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THE GEOS RR Lyr SURVEY

Sixth list of maxima of RR Lyr stars observed by the automated telescopes TAROT

(GEOS Circular RR 29)

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We present here the sixth list of light maxima of RR Lyrae stars from the GEOS RR Lyr Survey, a GEOS program (<http://www.upv.es/geos/>) (Boninsegna et al., 2002) of automated observations of RR Lyr stars started in January 2004.

We are using the 25-cm automatic telescopes TAROT (<http://tarot.obs-hp.fr>) (Boër et al., 2001, Bringer et al., 1999). One of the telescopes is located in the northern hemisphere in Calern Observatory (Observatoire de la Côte d’Azur, Nice University, France). A second identical telescope in the southern hemisphere, located in ESO La Silla Observatory, Chile, is in operation since 2006 September. Images are obtained by 2048×2048 Marconi 42-40 thin back illuminated CCDs. Field of view of both telescopes is $1.86^\circ \times 1.86^\circ$. Data reduction, from bias subtraction and flatfielding to photometry using SExtractor (Bertin & Arnouts, 1996), is performed automatically. The aim of this legacy project for the study of period variations of RR Lyr stars is to monitor maxima of light of these stars in order to feed the GEOS RR Lyr web database (<http://dbRR.ast.obs-mip.fr>).

The present list contains 587 maxima observed with no filter between July and December 2006 (Table 1). The maxima are determined by fitting a polynomial function on the data points. The uncertainties on individual maxima are estimated from the data sampling of each maximum. The nominal sampling (two consecutive 30-s exposures taken every 10 minutes on a time baseline of 2 hours centered around the predicted maximum time) may be altered by local events (weather or telescope operation). This results uncertainties from 0.002 to 0.010 day. For a well observed star, the mean uncertainty on maxima is about 0.003 day (4.3 minutes). The $O - C$ ’s are computed with the GCVS elements (Kholopov et al., 1985) and are displayed in Table 1 in column ‘ $O - C$ ’. The column ‘ E ’ contains the cycle number. Note that this cycle number takes into account the shifts induced by the elements when the period of the elements is very different from the actual one, the absolute value of $O - C$ becoming greater than 1 period. When no elements are available in the GCVS, the reference of the elements, if exists, is given as a footnote of Table 1. The fifth column in Table 1 gives the abbreviation of the name of the observatory where the star was observed.

