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LIST OF VISUAL MAXIMA OF RR LYRAE STARS

ABSTRACT

116 instants of maximum light have been determined for 58 RR Lyrae variable stars from visual estimates. They are listed with the O-C relative to the most probable cycle number.

RESUME

116 instants de maximum de 58 étoiles variables du type RR Lyrae ont été déterminés à partir d'estimations visuelles. Ils sont listés avec l'O-C relatif au numéro de cycle le plus vraisemblable.

RIASSUNTO

116 massimi di 58 stelle variabili del tipo RR Lyrae sono stati determinati sulla base di stime visuali. Qusti instanti di massimo sono raccolti in una lista con l'O-C relativo al numero di ciclo più probabile.

RESUMEN

116 instantes de máximos de 58 estrellas variables del tipo RR Lyrae 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 April 2006 (JD 2453800) to November 2008 (JD 2454400). The observers are Michel Dumont (DMT), Carlo Pampaloni (PMP) and Jacqueline Vandenbroere (VBR). The number of cycle (E) and the O-C are generally derived from the GCVS 85 elements. The O-C are appearing in notes when new or better ephemerides were used and when a non linear relation was applied.

The light curves published in Le Borgne et al. (2007) were examined to avoid any unlikelihood and the O-C relative to linear and non linear ephemerides of this paper were systematically noted LB 2007.

LIST

STARS	OBS	MODE	HJD	ACC	E (G 85)	O-C (G 85)	NOTES
XX And	VBR	vis	54390.383	±0.02	21173	+0.221	–0.013 (with parabolic elements of LB 2007)
CI And	VBR	vis	54388.464	±0.01	38517	+0.114	
BN Aqr	VBR	vis	54359.471	±0.01	35104	+0.579	+0.007 (with parabolic elements of LB 2007)
BT Aqr	VBR	vis	54295.466	±0.01	39411	–0.029	
BT Aqr	VBR	vis	54359.331	±0.01	39568	–0.034	
GP Aqr	VBR	vis	54299.507	±0.02	5652	–0.140	per. Pojmanski, 2002
GP Aqr	VBR	vis	54379.302	±0.02	5849	–0.185	idem
RS Boo	DMT	vis	54198.532	±0.010	32936	+0.006	–0.007 (with parabolic elements of LB 2007)
RS Boo	DMT	vis	54209.477	±0.010	32965	+0.008	–0.005 idem
RS Boo	DMT	vis	54226.467	±0.021	33010	+0.018	+0.005 idem
ST Boo	VBR	vis	53898.520	±0.02	55789	+0.059	
ST Boo	VBR	vis	54208.446	±0.02	56287	+0.084	
SZ Boo	VBR	vis	54210.476	±0.01	50821	+0.020	
TV Boo	VBR	vis	54197.399	±0.02	94663	+0.077	
RW Cnc	VBR	vis	54123.540	±0.01	26621	+0.241	+0.004 (with parabolic elements of LB 2007)
RW Cnc	VBR	vis	54174.428	±0.01	26714	+0.240	+0.001 idem

