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O–C DIAGRAMS FOR 33 RR LYRAE-TYPE STARS

DAGNE, T.M.¹; BERDNIKOV, L.N.^{1,2}; KNIAZEV, A.Y.^{2,3,4}; DAMBIS, A.K.²

¹ Astronomy and Astrophysics Research division, Entoto Observatory and Research Center, P.O.Box 8412, Addis Ababa, Ethiopia. e-mail: lberdnikov@gmail.com, tesfayedagne7@gmail.com

² Sternberg Astronomical Institute, Lomonosov Moscow State University, Universitetskii pr. 13, Moscow, 119992 Russia

³ South African Astronomical Observatory, P.O. Box 9, Observatory, Cape Town, 7935 South Africa

⁴ Southern African Large Telescope, P.O. Box 9, Observatory, Cape Town, 7935 South Africa

In this paper we report O–C diagrams for 33 RR Lyr type variables. The diagrams are based on (1) our observations (light curve data and plots are available in the online version), obtained in 2012 to 2016 with the 0.76-m and 1.0-m telescopes of the South African Astronomical Observatory (SAAO) equipped with CCDs with B , V , and I_C filters of the Kron-Cousins photometric system (Cousins 1976), (2) the data published by Berdnikov et al. (2012) and Le Borgne et al. (2007ab, 2008ab, 2009, 2012, 2013), and (3) the data from NSVS (Wils et al. 2006), ASAS-3 (Pojmanski 2002), Catalina (Drake et al. 2013), HIPPARCOS (1997), and AAVSO databases. To calculate the O–C residuals we used the Hertzsprung (1919) method as it was computerized by Berdnikov (1992).

Table 2 lists the O–C values computed with the the mean light elements from Table 1. Figs. 1–5 show the corresponding O–C diagrams, where we use different symbols and colors with vertical error bars (which are usually smaller than symbols) for different data: green filled circles and black open circles for NSVS and HIPPARCOS, respectively; blue and red open squares for Catalina and ASAS-3, respectively; pluses for Le Borgne and AAVSO, and red filled squares for Berdnikov et al. (2012) and our observations.

From these O–C diagrams one can infer the following. The time interval covered by our study is too short for investigating any evolutionary period changes. The O–C diagrams of AP Cnc, TV Lib, PS Lup, and BT Sco indicate abrupt period change before the last data point. Some waves are visible in the O–C diagrams for V1184 Cen, V1354 Cen, V559 Hya, QR Lib, V354 Vir and V348 Vir, but we cannot identify them as periodic variations, because this would require observing several waves at least. The lack of data in some time intervals may lead to a miscalculation of the epoch. Examples are the O–C diagrams of RT Equ, IK Hya, V558 Oph, V1041 Oph, and AF Sex. The O–C diagram of V1017 Oph shows a systematic shift between the ASAS and Catalina data, which can be explained by the fact that the brightness of this star is close to the limiting magnitude of ASAS.

Table 1: Mean light element for 33 RR Lyrae stars.

Star Name	Initial epoch	Period	Type
AP Cnc	54546.214032	0.53291468	RRAB
V1179 Cen	54777.082409	0.27421762	RRC
V1184 Cen	53947.822244	0.33966910	RRC
V1354 Cen	54223.176146	0.34628436	RRC
V1360 Cen	54222.583970	0.34425780	RRC
RS Crv	54411.414734	0.53685599	RRAB
AG Crt	54506.758913	0.37684461	RRC
AP Crt	54390.357629	0.54378565	RRAB
RT Equ	53926.975698	0.44481338	RRAB
XY Eri	54660.469076	0.55425154	RRAB
SZ Hya	54521.232137	0.53722276	RRAB
CF Hya	54486.192951	0.59120615	RRC
IK Hya	52780.127072	0.65031872	RRAB
V425 Hya	54491.297178	0.55085320	RRAB
V516 Hya	53913.375194	0.34661720	RRAB:
V559 Hya	54396.214450	0.44794990	RRAB
TV Lib	54410.807510	0.26962370	RRAB
XX Lib	54462.226769	0.69847051	RRAB
QR Lib	53857.026961	0.37547759	RRC
PS Lup	54777.930950	0.47185029	RRAB
V558 Oph	53153.121869	0.42589032	RRC
V1017 Oph	54796.380117	0.30613960	RRC
V1041 Oph	54432.210221	0.35263166	RRC
UU Sco	54436.718392	0.57649333	RRC
BT Sco	54421.761496	0.54873084	RRAB
T Sex	52770.130472	0.32469759	RRC
AF Sex	54383.744749	0.53106543	RRAB
GH Vir	54440.440499	0.60530993	RRAB
V348 Vir	54460.446421	0.56523109	RRAB
V354 Vir	54395.742996	0.59504207	RRAB
V419 Vir	54418.032303	0.51051921	RRAB
V433 Vir	55075.810168	0.58859716	RRAB
V494 Vir	54451.349933	0.54722094	RRAB

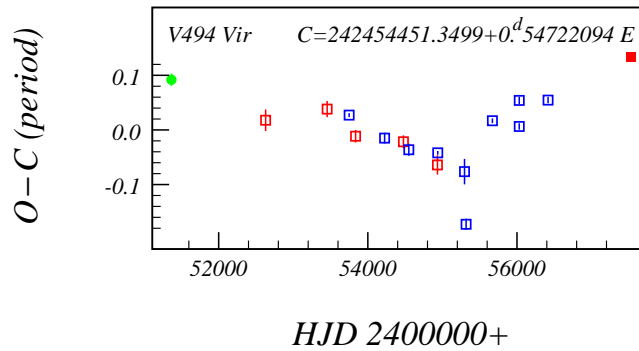


Figure 1. O–C diagram for V494 Vir.