Table 1: Maxima of RR Lyrae stars

Variable	Maximum HJD 24. . .	$O - C$ (days)	E	Obs.*	Variable	Maximum HJD 24. . .	$O - C$ (days)	E	Obs.
SW And	53946.501±0.002	-0.754	80977.	C	SX Aqr	53961.574±0.005	-0.107	26442.	C
SW And	53950.480±0.002	-0.755	80986.	C	SX Aqr	53988.357±0.002	-0.110	26492.	C
SW And	53957.557±0.003	-0.755	81002.	C	SX Aqr	53999.607±0.002	-0.110	26513.	LS
SW And	53985.420±0.002	-0.755	81065.	C	SX Aqr	54017.288±0.003	-0.107	26546.	C
SW And	54022.573±0.002	-0.754	81149.	C	SX Aqr	54018.356±0.002	-0.111	26548.	C
SW And	54024.340±0.002	-0.756	81153.	C	TZ Aqr	53952.470±0.004	0.012	28718.	C
SW And	54034.514±0.002	-0.754	81176.	C	TZ Aqr	53968.459±0.002	0.008	28746.	C
SW And	54053.529±0.002	-0.757	81219.	C	TZ Aqr	53972.461±0.005	0.011	28753.	C
SW And	54059.277±0.003	-0.759	81232.	C	TZ Aqr	53976.463±0.004	0.015	28760.	C
SW And	54061.487±0.002	-0.760	81237.	C	TZ Aqr	54000.446±0.002	0.008	28802.	C
SW And	54081.391±0.002	-0.759	81282.	C	TZ Aqr	54017.586±0.002	0.012	28832.	LS
SW And	54093.332±0.002	-0.760	81309.	C	TZ Aqr	54023.298±0.003	0.012	28842.	C
XX And	53967.579±0.005	0.224	20588.	C	WZ Aqr	53998.699±0.002	0.070	67289.	LS
XX And	53980.588±0.002	0.223	20606.	C	YZ Aqr	53996.599±0.002	0.053	33758.	LS
XX And	53986.372±0.002	0.225	20614.	C	BN Aqr	53970.562±0.005	0.538	34276.	C
XX And	53999.376±0.002	0.220	20632.	C	BN Aqr	53979.485±0.005	0.538	34295.	C
XX And	54001.542±0.004	0.218	20635.	C	BO Aqr	54027.665±0.001	0.137	17876.	LS
XX And	54012.390±0.002	0.225	20650.	C	BR Aqr	53997.769±0.003	-0.153	33954.	LS
XX And	54035.514±0.001	0.221	20682.	C	BR Aqr	54035.357±0.002	-0.151	34032.	C
XX And	54051.417±0.002	0.223	20704.	C	BR Aqr	54048.367±0.002	-0.152	34059.	C
XX And	54067.320±0.002	0.226	20726.	C	CP Aqr	53933.500±0.002	-0.104	34633.	C
XX And	54090.447±0.002	0.225	20758.	C	CP Aqr	53945.547±0.002	-0.105	34659.	C
XX And	54093.338±0.002	0.225	20762.	C	CP Aqr	53960.375±0.002	-0.106	34691.	C
AT And	53952.522±0.002	0.000	18818.	C	CP Aqr	53971.497±0.002	-0.106	34715.	C
AT And	53957.461±0.004	0.003	18826.	C	CP Aqr	53978.449±0.002	-0.105	34730.	C
AT And	53973.483±0.002	-0.014	18852.	C	CP Aqr	53997.447±0.002	-0.107	34771.	C
AT And	53981.510±0.005	-0.007	18865.	C	CP Aqr	54017.374±0.002	-0.106	34814.	C
AT And	53999.408±0.002	0.000	18894.	C	CP Aqr	54018.302±0.002	-0.105	34816.	C
AT And	54012.358±0.003	-0.005	18915.	C	DN Aqr	54017.558±0.002	0.024	40382.	LS
AT And	54018.527±0.004	-0.005	18925.	C	GP Aqr	53970.455±0.010			C
AT And	54033.333±0.004	-0.005	18949.	C	GP Aqr	54022.310±0.005			C
AT And	54036.422±0.001	-0.001	18954.	C	GP Aqr	54024.342±0.002			C
AT And	54039.502±0.002	-0.005	18959.	C	GP Aqr	54033.262±0.003			C
AT And	54046.297±0.005	0.004	18970.	C	HH Aqr	53972.464±0.007			C
AT And	54062.335±0.006	0.002	18996.	C	HH Aqr	53980.502±0.002			C
AT And	54081.447±0.003	-0.010	19027.	C	HH Aqr	54018.418±0.005			C
CI And	54049.622±0.003	0.090	37818.	C	HH Aqr	54022.435±0.002			C
CI And	54084.525±0.002	0.093	37890.	C	HH Aqr	54027.604±0.001			LS
CI And	54087.440±0.002	0.100	37896.	C	HH Aqr	54033.352±0.005			C
NX And ¹	54001.555±0.005	0.015	23702.	C	HH Aqr	54037.374±0.004			C
NX And ¹	54051.452±0.005	0.012	23779.	C	HH Aqr	54048.283±0.003			C
EX Aps	54014.619±0.002	0.012	55280.	LS	AA Aql	53932.549±0.003	0.030	81775.	C
EX Aps	54023.582±0.002	0.011	55299.	LS	AA Aql	53944.491±0.002	0.033	81808.	C
SW Aqr	53936.564±0.002	0.000	62789.	C	AA Aql	53960.407±0.002	0.031	81852.	C
SW Aqr	53942.536±0.002	0.001	62802.	C	AA Aql	53973.435±0.002	0.034	81888.	C
SW Aqr	53948.506±0.003	0.000	62815.	C	AA Aql	53996.590±0.002	0.035	81952.	LS
SW Aqr	53960.446±0.002	-0.002	62841.	C	V341 Aql	53933.536±0.002	0.024	22036.	C
SW Aqr	53970.553±0.003	0.000	62863.	C	V341 Aql	53940.475±0.002	0.027	22048.	C
SW Aqr	54000.407±0.002	-0.001	62928.	C	V341 Aql	53947.411±0.002	0.027	22060.	C
SW Aqr	54017.401±0.004	-0.001	62965.	C	V341 Aql	53962.440±0.002	0.027	22086.	C
SW Aqr	54018.321±0.002	0.001	62967.	C	V341 Aql	53969.378±0.002	0.029	22098.	C
SW Aqr	54023.372±0.002	-0.001	62978.	C	V341 Aql	53977.464±0.003	0.023	22112.	C
SX Aqr	53937.468±0.002	-0.106	26397.	C	V341 Aql	53988.450±0.004	0.026	22131.	C
SX Aqr	53944.432±0.004	-0.106	26410.	C	V341 Aql	53999.433±0.005	0.027	22150.	C