STARS	OBS	MODE	HJD	ACC	E (G 85)	O-C (G 85)	NOTES
AQ Cnc	VBR	vis	54199.358	±0.01	38646	–0.063	
EZ Cnc	VBR	vis	54195.378	±0.01	14808	–0.045	
RU CVn	VBR	vis	54123.619	±0.01	34261	+0.208	
SS CVn	VBR	vis	54203.390	±0.01	30470	+0.150	
SS CVn	VBR	vis	54210.567	±0.01	30485	+0.149	
ST CVn	VBR	vis	54172.508	±0.01	41883	+0.649	
ST CVn	VBR	vis	54205.414	±0.001	41983	+0.651	
UZ CVn	VBR	vis	54208.436	±0.02	39813	+0.225	
UZ CVn	VBR	vis	54210.541	±0.02	39816	+0.236	
BN CVn	VBR	vis	53407.462	±0.01	12004	+0.040	eph. JBAA, 1991, 101, 3
IU Cas	VBR	vis	54390.384	±0.01	39486	+0.533	
RZ Cep	VBR	vis	52426.541	±0.02	31720	–0.331	
RZ Cep	VBR	vis	52452.519	±0.02	31804	–0.282	
RZ Cep	VBR	vis	53300.454	±0.02	34551	–0.306	
RZ Cep	VBR	vis	53340.245	±0.02	34680	–0.335	
RZ Cep	VBR	vis	53349.359	±0.02	34710	–0.482	
RZ Cep	VBR	vis	53359.230	±0.02	34742	–0.489	
RZ Cep	VBR	vis	53383.309	±0.02	34820	–0.487	
RZ Cep	VBR	vis	53564.472	±0.02	35407	–0.522	
RZ Cep	VBR	vis	53569.425	±0.02	35423	–0.508	
RZ Cep	VBR	vis	53611.399	±0.02	35559	–0.516	
RZ Cep	VBR	vis	54296.555	±0.02	37779	–0.641	
RZ Cep	VBR	vis	54306.443	±0.02	37811	–0.631	
RZ Cep	VBR	vis	54348.411	±0.02	37947	–0.644	
RZ Cep	DMT	vis	54357.405	±0.017	37976	–0.602	
RZ Cep	DMT	vis	54394.435	±0.014	38096	-0.614	
S Com	VBR	vis	54172.526	±0.01	23045	–0.098	+0.003 (with parabolic elements of LB 2007)
S Com	VBR	vis	54202.432	±0.01	23096	–0.108	–0.066 idem
RY Com	VBR	vis	54211.369	±0.01	31160	–0.016	
TV CrB	VBR	vis	54211.581	±0.01	38646	+0.032	+0.005 (with parabolic elements of LB 2007)
UY Cyg	VBR	vis	54306.477	±0.01	56844	+0.047	+0.002 (LB 2007)
UY Cyg	VBR	vis	54324.428	±0.01	56876	+0.056	+0.010 idem
XZ Cyg	VBR	vis	54348.482	±0.01	21911	–1.822	
XZ Cyg	VBR	vis	54356.399	±0.01	21928	–1.839	
DM Cyg	VBR	vis	54296.568	±0.01	27900	+0.068	+0.006 (with parabolic elements of LB 2007)
DM Cyg	VBR	vis	54299.500	±0.01	27907	+0.061	–0.001 idem
BC Dra	VBR	vis	54300.466	±0.01	16707	+0.067	
BC Dra	VBR	vis	54359.479	±0.02	16789	+0.075	
RR Gem	VBR	vis	54192.368	±0.01	32306	–0.353	
SZ Hya	VBR	vis	54198.347	±0.02	25164	–0.178	
SZ Hya	VBR	vis	54205.349	±0.02	25177	–0.160	
SS Leo	VBR	vis	54202.404	±0.02	19831	–0.035	
SS Leo	VBR	vis	54207.408	±0.02	19839	–0.042	
ST Leo	VBR	vis	54198.387	±0.01	54971	–0.006	+0.008 (LB 2007)
AA Leo	VBR	vis	54198.404	±0.01	24391	–0.062	+0.001 idem
AA Leo	VBR	vis	54207.380	±0.01	24406	–0.066	–0.003 idem
X LMi	VBR	vis	54198.419	±0.02	21917	+0.186	
TW Lyn	VBR	vis	54152.303	±0.015	18947	+0.044	–0.004 (LB 2007)
TW Lyn	VBR	vis	54203.400	±0.015	19053	+0.063	+0.015 idem
RR Lyr	PMP	vis	54233.485	±0.007	19953	–0.647	
RR Lyr	PMP	vis	54241.419	±0.006	19967	–0.649	
RR Lyr	PMP	vis	54288.468	±0.008	20050	–0.650	
RR Lyr	PMP	vis	54292.436	±0.007	20057	–0.650	
RR Lyr	DMT	vis	54309.464	±0.017	20087	–0.628	

