

Variable Star Bulletin

CCD and DSLR maxima of RR Lyrase stars in 2014

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Following table is summary of my observations of maximum timings of RR Lyrase stars.

star	max. HJD	O-C	err	E	band	n	inst.
XX And	2456948.2296	+0.0013	0.003	4546	C	228	20cmSC+ST8XME
ZZ And	2456984.0853	+0.0199	0.002	6596	C	151	20cmL+ST402ME
AT And	2456866.1996	+0.0068	0.003	5801	cG	153	13cmR+CanonKissX3
BK And	2456929.1254	-0.0054	0.002	14679	C	164	20cmL+ST402ME
DR And	2456663.0309	-0.1179	0.003	7179	cG	146	13cmR+CanonKissX3
DR And	2456928.2846	-0.0984	0.002	7650	C	149	20cmSC+ST8XME
DR And	2456980.0934	-0.0976	0.002	7742	C	176	20cmL+ST402ME
OV And	2456949.9359	-0.0071	0.002	7681	C	122	20cmSC+ST8XME
V548 And	2456980.0763	-0.0189	0.003	10975	C	151	25cmL+ST402ME
V569 And	2456980.0810	-0.0019	0.002	10046	C	166	20cmSC+ST8XME
AA Aql	2456954.9265	+0.0196	0.002	12193	C	162	20cmL+ST402ME
SW Aqr	2456979.9059	+0.0289	0.002	8890	C	178	20cmSC+ST8XME
SX Aqr	2456866.1860	-0.0038	0.003	5569	V	81	20cmL+ST402ME
SX Aqr	2456917.0792	-0.0029	0.002	5664	C	166	20cmL+ST402ME
BR Aqr	2456983.9241	-0.0002	0.002	10200	C	123	13cmR+ST8XME
X Ari	2457018.0228	+0.0560	0.003	6332	C	76	13cmR+ST8XME
SY Ari	2456917.2201	-0.0218	0.003	5877	C	133	20cmSC+ST8XME
SY Ari	2456955.1871	-0.0225	0.004	5944	C	50	25cmL+ST402ME
SY Ari	2457020.9215	-0.0232	0.002	6060	C	112	25cmL+ST402ME
TV Ari	2457017.9602	+0.0165	0.002	6341	C	171	20cmL+ST402ME
CI Ari	2456699.9384	-0.0502	0.002	8362	V	132	20cmL+ST402ME
CI Ari	2456984.0375	-0.0515	0.002	8986	C	201	25cmL+ST402ME
TZ Aur	2456688.9195	+0.0029	0.002	7500	cG	149	13cmR+CanonKissX3
TZ Aur	2456948.2081	+0.0028	0.002	8162	C	125	20cmL+ST402ME
BH Aur	2456697.9602	+0.0048	0.002	6452	cG	145	13cmR+CanonKissX3
BH Aur	2456929.1975	+0.0046	0.002	6959	C	134	25cmL+ST402ME
RS Boo	2456689.3376	-0.0104	0.002	21702	cG	137	13cmR+CanonKissX3
ST Boo	2456744.2901	+0.0730	0.004	13248	cG	136	13cmR+CanonKissX3
ST Boo	2456809.0171	+0.0822	0.002	13352	cG	167	13cmR+CanonKissX3
SW Boo	2456732.2261	+0.0146	0.002	6215	V	207	20cmSC+ST8XME
TW Boo	2456780.9850	-0.0461	0.002	9809	cG	120	13cmR+CanonKissX3