Table 1 (cont.): Maxima of RR Lyrae stars

Variable	Maximum HJD 24. . .	$O - C$ (days)	E	Obs.	Variable	Maximum HJD 24. . .	$O - C$ (days)	E	Obs.
X Ari	54011.564±0.005	0.317	25229.	C	AA CMi	54093.748±0.002	0.055	36776.	LS
X Ari	54024.586±0.002	0.316	25249.	C	AA CMi	54096.605±0.002	0.054	36782.	C
X Ari	54037.605±0.003	0.313	25269.	C	AL CMi	54092.691±0.002	0.445	31780.	LS
X Ari	54039.564±0.002	0.318	25272.	C	AL CMi	54098.744±0.002	0.442	31791.	LS
X Ari	54058.449±0.005	0.320	25301.	C	EE Car	54101.680±0.005	0.022	43536.	LS
X Ari	54062.355±0.005	0.319	25307.	C	IU Car	54065.681±0.002	0.241	16781.	LS
X Ari	54067.564±0.002	0.319	25315.	C	IU Car	54093.695±0.002	0.244	16819.	LS
X Ari	54079.286±0.004	0.321	25333.	C	V363 Cas	53957.417±0.003	0.507	32595.	C
X Ari	54084.495±0.002	0.320	25341.	C	V363 Cas	53980.383±0.004	0.518	32637.	C
X Ari	54086.449±0.002	0.321	25344.	C	V363 Cas	54012.625±0.005	0.515	32696.	C
X Ari	54090.356±0.002	0.321	25350.	C	V363 Cas	54015.362±0.005	0.519	32701.	C
X Ari	54092.310±0.002	0.322	25353.	C	V363 Cas	54016.471±0.005	0.535	32703.	C
X Ari	54094.262±0.002	0.320	25356.	C	V363 Cas	54035.593±0.005	0.528	32738.	C
TZ Aur	54034.537±0.003	0.012	87144.	C	V363 Cas	54039.402±0.002	0.512	32745.	C
TZ Aur	54036.495±0.002	0.012	87149.	C	V363 Cas	54046.522±0.005	0.527	32758.	C
TZ Aur	54039.630±0.002	0.013	87157.	C	V363 Cas	54067.287±0.002	0.523	32796.	C
TZ Aur	54045.505±0.005	0.013	87172.	C	AQ Cep	54079.490±0.005	0.061	39836.	C
TZ Aur	54058.426±0.002	0.009	87205.	C	RR Cet	53978.586±0.003	0.006	37606.	C
TZ Aur	54061.561±0.003	0.010	87213.	C	RR Cet	53983.565±0.002	0.008	37615.	C
TZ Aur	54081.537±0.002	0.011	87264.	C	RR Cet	53998.493±0.004	0.004	37642.	C
TZ Aur	54091.329±0.002	0.011	87289.	C	RR Cet	54023.376±0.004	0.000	37687.	C
TZ Aur	54100.338±0.002	0.012	87312.	C	RR Cet	54034.436±0.002	0.000	37707.	C
U Cae	54013.746±0.002	-0.097	46926.	LS	RR Cet	54039.419±0.002	0.006	37716.	C
U Cae	54021.725±0.001	-0.094	46945.	LS	RR Cet	54090.295±0.002	0.003	37808.	C
U Cae	54040.610±0.001	-0.100	46990.	LS	RU Cet	54025.613±0.003	0.087	24219.	LS
U Cae	54045.652±0.003	-0.096	47002.	LS	RU Cet	54046.711±0.001	0.079	24255.	LS
U Cae	54084.687±0.004	-0.101	47095.	LS	RV Cet	54011.641±0.005	0.193	23898.	LS
U Cae	54087.631±0.002	-0.096	47102.	LS	RV Cet	54024.743±0.004	0.204	23919.	LS
U Cae	54089.731±0.002	-0.095	47107.	LS	RV Cet	54049.675±0.002	0.200	23959.	LS
U Cae	54094.769±0.002	-0.094	47119.	LS	RV Cet	54054.678±0.010	0.215	23967.	LS
U Cae	54100.642±0.002	-0.099	47133.	LS	RV Cet	54064.644±0.002	0.207	23983.	LS
V Cae	54011.639±0.003	0.218	34494.	LS	RZ Cet	54011.539±0.003	-0.140	39374.	C
V Cae	54064.643±0.003	0.138	34587.	LS	RZ Cet	54036.569±0.005	-0.130	39423.	LS
V Cae	54076.591±0.002	0.099	34608.	LS	RT Col	54049.852±0.001	-0.247	48958.	LS
V Cae	54084.584±0.003	0.101	34622.	LS	RT Col	54063.803±0.002	-0.248	48984.	LS
V Cae	54088.579±0.002	0.100	34629.	LS	RT Col	54085.802±0.002	-0.249	49025.	LS
V Cae	54097.714±0.002	0.102	34645.	LS	RT Col	54092.778±0.002	-0.249	49038.	LS
V Cae	54101.710±0.003	0.103	34652.	LS	RW Col	54048.697±0.002	0.231	49581.	LS
AH Cam	53975.493±0.005	-0.403	41348.	C	RW Col	54065.597±0.002	0.196	49613.	LS
AH Cam	53978.470±0.005	-0.376	41356.	C	RW Col	54083.609±0.002	0.214	49647.	LS
AH Cam	53999.489±0.002	-0.375	41413.	C	RW Col	54101.615±0.006	0.226	49681.	LS
AH Cam	54013.492±0.002	-0.384	41451.	C	RY Col	54016.841±0.003	-0.130	41153.	LS
AH Cam	54016.425±0.005	-0.401	41459.	C	RY Col	54028.802±0.001	-0.141	41178.	LS
AH Cam	54023.446±0.002	-0.386	41478.	C	RY Col	54039.816±0.001	-0.140	41201.	LS
AH Cam	54058.468±0.004	-0.394	41573.	C	RY Col	54052.748±0.002	-0.138	41228.	LS
AH Cam	54079.494±0.004	-0.385	41630.	C	RY Col	54063.767±0.002	-0.132	41251.	LS
TT Cnc	54086.497±0.003	0.114	25099.	C	RY Col	54074.786±0.004	-0.127	41274.	LS
TT Cnc	54095.504±0.002	0.105	25115.	C	RY Col	54097.767±0.002	-0.131	41322.	LS
TT Cnc	54099.447±0.005	0.104	25122.	C	S Com	54098.616±0.002	-0.097	22919.	C
TT Cnc	54100.574±0.002	0.104	25124.	C	HY Com	54093.664±0.005	0.055	22374.	C
UZ CVn	54092.619±0.003	0.240	39647.	C	UY Cyg	53923.517±0.003	0.049	56161.	C
UZ CVn	54099.605±0.010	0.248	39657.	C	UY Cyg	53932.494±0.005	0.055	56177.	C
AA CMi	54054.687±0.002	0.052	36694.	C	UY Cyg	53941.468±0.003	0.057	56193.	C
AA CMi	54082.792±0.001	0.054	36753.	LS	UY Cyg	53946.513±0.002	0.056	56202.	C