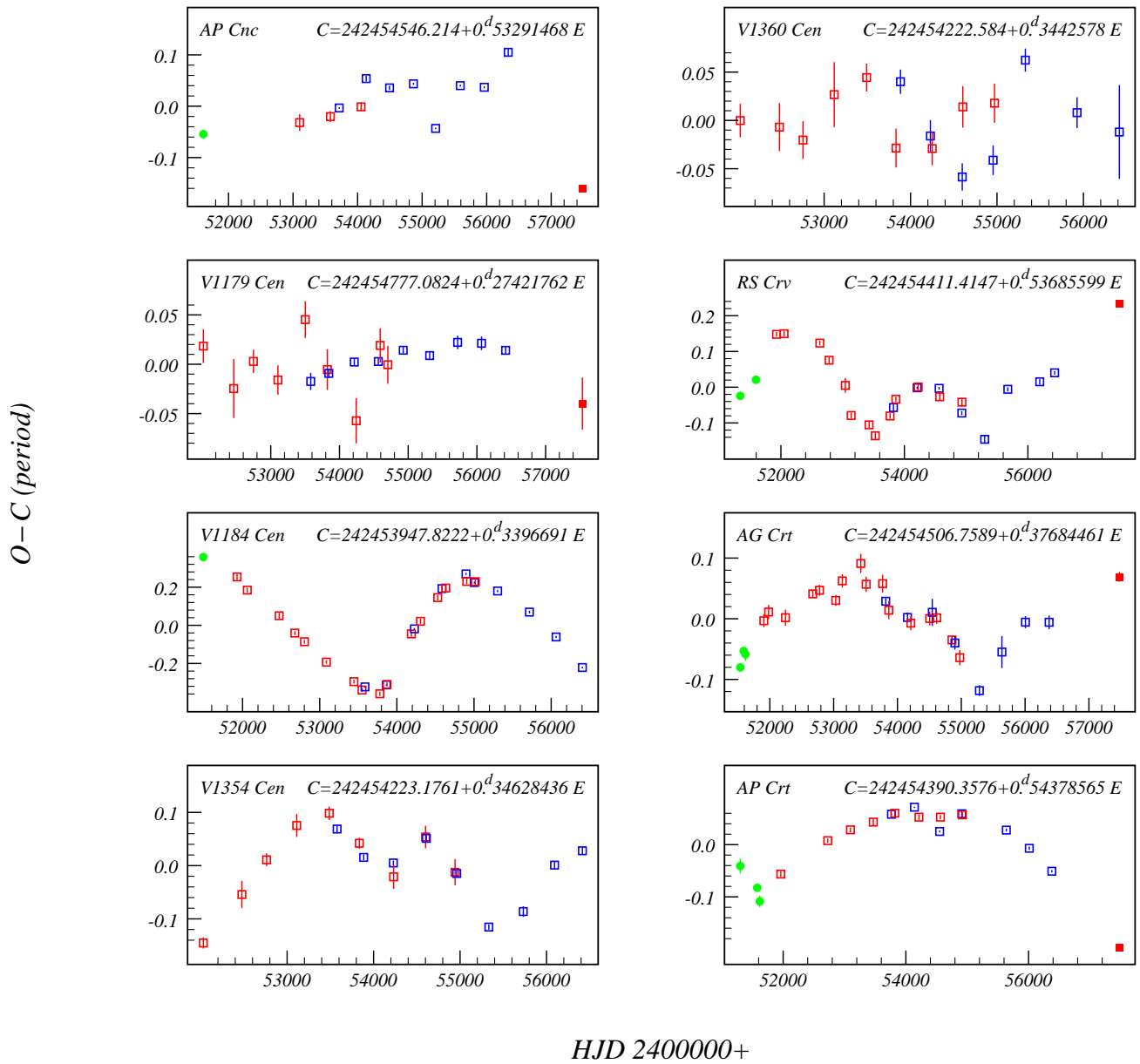


Figure 2. O–C diagrams for AP Cnc, V1179 Cen, V1184 Cen, V1354 Cen, V1360 Cen, RS Crv, AG Crt, and AP Crt.

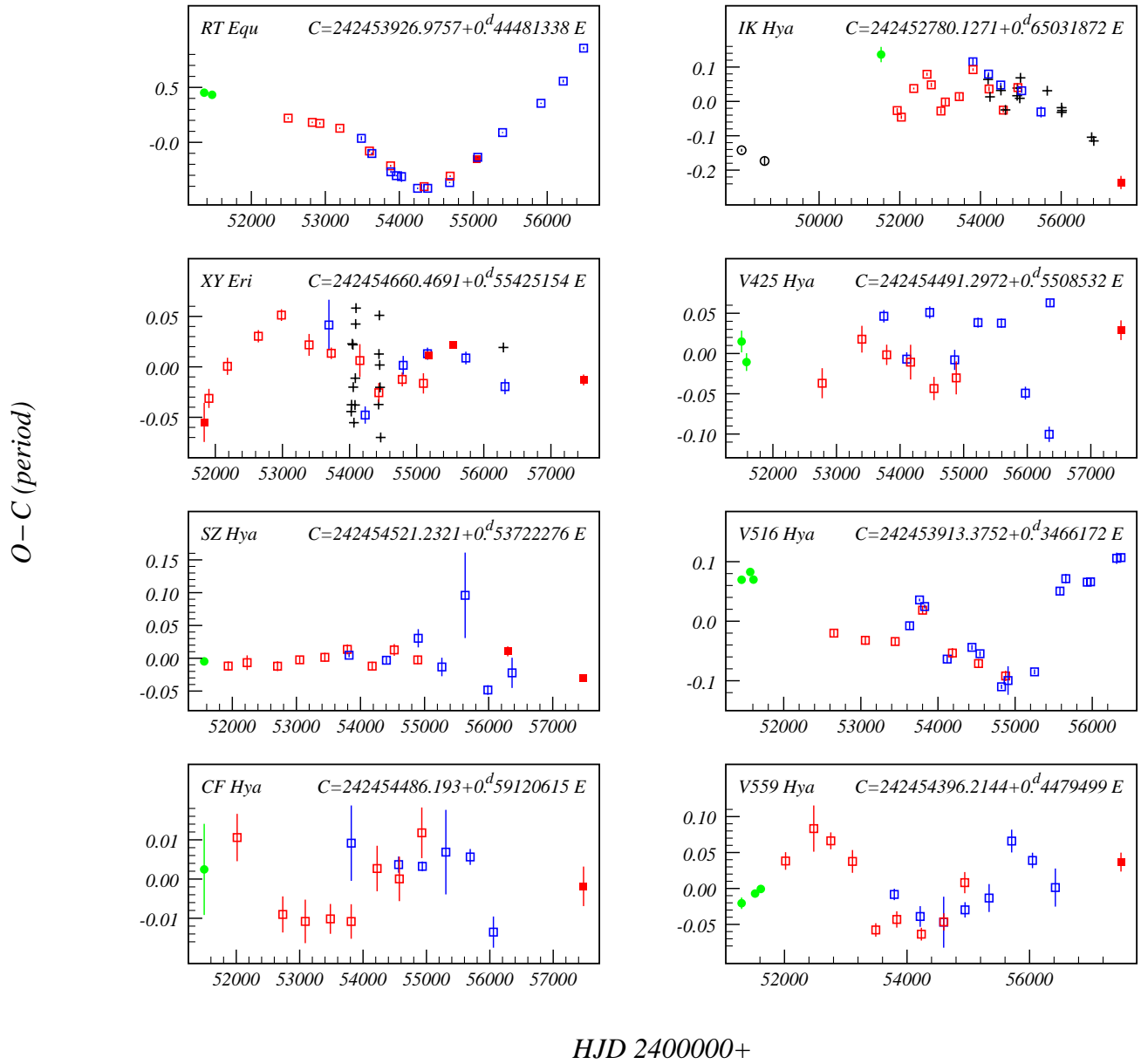


Figure 3. O-C diagrams for RT Equ, XY Eri, SZ Hya, CF Hya, IK Hya, V425 Hya, V516 Hya, and V559 Hya.

