

Variable Star Bulletin

CCD and DSLR maxima of RR Lyrase stars in 2013

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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.
SW And	2456309.9424	-0.0015	0.002	5821	cG	104	13cmR+CanonKissX3
XX And	2456304.9736	-0.0010	0.003	3656	cG	154	16cmL+CanonKissX4
XX And	2456620.0984	+0.0018	0.002	4092	cG	99	13cmR+CanonKissX3
ZZ And	2456598.1296	+0.0221	0.002	5900	V	151	20cmL+ST402ME
BK And	2456533.2443	-0.0008	0.002	13740	V	147	16cmL+ST402ME
BK And	2456593.1140	+0.0012	0.002	13881	V	180	20cmL+ST402ME
CI And	2456552.2731	-0.0035	0.003	10543	V	169	16cmL+ST402ME
CI And	2456626.9179	-0.0066	0.002	10697	V	181	20cmL+ST402ME
CI And	2456657.9371	-0.0099	0.002	10761	V	117	20cmL+ST402ME
DR And	2456300.9785	-0.0777	0.002	6536	cG	118	16cmL+CanonKissX4
DR And	2456508.1949	-0.0931	0.002	6904	V	152	16cmL+ST402ME
DR And	2456552.0968	-0.1154	0.003	6982	V	205	20cmSC+ST8XME
OV And	2456309.9467	-0.0074	0.002	6321	V	99	16cmL+ST402ME
OV And	2456597.9406	-0.0085	0.002	6933	cG	143	13cmR+CanonKissX3
V341 Aql	2456508.0556	+0.0405	0.002	26490	cG	118	13cmR+CanonKissX3
V341 Aql	2456551.9856	+0.0409	0.002	26566	cG	128	13cmR+CanonKissX3
SW Aqr	2456516.0053	+0.0213	0.002	7880	cG	87	13cmR+CanonKissX3
SX Aqr	2456507.2587	-0.0062	0.002	4899	V	82	16cmL+ST402ME
CP Aqr	2456507.2311	+0.0079	0.002	9522	cG	115	13cmR+CanonKissX3
X Ari	2456579.1274	+0.0443	0.002	5658	cG	80	CanonKissX3(250mm)
SY Ari	2456593.0760	-0.0239	0.002	5305	V	197	20cmSC+ST8XME
TZ Aur	2456305.0784	+0.0031	0.002	6520	cG	134	13cmR+CanonKissX3
TZ Aur	2456610.1942	+0.0042	0.002	7299	cG	109	13cmR+CanonKissX3
BH Aur	2456297.0582	+0.0057	0.002	5573	cG	64	16cmL+CanonKissX4
RS Boo	2456340.3054	-0.0040	0.002	20777	cG	139	13cmR+CanonKissX3
RS Boo	2456410.1031	-0.0140	0.002	20962	V	105	16cmL+ST402ME
ST Boo	2456410.1078	+0.0583	0.002	12711	V	91	20cmSC+ST8XME
SW Boo	2456411.2552	+0.0131	0.002	5590	V	95	20cmSC+ST8XME
SZ Boo	2456411.0133	-0.0025	0.003	6217	V	52	16cmL+ST402ME

