

Jacqueline Vandebroere¹ and Stéphane Ferrand¹

¹Groupe Européen d'Observations Stellaires

LIST OF VISUAL MAXIMA OF RR LYRAE STARS

ABSTRACT

161 instants of maximum light have been determined for 69 RR Lyrae variable stars (53 RRab and 16 RRc) from visual estimates. They are listed with the O-C relative to the most probable cycle number.

RESUME

161 instants de maxima de 69 étoiles variables du type RR Lyrae (53 RRab et 16 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

161 massimi di 69 stelle variabili del tipo RR Lyrae (53 RRab e 16 RRc) sono stati determinati sulla base di stime visuali. Questi istanti di massimo sono raccolti in una lista con l'O-C relativo al numero di ciclo più probabile.

RESUMEN

161 instantes de máximos de 69 stelllas variables del tipo RR Lyrae (53 RRab y 16 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 March 2015 (JD 2457100) to April 2016 (JD 2457500). 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	4	Dourbes, Belgium	N400 mm
DMT	vis	10	Levesville et Crozet, France	R100 mm and binoculars
FND	vis	55	Saint-Piat, France	N305 mm and binoculars
VBR	vis	92	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>
V525 Aql	VBR	vis	57298.343	0.01	31291	-0.014	
V672 Aql	VBR	vis	56949.333	0.01	27655	-0.071	
V653 Aur	VBR	vis	56986.603	0.015	9415	+0.052	eph. GCVS
RS Boo	DMT	vis	57213.469	0.009	56874	+0.017	-0.006 with quadratic eph.
RS Boo	DMT	vis	57219.501	0.007	56890	+0.012	-0.011 idem
RS Boo	DMT	vis	57224.411	0.007	56903	+0.016	-0.006 idem
RU Boo	VBR	vis	57165.564	0.01	7530	+0.013	eph. GCVS (Samus)
RU Boo	VBR	vis	57464.618	0.01	8137	+0.016	idem
SV Boo	FND	vis	57534.466	0.008	33238	+0.016	
SV Boo	FND	vis	57548.423	0.008	33262	+0.019	
VX Boo	FND	vis	57514.462	0.008	8131	+0.008	eph. GCVS
WW Boo	VBR	vis	57513.460	0.01	41180	-0.025	
KR Boo	VBR	vis	57136.538	0.015	8400	+0.037	idem
KR Boo	FND	vis	57509.383	0.01	9128	+0.045	idem
KR Boo	FND	vis	57513.488	0.01	9136	+0.053	idem
KR Boo	FND	vis	57514.505	0.01	9138	+0.046	idem
KR Boo	VBR	vis	57515.525	0.01	9140	+0.042	idem
LN Boo	BNN	vis	57489.419	0.01	13287	-0.158	idem