STARS	OBS	MODE	HJD	ACC	E (G 85)	O-C (G 85)	NOTES
RR Lyr	DMT	vis	54313.421	±0.014	20094	–0.639	
RR Lyr	DMT	vis	54317.398	±0.010	20101	–0.630	
RR Lyr	DMT	vis	54317.405	±0.017	20101	–0.623	
RR Lyr	DMT	vis	54326.457	±0.010	20117	–0.641	
RR Lyr	DMT	vis	54330.452	±0.013	20124	–0.614	
RR Lyr	DMT	vis	54355.369	±0.008	20168	–0.639	
RR Lyr	PMP	vis	54355.374	±0.007	20168	–0.634	
RR Lyr	DMT	vis	54393.395	±0.008	20235	–0.593	
RR Lyr	DMT	vis	54397.314	±0.008	20242	–0.642	
CN Lyr	VBR	vis	54299.474	±0.01	23854	+0.026	+0.007 (LB 2007)
CN Lyr	VBR	vis	54348.432	±0.01	23973	+0.030	+0.011 idem
VV Peg	VBR	vis	54295.510	±0.01	30521	–0.027	+0.050 idem
VV Peg	VBR	vis	54296.498	±0.01	30523	–0.015	+0.061 idem
AO Peg	VBR	vis	54357.355	±0.01	52706	+0.044	+0.008 idem
BT Peg	VBR	vis	54348.499	±0.01	32134	+0.082	
DH Peg	VBR	vis	54299.469	±0.02	38495	+0.025	
DH Peg	VBR	vis	54300.476	±0.02	38499	+0.010	
DH Peg	VBR	vis	54348.529	±0.02	38687	+0.027	
ET Peg	VBR	vis	54379.380	±0.01	31385	–0.033	
ET Peg	VBR	vis	54380.351	±0.01	31387	–0.042	
RY Psc	VBR	vis	54000.513	±0.02	21368	+0.510	+0.052 (with parabolic elements of LB 2007)
RY Psc	VBR	vis	54390.370	±0.01	22104	+0.500	+0.024 idem
BH Ser	VBR	vis	54210.566	±0.01	29290	+0.090	
DF Ser	VBR	vis	54206.465	±0.01	55963	+0.083	–0.000 (LB 2007)
DF Ser	VBR	vis	54213.486	±0.01	55979	+0.099	+0.016 idem
T Sex	VBR	vis	54124.436	±0.02	39237	–0.039	
T Sex	VBR	vis	54152.353	±0.01	39323	–0.046	
T Sex	VBR	vis	54202.360	±0.01	39477	–0.043	
U Tri	VBR	vis	54380.406	±0.01	78882	–0.033	
U Tri	VBR	vis	54388.461	±0.01	78900	–0.028	
RV UMa	VBR	vis	54205.607	±0.01	19506	+0.118	
SX UMa	VBR	vis	53895.488	±0.01	28608	+0.129	
EX UMa	VBR	vis	54208.451	±0.02	9571	+0.020	eph. IBVS 4241
KT UMa	VBR	vis	53858.490	±0.02	7640	+0.008	eph. IBVS 4815
KT UMa	VBR	vis	54198.486	±0.02	8182	+0.007	idem
ST Vir	VBR	vis	54205.401	±0.01	32785	+0.031	
ST Vir	VBR	vis	54207.451	±0.01	32790	+0.027	
UU Vir	VBR	vis	54199.374	±0.015	26076	–0.003	+0.011 (LB 2007)
UU Vir	VBR	vis	54207.460	±0.015	26093	–0.002	+0.011 idem
AT Vir	VBR	vis	54202.505	±0.01	27623	+0.260	–0.009 (with parabolic elements of LB 2007)
AT Vir	VBR	vis	54210.401	±0.01	27638	+0.269	+0.000 idem
AV Vir	VBR	vis	54206.436	±0.02	19388	+0.001	–0.016 (LB 2007)
BB Vir	VBR	vis	54211.429	±0.01	30986	+0.257	+0.007 (with parabolic elements of LB 2007)
FK Vul	VBR	vis	53919.501	±0.01	41108	+0.031	
FK Vul	VBR	vis	53999.385	±0.01	41292	+0.050	
FK Vul	VBR	vis	54381.355	±0.01	42172	+0.053	

Note : DG Boo (NSV 7020) is reported as the following of a close pair of stars in Diethelm and Moser (1995) where its RRab type is disclosed (reference of its entry in the variable stars catalogue). In fact, the true variable is the other star of the pair. I have observed with a lot of difficulties 10 times of "maxima" of the constant star and I have published in Vandenbroere (1998) three of them and two other ones in the internal NC 1069. All those times are sparse covering the minimum phases of the true DG Boo by the comparison process and they are all to be discarded.

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