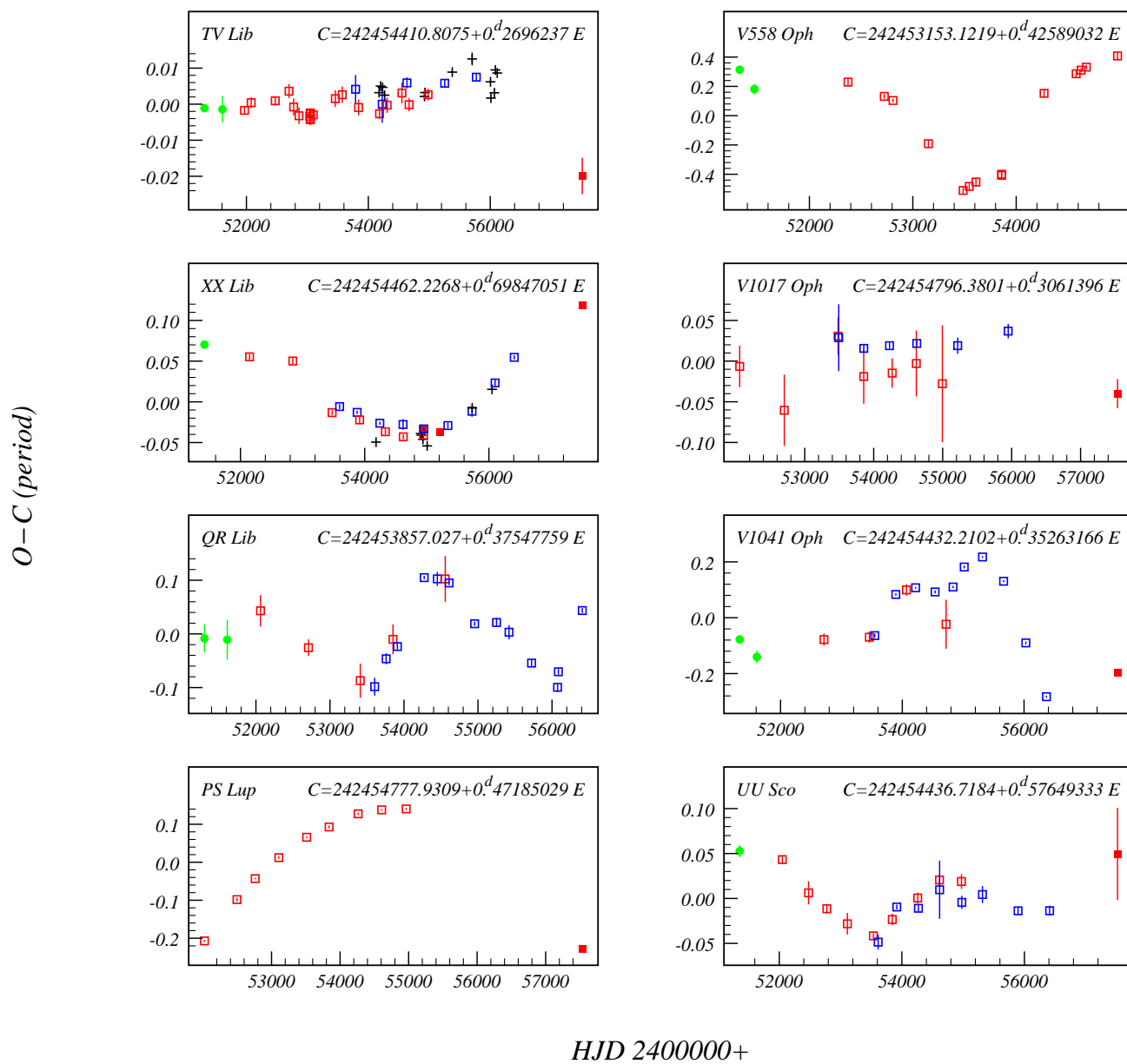


Figure 4. O–C diagrams for TV Lib, XX Lib, QR Lib, PS Lup, V558 Oph, V1017 Oph, V1041 Oph, and UU Sco.

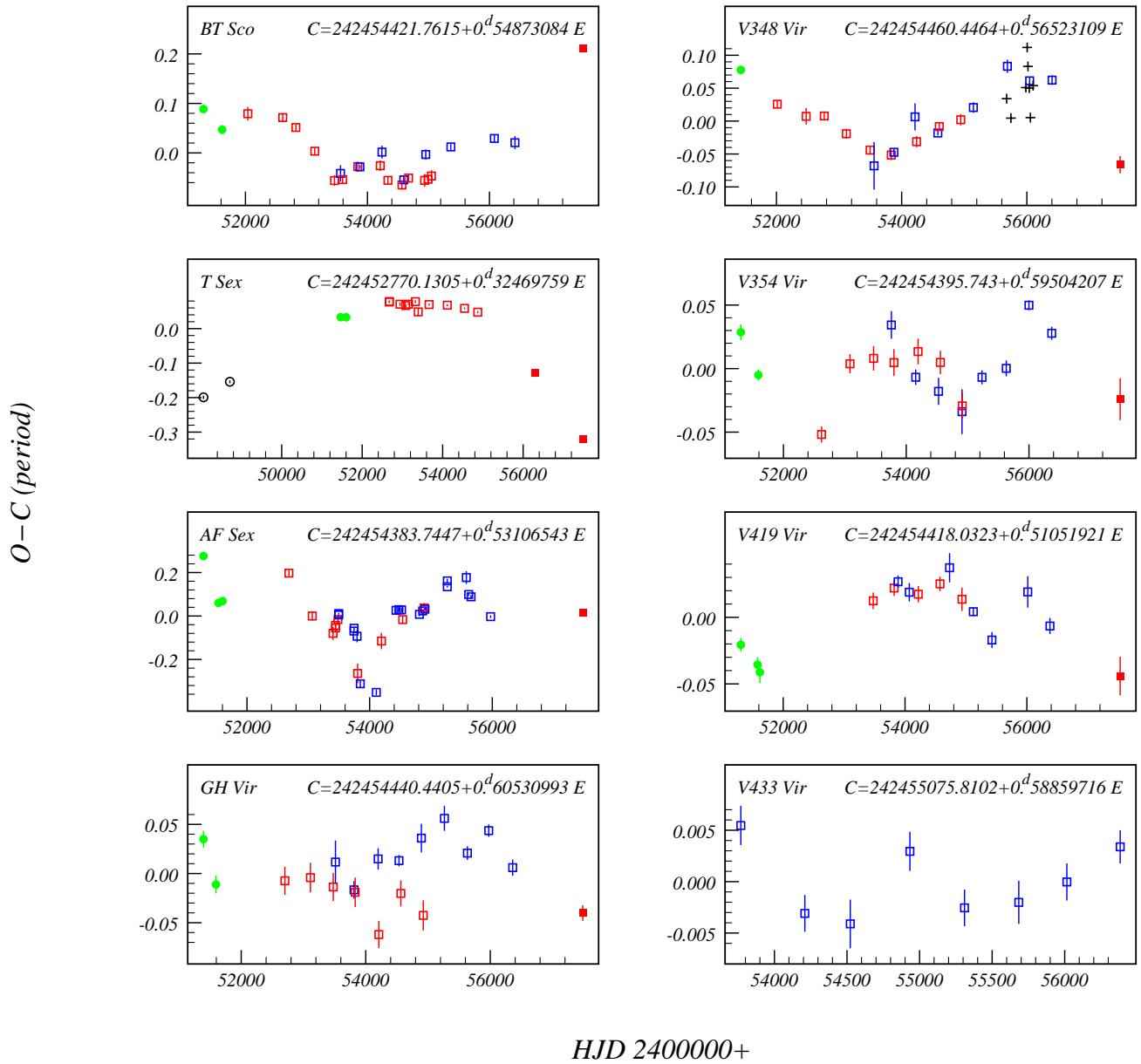


Figure 5. O–C diagrams for BT Sco, T Sex, AF Sex, GH Vir, V348 Vir, V354 Vir, V419 Vir, and V433 Vir.

Table 2: Times of maximum light for 33 RR Lyr type stars.

<i>Max HJD</i>	<i>Uncertainty</i>	<i>Filter</i>	<i>E</i>	<i>O-C</i>	<i>N</i>	<i>Reference</i>
AP Cnc						
2451609.82516	0.00428	V	-5510	-0.02899	44	Wils et al. (2006)
2453101.99828	0.00878	V	-2710	-0.01697	29	Pojmanski (2002)
2453578.96312	0.00564	V	-1815	-0.01077	54	Pojmanski (2002)
2453715.39824	0.00080	V	-1559	-0.00181	53	Drake et al. (2006)
2454053.80022	0.00481	V	-924	-0.00065	27	Pojmanski (2002)
2454133.23382	0.00296	V	-775	0.02866	44	Drake et al. (2013)
2454495.07326	0.00220	V	-96	0.01904	72	Drake et al. (2013)
2454865.45314	0.00107	V	599	0.02321	36	Drake et al. (2013)
2455209.13687	0.00083	V	1244	-0.02302	36	Drake et al. (2013)
2455591.28108	0.00103	V	1961	0.02136	59	Drake et al. (2013)
2455963.25381	0.00103	V	2659	0.01964	48	Drake et al. (2013)
2456334.19874	0.00390	V	3355	0.05596	47	Drake et al. (2013)
2457483.02115	0.00195	V	5511	-0.08568	9	This paper
V1179 Cen						
2452019.28084	0.00469	V	-10057	0.00504	52	Pojmanski (2002)
2452461.03363	0.00819	V	-8446	-0.00676	10	Pojmanski (2002)
2452748.14702	0.00324	V	-7399	0.00078	67	Pojmanski (2002)
2453104.35054	0.00408	V	-6100	-0.00439	36	Pojmanski (2002)
2453502.25710	0.00511	V	-4649	0.01241	47	Pojmanski (2002)
2453581.48880	0.00240	V	-4360	-0.00479	12	Drake et al. (2013)
2453823.90048	0.00566	V	-3476	-0.00148	48	Pojmanski (2002)
2453845.01418	0.00126	V	-3399	-0.00254	56	Drake et al. (2013)
2454215.48533	0.00109	V	-2048	0.00061	63	Drake et al. (2013)
2454243.71343	0.00627	V	-1945	-0.01571	26	Pojmanski (2002)
2454565.11295	0.00104	V	-773	0.00076	28	Drake et al. (2013)
2454592.26496	0.00476	V	-674	0.00523	39	Pojmanski (2002)
2454703.59194	0.00528	V	-268	-0.00015	60	Pojmanski (2002)
2454927.35755	0.00091	V	548	0.00389	36	Drake et al. (2013)
2455312.35761	0.00109	V	1952	0.00241	21	Drake et al. (2013)
2455719.30022	0.00185	V	3436	0.00607	16	Drake et al. (2013)
2456066.73370	0.00190	V	4703	0.00582	27	Drake et al. (2013)
2456417.45607	0.00122	V	5982	0.00386	32	Drake et al. (2013)
2457534.60386	0.00724	V	10056	-0.01094	7	This paper
V1184 Cen						
2451491.79664	0.00568	V	-7231	0.12166	46	Wils et al. (2006)
2451928.57568	0.00547	V	-5945	0.08624	53	Pojmanski (2002)
2452061.36277	0.00418	V	-5554	0.06271	49	Pojmanski (2002)
2452474.35475	0.00519	V	-4338	0.01706	27	Pojmanski (2002)
2452677.44603	0.00344	V	-3740	-0.01378	52	Pojmanski (2002)
2452802.08914	0.00329	V	-3373	-0.02923	53	Pojmanski (2002)
2453086.35586	0.00311	V	-2536	-0.06555	68	Pojmanski (2002)
2453443.31324	0.00343	V	-1485	-0.10039	60	Pojmanski (2002)
2453548.25615	0.00343	V	-1176	-0.11523	62	Pojmanski (2002)
2453586.64433	0.00131	V	-1063	-0.10966	16	Drake et al. (2013)
2453779.22440	0.00389	V	-496	-0.12197	56	Pojmanski (2002)
2453863.81777	0.00134	V	-247	-0.10621	57	Drake et al. (2013)
2453872.65004	0.00352	V	-221	-0.10533	57	Pojmanski (2002)
2454187.61332	0.00497	V	706	-0.01531	53	Pojmanski (2002)
2454227.36367	0.00165	V	823	-0.00624	57	Drake et al. (2013)
2454305.50098	0.00458	V	1053	0.00717	53	Pojmanski (2002)
2454529.04548	0.00504	V	1711	0.04941	52	Pojmanski (2002)
2454585.10691	0.00434	V	1876	0.06543	46	Drake et al. (2013)