star	max. HJD	O-C	err	E	band	n	inst.
TV Boo	2456410.0352	+0.0188	0.003	16321	V	90	16cmL+ST402ME
TW Boo	2456340.2745	-0.0359	0.002	8981	V	156	16cmL+ST402ME
TW Boo	2456409.9963	-0.0416	0.003	9112	V	64	20cmSC+ST8XME
UU Boo	2456373.3159	+0.0091	0.002	4118	V	63	20cmSC+ST8XME
UY Boo	2456305.3391	-0.0374	0.004	4194	V	54	20cmSC+ST8XME
LW Boo	2456418.2364	+0.0380	0.002	3980	V	111	20cmSC+ST8XME
RZ Cam	2456620.0838	+0.0510	0.002	35802	V	173	20cmL+ST402ME
AH Cam	2456296.9505	-0.1301	0.002	47643	cG	150	13cmR+CanonKissX3
AH Cam	2456619.9389	-0.1532	0.002	48519	V	197	20cmL+ST402ME
AH Cam	2456635.0510	-0.1592	0.002	48560	cG	133	13cmR+CanonKissX3
AH Cam	2456657.8971	-0.1746	0.002	48622	cG	137	13cmR+CanonKissX3
RV Cap	2456530.1407	-0.0133	0.002	50580	cG	132	13cmR+CanonKissX3
HU Cas	2456322.9613	-0.0389	0.002	60467	V	111	16cmL+ST402ME
HU Cas	2456608.1931	-0.0428	0.002	61160	V	88	20cmL+ST402ME
IU Cas	2456578.9460	+0.0219	0.002	42857	V	176	16cmL+ST402ME
RU Cet	2456619.9404	+0.1251	0.002	28644	cG	173	13cmR+CanonKissX3
RV Cet	2456634.9815	+0.2538	0.003	28106	cG	181	13cmR+CanonKissX3
RZ Cet	2456552.2750	-0.2033	0.002	44350	cG	111	13cmR+CanonKissX3
RZ Cet	2456593.1232	-0.2040	0.002	44430	cG	135	13cmR+CanonKissX3
X CMi	2456323.0743	-0.0522	0.003	77204	V	131	16cmL+ST402ME
X CMi	2456608.2131	-0.0412	0.002	77989	V	120	20cmSC+ST8XME
AA CMi	2456301.0525	+0.0780	0.002	41410	cG	125	13cmR+CanonKissX3
AA CMi	2456362.0275	+0.0835	0.002	41538	V	111	16cmL+ST402ME
AA CMi	2456598.2837	+0.0835	0.003	42034	cG	57	13cmR+CanonKissX3
AL CMi	2456329.9651	-0.0634	0.003	35845	V	128	16cmL+ST402ME
DQ CMi	2456301.1126	+0.0449	0.005	5309	cG	132	16cmL+CanonKissX4
DQ CMi	2456610.2706	+0.0562	0.005	5811	V	148	20cmSC+ST8XME
RW Cnc	2456354.9870	+0.2109	0.002	30699	V	145	16cmL+ST402ME
RW Cnc	2456619.2860	+0.2128	0.002	31182	cG	136	13cmR+CanonKissX3
RW Cnc	2456625.3030	+0.2106	0.002	31193	cG	69	16cmL+CanonKissX4
RW Cnc	2456654.3040	+0.2100	0.002	31246	cG	146	13cmR+CanonKissX3
SS Cnc	2456301.0563	+0.0585	0.002	90441	V	121	20cmSC+ST8XME
AQ Cnc	2456362.1504	-0.0826	0.002	42589	V	102	20cmSC+ST8XME
AS Cnc	2456366.0111	-0.2159	0.003	27798	V	121	16cmL+ST402ME
AS Cnc	2456627.2203	-0.2176	0.003	28221	V	148	20cmL+ST402ME
CQ Cnc	2456634.1754	+0.2103	0.003	26228	V	123	20cmL+ST402ME
EZ Cnc	2456297.1974	-0.0327	0.003	16753	V	84	20cmSC+ST8XME
EZ Cnc	2456608.2877	-0.0398	0.004	17323	V	83	20cmL+ST402ME
KV Cnc	2456366.1367	-0.2185	0.003	7181	V	66	16cmL+ST402ME
RY Com	2456310.2740	-0.1447	0.003	35636	V	161	16cmL+ST402ME
RY Com	2456340.2831	-0.1485	0.002	35700	V	89	20cmSC+ST8XME
RY Com	2456355.2975	-0.1407	0.003	35732	V	85	16cmL+ST402ME
RY Com	2456411.0834	-0.1602	0.002	20492	V	115	20cmSC+ST8XME
RY Com	2456656.3366	-0.1695	0.002	36374	cG	104	16cmL+CanonKissX3
ST Com	2456396.1076	-0.0371	0.002	21992	V	126	16cmL+ST402ME
W CVn	2456355.1252	-0.1491	0.003	63348	cG	135	13cmR+CanonKissX3
W CVn	2456634.3155	-0.1490	0.002	63854	cG	100	13cmR+CanonKissX3
RU CVn	2456355.2902	+0.2373	0.003	38154	cG	120	13cmR+CanonKissX3
RU CVn	2456395.9882	+0.2349	0.003	38225	cG	126	13cmR+CanonKissX3
RX CVn	2456411.0007	-0.0618	0.003	31193	V	97	20cmSC+ST8XME
RZ CVn	2456361.1615	-0.1346	0.003	28229	V	79	20cmSC+ST8XME
SS CVn	2456310.2995	+0.1316	0.002	34873	cG	167	13cmR+CanonKissX3
UY Cyg	2456516.2263	+0.0592	0.002	60785	cG	110	13cmR+CanonKissX3
UY Cyg	2456552.1195	+0.0673	0.002	60849	cG	148	13cmR+CanonKissX3
SX Del	2456517.0997	-0.0093	0.002	8316	V	140	20cmSC+ST8XME
BV Del	2456592.9353	+0.0219	0.002	73363	V	175	20cmL+ST402ME
CK Del	2456516.1046	+0.0793	0.002	49499	V	104	20cmSC+ST8XME
DX Del	2456530.0129	+0.0690	0.002	36314	cG	95	13cmR+CanonKissX3