Table 1 (cont.): Maxima of RR Lyrae stars

Variable	Maximum HJD 24. . .	$O - C$ (days)	E	Obs.	Variable	Maximum HJD 24. . .	$O - C$ (days)	E	Obs.
UY Cyg	53968.378±0.005	0.053	56241.	C	BC Dra	54097.560±0.003	0.081	16425.	C
UY Cyg	53973.426±0.002	0.055	56250.	C	BD Dra	53925.576±0.006	0.759	20627.	C
UY Cyg	53987.437±0.005	0.049	56275.	C	BD Dra	53938.524±0.002	0.748	20649.	C
UY Cyg	54000.341±0.004	0.056	56298.	C	BD Dra	53954.416±0.004	0.736	20676.	C
UY Cyg	54023.333±0.003	0.059	56339.	C	BD Dra	53958.521±0.004	0.717	20683.	C
UY Cyg	54024.447±0.002	0.052	56341.	C	BD Dra	53984.456±0.002	0.734	20727.	C
UY Cyg	54037.342±0.002	0.051	56364.	C	BD Dra	53985.635±0.002	0.735	20729.	C
XZ Cyg ²	53935.544±0.002	0.005	11498.	C	BD Dra	53988.600±0.003	0.755	20734.	C
XZ Cyg ²	53956.531±0.002	-0.005	11543.	C	BD Dra	54013.341±0.002	0.756	20776.	C
XZ Cyg ²	53962.600±0.004	-0.002	11556.	C	BD Dra	54017.465±0.002	0.756	20783.	C
XZ Cyg ²	53976.605±0.002	0.005	11586.	C	BD Dra	54033.345±0.003	0.732	20810.	C
XZ Cyg ²	53983.607±0.002	0.008	11601.	C	BD Dra	54036.312±0.002	0.754	20815.	C
XZ Cyg ²	53998.528±0.002	-0.002	11633.	C	BD Dra	54046.327±0.003	0.755	20832.	C
DM Cyg	53927.502±0.003	0.059	27021.	C	BD Dra	54053.360±0.003	0.719	20844.	C
DM Cyg	53950.594±0.003	0.059	27076.	C	BD Dra	54079.272±0.004	0.713	20888.	C
DM Cyg	53956.474±0.002	0.061	27090.	C	BD Dra	54094.625±0.002	0.750	20914.	C
DM Cyg	53961.512±0.002	0.060	27102.	C	BK Dra	53936.554±0.004	-0.150	47989.	C
DM Cyg	54011.471±0.002	0.056	27221.	C	BK Dra	53942.472±0.005	-0.153	47999.	C
DM Cyg	54016.511±0.003	0.058	27233.	C	BK Dra	53952.537±0.002	-0.153	48016.	C
DM Cyg	54022.389±0.002	0.058	27247.	C	BK Dra	53958.459±0.003	-0.152	48026.	C
DM Cyg	54024.490±0.002	0.059	27252.	C	BK Dra	53984.509±0.002	-0.154	48070.	C
DM Cyg	54033.307±0.003	0.059	27273.	C	RX Eri	54022.716±0.004	-0.016	55054.	LS
DM Cyg	54035.405±0.002	0.058	27278.	C	RX Eri	54032.707±0.003	-0.009	55071.	LS
DX Del	53933.442±0.003	0.054	30820.	C	RX Eri	54042.692±0.002	-0.007	55088.	LS
DX Del	53940.535±0.003	0.058	30835.	C	RX Eri	54049.737±0.002	-0.009	55100.	LS
DX Del	53948.569±0.002	0.058	30852.	C	RX Eri	54066.765±0.002	-0.011	55129.	LS
DX Del	53960.385±0.002	0.058	30877.	C	RX Eri	54079.692±0.003	-0.003	55151.	LS
RT Dor	54091.639±0.002	-0.040	48307.	LS	RX Eri	54089.671±0.002	-0.007	55168.	LS
RT Dor	54100.811±0.002	-0.042	48326.	LS	RX Eri	54096.716±0.003	-0.009	55180.	LS
VW Dor	54038.630±0.001	-0.073	27443.	LS	SV Eri	53998.777±0.005	0.741	25842.	LS
VW Dor	54094.551±0.002	-0.072	27541.	LS	XY Eri	54024.718±0.005	-0.257	52794.	LS
RW Dra	53922.496±0.004	0.154	32839.	C	XY Eri	54029.710±0.010	-0.253	52803.	LS
RW Dra	53926.482±0.005	0.153	32848.	C	XY Eri	54039.720±0.001	-0.219	52821.	LS
XZ Dra	53935.526±0.002	-0.096	25199.	C	XY Eri	54049.696±0.001	-0.220	52839.	LS
XZ Dra	53945.535±0.005	-0.093	25220.	C	XY Eri	54054.661±0.002	-0.243	52848.	LS
XZ Dra	53975.549±0.002	-0.099	25283.	C	XY Eri	54064.618±0.001	-0.263	52866.	LS
XZ Dra	53984.595±0.002	-0.106	25302.	C	XY Eri	54080.701±0.005	-0.253	52895.	LS
BC Dra	53925.575±0.006	0.075	16186.	C	XY Eri	54085.704±0.002	-0.238	52904.	LS
BC Dra	53933.495±0.006	0.080	16197.	C	XY Eri	54090.722±0.010	-0.208	52913.	LS
BC Dra	53938.528±0.008	0.075	16204.	C	XY Eri	54095.719±0.003	-0.200	52922.	LS
BC Dra	53943.569±0.005	0.079	16211.	C	BB Eri	54049.735±0.003	0.217	25426.	LS
BC Dra	53946.455±0.005	0.087	16215.	C	BB Eri	54053.726±0.002	0.219	25433.	LS
BC Dra	53956.523±0.010	0.081	16229.	C	BB Eri	54065.693±0.001	0.218	25454.	LS
BC Dra	53959.410±0.010	0.090	16233.	C	BB Eri	54085.643±0.002	0.222	25489.	LS
BC Dra	53969.472±0.004	0.078	16247.	C	BB Eri	54089.630±0.003	0.220	25496.	LS
BC Dra	53982.423±0.003	0.076	16265.	C	BB Eri	54093.617±0.002	0.217	25503.	LS
BC Dra	53984.580±0.005	0.075	16268.	C	RX For	54030.687±0.003	-0.048	23772.	LS
BC Dra	53987.461±0.004	0.077	16272.	C	RX For	54033.670±0.005	-0.052	23777.	LS
BC Dra	54013.379±0.005	0.091	16308.	C	RX For	54042.657±0.002	-0.025	23792.	LS
BC Dra	54018.407±0.005	0.082	16315.	C	RX For	54048.645±0.002	-0.010	23802.	LS
BC Dra	54036.393±0.003	0.078	16340.	C	RX For	54064.728±0.002	-0.054	23829.	LS
BC Dra	54046.473±0.010	0.084	16354.	C	RX For	54067.724±0.005	-0.045	23834.	LS
BC Dra	54059.421±0.003	0.080	16372.	C	RX For	54073.711±0.002	-0.031	23844.	LS
BC Dra	54067.333±0.008	0.076	16383.	C	RX For	54088.640±0.001	-0.035	23869.	LS