Table 2: cont.

<i>Max HJD</i>	<i>Uncertainty</i>	<i>Filter</i>	<i>E</i>	<i>O-C</i>	<i>N</i>	<i>Reference</i>
V1184 Cen						
2454633.34092	0.00557	V	2018	0.06643	52	Pojmanski (2002)
2454895.25101	0.00190	V	2789	0.09165	24	Drake et al. (2013)
2454905.42764	0.00499	V	2819	0.07820	38	Pojmanski (2002)
2455004.26936	0.00183	V	3110	0.07621	20	Drake et al. (2013)
2455017.17843	0.00556	V	3148	0.07786	36	Pojmanski (2002)
2455305.54081	0.00218	V	3997	0.06117	28	Drake et al. (2013)
2455717.86150	0.00234	V	5211	0.02358	24	Drake et al. (2013)
2456063.26067	0.00192	V	6228	-0.02073	32	Drake et al. (2013)
2456404.23400	0.00156	V	7232	-0.07518	36	Drake et al. (2013)
V1354 Cen						
2452031.14582	0.00365	V	-6330	-0.05033	56	Pojmanski (2002)
2452476.84532	0.00889	V	-5043	-0.01880	14	Pojmanski (2002)
2452762.55249	0.00420	V	-4218	0.00377	74	Pojmanski (2002)
2453110.59061	0.00744	V	-3213	0.02611	40	Pojmanski (2002)
2453487.35592	0.00440	V	-2125	0.03404	65	Pojmanski (2002)
2453577.72589	0.00226	V	-1864	0.02379	19	Drake et al. (2013)
2453834.65965	0.00354	V	-1122	0.01456	49	Pojmanski (2002)
2453885.20795	0.00193	V	-976	0.00534	53	Drake et al. (2013)
2454228.71843	0.00158	V	16	0.00173	62	Drake et al. (2013)
2454231.47968	0.00779	V	24	-0.00729	38	Pojmanski (2002)
2454600.99099	0.00734	V	1091	0.01861	43	Pojmanski (2002)
2454609.99348	0.00202	V	1117	0.01770	27	Drake et al. (2013)
2454942.05815	0.00856	V	2076	-0.00433	26	Pojmanski (2002)
2454961.10302	0.00201	V	2131	-0.00510	49	Drake et al. (2013)
2455332.63130	0.00171	V	3204	-0.03994	26	Drake et al. (2013)
2455730.86838	0.00347	V	4354	-0.02987	26	Drake et al. (2013)
2456092.41945	0.00279	V	5398	0.00033	34	Drake et al. (2013)
2456414.47323	0.00269	V	6328	0.00965	33	Drake et al. (2013)
2452482.70265	0.00857	V	-5054	-0.00240	14	Pojmanski (2002)
2452755.69447	0.00674	V	-4261	-0.00701	79	Pojmanski (2002)
2453116.49285	0.01157	V	-3213	0.00919	37	Pojmanski (2002)
2453491.39567	0.00496	V	-2124	0.01527	150	Pojmanski (2002)
2453831.49724	0.00693	V	-1136	-0.00987	84	Pojmanski (2002)
2453883.15957	0.00433	V	-986	0.01379	64	Drake et al. (2013)
2454229.46357	0.00565	V	20	-0.00556	64	Drake et al. (2013)
2454250.45881	0.00596	V	81	-0.01004	95	Pojmanski (2002)
2454597.80481	0.00488	V	1090	-0.02016	32	Drake et al. (2013)
2454604.37068	0.00739	V	1109	0.00481	105	Pojmanski (2002)
2454955.15038	0.00528	V	2128	-0.01419	40	Drake et al. (2013)
2454971.35082	0.00699	V	2175	0.00613	84	Pojmanski (2002)
2455328.01724	0.00413	V	3211	0.02147	32	Drake et al. (2013)
2455925.97432	0.00550	V	4948	0.00276	55	Drake et al. (2013)
2456415.15775	0.01670	V	6369	-0.00415	28	Drake et al. (2013)
RS Crv						
2451342.19601	0.00544	V	-5717	-0.01303	23	Wils et al. (2006)
2451596.15307	0.00459	V	-5244	0.01115	65	Wils et al. (2006)
2451928.53520	0.00337	V	-4625	0.07942	70	Pojmanski (2002)
2452051.47618	0.00417	V	-4396	0.08038	69	Pojmanski (2002)
2452630.19283	0.00342	V	-3318	0.06627	72	Pojmanski (2002)
2452780.48679	0.00445	V	-3038	0.04055	71	Pojmanski (2002)
2453042.97148	0.01107	V	-2549	0.00266	39	Pojmanski (2002)
2453137.94987	0.00450	V	-2372	-0.04246	38	Pojmanski (2002)
2453428.37488	0.00504	V	-1831	-0.05654	60	Pojmanski (2002)

Table 2: cont.