<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>
SZ CVn	VBR	vis	57461.622	0.01	51168	+0.002	eph. GCVS
SZ CVn	VBR	vis	57498.437	0.01	51235	-0.010	idem
V470 Cas	VBR	vis	56213.459	0.01	11459	+0.115	
V1045 Cas	VBR	vis	56917.434	0.01	632	-0.006	eph. Le Borgne, 2016, priv.comm.
EL Cep	VBR	vis	57204.541	0.01	50854	-0.015	
EL Cep	VBR	vis	57297.421	0.01	51077	-0.042	
TU Com	VBR	vis	57434.610	0.01	8525	-0.088	
DL Com	VBR	vis	57510.542	0.01	37770	-0.010	
DL Com	VBR	vis	57517.448	0.01	37786	-0.017	
V759 Cyg	VBR	vis	57204.426	0.01	60880	+0.091	
V759 Cyg	VBR	vis	57254.454	0.01	61019	+0.074	
V838 Cyg	BNN	vis	57307.383	0.007	24115	+0.012	
V1962 Cyg	VBR	vis	57307.351	0.01	13354	-0.026	
V1962 Cyg	VBR	vis	57308.354	0.01	13356	-0.040	
AE Dra	VBR	vis	57213.536	0.01	23885	-0.005	
AE Dra	VBR	vis	57298.507	0.01	24026	-0.011	
AV Dra	BNN	vis	57489.507	0.006	29712	+0.247	
IS Dra	VBR	vis	57134.437	0.015	12488	+0.033	eph. GCVS
IS Dra	VBR	vis	57460.353	0.01	13135	+0.016	idem
IS Dra	VBR	vis	57464.404	0.01	13143	+0.037	idem
V375 Dra	VBR	vis	57210.442	0.01	13258	-0.064	idem
V375 Dra	VBR	vis	57256.368	0.01	13363	-0.086	idem
V384 Dra	VBR	vis	57189.528	0.01	10585	-0.010	idem
V384 Dra	VBR	vis	57254.451	0.01	10704	-0.010	idem
V398 Dra	VBR	vis	57240.532	0.01	2956	-0.011	idem
V398 Dra	VBR	vis	57275.429	0.01	3011	+0.006	idem
RT Equ	VBR	vis	57256.499	0.01	24292	-1.678	
RT Equ	VBR	vis	57276.526	0.01	24337	-1.672	
AF Her	VBR	vis	57296.332	0.01	32194	-0.026	
CW Her	VBR	vis	57203.513	0.01	24087	-0.011	
CW Her	VBR	vis	57263.400	0.01	24183	-0.013	
V365 Her	VBR	vis	56487.459	0.01	30558	+0.070	
V365 Her	VBR	vis	57517.566	0.01	32238	+0.091	
V418 Her	VBR	vis	56814.445	0.01	38478	-0.049	
V418 Her	VBR	vis	56855.420	0.015	38587	-0.084	
V418 Her	VBR	vis	56913.330	0.01	38741	-0.114	
V418 Her	VBR	vis	57210.549	0.01	39531	-0.121	
V418 Her	VBR	vis	57215.446	0.01	39544	-0.115	
V448 Her	VBR	vis	57496.565	0.01	16933	+0.021	
V448 Her	VBR	vis	57498.513	0.015	16936	+0.008	
V552 Her	VBR	vis	57213.422	0.01	8725	+0.013	
V552 Her	FND	vis	57513.577	0.008	9518	+0.002	
V1087 Her	VBR	vis	56162.390	0.01	19900	+0.033	
V1087 Her	VBR	vis	56532.380	0.01	20700	-0.018	
XZ Lac	VBR	vis	57297.432	0.01	26515	-0.088	
XZ Lac	VBR	vis	57307.509	0.01	26531	-0.094	
PW Lac	VBR	vis	57296.549	0.01	22138	+0.037	
V470 Lac	VBR	vis	57297.640	0.01	7816	+0.038	eph. GCVS
V470 Lac	VBR	vis	57307.307	0.01	7837	+0.025	idem
RR Lyr	DMT	vis	57219.467	0.005	37944	-0.161	
RR Lyr	DMT	vis	57240.452	0.01	37981	-0.149	
RR Lyr	DMT	vis	57257.4455	0.005	38011	-0.161	
RR Lyr	DMT	vis	57274.451	0.007	38041	-0.160	
RR Lyr	DMT	vis	57286.352	0.007	38062	-0.163	
RR Lyr	DMT	vis	57299.412	0.006	38085	-0.140	
RR Lyr	DMT	vis	57328.306	0.01	38136	-0.155	
WW Lyr	VBR	vis	57296.389	0.01	24572	+0.004	
CX Lyr	VBR	vis	57297.366	0.01	35078	+0.145	
LX Lyr	VBR	vis	57293.375	0.01	26606	+0.023	
NQ Lyr	VBR	vis	57296.407	0.01	34247	+0.001	
CS Peg	VBR	vis	57307.400	0.01	6516	-0.006	
CY Peg	VBR	vis	57307.440	0.01	5620	+0.011	
IX Peg	FND	vis	57217.614	0.015	19209	+0.059	VS22, 431, 1986
V509 Peg	FND	vis	57218.524	0.006	10820	+0.008	eph. GCVS

RRab	OBS.	MODE	HJD	ACC.	E (RR53)	O-C (RR53)	NOTES
V509 Peg	FND	vis	57221.454	0.006	10828	+0.019	eph. GCVS
V509 Peg	FND	vis	57275.455	0.01	10976	+0.019	idem
V509 Peg	FND	vis	57308.300	0.006	11066	+0.025	idem
GI Psc	VBR	vis	57361.421	0.01	6437	+0.074	idem
V488 Ser	BNN	vis	57513.588	0.008	5627	+0.058	idem
UU UMa	VBR	vis	57459.449	0.01	24191	-0.061	
UU UMa	VBR	vis	57461.385	0.01	24194	-0.059	
BD UMa	VBR	vis	57434.469	0.01	25170	-0.301	eph. GCVS
BD UMa	VBR	vis	57460.369	0.015	25208	-0.285	idem
BF UMa	VBR	vis	57484.398	0.01	18299	+0.032	
BF UMa	VBR	vis	57489.398	0.01	18309	+0.021	
BK UMa	VBR	vis	57435.459	0.015	1117	+0.017	eph. Gröbel 2014, BAV Rundbrief, p.9, September
BK UMa	VBR	vis	57461.518	0.015	1158	+0.013	idem
RX UMi	VBR	vis	57510.501	0.01	32324	-0.076	
AF UMi	FND	vis	57256.623	0.01	8648	+0.177	eph. GCVS
AF UMi	FND	vis	57272.522	0.01	8671	+0.180	idem