Table 1 (cont.): Maxima of RR Lyrae stars

Variable	Maximum HJD 24. . .	$O - C$ (days)	E	Obs.	Variable	Maximum HJD 24. . .	$O - C$ (days)	E	Obs.
RX For	54091.619±0.002	-0.042	23874.	LS	VX Ind	54018.621±0.005	0.020	28150.	LS
SS For	54080.705±0.003	-0.145	31108.	LS	RR Leo	54084.607±0.002	0.077	23849.	C
SW For	54014.720±0.010	0.397	24474.	LS	RR Leo	54093.656±0.002	0.078	23869.	C
SW For	54030.799±0.005	0.401	24494.	LS	RR Leo	54098.631±0.002	0.077	23880.	C
SW For	54039.640±0.002	0.401	24505.	LS	SS Leo	54099.669±0.005	-0.049	19667.	C
SW For	54043.661±0.001	0.404	24510.	LS	ST Leo	54094.649±0.004	-0.021	54754.	C
SW For	54051.696±0.003	0.401	24520.	LS	AX Leo	54094.658±0.005	-0.029	39693.	C
SW For	54067.769±0.004	0.399	24540.	LS	AX Leo	54097.578±0.010	-0.016	39697.	C
SW For	54080.629±0.002	0.400	24556.	LS	V LMi	54061.592±0.005	0.028	63486.	C
SW For	54084.643±0.004	0.395	24561.	LS	V LMi	54067.582±0.005	0.035	63497.	C
SW For	54088.666±0.002	0.399	24566.	LS	V LMi	54091.504±0.002	0.025	63541.	C
SW For	54092.688±0.004	0.402	24571.	LS	V LMi	54097.491±0.002	0.029	63552.	C
SW For	54096.704±0.005	0.400	24576.	LS	U Lep	54022.760±0.004	0.048	21790.	LS
SX For	54012.708±0.010	0.046	24539.	LS	U Lep	54029.734±0.001	0.044	21802.	LS
SX For	54026.622±0.003	0.037	24562.	LS	U Lep	54036.710±0.005	0.042	21814.	LS
SX For	54038.726±0.002	0.034	24582.	LS	U Lep	54040.781±0.002	0.043	21821.	LS
SX For	54055.680±0.001	0.039	24610.	LS	U Lep	54043.690±0.001	0.044	21826.	LS
SX For	54075.656±0.002	0.039	24643.	LS	U Lep	54047.759±0.001	0.043	21833.	LS
SX For	54084.732±0.003	0.035	24658.	LS	U Lep	54064.620±0.001	0.041	21862.	LS
SX For	54095.628±0.001	0.035	24676.	LS	U Lep	54075.670±0.002	0.043	21881.	LS
SX For	54098.657±0.005	0.037	24681.	LS	U Lep	54079.742±0.002	0.045	21888.	LS
RR Gem	54044.565±0.003	-0.357	31934.	C	U Lep	54082.646±0.002	0.042	21893.	LS
RR Gem	54058.472±0.004	-0.356	31969.	C	U Lep	54089.626±0.002	0.044	21905.	LS
RR Gem	54081.510±0.002	-0.362	32027.	C	U Lep	54093.694±0.002	0.042	21912.	LS
SZ Gem	54092.477±0.002	-0.052	53675.	C	U Lep	54096.605±0.002	0.045	21917.	LS
SZ Gem	54098.488±0.002	-0.054	53687.	C	U Lep	54100.674±0.002	0.044	21924.	LS
SZ Gem	54100.491±0.002	-0.056	53691.	C	TT Lyn	54082.661±0.005	-0.037	29177.	C
GI Gem	54044.587±0.002	0.070	54696.	C	TT Lyn	54084.457±0.003	-0.033	29180.	C
GI Gem	54081.416±0.002	0.072	54781.	C	TT Lyn	54087.448±0.003	-0.030	29185.	C
GI Gem	54086.613±0.002	0.069	54793.	C	TT Lyn	54090.426±0.005	-0.039	29190.	C
GI Gem	54096.578±0.002	0.069	54816.	C	TT Lyn	54096.406±0.002	-0.033	29200.	C
AP Gru	54014.644±0.002	0.033	51226.	LS	TT Lyn	54099.400±0.005	-0.026	29205.	C
TW Her	53946.398±0.002	-0.011	81084.	C	TW Lyn	54081.479±0.002	0.053	18800.	C
TW Her	53954.391±0.002	-0.010	81104.	C	TW Lyn	54096.417±0.002	0.053	18831.	C
TW Her	53970.375±0.002	-0.010	81144.	C	TW Lyn	54098.345±0.002	0.054	18835.	C
VX Her	53919.442±0.003	-0.398	70644.	C	RZ Lyr	53919.501±0.003	0.007	24912.	C
VZ Her	53937.528±0.002	0.060	38945.	C	RZ Lyr	53920.525±0.002	0.008	24914.	C
VZ Her	53945.456±0.002	0.062	38963.	C	RZ Lyr	53959.364±0.003	-0.007	24990.	C
VZ Her	53952.500±0.003	0.061	38979.	C	RZ Lyr	53982.370±0.002	-0.007	25035.	C
VZ Her	53967.471±0.002	0.061	39013.	C	RZ Lyr	53983.393±0.002	-0.006	25037.	C
DL Her	53931.557±0.003	0.027	26576.	C	AW Lyr	53916.460±0.002	0.027	57463.	C
UU Hor	54079.724±0.002	0.141	45608.	LS	AW Lyr	53923.424±0.006	0.027	57477.	C
UU Hor	54088.732±0.002	0.137	45622.	LS	CN Lyr	53923.462±0.005	0.018	22940.	C
UU Hor	54099.678±0.002	0.141	45639.	LS	CN Lyr	53927.579±0.005	0.021	22950.	C
DD Hya	54059.619±0.003	-0.147	24641.	C	CN Lyr	53972.418±0.002	0.019	23059.	C
DD Hya	54092.735±0.001	-0.149	24707.	LS	CN Lyr	53979.405±0.002	0.013	23076.	C
DD Hya	54098.761±0.003	-0.144	24719.	LS	CN Lyr	53981.473±0.003	0.024	23081.	C
DG Hya	54098.761±0.003	0.036	39729.	LS	IK Lyr	53926.462±0.005	-0.196	59547.	C
GO Hya	54067.630±0.010	-0.062	44652.	C	IK Lyr	53940.490±0.005	-0.187	59581.	C
GO Hya	54090.528±0.003	-0.076	44688.	C	IK Lyr	53973.475±0.004	-0.187	59661.	C
GO Hya	54095.611±0.005	-0.084	44696.	C	IK Lyr	53985.395±0.005	-0.224	59690.	C
TW Hyi	54066.555±0.002	0.009	21619.	LS	IO Lyr	53938.470±0.004	-0.032	24812.	C
TW Hyi	54072.634±0.001	0.009	21628.	LS	IO Lyr	53979.444±0.004	-0.034	24883.	C
TW Hyi	54093.571±0.003	0.010	21659.	LS	IO Lyr	53983.489±0.002	-0.028	24890.	C