<i>Max HJD</i>	<i>Uncertainty</i>	<i>Filter</i>	<i>E</i>	<i>O-C</i>	<i>N</i>	<i>Reference</i>
RS Crv						
2453528.75051	0.00486	V	-1644	-0.07298	59	Pojmanski (2002)
2453768.21807	0.00412	V	-1198	-0.04319	51	Pojmanski (2002)
2453822.99003	0.00530	V	-1096	-0.03054	52	Drake et al. (2013)
2453861.65612	0.00406	V	-1024	-0.01808	51	Pojmanski (2002)
2454206.33494	0.00177	V	-382	-0.00081	40	Drake et al. (2013)
2454223.51549	0.00447	V	-350	0.00035	58	Pojmanski (2002)
2454562.26963	0.00201	V	281	-0.00164	43	Drake et al. (2013)
2454571.92026	0.00580	V	299	-0.01442	71	Pojmanski (2002)
2454929.44196	0.00300	V	965	-0.03880	39	Drake et al. (2013)
2454932.14260	0.00649	V	970	-0.02244	43	Pojmanski (2002)
2455299.83311	0.00600	V	1655	-0.07829	35	Drake et al. (2013)
2455674.63375	0.00302	V	2353	-0.00313	32	Drake et al. (2013)
2456192.17421	0.00431	V	3317	0.00816	30	Drake et al. (2013)
2456433.23603	0.00266	V	3766	0.02164	26	Drake et al. (2013)
2457480.20932	0.00346	V	5716	0.12575	12	This paper
2451590.71532	0.00221	V	-7738	-0.02000	33	Wils et al. (2006)
2451618.97653	0.00401	V	-7663	-0.02214	25	Wils et al. (2006)
2451906.15301	0.00394	V	-6901	-0.00125	26	Pojmanski (2002)
2451980.77367	0.00444	V	-6703	0.00418	27	Pojmanski (2002)
2452245.31510	0.00498	V	-6001	0.00069	23	Pojmanski (2002)
2452672.67164	0.00256	V	-4867	0.01544	38	Pojmanski (2002)
2452778.19038	0.00346	V	-4587	0.01769	37	Pojmanski (2002)
2453032.93102	0.00336	V	-3911	0.01138	36	Pojmanski (2002)
2453135.44491	0.00414	V	-3639	0.02353	35	Pojmanski (2002)
2453425.24924	0.00595	V	-2870	0.03436	28	Pojmanski (2002)
2453508.89580	0.00470	V	-2648	0.02141	28	Pojmanski (2002)
2453767.03474	0.00552	V	-1963	0.02180	30	Pojmanski (2002)
2453816.39048	0.00196	V	-1832	0.01089	43	Drake et al. (2013)
2453864.62101	0.00559	V	-1704	0.00531	28	Pojmanski (2002)
2454156.67108	0.00310	V	-929	0.00081	38	Drake et al. (2013)
2454209.04896	0.00439	V	-790	-0.00271	50	Pojmanski (2002)
2454504.12116	0.00432	V	-7	0.00016	35	Pojmanski (2002)
2454545.20106	0.00841	V	102	0.00400	35	Drake et al. (2013)
2454614.91391	0.00368	V	287	0.00059	34	Pojmanski (2002)
2454854.19647	0.00265	V	922	-0.01317	27	Pojmanski (2002)
2454899.79280	0.00411	V	1043	-0.01504	40	Drake et al. (2013)
2454976.28313	0.00467	V	1246	-0.02417	30	Pojmanski (2002)
2455283.39102	0.00333	V	2061	-0.04463	33	Drake et al. (2013)
2455636.14154	0.00992	V	2997	-0.02067	47	Drake et al. (2013)
2456004.71410	0.00373	V	3975	-0.00214	33	Drake et al. (2013)
2456375.52914	0.00424	V	4959	-0.00219	35	Drake et al. (2013)
2457475.94360	0.00306	V	7879	0.02600	9	This paper
AP Crt						
2451301.08910	0.00779	V	-5680	-0.56604	32	Wils et al. (2006)
2451577.30952	0.00260	V	-5172	-0.58873	50	Wils et al. (2006)
2451618.62307	0.00579	V	-5096	-0.60289	39	Wils et al. (2006)
2451961.23642	0.00283	V	-4466	-0.57450	39	Pojmanski (2002)
2452726.92147	0.00215	V	-3059	0.00414	44	Pojmanski (2002)
2453096.70696	0.00248	V	-2379	0.01539	31	Pojmanski (2002)
2453468.66440	0.00364	V	-1695	0.02345	48	Pojmanski (2002)
2453764.49196	0.00085	V	-1151	0.03161	45	Drake et al. (2013)
2453819.41537	0.00280	V	-1050	0.03267	48	Pojmanski (2002)
2454139.16762	0.00073	V	-462	0.03896	32	Drake et al. (2013)

Table 2: cont.

<i>Max HJD</i>	<i>Uncertainty</i>	<i>Filter</i>	<i>E</i>	<i>O–C</i>	<i>N</i>	<i>Reference</i>
AP Crt						
2454213.11210	0.00283	V	–326	0.02859	66	Pojmanski (2002)
2454550.24430	0.00093	V	294	0.01369	36	Drake et al. (2013)
2454563.31008	0.00218	V	318	0.02861	77	Pojmanski (2002)
2454911.88023	0.00369	V	959	0.03216	31	Drake et al. (2013)
2454921.12340	0.00249	V	976	0.03098	66	Pojmanski (2002)
2455637.27325	0.00148	V	2293	0.01513	47	Drake et al. (2013)
2456011.37885	0.00170	V	2981	–0.00380	32	Drake et al. (2013)
2456378.41026	0.00128	V	3656	–0.02771	28	Drake et al. (2013)
2457478.95327	0.00143	V	5680	–0.10685	8	This paper
RT Equ						
2451362.38274	0.00275	V	–5770	1.98024	76	Wils et al. (2006)
2451469.12941	0.00428	V	–5530	1.97170	77	Wils et al. (2006)
2452497.44333	0.00359	V	–3217	1.43228	20	Pojmanski (2002)
2452823.47445	0.00318	V	–2484	1.41519	54	Pojmanski (2002)
2452925.77760	0.00477	V	–2253	0.96645	52	Pojmanski (2002)
2453195.75949	0.00300	V	–1646	0.94662	35	Pojmanski (2002)
2453487.51611	0.00856	V	–990	0.90566	8	Drake et al. (2013)
2453595.99941	0.00458	V	–746	0.85449	53	Pojmanski (2002)
2453628.90552	0.00421	V	–672	0.84441	44	Drake et al. (2013)
2453882.39921	0.00423	V	–101	0.34966	34	Pojmanski (2002)
2453885.93351	0.00484	V	–93	0.32546	33	Drake et al. (2013)
2453959.75697	0.00286	V	73	0.30990	68	Drake et al. (2013)
2454029.58890	0.02153	V	230	0.30612	35	Drake et al. (2013)
2454247.49996	0.00318	V	720	0.25863	30	Drake et al. (2013)
2454335.57981	0.00340	V	918	0.26543	51	Pojmanski (2002)
2454383.61286	0.00245	V	1026	0.25863	28	Drake et al. (2013)
2454680.32667	0.00232	V	1694	–0.16289	48	Drake et al. (2013)
2454687.46979	0.00364	V	1710	–0.13679	58	Pojmanski (2002)
2455046.05821	0.00238	V	2516	–0.06795	39	Berdnikov et al. (2012)
2455060.29956	0.00131	V	2548	–0.06063	36	Drake et al. (2013)
2455396.23380	0.00231	V	3303	0.03951	40	Drake et al. (2013)
2455915.44955	0.00272	V	4470	0.15804	44	Drake et al. (2013)
2456215.78824	0.00590	V	5146	–0.19711	24	Drake et al. (2013)
2456491.26135	0.00507	V	5765	–0.06348	36	Drake et al. (2013)
XY Eri						
2451834.30995	0.01074	V	–5099	–0.03052	8	Berdnikov et al. (2012)
2451904.71309	0.00526	V	–4972	–0.01733	47	Pojmanski (2002)
2452180.74798	0.00471	V	–4474	0.00029	51	Pojmanski (2002)
2452641.34752	0.00339	V	–3643	0.01680	70	Pojmanski (2002)
2452984.99510	0.00322	V	–3023	0.02843	75	Pojmanski (2002)
2453396.78763	0.00600	V	–2280	0.01207	43	Pojmanski (2002)
2453692.21463	0.01386	V	–1747	0.02299	44	Drake et al. (2013)
2453727.11693	0.00316	V	–1684	0.00745	72	Pojmanski (2002)
2454024.71800	0.00000	—	–1147	–0.02456	—	Le Borgne et al. (2007)
2454029.71000	0.00000	—	–1138	–0.02082	—	Le Borgne et al. (2007)
2454039.72000	0.00000	—	–1120	0.01265	—	Le Borgne et al. (2007)
2454049.69600	0.00000	—	–1102	0.01212	—	Le Borgne et al. (2007)
2454054.66100	0.00000	—	–1093	–0.01114	—	Le Borgne et al. (2007)
2454064.61800	0.00000	—	–1075	–0.03067	—	Le Borgne et al. (2007)
2454080.70100	0.00000	—	–1046	–0.02097	—	Le Borgne et al. (2007)
2454085.70400	0.00000	—	–1037	–0.00623	—	Le Borgne et al. (2007)
2454090.72200	0.00000	—	–1028	0.02351	—	Le Borgne et al. (2007)
2454095.71900	0.00000	—	–1019	0.03224	—	Le Borgne et al. (2007)

Table 2: cont.