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RW Dra	2456396.2569	-0.2198	0.002	38424	V	108	16cmL+ST402ME
SU Dra	2456354.9867	+0.0603	0.002	20777	cG	129	13cmR+CanonKissX3
SW Dra	2456374.9966	+0.0583	0.002	52926	V	137	16cmL+ST402ME
XZ Dra	2456520.0301	-0.1115	0.002	30623	V	152	16cmL+ST402ME
RX Eri	2456322.9654	-0.0105	0.003	58971	cG	130	CanonKissX3(250mm)
BB Eri	2456329.9499	+0.2705	0.003	29427	cG	154	13cmR+CanonKissX3
BB Eri	2456593.2467	+0.2744	0.003	29889	cG	131	13cmR+CanonKissX3
RR Gem	2456305.1314	-0.0903	0.002	37623	cG	144	16cmL+CanonKissX4
RR Gem	2456340.0890	-0.0961	0.002	37711	V	126	16cmL+ST402ME
RR Gem	2456608.2578	-0.1119	0.002	38386	cG	96	13cmR+CanonKissX3
RR Gem	2456627.3272	-0.1134	0.002	38434	cG	93	13cmR+CanonKissX3
SZ Gem	2456627.2035	-0.0736	0.003	58733	V	142	20cmSC+ST8XME
V426 Gem	2456361.9931	-0.0026	0.004	9079	V	106	20cmSC+ST8XME
VX Her	2456410.2547	-0.0194	0.003	76113	V	105	16cmL+ST402ME
VX Her	2456530.0168	-0.0204	0.003	76376	V	46	16cmL+ST402ME
AR Her	2456339.2476	+0.0539	0.002	31668	cG	96	13cmR+CanonKissX3
AR Her	2456396.0979	+0.0308	0.002	31789	cG	108	13cmR+CanonKissX3
DL Her	2456516.9934	+0.0494	0.003	30946	V	117	16cmL+ST402ME
EP Her	2456410.2182	-0.0829	0.002	66621	V	100	20cmSC+ST8XME
EP Her	2456551.9784	-0.0877	0.002	66954	V	141	16cmL+ST402ME
WZ Hya	2456340.0782	-0.0047	0.003	31081	cG	167	13cmR+CanonKissX3
WZ Hya	2456362.1234	-0.0058	0.002	31122	cG	186	13cmR+CanonKissX3
WZ Hya	2456368.0330	-0.0111	0.003	31133	V	144	16cmL+ST402ME
WZ Hya	2456395.9997	-0.0056	0.002	31185	V	112	16cmL+ST402ME
XX Hya	2456620.3112	-0.0061	0.002	33063	V	74	20cmSC+ST8XME
DH Hya	2456297.1433	+0.0837	0.002	51372	cG	121	16cmL+CanonKissX4
DH Hya	2456368.0523	+0.0881	0.002	51517	V	110	20cmSC+ST8XME
ET Hya	2456360.9626	+0.1421	0.003	29816	cG	131	13cmR+CanonKissX3
IV Hya	2456634.3668	+0.1033	0.002	25452	V	85	20cmL+ST402ME
V496 Hya	2456364.0081	-0.0089	0.003	5449	V	82	20cmSC+ST8XME
CQ Lac	2456517.2187	+0.1669	0.002	34644	V	150	20cmSC+ST8XME
PW Lac	2456516.2075	+0.1919	0.003	37078	V	144	16cmL+ST402ME
RR Leo	2456297.3091	+0.1237	0.002	28740	cG	127	13cmR+CanonKissX3
RR Leo	2456323.0998	+0.1279	0.002	28797	cG	115	13cmR+CanonKissX3
RR Leo	2456361.1010	+0.1281	0.002	28881	cG	116	13cmR+CanonKissX3
RR Leo	2456620.3272	+0.1329	0.002	29454	cG	93	13cmR+CanonKissX3
RR Leo	2456625.3026	+0.1320	0.002	29465	cG	118	13cmR+CanonKissX3
SS Leo	2456631.3084	-0.0929	0.002	23709	cG	150	13cmR+CanonKissX3
ST Leo	2456305.3262	-0.0216	0.002	59379	cG	140	16cmL+CanonKissX4
ST Leo	2456620.3138	-0.0256	0.002	60038	V	111	20cmL+ST402ME
ST Leo	2456631.3117	-0.0213	0.002	60061	V	119	16cmL+ST402ME
SZ Leo	2456355.1373	-0.0604	0.003	20387	V	127	16cmL+ST402ME
SZ Leo	2456361.0248	-0.0476	0.003	20398	V	95	20cmSC+ST8XME
SZ Leo	2456655.3010	-0.0391	0.003	20949	V	77	20cmSC+ST8XME
WW Leo	2456297.3112	+0.0447	0.003	35523	cG	134	16cmL+CanonKissX4
AA Leo	2456631.3040	-0.0989	0.002	28455	V	119	16cmL+ST402ME
U Lep	2456339.9404	+0.0454	0.002	25775	cG	122	13cmR+CanonKissX3
U Lep	2456634.1666	+0.0446	0.002	26281	cG	78	13cmR+CanonKissX3
BO Leo	2456365.9739	+0.1017	0.003	32724	cG	126	13cmR+CanonKissX3
AO Lep	2456297.0228	-0.0136	0.004	4516	V	146	20cmSC+ST8XME
V LMi	2456340.0730	+0.0340	0.003	67675	V	119	20cmSC+ST8XME
Y LMi	2456310.0687	+0.1874	0.002	39571	V	161	16cmL+ST402ME
RW Lyn	2456363.9996	-0.1764	0.003	60940	V	134	16cmL+ST402ME
RW Lyn	2456610.2807	-0.1874	0.004	61434	V	111	20cmL+ST402ME
TT Lyn	2456375.0052	-0.0486	0.003	33014	cG	125	13cmR+CanonKissX3
TW Lyn	2456323.0982	+0.0595	0.002	23452	V	63	20cmSC+ST8XME
TW Lyn	2456610.2864	+0.0591	0.003	24048	cG	139	13cmR+CanonKissX3