Table 1 (cont.): Maxima of RR Lyrae stars

Variable	Maximum HJD 24. . .	$O - C$ (days)	E	Obs.	Variable	Maximum HJD 24. . .	$O - C$ (days)	E	Obs.
IO Lyr	54001.378±0.002	-0.030	24921.	C	BH Peg	53969.590±0.010	-0.075	22784.	C
V340 Lyr	53982.368±0.003	-0.037	41194.	C	BH Peg	54048.392±0.004	-0.115	22907.	C
Z Mic	54015.612±0.004	-0.114	21158.	LS	BH Peg	54059.290±0.002	-0.114	22924.	C
DV Mon	54073.780±0.002	0.076	69733.	LS	CG Peg	53926.516±0.002	-0.044	31734.	C
DV Mon	54080.808±0.002	0.076	69750.	LS	CG Peg	53947.535±0.002	-0.046	31779.	C
DV Mon	54085.760±0.002	0.068	69762.	LS	CG Peg	53961.550±0.002	-0.045	31809.	C
RS Oct	54015.671±0.002	0.123	38615.	LS	CG Peg	53974.630±0.005	-0.045	31837.	C
RS Oct	54037.651±0.001	0.118	38663.	LS	CG Peg	53989.576±0.004	-0.047	31869.	C
RS Oct	54048.642±0.002	0.117	38687.	LS	CG Peg	53997.520±0.002	-0.045	31886.	C
RS Oct	54054.595±0.002	0.116	38700.	LS	CG Peg	54026.481±0.003	-0.046	31948.	C
RS Oct	54065.579±0.002	0.108	38724.	LS	CG Peg	54034.425±0.002	-0.044	31965.	C
SS Oct	54042.670±0.002	-0.070	41848.	LS	CG Peg	54043.297±0.002	-0.047	31984.	C
UW Oct	54012.752±0.005	-0.007	44265.	LS	CV Peg	54001.455±0.002	-0.059	51977.	C
UW Oct	54033.643±0.010	-0.007	44312.	LS	DZ Peg	53954.472±0.003	0.159	33034.	C
UW Oct	54045.642±0.001	-0.009	44339.	LS	DZ Peg	53979.369±0.002	0.155	33075.	C
UW Oct	54053.639±0.002	-0.013	44357.	LS	DZ Peg	53982.408±0.002	0.157	33080.	C
UW Oct	54066.538±0.004	-0.004	44386.	LS	DZ Peg	54022.496±0.003	0.160	33146.	C
UW Oct	54074.534±0.002	-0.009	44404.	LS	DZ Peg	54033.425±0.002	0.157	33164.	C
AR Oct	54092.545±0.002	0.154	43829.	LS	DZ Peg	54036.462±0.002	0.158	33169.	C
V455 Oph	53938.495±0.003	-0.236	26669.	C	DZ Peg	54058.322±0.002	0.153	33205.	C
V455 Oph	53943.489±0.002	-0.235	26680.	C	DZ Peg	54061.362±0.004	0.156	33210.	C
V455 Oph	53948.482±0.004	-0.235	26691.	C	AR Per	53997.616±0.002	0.054	62885.	C
CM Ori	54090.782±0.002	-0.023	43896.	LS	AR Per	54023.575±0.004	0.055	62946.	C
CM Ori	54094.719±0.002	-0.022	43902.	LS	AR Per	54050.386±0.002	0.056	63009.	C
V964 Ori	54037.709±0.001	-0.370	44660.	LS	AR Per	54053.361±0.002	0.052	63016.	C
V964 Ori	54080.601±0.001	-0.374	44745.	LS	AR Per	54079.323±0.002	0.056	63077.	C