<i>Max HJD</i>	<i>Uncertainty</i>	<i>Filter</i>	<i>E</i>	<i>O–C</i>	<i>N</i>	<i>Reference</i>
XY Eri						
2454153.33237	0.00902	V	–915	0.00345	29	Pojmanski (2002)
2454232.56041	0.00473	V	–772	–0.02648	58	Drake et al. (2013)
2454432.65100	0.00000	—	–411	–0.02069	—	Le Borgne et al. (2008)
2454435.98300	0.00531	V	–405	–0.01420	74	Pojmanski (2002)
2454437.66700	0.00000	—	–402	0.00704	—	Le Borgne et al. (2008)
2454443.78500	0.00000	—	–391	0.02828	—	Le Borgne et al. (2008)
2454448.74600	0.00000	—	–382	0.00101	—	Le Borgne et al. (2008)
2454453.72200	0.00000	—	–373	–0.01125	—	Le Borgne et al. (2008)
2454463.67100	0.00000	—	–355	–0.03878	—	Le Borgne et al. (2008)
2454784.61453	0.00384	V	224	–0.00689	70	Pojmanski (2002)
2454799.03281	0.00515	V	250	0.00085	34	Drake et al. (2013)
2455099.98147	0.00559	V	793	–0.00908	25	Pojmanski (2002)
2455160.96542	0.00335	V	903	0.00720	21	Drake et al. (2013)
2455184.79722	0.00200	V	946	0.00619	89	Berdnikov et al. (2012)
2455542.84958	0.00197	V	1592	0.01205	132	Berdnikov et al. (2012)
2455732.39640	0.00350	V	1934	0.00485	39	Drake et al. (2013)
2456291.64200	0.00000	—	2943	0.01064	—	Le Borgne et al. (2008)
2456315.45332	0.00421	V	2986	–0.01085	32	Drake et al. (2013)
2457486.03622	0.00298	V	5098	–0.00721	13	This paper
SZ Hya						
2451561.13217	0.00204	V	–5510	–0.00256	166	Wils et al. (2006)
2451935.57261	0.00382	V	–4813	–0.00638	52	Pojmanski (2002)
2452231.04792	0.00598	V	–4263	–0.00359	31	Pojmanski (2002)
2452705.41272	0.00406	V	–3380	–0.00649	79	Pojmanski (2002)
2453051.38938	0.00295	V	–2736	–0.00129	87	Pojmanski (2002)
2453443.56404	0.00375	V	–2006	0.00076	69	Pojmanski (2002)
2453794.91424	0.00412	V	–1352	0.00727	78	Pojmanski (2002)
2453821.77060	0.00168	V	–1302	0.00250	48	Drake et al. (2013)
2454182.23814	0.00363	V	–631	–0.00644	51	Pojmanski (2002)
2454404.11595	0.00269	V	–218	–0.00163	60	Drake et al. (2013)
2454526.61119	0.00480	V	10	0.00683	71	Pojmanski (2002)
2454893.52618	0.00357	V	693	–0.00133	68	Pojmanski (2002)
2454901.06500	0.00748	V	707	0.01637	31	Drake et al. (2013)
2455269.57631	0.00758	V	1393	–0.00713	37	Drake et al. (2013)
SZ Hya						
2455632.79757	0.03499	V	2069	0.05154	26	Drake et al. (2013)
2455987.28707	0.00397	V	2729	–0.02598	28	Drake et al. (2013)
2456297.83347	0.00408	V	3307	0.00567	29	This paper
2456364.96870	0.01238	V	3432	–0.01195	17	Drake et al. (2013)
2457480.77613	0.00194	V	5509	–0.01619	9	This paper
CF Hya						
2451494.10008	0.00687	V	–5061	0.00145	51	Wils et al. (2006)
2452013.77509	0.00357	V	–4182	0.00626	63	Pojmanski (2002)
2452733.85259	0.00272	V	–2964	–0.00533	74	Pojmanski (2002)
2453088.57523	0.00328	V	–2364	–0.00638	52	Pojmanski (2002)
2453484.68373	0.00225	V	–1694	–0.00600	78	Pojmanski (2002)
2453812.80275	0.00260	V	–1139	–0.00640	80	Pojmanski (2002)
2453813.99697	0.00568	V	–1137	0.00541	59	Drake et al. (2013)
2454221.92539	0.00343	V	–447	0.00159	65	Pojmanski (2002)
2454561.27831	0.00123	V	127	0.00218	37	Drake et al. (2013)
2454572.50907	0.00335	V	146	0.00002	83	Pojmanski (2002)
2454926.64850	0.00382	V	745	0.00697	45	Pojmanski (2002)

Table 2: cont.

<i>Max HJD</i>	<i>Uncertainty</i>	<i>Filter</i>	<i>E</i>	<i>O–C</i>	<i>N</i>	<i>Reference</i>
CF Hya						
2454934.92033	0.00074	V	759	0.00191	60	Drake et al. (2013)
2455306.19994	0.00637	V	1387	0.00406	46	Drake et al. (2013)
2455690.48321	0.00120	V	2037	0.00333	26	Drake et al. (2013)
2456056.42849	0.00235	V	2656	−0.00800	16	Drake et al. (2013)
2457478.28618	0.00298	V	5061	−0.00110	11	This paper
IK Hya						
2448079.53094	0.00270	V	−7226	−1.39306	51	HIPPARCOS (1997)
2448649.18981	0.00850	V	−6350	−1.41339	51	HIPPARCOS (1997)
2451536.80638	0.01450	V	−1911	−0.56162	17	Wils et al. (2006)
2451935.99607	0.00446	V	−1297	−0.66762	61	Pojmanski (2002)
2452038.73395	0.00329	V	−1139	−0.68010	62	Pojmanski (2002)
2452345.73858	0.00175	V	−667	−0.62591	34	Pojmanski (2002)
2452674.17646	0.00294	V	−162	−0.59898	60	Pojmanski (2002)
2452780.80871	0.00403	V	2	−0.61900	58	Pojmanski (2002)
2453020.07647	0.00511	V	370	−0.66853	42	Pojmanski (2002)
2453128.69672	0.00601	V	537	−0.65150	42	Pojmanski (2002)
2453474.02621	0.00575	V	1067	0.00906	67	Pojmanski (2002)
2453812.90822	0.00677	V	1588	0.07502	28	Drake et al. (2013)
2453815.49456	0.00262	V	1592	0.06009	56	Pojmanski (2002)
2454188.75900	0.00000	—	2166	0.04158	—	Le Borgne et al. (2007)
2454199.17424	0.00337	V	2182	0.05172	36	Drake et al. (2013)
2454212.15242	0.00428	V	2202	0.02353	54	Pojmanski (2002)
2454235.54900	0.00000	—	2238	0.00863	—	Le Borgne et al. (2007)
2454502.20204	0.00429	V	2648	0.03100	21	Drake et al. (2013)
2454506.74400	0.00000	—	2655	0.02073	—	Le Borgne et al. (2008)
2454564.58515	0.00447	V	2744	−0.01649	66	Pojmanski (2002)
2454618.56200	0.00000	—	2827	−0.01609	—	Le Borgne et al. (2008)
2454908.63100	0.00000	—	3273	0.01076	—	Le Borgne et al. (2009)
2454913.84800	0.00000	—	3281	0.02521	—	Le Borgne et al. (2009)
2454926.85531	0.00463	V	3301	0.02614	51	Pojmanski (2002)
2454973.65800	0.00000	—	3373	0.00589	—	Le Borgne et al. (2009)
2454990.60500	0.00000	—	3399	0.04460	—	Le Borgne et al. (2009)
2455021.14556	0.00424	V	3446	0.02018	22	Drake et al. (2013)
2455500.39032	0.01040	V	4183	−0.01996	18	Drake et al. (2013)
2455654.55600	0.00000	—	4420	0.02019	—	Le Borgne et al. (2012)
2456009.59800	0.00000	—	4966	−0.01184	—	Le Borgne et al. (2008)
2456011.54000	0.00000	—	4969	−0.02079	—	Le Borgne et al. (2008)
2456020.64800	0.00000	—	4983	−0.01725	—	Le Borgne et al. (2008)
2456755.45760	0.00020	V	6113	−0.06781	4600	AAVSO
2456807.47610	0.00025	V	6193	−0.07480	4588	AAVSO
2457481.12758	0.01250	V	7229	−0.15352	6	This paper
V425 Hya						
2451507.88445	0.00745	V	−5416	0.00820	60	Wils et al. (2006)
2451585.54069	0.00607	V	−5275	−0.00586	60	Wils et al. (2006)
2452774.81828	0.01028	V	−3116	−0.02033	23	Pojmanski (2002)
2453399.51594	0.00916	V	−1982	0.00980	36	Pojmanski (2002)
2453744.91659	0.00427	V	−1355	0.02550	84	Drake et al. (2013)
2453789.50930	0.00695	V	−1274	−0.00090	38	Pojmanski (2002)
2454104.59439	0.00470	V	−702	−0.00384	44	Drake et al. (2013)
2454165.18619	0.01189	V	−592	−0.00589	27	Pojmanski (2002)
2454466.53686	0.00419	V	−45	0.02808	62	Drake et al. (2013)
2454533.13808	0.00796	V	76	−0.02394	40	Pojmanski (2002)
2454858.71193	0.00690	V	667	−0.00433	55	Drake et al. (2013)