star	max. HJD	O-C	err	E	band	n	inst.
UY Boo	2456689.3178	-0.0876	0.004	4784	cG	100	16cmL+CanonKissX4
UY Boo	2456781.1226	-0.0592	0.003	4925	V	123	20cmL+ST402ME
AH Cam	2456699.9370	-0.1705	0.002	48736	cG	149	13cmR+CanonKissX3
LP Cam	2456662.0483	-0.0412	0.003	8886	cG	131	13cmR+CanonKissX3
LP Cam	2456684.9245	-0.0487	0.003	8926	cG	160	13cmR+CanonKissX3
BK Cas	2457017.9213	+0.1129	0.002	47917	C	99	25cmL+ST402ME
HU Cas	2456676.9283	-0.0441	0.002	61327	V	138	20cmL+ST402ME
HU Cas	2456864.2040	-0.0444	0.002	61782	V	112	20cmL+ST402ME
V1109 Cas	2456921.2538	+0.0727	0.002	12626	C	210	20cmL+ST402ME
V1109 Cas	2456991.0342	+0.0739	0.002	12786	C	145	20cmL+ST402ME
AQ Cep	2456928.2818	+0.0783	0.003	44209	V	128	20cmL+ST402ME
DX Cep	2456908.9673	+0.0184	0.002	34698	C	99	25cmL+ST402ME
FP Cep	2456866.0882	-0.0459	0.002	42206	V	153	20cmL+ST402ME
RZ Cet	2456977.1011	-0.2054	0.002	45182	C	223	20cmL+ST402ME
RZ Cet	2457021.0082	-0.2108	0.003	45268	C	93	25cmL+ST402ME
X CMi	2456671.0661	-0.0421	0.002	78161	V	147	20cmL+ST402ME
X CMi	2456984.1914	-0.0432	0.002	9570	C	160	25cmL+ST402ME
SS Cnc	2456662.1531	+0.0621	0.002	91424	cG	216	13cmR+CanonKissX3
SS Cnc	2456731.9500	+0.0648	0.002	91614	cG	156	13cmR+CanonKissX3
TT Cnc	2456671.0493	+0.1234	0.003	29686	cG	170	13cmR+CanonKissX3
AN Cnc	2456977.2878	+0.1611	0.002	34146	C	162	20cmSC+ST8XME
AQ Cnc	2456991.2997	-0.0852	0.002	43736	C	124	13cmR+ST8XME
AS Cnc	2456663.0403	-0.2138	0.002	28279	V	176	20cmL+ST402ME
AS Cnc	2456780.9860	-0.2144	0.002	28470	V	114	20cmSC+ST8XME
CQ Cnc	2456977.2894	+0.2006	0.002	26882	C	140	20cmL+ST402ME
EZ Cnc	2456662.3153	-0.0449	0.002	17422	V	163	20cmSC+ST8XME
KV Cnc	2456688.9999	-0.1413	0.003	7824	cG	137	16cmL+CanonKissX4
KV Cnc	2456698.0387	-0.1385	0.002	7842	V	152	20cmL+ST402ME
S Com	2456684.2959	-0.1092	0.002	27327	cG	169	13cmR+CanonKissX3
S Com	2456771.1135	-0.1070	0.002	27475	cG	172	13cmR+CanonKissX3
V Com	2456732.0569	+0.0482	0.002	34207	V	162	20cmL+ST402ME
V Com	2456994.3098	+0.0487	0.003	34766	C	75	13cmR+ST8XME
V Com	2457018.2369	+0.0493	0.002	34817	C	129	25cmL+ST402ME
RY Com	2456788.0968	-0.1851	0.002	36655	cG	155	13cmR+CanonKissX3
RY Com	2457018.3350	-0.2029	0.003	37146	C	112	25cmL+ST402ME
TV CrB	2456731.2688	+0.0313	0.003	42956	V	137	20cmSC+ST8XME
TV CrB	2456787.9810	+0.0359	0.003	43053	V	105	20cmSC+ST8XME
W CVn	2457018.3366	-0.1524	0.002	64550	C	118	13cmR+ST8XME
Z CVn	2456689.1903	+0.0953	0.004	27160	cG	98	16cmL+CanonKissX4
SS CVn	2456689.2856	+0.1291	0.002	35665	V	116	20cmL+ST402ME
SW CVn	2456787.9790	-0.0855	0.002	39017	V	121	20cmL+ST402ME
SX Del	2456959.9331	-0.0084	0.002	4962	C	152	25cmL+ST402ME
BV Del	2456954.9855	+0.0219	0.002	74218	C	85	20cmSC+ST8XME
CD Del	2456915.0771	-0.0131	0.002	52651	C	145	20cmL+ST402ME
CK Del	2456809.2340	+0.0818	0.002	50161	V	137	20cmL+ST402ME
DX Del	2456917.0861	+0.0691	0.002	37133	C	167	20cmSC+ST8XME
SW Dra	2456732.1825	+0.0611	0.003	53553	cG	138	13cmR+CanonKissX3
SW Dra	2456788.0090	+0.0600	0.002	53651	cG	130	13cmR+CanonKissX3
VZ Dra	2456744.2707	+0.0618	0.003	41687	V	138	20cmSC+ST8XME
BK Dra	2456744.1895	-0.1651	0.002	52731	cG	148	13cmR+CanonKissX3
BT Dra	2456699.2658	-0.0133	0.004	44107	V	84	20cmL+ST402ME
BI Eri	2456688.9151	-0.0385	0.003	10356	V	169	20cmL+ST402ME
BK Eri	2456684.9253	-0.1185	0.002	34249	V	131	20cmL+ST402ME
LR Eri	2456977.1222	-0.1373	0.003	5926	C	80	20cmSC+ST8XME
RR Gem	2456671.0301	-0.1147	0.002	38544	V	150	20cmSC+ST8XME
RR Gem	2456698.0426	-0.1193	0.002	38612	cG	151	13cmR+CanonKissX3
RR Gem	2456738.9660	-0.1189	0.002	38715	cG	173	13cmR+CanonKissX3
RR Gem	2456929.2608	-0.1359	0.002	39194	C	166	20cmSC+ST8XME
RR Gem	2457018.2593	-0.1349	0.002	39418	C	112	20cmL+ST402ME