BN Pav	54013.567±0.001	-0.002	45272.	LS	AR Per	54084.427±0.005	0.053	63089.	C
BN Pav	54030.579±0.001	-0.005	45302.	LS	AR Per	54089.530±0.002	0.050	63101.	C
BN Pav	54047.593±0.002	-0.006	45332.	LS	AR Per	54092.515±0.002	0.056	63108.	C
BN Pav	54051.563±0.003	-0.007	45339.	LS	AR Per	54095.491±0.002	0.053	63115.	C
BN Pav	54055.533±0.002	-0.007	45346.	LS	RV Phe	54043.516±0.005	-0.173	20335.	LS
BP Pav	54013.553±0.001	-0.049	47784.	LS	RV Phe	54053.659±0.002	-0.169	20352.	LS
BP Pav	54032.529±0.001	0.118	47819.	LS	U Pic	54046.654±0.002	0.055	28113.	LS
BP Pav	54052.561±0.002	0.267	47856.	LS	U Pic	54053.701±0.001	0.056	28129.	LS
VV Peg	53980.500±0.002	-0.027	29876.	C	U Pic	54075.719±0.002	0.056	28179.	LS
VV Peg	54022.502±0.002	-0.026	29962.	C	U Pic	54083.645±0.001	0.055	28197.	LS
VV Peg	54046.431±0.002	-0.028	30011.	C	U Pic	54090.691±0.002	0.055	28213.	LS
VV Peg	54048.389±0.003	-0.024	30015.	C	U Pic	54094.655±0.002	0.056	28222.	LS
VV Peg	54052.291±0.003	-0.029	30023.	C	U Pic	54101.701±0.002	0.056	28238.	LS
AV Peg	53935.477±0.002	0.103	25988.	C	RY Psc	54028.578±0.001	0.500	21421.	LS
AV Peg	53940.550±0.002	0.101	26001.	C	RY Psc	54037.574±0.001	0.491	21438.	LS
AV Peg	53969.439±0.002	0.103	26075.	C	XX Pup	54083.653±0.003	0.456	23802.	LS
AV Peg	54001.451±0.002	0.104	26157.	C	XX Pup	54097.616±0.002	0.455	23829.	LS
AV Peg	54017.456±0.003	0.104	26198.	C	HH Pup	54072.670±0.002	0.010	39853.	LS
AV Peg	54035.413±0.003	0.103	26244.	C	HH Pup	54079.704±0.001	0.010	39871.	LS
AV Peg	54037.366±0.004	0.104	26249.	C	HH Pup	54083.611±0.002	0.010	39881.	LS
AV Peg	54044.391±0.002	0.103	26267.	C	HH Pup	54095.725±0.003	0.011	39912.	LS
AV Peg	54048.295±0.002	0.103	26277.	C	HK Pup	54097.699±0.003	-0.238	23820.	LS
AV Peg	54051.421±0.002	0.106	26285.	C	HK Pup	54100.638±0.002	-0.236	23824.	LS
AV Peg	54053.372±0.002	0.105	26290.	C	V2279 Sgr	54014.689±0.005	0.098	35126.	LS
AV Peg	54060.400±0.002	0.106	26308.	C	UZ Scl	54021.773±0.002	0.035	33197.	LS
BH Peg	53937.521±0.004	-0.094	22734.	C	UZ Scl	54031.656±0.002	0.037	33219.	LS
BH Peg	53944.586±0.005	-0.080	22745.	C	VW Scl	54011.623±0.001	-0.018	51285.	LS
BH Peg	53953.559±0.009	-0.081	22759.	C	VW Scl	54032.574±0.004	-0.015	51326.	LS