Table 2: cont.

<i>Max HJD</i>	<i>Uncertainty</i>	<i>Filter</i>	<i>E</i>	<i>O-C</i>	<i>N</i>	<i>Reference</i>
V425 Hya						
2454882.93714	0.01131	V	711	-0.01666	32	Pojmanski (2002)
2455225.05478	0.00345	V	1332	0.02114	47	Drake et al. (2013)
2455593.02435	0.00320	V	2000	0.02077	65	Drake et al. (2013)
2455970.86178	0.00440	V	2686	-0.02709	52	Drake et al. (2013)
2456344.31208	0.00525	V	3364	-0.05526	40	Drake et al. (2013)
2456358.72420	0.00212	V	3390	0.03467	36	Drake et al. (2013)
2457473.63235	0.00673	V	5414	0.01595	11	This paper
V516 Hya						
2451454.15029	0.00135	V	-7095	0.02413	63	Wils et al. (2006)
2451566.11219	0.00123	V	-6772	0.02867	63	Wils et al. (2006)
2451608.04841	0.00108	V	-6651	0.02421	62	Wils et al. (2006)
2452650.29517	0.00191	V	-3644	-0.00695	71	Pojmanski (2002)
2453058.25944	0.00263	V	-2467	-0.01112	63	Pojmanski (2002)
2453444.73691	0.00230	V	-1352	-0.01183	48	Pojmanski (2002)
2453632.26599	0.00195	V	-811	-0.00265	22	Drake et al. (2013)
2453760.52939	0.00080	V	-441	0.01238	23	Drake et al. (2013)
2453800.03777	0.00237	V	-327	0.00640	63	Pojmanski (2002)
2453827.07606	0.00114	V	-249	0.00855	25	Drake et al. (2013)
2454118.89713	0.00237	V	593	-0.02206	41	Drake et al. (2013)
2454186.49102	0.00288	V	788	-0.01853	35	Pojmanski (2002)
2454439.87150	0.00144	V	1519	-0.01522	29	Drake et al. (2013)
2454525.12990	0.00263	V	1765	-0.02465	57	Pojmanski (2002)
2454544.54618	0.00151	V	1821	-0.01894	27	Drake et al. (2013)
2454823.20717	0.00125	V	2625	-0.03817	20	Drake et al. (2013)
2454876.24589	0.00300	V	2778	-0.03189	47	Pojmanski (2002)
2454907.78540	0.00833	V	2869	-0.03454	20	Drake et al. (2013)
2455251.28810	0.00141	V	3860	-0.02949	29	Drake et al. (2013)
2455580.62145	0.00215	V	4810	0.01752	30	Drake et al. (2013)
2455656.53785	0.00280	V	5029	0.02476	20	Drake et al. (2013)
2455934.52281	0.00181	V	5831	0.02272	25	Drake et al. (2013)
2455976.81032	0.00219	V	5953	0.02293	48	Drake et al. (2013)
2456315.81566	0.00329	V	6931	0.03665	16	Drake et al. (2013)
2456371.96803	0.00249	V	7093	0.03704	16	Drake et al. (2013)
V559 Hya						
2451299.97554	0.00359	V	-6912	-0.00920	32	Wils et al. (2006)
2451519.92497	0.00194	V	-6421	-0.00317	107	Wils et al. (2006)
2451613.54936	0.00219	V	-6212	-0.00031	75	Wils et al. (2006)
2452017.61761	0.00549	V	-5310	0.01713	76	Pojmanski (2002)
2452477.68235	0.01441	V	-4283	0.03732	16	Pojmanski (2002)
2452755.85160	0.00527	V	-3662	0.02968	70	Pojmanski (2002)
2453109.71920	0.00710	V	-2872	0.01686	43	Pojmanski (2002)
2453489.98595	0.00421	V	-2023	-0.02585	68	Pojmanski (2002)
2453791.92631	0.00355	V	-1349	-0.00372	62	Drake et al. (2013)
2453832.67417	0.00509	V	-1258	-0.01931	49	Pojmanski (2002)
2454214.77727	0.00645	V	-405	-0.01747	60	Drake et al. (2013)
2454234.02810	0.00399	V	-362	-0.02849	57	Pojmanski (2002)
2454597.77088	0.01589	V	450	-0.02102	40	Drake et al. (2013)
2454600.45877	0.00540	V	456	-0.02083	61	Pojmanski (2002)
2454941.82106	0.00661	V	1218	0.00363	43	Pojmanski (2002)
2454946.73155	0.00477	V	1229	-0.01333	52	Drake et al. (2013)
2455339.14303	0.00871	V	2105	-0.00596	32	Drake et al. (2013)
2455707.84131	0.00711	V	2928	0.02955	30	Drake et al. (2013)
2456047.37525	0.00482	V	3686	0.01747	33	Drake et al. (2013)

Table 2: cont.