star	max. HJD	O-C	err	E	band	n	inst.
GI Gem	2456984.2885	+0.0666	0.002	61481	C	120	13cmR+ST8XME
V426 Gem	2456991.2876	-0.0094	0.003	10282	C	149	25cmL+ST402ME
TW Her	2456809.1279	-0.0161	0.002	88248	V	132	20cmL+ST402ME
VX Her	2456731.2829	-0.0291	0.002	76818	cG	131	13cmR+CanonKissX3
VX Her	2456907.9631	-0.0335	0.002	77206	V	106	20cmSC+ST402ME
VZ Her	2456781.1787	+0.0735	0.002	45403	V	128	20cmL+ST402ME
AR Her	2456809.2051	-0.0166	0.003	32668	cG	125	13cmR+CanonKissX3
BD Her	2456788.2723	+0.0351	0.002	50981	V	173	20cmSC+ST8XME
BD Her	2456947.9301	-0.0135	0.002	51318	C	187	20cmSC+ST8XME
EE Her	2456788.1895	+0.1177	0.002	57281	V	218	20cmL+ST402ME
EE Her	2456865.9888	+0.1178	0.002	57438	V	135	20cmSC+ST8XME
GY Her	2456809.2088	-0.1114	0.002	38944	V	233	20cmSC+ST8XME
V394 Her	2456863.9860	-0.1773	0.002	62186	V	108	20cmSC+ST8XME
V1348 Her	2456864.0822	-0.0218	0.003	3657	V	215	20cmL+ST402ME
WZ Hya	2456732.0731	-0.0040	0.003	31810	cG	131	13cmR+CanonKissX3
DH Hya	2456700.0888	+0.0948	0.002	52196	cG	156	13cmR+CanonKissX3
ET Hya	2456977.2646	+0.1625	0.003	30715	C	174	25cmL+ST402ME
UU Hya	2456700.0654	+0.0055	0.002	32873	V	163	20cmL+ST402ME
V496 Hya	2456698.0457	-0.0170	0.003	6071	V	140	20cmSC+ST8XME
V496 Hya	2456984.2930	-0.0179	0.002	6604	C	143	25cmL+ST402ME
CQ Lac	2456928.9452	+0.1869	0.003	35308	C	118	20cmSC+ST8XME
RR Leo	2456689.0916	+0.1336	0.002	29606	cG	194	13cmR+CanonKissX3
RR Leo	2456770.9754	+0.1342	0.002	29787	cG	132	13cmR+CanonKissX3
RR Leo	2456948.3215	+0.1421	0.003	30179	C	74	25cmL+ST402ME
SS Leo	2456770.9807	-0.0953	0.003	23932	V	132	20cmSC+ST8XME
WW Leo	2456700.0134	+0.0462	0.003	36191	V	103	20cmSC+ST8XME
IM Leo	2456662.1785	-0.0095	0.002	5475	V	154	20cmL+ST402ME
U Lep	2456991.1902	+0.0418	0.002	26895	C	153	13cmR+ST8XME
TV Lib	2456771.0930	-0.0083	0.002	136315	V	143	20cmSC+ST8XME
TV Lib	2456866.0016	-0.0073	0.002	136667	cG	114	13cmR+CanonKissX3
UX Lib	2456744.1711	+0.0016	0.003	63269	V	169	20cmL+ST402ME
V LMi	2457018.3350	+0.0294	0.003	68922	C	100	20cmL+ST402ME
Y LMi	2456739.0666	+0.1680	0.003	40389	V	136	20cmSC+ST8XME
RW Lyn	2456984.1977	-0.1956	0.002	62184	C	151	13cmR+ST8XME
RW Lyn	2456991.1780	-0.1953	0.002	62198	C	161	25cmL+ST402ME
TW Lyn	2456984.2130	+0.0624	0.002	24824	C	165	20cmL+ST402ME
RR Lyr	2456809.1376	-0.2743	0.003	24496	cG	118	13cmR+CanonKissX3
AW Lyr	2456914.9498	-0.0937	0.002	63491	C	164	25cmL+ST402ME
CG Lyr	2456929.0250	+0.1262	0.003	61969	C	124	20cmL+ST402ME
CN Lyr	2456866.0821	+0.0201	0.003	30093	cG	170	13cmR+CanonKissX3
FN Lyr	2456781.2294	+0.0304	0.002	43519	V	178	20cmSC+ST8XME
KX Lyr	2456788.2351	+0.0093	0.002	38914	cG	157	13cmR+CanonKissX3
KX Lyr	2456920.9573	+0.0193	0.002	39215	C	164	20cmSC+ST8XME
V445 Oph	2456781.1416	+0.0489	0.003	73642	V	161	20cmSC+ST8XME
CM Ori	2456662.0168	-0.0029	0.002	47816	V	183	20cmSC+ST8XME
V964 Ori	2456731.9543	+0.0206	0.002	49998	V	120	20cmL+ST402ME
V1820 Ori	2456738.9377	-0.1413	0.002	7716	V	162	20cmSC+ST8XME
VV Peg	2456921.0934	-0.0123	0.002	35897	C	169	20cmSC+ST8XME
AE Peg	2456959.9189	-0.0278	0.002	35332	C	118	20cmSC+ST8XME
AO Peg	2456960.0385	+0.0418	0.002	57462	C	158	20cmSC+ST8XME
AV Peg	2456864.1226	+0.1579	0.002	33490	V	197	20cmSC+ST8XME
BF Peg	2456984.0671	-0.0756	0.002	28282	C	196	13cmR+ST8XME
CG Peg	2456780.2492	-0.0577	0.003	37843	cG	149	13cmR+CanonKissX3
CG Peg	2456990.9234	-0.0628	0.002	38294	C	146	13cmR+ST8XME
CY Peg	2456864.2575	-0.2999	0.003	49533	V	157	20cmSC+ST8XME
DZ Peg	2456983.9231	+0.1777	0.002	38022	C	118	25cmL+ST402ME
ES Peg	2456914.9545	+0.1755	0.002	35297	C	162	20cmSC+ST8XME
ET Peg	2456921.0982	-0.0635	0.002	36574	C	167	20cmL+ST402ME