Table 1 (cont.): Maxima of RR Lyrae stars

Variable	Maximum HJD 24. . .	$O - C$ (days)	E	Obs.	Variable	Maximum HJD 24. . .	$O - C$ (days)	E	Obs.
VW Scl	54033.593±0.005	-0.018	51328.	LS	AE Tuc	54053.739±0.001	0.060	47737.	LS
VX Scl	54012.615±0.002	-0.435	19454.	LS	AE Tuc	54083.585±0.001	0.072	47809.	LS
VX Scl	54033.635±0.005	-0.447	19487.	LS	AE Tuc	54095.606±0.002	0.077	47838.	LS
VX Scl	54038.726±0.002	-0.454	19495.	LS	AE Tuc	54100.579±0.002	0.077	47850.	LS
VX Scl	54047.650±0.002	-0.453	19509.	LS	AG Tuc	54067.626±0.001	0.047	23690.	LS
VX Scl	54052.746±0.001	-0.456	19517.	LS	AG Tuc	54093.537±0.002	0.047	23733.	LS
VX Scl	54075.689±0.002	-0.457	19553.	LS	AG Tuc	54096.550±0.002	0.047	23738.	LS
RU Sex ³	54093.594±0.005	0.057	32770.	C	BK Tuc	54011.868±0.003	-0.017	31400.	LS
RU Sex ³	54100.581±0.003	0.039	32790.	C	BK Tuc	54024.521±0.001	-0.019	31423.	LS
SS Tau	54022.763±0.002	0.478	43420.	LS	BK Tuc	54030.572±0.001	-0.020	31434.	LS
SS Tau	54039.774±0.002	0.473	43466.	LS	BK Tuc	54041.574±0.001	-0.022	31454.	LS
SS Tau	54049.756±0.002	0.467	43493.	LS	BK Tuc	54085.579±0.002	-0.033	31534.	LS
SS Tau	54055.674±0.002	0.467	43509.	LS	BK Tuc	54096.579±0.003	-0.037	31554.	LS
SS Tau	54065.659±0.001	0.464	43536.	LS	TU UMa	54095.617±0.002	-0.026	20199.	C
SS Tau	54079.712±0.002	0.460	43574.	LS	TU UMa	54096.729±0.002	-0.029	20201.	C
SS Tau	54082.675±0.002	0.464	43582.	LS	AB UMa	54094.547±0.005	0.112	29799.	C
W Tuc	54012.636±0.001	0.154	26679.	LS	AB UMa	54100.544±0.010	0.113	29809.	C
W Tuc	54041.533±0.001	0.151	26724.	LS	BN Vul	53922.533±0.005	0.059	14125.	C
W Tuc	54073.645±0.002	0.151	26774.	LS	BN Vul	53956.400±0.003	0.060	14182.	C
W Tuc	54075.574±0.004	0.154	26777.	LS	BN Vul	53959.375±0.003	0.065	14187.	C
W Tuc	54084.566±0.004	0.154	26791.	LS	BN Vul	53972.444±0.002	0.063	14209.	C
W Tuc	54091.628±0.002	0.152	26802.	LS	BN Vul	54000.365±0.004	0.060	14256.	C
W Tuc	54100.621±0.003	0.154	26816.	LS	BN Vul	54016.412±0.005	0.065	14283.	C
AE Tuc	54011.872±0.001	0.044	47636.	LS					

* C = Calern, LS = La Silla
1 Meinunger, 1984
2 Baldwin and Samolyk, 2003
3 Williams, 1993

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