RRc	OBS.	MODE	HJD	ACC.	E (RR53)	O-C (RR53)	NOTES
Rotse J144546.37+234844.9	FND	vis	57513.371	0.02			star in VSX
LQ Cnc	VBR	vis	57065.450	0.01	11676	+0.152	eph. GCVS
LQ Cnc	VBR	vis	57089.407	0.01	11747	+0.151	idem
LQ Cnc	VBR	vis	57446.387	0.01	12805	+0.131	idem
LQ Cnc	VBR	vis	57448.401	0.01	12811	+0.121	idem
RZ Cep	FND	vis	57217.553	0.01	75467	+0.077	max I
RZ Cep	FND	vis	57217.576	0.01	75467	+0.100	max II
RZ Cep	FND	vis	57218.494	0.01	75470	+0.092	max I
RZ Cep	FND	vis	57218.522	0.01	75470	+0.120	max II
RZ Cep	FND	vis	57219.424	0.01	75473	+0.096	max I
RZ Cep	FND	vis	57219.462	0.01	75473	+0.134	max II
RZ Cep	FND	vis	57224.447	0.01	75489	+0.180	
RZ Cep	FND	vis	57285.515	0.01	75687	+0.133	
RZ Cep	FND	vis	57286.433	0.01	75690	+0.125	
RZ Cep	FND	vis	57296.332	0.01	75722	+0.146	
RZ Cep	FND	vis	57306.559	0.01	75755	+0.187	
RZ Cep	FND	vis	57314.533	0.01	75781	+0.136	
RZ Cep	FND	vis	57361.423	0.01	75933	+0.109	
RZ Cep	FND	vis	57392.324	0.01	76033	+0.143	max I
RZ Cep	FND	vis	57392.345	0.01	76033	+0.164	max II
RZ Cep	FND	vis	57403.447	0.01	76069	+0.154	
RZ Cep	FND	vis	57416.402	0.01	76111	+0.146	max I
RZ Cep	FND	vis	57416.441	0.01	76111	+0.185	max II
RZ Cep	FND	vis	57433.366	0.01	76166	+0.133	
RZ Cep	FND	vis	57434.319	0.01	76169	+0.160	
AG Com	VBR	vis	57104.424	0.015	32354	+0.020	
AG Com	VBR	vis	57489.394	0.01	33548	+0.007	
EG Del	VBR	vis	57286.359	0.015	51705	-0.187	
EG Del	VBR	vis	57327.271	0.01	51831	-0.205	
V420 Dra	VBR	vis	57221.433	0.01	17782	-0.058	eph. GCVS
V420 Dra	VBR	vis	57254.383	0.01	17882	-0.071	idem
V424 Dra	VBR	vis	57236.506	0.015	19682	-0.005	idem
V424 Dra	VBR	vis	57254.517	0.01	19742	-0.013	idem
VW Equ	FND	vis	57217.432	0.01	9994	-0.019	idem
VW Equ	FND	vis	57219.460	0.01	10001	-0.031	idem
VW Equ	FND	vis	57221.473	0.015	10008	-0.059	idem
VW Equ	FND	vis	57241.577	0.01	10077	-0.064	idem
VW Equ	FND	vis	57256.458	0.01	10128	-0.047	idem
VW Equ	FND	vis	57272.443	0.013	10183	-0.092	idem
VW Equ	FND	vis	57275.359	0.01	10193	-0.090	idem
VW Equ	FND	vis	57296.362	0.006	10265	-0.071	idem
VW Equ	VBR	vis	57298.413	0.01	10272	-0.061	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>
VW Equ	VBR	vis	57322.289	0.01	10354	-0.083	eph. GCVS
VW Equ	FND	vis	57327.272	0.013	10371	-0.055	idem
KX Leo	VBR	vis	56741.507	0.01	8690	+0.036	idem
KX Leo	VBR	vis	57489.473	0.01	10854	+0.030	idem
TV Lyn	VBR	vis	57293.561	0.01	73301	-0.004	
TV Lyn	VBR	vis	57416.546	0.015	73812	+0.008	
V558 Oph	VBR	vis	55746.521	0.01	39939	+0.046	
VZ Peg	VBR	vis	57361.328	0.015	15846	-0.018	
DH Peg	FND	vis	57214.579	0.01	48339	-0.012	eph. GCVS
DH Peg	FND	vis	57237.583	0.01	48429	-0.004	idem
DH Peg	FND	vis	57241.430	0.01	48444	+0.011	idem
SX UMa	FND	vis	57217.449	0.005	71224	+0.035	max I
SX UMa	FND	vis	57217.465	0.01	71224	+0.051	max II
SX UMa	FND	vis	57218.417	0.006	71227	+0.081	
SX UMa	FND	vis	57221.461	0.006	71237	+0.054	
SX UMa	FND	vis	57241.443	0.01	71302	+0.073	
SX UMa	FND	vis	57497.561	0.015	72136	+0.049	
MU UMa	VBR	vis	57435.453	0.01	14754	+0.025	
MU UMa	VBR	vis	57448.581	0.01	14803	+0.023	
QW UMa	FND	vis	57496.446	0.013	19641	+0.148	eph. GCVS
QW UMa	FND	vis	57505.396	0.013	19671	+0.143	idem

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