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IY Peg	2456929.1028	-0.0121	0.002	22190	C	120	25cmL+ST402ME
V479 Peg	2456949.9194	+0.1264	0.002	3839	C	133	25cmL+ST402ME
V491 Peg	2456915.0870	-0.0087	0.002	4080	C	129	25cmL+ST402ME
V606 Peg	2456990.9300	+0.0044	0.002	5062	C	133	25cmL+ST402ME
V618 Peg	2456929.0663	+0.0016	0.002	3909	C	133	20cmSC+ST8XME
TU Per	2456917.2137	-0.2380	0.002	29889	C	125	20cmL+ST402ME
AR Per	2456670.9239	+0.0639	0.002	69167	cG	160	13cmR+CanonKissX3
AR Per	2457018.1729	+0.0649	0.003	69983	C	78	13cmR+ST8XME
ET Per	2456663.0010	+0.0458	0.002	72281	V	173	20cmSC+ST8XME
ET Per	2457018.0080	+0.0464	0.002	73182	C	90	25cmL+ST402ME
FM Per	2456662.9401	+0.0696	0.002	46805	V	145	20cmL+ST402ME
FM Per	2456977.0594	+0.1216	0.002	47447	C	166	20cmSC+ST8XME
V378 Per	2456662.0590	+0.1034	0.002	73394	V	154	20cmL+ST402ME
V378 Per	2456697.9449	+0.1046	0.002	73484	V	129	20cmL+ST402ME
V378 Per	2456699.9389	+0.1051	0.002	73489	V	92	20cmSC+ST8XME
V378 Per	2456921.2346	+0.1120	0.002	74044	C	197	20cmSC+ST8XME
V378 Per	2457020.9086	+0.1064	0.002	74294	C	138	13cmR+ST8XME
SS Psc	2456662.9482	-0.1374	0.005	130416	cG	157	13cmR+CanonKissX3
FR Psc	2456976.9875	+0.0126	0.002	7166	C	123	20cmL+ST402ME
HX Psc	2456917.0488	-0.0012	0.004	5615	C	173	25cmL+ST402ME
RY Psc	2456983.9945	+0.1316	0.002	27001	C	94	20cmL+ST402ME
BB Pup	2456662.1634	+0.1389	0.002	37148	V	186	20cmSC+ST8XME
XX Pup	2457018.2347	+0.0354	0.002	29477	C	99	13cmR+ST8XME
AN Ser	2456781.1399	+0.0043	0.002	80587	cG	187	13cmR+CanonKissX3
AV Ser	2456781.2557	+0.1606	0.002	58327	cG	160	13cmR+CanonKissX3
BH Ser	2456699.2894	+0.1305	0.002	35017	V	162	20cmSC+ST8XME
V423 Ser	2456788.0895	+0.0091	0.002	6756	V	170	20cmSC+ST8XME
V484 Ser	2456908.9591	+0.0080	0.003	8182	C	88	20cmSC+ST8XME
V Sex	2456684.3406	+0.1053	0.003	59775	V	103	20cmL+ST402ME
V Sex	2456732.0910	+0.0240	0.003	59873	V	126	20cmSC+ST8XME
SS Tau	2456670.9613	+0.1286	0.002	47680	V	165	20cmL+ST402ME
SS Tau	2456929.1644	+0.1408	0.002	48378	C	145	20cmSC+ST8XME