star	max. HJD	O-C	err	E	band	n	inst.
RR Lyr	2456373.2653	-0.2253	0.002	23727	cG	127	CanonKissX3(250mm)
RR Lyr	2456410.1226	-0.2144	0.003	23792	cG	178	CanonKissX3(250mm)
RR Lyr	2456411.2539	-0.2169	0.003	23794	cG	94	CanonKissX3(250mm)
RR Lyr	2456508.1774	-0.2278	0.002	23965	cG	144	CanonKissX3(250mm)
RR Lyr	2456516.1122	-0.2291	0.002	23979	cG	114	CanonKissX4(250mm)
RZ Lyr	2456411.2382	-0.0509	0.002	29786	V	86	16cmL+ST402ME
EZ Lyr	2456516.9917	-0.1380	0.002	43031	cG	149	13cmR+CanonKissX3
KX Lyr	2456396.2682	+0.0065	0.002	38025	cG	114	13cmR+CanonKissX3
V895 Mon	2456361.0008	-0.0299	0.002	6665	V	123	16cmL+ST402ME
ST Oph	2456373.2729	-0.0209	0.003	62055	V	110	16cmL+ST402ME
V445 Oph	2456418.2528	+0.0389	0.002	72728	cG	99	13cmR+CanonKissX3
V455 Oph	2456417.2533	+0.1706	0.002	32129	V	94	16cmL+ST402ME
CM Ori	2456320.9309	-0.0094	0.004	47296	V	85	20cmSC+ST8XME
CM Ori	2456339.9563	-0.0057	0.002	47325	V	125	16cmL+ST402ME
V964 Ori	2456593.1839	+0.0306	0.002	49723	V	111	20cmSC+ST8XME
VV Peg	2456517.1975	-0.0121	0.002	35070	cG	164	13cmR+CanonKissX3
BH Peg	2456552.0926	-0.1327	0.004	26813	V	215	16cmL+ST402ME
CG Peg	2456592.9246	-0.0599	0.002	37442	cG	140	13cmR+CanonKissX3
DZ Peg	2456533.2615	+0.1655	0.002	37280	cG	120	13cmR+CanonKissX3
ES Peg	2456515.2525	+0.1680	0.002	34555	V	116	16cmL+ST402ME
GY Peg	2456530.1647	+0.2304	0.002	30415	V	209	20cmSC+ST8XME
TU Per	2456579.0749	-0.2361	0.003	83738	V	136	20cmSC+ST8XME
TU Per	2456634.9293	-0.2326	0.002	29424	V	156	20cmL+ST402ME
AR Per	2456304.9498	+0.0618	0.002	68307	cG	131	13cmR+CanonKissX3
AR Per	2456598.1527	+0.0615	0.002	68996	cG	140	13cmR+CanonKissX3
ET Per	2456579.0772	+0.0469	0.002	72068	V	132	16cmL+ST402ME
ET Per	2456620.0543	+0.0465	0.002	72172	V	145	20cmSC+ST8XME
ET Per	2456635.0245	+0.0442	0.002	72210	V	145	20cmSC+ST8XME
FM Per	2456635.0402	+0.0542	0.002	46748	V	152	20cmL+ST402ME
V378 Per	2456610.2242	+0.1020	0.002	73264	V	105	20cmL+ST402ME
V378 Per	2456634.9467	+0.1040	0.002	73326	V	142	20cmSC+ST8XME
RY Psc	2456516.2203	+0.0918	0.003	26118	V	123	20cmSC+ST8XME
FR Psc	2456517.2042	+0.0104	0.002	6157	V	255	16cmL+ST402ME
