47412	-0.013	+0.020 with quadratic eph.
CE Vul	BNN	vis	57639.438	0.008	47447	-0.025	+0.008 idem
CE Vul	VBR	vis	57655.371	0.01	47490	-0.023	+0.010 idem

<u>RRc</u>	<u>OBS.</u>	<u>MODE</u>	<u>HJD</u>	<u>ACC.</u>	<u>E (RR53)</u>	<u>O-C (RR53)</u>	<u>NOTES</u>
CD Ari	VBR	vis	57631.614	0.01	4904	-0.050	
CD Ari	VBR	vis	57656.566	0.01	4980	-0.049	
V830 Cas	VBR	vis	57607.556	0.015	16466	+0.052	eph. GCVS
V830 Cas	VBR	vis	57638.555	0.01	16549	+0.046	idem
RZ Cep	DMT	vis	57336.494	0.01	75852	+0.182	
RZ Cep	FND	vis	57565.528	0.01	76594	+0.186	
RZ Cep	FND	vis	57578.463	0.01	76636	+0.157	normal max
RZ Cep	FND	vis	57581.551	0.008	76646	+0.159	max I
RZ Cep	FND	vis	57581.578	0.008	76646	+0.186	max II
RZ Cep	FND	vis	57585.540	0.008	76659	+0.135	max I
RZ Cep	FND	vis	57585.578	0.008	76659	+0.173	max II
RZ Cep	FND	vis	57599.450	0.01	76704	+0.155	max I
RZ Cep	FND	vis	57599.484	0.006	76704	+0.189	max II

<u>RRc</u>	<u>OBS.</u>	<u>MODE</u>	<u>HJD</u>	<u>ACC.</u>	<u>E (RR53)</u>	<u>O-C (RR53)</u>	<u>NOTES</u>
DD Dra	VBR	vis	57214.401	0.01	16327	+0.167	max II
DD Dra	VBR	vis	57293.469	0.01	16569	+0.151	max II
DD Dra	VBR	vis	57589.511	0.015	17475	+0.116	max I
V397 Gem	VBR	vis	57361.448	0.015	16435	-0.045	eph. GCVS
V397 Gem	VBR	vis	57667.640	0.01	17503	-0.040	idem
V462 Lyr	VBR	vis	57517.533	0.01	24930	-0.018	
V462 Lyr	VBR	vis	57615.532	0.015	25193	+0.010	
V558 Oph	VBR	vis	57257.360	0.01	43487	+0.024	
V558 Oph	VBR	vis	57601.434	0.01	44295	+0.024	
VZ Peg	FND	vis	57617.581	0.01	16682	+0.009	normal max
VZ Peg	FND	vis	57624.621	0.01	16705	+0.000	
VZ Peg	FND	vis	57625.538	0.008	16708	-0.002	
VZ Peg	FND	vis	57631.361	0.01	16727	-0.003	normal max
VZ Peg	FND	vis	57657.403	0.008	16812	-0.012	
VZ Peg	FND	vis	57665.368	0.015	16838	-0.016	
DH Peg	DMT	vis	57660.467	0.006	50084	+0.010	
V564 Peg	VBR	vis	57616.560	0.01	14764	-0.026	eph. GCVS
V564 Peg	VBR	vis	57625.476	0.01	14792	-0.037	idem
SS Psc	VBR	vis	57638.522	0.015	69426	-0.097	
SS Psc	VBR	vis	57645.411	0.015	69450	-0.115	
SS Psc	VBR	vis	57666.451	0.015	69523	-0.084	
SX UMa	FND	vis	57587.548	0.01	72429	+0.048	
SX UMa	FND	vis	57593.391	0.01	72448	+0.056	max I
SX UMa	FND	vis	57593.452	0.01	72448	+0.117	max II

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