SS Tau	2457017.9308	+0.1310	0.002	48618	C	88	13cmR+ST8XME
BR Tau	2456661.9267	+0.0170	0.002	51651	V	185	20cmL+ST402ME
BR Tau	2456948.2320	+0.0178	0.002	52384	C	134	25cmL+ST402ME
IY Tau	2456689.0619	+0.1598	0.003	81499	V	148	20cmL+ST402ME
IY Tau	2456731.9719	+0.1500	0.004	81613	V	135	20cmSC+ST8XME
IY Tau	2456929.2504	+0.1479	0.003	82137	C	176	20cmL+ST402ME
U Tri	2456866.2160	-0.0548	0.002	84440	V	159	20cmSC+ST8XME
TU UMa	2456732.1915	-0.0616	0.002	24927	V	115	20cmL+ST402ME
EX UMa	2456689.2050	-0.0046	0.003	2691	cG	154	13cmR+CanonKissX3
ST Vir	2456732.2890	-0.0840	0.002	38936	cG	150	13cmR+CanonKissX3
UU Vir	2456739.1219	+0.0065	0.003	31416	cG	145	13cmR+CanonKissX3
UZ Vir	2456808.9945	-0.1764	0.003	69315	V	200	20cmSC+ST8XME
AS Vir	2456731.2579	+0.1521	0.004	31759	V	86	20cmL+ST402ME
AS Vir	2456771.0937	+0.1414	0.003	31831	V	143	20cmL+ST402ME
AV Vir	2456684.3154	+0.0200	0.003	23160	V	129	20cmSC+ST8XME
BC Vir	2456809.0388	+0.2316	0.002	65342	V	150	20cmL+ST402ME
V388 Vir	2456744.1619	+0.0133	0.003	5268	V	120	20cmSC+ST8XME
BN Vul	2456916.9656	+0.0787	0.002	19165	C	150	20cmL+ST402ME
FH Vul	2456907.9800	-0.1484	0.002	51504	C	99	25cmL+ST402ME
FK Vul	2456947.9441	+0.0874	0.002	48085	C	193	25cmL+ST402ME
A020058	2456991.0623	+0.2747	0.002	5297	C	172	13cmR+ST8XME
A101200	2456771.0066	+0.0341	0.003	8589	V	135	20cmL+ST402ME

Remarks

- (1) A020058 = ASAS J020058+1332.8
 A101200 = ASAS J101200+1921.9
- (2) The O-C's were calculated from the GCVS (201312) ephemerides except following 8 stars.
 LP Cam MAX = HJD 2451578.4800 + 0.572092E (GEOS)
 X CMi MAX = HJD 2451515.95 + 0.5713986E (AAVSO VSX)
 EZ Cnc MAX = HJD 2447153.6959 + 0.54578489E (GEOS)
 SX Del MAX = HJD 2453916.541 + 0.6133415E (GEOS)
 BI Eri MAX = HJD 2451536.7400 + 0.49751E (GEOS)
 IY Peg MAX = HJD 2444819.4350 + 0.5457269E (GEOS)
 A020058 MAX = HJD 2453726.9277 + 0.6161714E (AAVSO VSX)
 A101200 MAX = HJD 2452623.98 + 0.482826E (ASAS)
- (3) cG magnitude means " G plane of DSLR camera image" .

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