XX Pup	2456363.9811	+0.0157	0.002	28212	cG	142	13cmR+CanonKissX3
XX Pup	2456627.2388	+0.0283	0.002	28721	cG	148	13cmR+CanonKissX3
HK Pup	2456362.0084	-0.3191	0.005	26904	cG	85	13cmR+CanonKissX3
HN Pup	2456355.0265	+0.0791	0.003	67675	V	120	20cmSC+ST8XME
AN Ser	2456417.2538	+0.0021	0.002	79890	cG	118	13cmR+CanonKissX3
BH Ser	2456418.1236	+0.1203	0.002	34370	V	70	20cmSC+ST8XME
DF Ser	2456368.3079	+0.0933	0.003	60901	V	56	16cmL+ST402ME
BR Tau	2456320.9411	+0.0189	0.003	50778	V	101	16cmL+ST402ME
BR Tau	2456598.2605	+0.0174	0.002	51488	V	99	20cmL+ST402ME
U Tri	2456552.2451	-0.0541	0.002	83738	V	152	20cmSC+ST8XME
U Tri	2456626.9385	-0.0520	0.002	83905	V	157	20cmSC+ST8XME
RV UMa	2456305.3328	+0.1263	0.002	23992	cG	144	13cmR+CanonKissX3
RV UMa	2456411.1100	+0.1219	0.002	24218	cG	113	13cmR+CanonKissX3
TU UMa	2456368.0442	-0.0578	0.002	24274	cG	161	13cmR+CanonKissX3
ST Vir	2456368.3082	-0.0712	0.002	38050	cG	53	13cmR+CanonKissX3
ST Vir	2456418.0143	-0.0753	0.002	38171	cG	134	13cmR+CanonKissX3
UU Vir	2456409.9996	+0.0038	0.002	30724	cG	136	13cmR+CanonKissX3
AS Vir	2456418.0106	+0.1428	0.003	31193	V	107	16cmL+ST402ME
AT Vir	2456339.2570	+0.1890	0.002	31687	V	114	16cmL+ST402ME
AT Vir	2456418.1178	+0.1809	0.002	31837	cG	85	13cmR+CanonKissX3
AV Vir	2456361.1185	+0.0223	0.004	22668	V	105	16cmL+ST402ME
BB Vir	2456411.0276	-0.1652	0.002	35656	cG	126	13cmR+CanonKissX3
BC Vir	2456339.3479	+0.2169	0.002	64510	V	72	20cmSC+ST8XME
BC Vir	2456368.1326	+0.2113	0.002	64561	V	150	16cmL+ST402ME
FH Vul	2456530.1349	-0.1435	0.002	50572	V	155	16cmL+ST402ME
A101200	2456418.0576	+0.0493	0.002	7861	V	118	20cmSC+ST8XME

Remarks

- (1) A101200 = ASAS J101200+1921.9
- (2) The O-C's were calculated from the GCVS (201312) ephemerides except following 4 stars.
A101200 MAX = HJD 2452623.98 + 0.4826394E (AAVSO VSX)
X CMi MAX = HJD 2451515.95 + 0.5713986E (AAVSO VSX)
EZ Cnc MAX = HJD 2447153.69589 + 0.54578489E (GEOS)
SX Del MAX = HJD 2453916.541 + 0.6133415E (GEOS)
- (3) cG magnitude means "G plane of DSLR camera image" .

VSOLJ

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