<i>Max HJD</i>	<i>Uncertainty</i>	<i>Filter</i>	<i>E</i>	<i>O-C</i>	<i>N</i>	<i>Reference</i>
V559 Hya						
2456420.50061	0.01188	V	4519	0.00056	32	Drake et al. (2013)
2457491.56469	0.00590	V	6910	0.01643	17	This paper
TV Lib						
2451311.48278	0.00020	V	-11495	-0.00030	71	Wils et al. (2006)
2451606.45102	0.00098	V	-10401	-0.00039	36	Wils et al. (2006)
2451968.55557	0.00033	V	-9058	-0.00047	27	Pojmanski (2002)
2452078.29299	0.00042	V	-8651	0.00011	29	Pojmanski (2002)
2452473.02223	0.00034	V	-7187	0.00025	9	Pojmanski (2002)
2452698.96761	0.00053	V	-6349	0.00097	24	Pojmanski (2002)
2452775.00031	0.00064	V	-6067	-0.00021	24	Pojmanski (2002)
2452862.89698	0.00062	V	-5741	-0.00087	23	Pojmanski (2002)
2453040.30933	0.00021	V	-5083	-0.00091	21	Pojmanski (2002)
2453045.16276	0.00034	V	-5065	-0.00071	89	Pojmanski (2002)
2453046.78014	0.00049	V	-5059	-0.00107	45	Pojmanski (2002)
2453047.85855	0.00040	V	-5055	-0.00116	50	Pojmanski (2002)
2453049.74642	0.00030	V	-5048	-0.00065	101	Pojmanski (2002)
2453096.93042	0.00042	V	-4873	-0.00080	71	Pojmanski (2002)
2453458.76664	0.00063	V	-3531	0.00041	35	Pojmanski (2002)
2453571.73926	0.00062	V	-3112	0.00070	34	Pojmanski (2002)
2453790.94374	0.00106	V	-2299	0.00112	31	Drake et al. (2013)
2453840.01389	0.00059	V	-2117	-0.00025	40	Pojmanski (2002)
2454176.77500	0.00000	—	-868	0.00086	—	Le Borgne et al. (2007)
2454183.78364	0.00042	V	-842	-0.00071	30	Pojmanski (2002)
2454200.77200	0.00000	—	-779	0.00135	—	Le Borgne et al. (2007)
2454227.73302	0.00140	V	-679	0.00000	21	Drake et al. (2013)
2454233.66600	0.00000	—	-657	0.00126	—	Le Borgne et al. (2007)
2454267.63800	0.00000	—	-531	0.00067	—	Le Borgne et al. (2007)
2454309.15930	0.00057	V	-377	-0.00008	29	Pojmanski (2002)
2454551.28229	0.00077	V	521	0.00083	34	Pojmanski (2002)
2454632.97903	0.00041	V	824	0.00159	31	Drake et al. (2013)
2454668.56773	0.00050	V	956	-0.00004	34	Pojmanski (2002)
2454921.74500	0.00000	—	1895	0.00058	—	Le Borgne et al. (2009)
2454929.83400	0.00000	—	1925	0.00087	—	Le Borgne et al. (2009)
2454979.98385	0.00044	V	2111	0.00071	50	Pojmanski (2002)
2455252.84389	0.00028	V	3123	0.00156	26	Drake et al. (2013)
2455376.60200	0.00000	—	3582	0.00240	—	Le Borgne et al. (2009)
2455703.11729	0.00048	V	4793	0.00339	90	AAVSO
2455771.33072	0.00029	V	5046	0.00202	49	Drake et al. (2013)
2456003.74600	0.00000	—	5908	0.00167	—	Le Borgne et al. (2008)
2456010.75500	0.00000	—	5934	0.00045	—	Le Borgne et al. (2008)
2456067.64600	0.00000	—	6145	0.00085	—	Le Borgne et al. (2008)
2456084.63400	0.00000	—	6208	0.00256	—	Le Borgne et al. (2008)
2456114.56200	0.00000	—	6319	0.00233	—	Le Borgne et al. (2008)
2457509.85695	0.00136	V	11494	-0.00537	14	This paper
XX Lib						
2451419.73834	0.00271	V	-4356	0.04911	45	Wils et al. (2006)
2452146.13718	0.00253	V	-3316	0.03862	92	Pojmanski (2002)
2452841.81022	0.00261	V	-2320	0.03503	93	Pojmanski (2002)
2453475.27865	0.00221	V	-1413	-0.00929	98	Pojmanski (2002)
2453596.11929	0.00222	V	-1240	-0.00405	20	Drake et al. (2013)
2453878.29639	0.00140	V	-836	-0.00903	64	Drake et al. (2013)
2453918.10275	0.00288	V	-779	-0.01549	90	Pojmanski (2002)
2454182.80400	0.00000	—	-400	-0.03456	—	Le Borgne et al. (2007)

Table 2: cont.

<i>Max HJD</i>	<i>Uncertainty</i>	<i>Filter</i>	<i>E</i>	<i>O–C</i>	<i>N</i>	<i>Reference</i>
XX Lib						
2454243.58717	0.00133	V	–313	–0.01833	57	Drake et al. (2013)
2454332.28562	0.00277	V	–186	–0.02563	95	Pojmanski (2002)
2454617.26780	0.00458	V	222	–0.01942	33	Drake et al. (2013)
2454620.74957	0.00223	V	227	–0.03000	99	Pojmanski (2002)
2454900.83900	0.00000	—	628	–0.02725	—	Le Borgne et al. (2009)
2454914.80700	0.00000	—	648	–0.02866	—	Le Borgne et al. (2009)
2454934.36996	0.00115	V	676	–0.02287	18	Berdnikov et al. (2012)
2454937.85300	0.00000	—	681	–0.03219	—	Le Borgne et al. (2009)
2454948.33375	0.00331	V	696	–0.02849	107	Pojmanski (2002)
2454952.52987	0.00185	V	702	–0.02320	47	Drake et al. (2013)
2455005.59900	0.00000	—	778	–0.03783	—	Le Borgne et al. (2009)
2455209.56438	0.00059	V	1070	–0.02583	24	Berdnikov et al. (2012)
2455339.48539	0.00239	V	1256	–0.02034	41	Drake et al. (2013)
2455727.84726	0.00461	V	1812	–0.00807	20	Drake et al. (2013)
2455730.64400	0.00000	—	1816	–0.00522	—	Le Borgne et al. (2012)
2456049.86100	0.00000	—	2273	0.01076	—	Le Borgne et al. (2012)
2456098.75942	0.00328	V	2343	0.01625	20	Drake et al. (2013)
2456407.50532	0.00181	V	2785	0.03818	29	Drake et al. (2013)
2457503.45023	0.00086	V	4354	0.08286	10	This paper
QR Lib						
2451304.52718	0.00980	V	–6800	0.74783	24	Wils et al. (2006)
2451612.79337	0.01397	V	–5979	0.74692	14	Wils et al. (2006)
2452061.88477	0.01097	V	–4783	0.76712	39	Pojmanski (2002)
2452709.55779	0.00584	V	–3057	0.36582	47	Pojmanski (2002)
2453409.80047	0.01198	V	–1192	0.34280	60	Pojmanski (2002)
2453603.91814	0.00628	V	–675	0.33855	15	Drake et al. (2013)
2453759.38537	0.00387	V	–261	0.35806	12	Drake et al. (2013)
2453851.76647	0.01046	V	–15	0.37167	27	Pojmanski (2002)
2453911.08689	0.00208	V	143	0.36663	52	Drake et al. (2013)
2454273.09552	0.00118	V	1107	0.41487	38	Drake et al. (2013)
2454450.69553	0.00492	V	1580	0.41398	11	Drake et al. (2013)
2454557.70659	0.01602	V	1865	0.41392	38	Pojmanski (2002)
2454609.89518	0.00163	V	2004	0.41113	34	Drake et al. (2013)
2454954.55504	0.00148	V	2922	0.38256	55	Drake et al. (2013)
2455250.43227	0.00316	V	3711	0.00797	20	Drake et al. (2013)
2455419.01491	0.00498	V	4160	0.00117	16	Drake et al. (2013)
2455723.50564	0.00246	V	4971	–0.02042	16	Drake et al. (2013)
2456074.56022	0.00325	V	5906	–0.03739	12	Drake et al. (2013)
2456085.83544	0.00202	V	5936	–0.02650	24	Drake et al. (2013)
2456408.78901	0.00176	V	6796	0.01635	36	Drake et al. (2013)
PS Lup						
2452020.81197	0.00122	V	–5843	–0.09774	83	Pojmanski (2002)
2452495.07287	0.00236	V	–4838	–0.04638	23	Pojmanski (2002)
2452761.22248	0.00090	V	–4274	–0.02033	95	Pojmanski (2002)
2453106.17109	0.00151	V	–3543	0.00572	57	Pojmanski (2002)
2453512.93136	0.00088	V	–2681	0.03104	115	Pojmanski (2002)
2453839.46451	0.00167	V	–1989	0.04379	73	Pojmanski (2002)
2454263.67427	0.00128	V	–1090	0.06014	84	Pojmanski (2002)
2454606.71438	0.00104	V	–363	0.06509	96	Pojmanski (2002)
2454963.90620	0.00130	V	394	0.06624	79	Pojmanski (2002)
2457534.37276	0.00083	V	5842	–0.10758	9	This paper

Table 2: cont.

<i>Max HJD</i>	<i>Uncertainty</i>	<i>Filter</i>	<i>E</i>	<i>O-C</i>	<i>N</i>	<i>Reference</i>
V558 Oph						
2451325.75995	0.01001	V	-4292	0.55933	107	Wils et al. (2006)
2451467.95087	0.01463	V	-3958	0.50289	107	Wils et al. (2006)
2452373.84014	0.00906	V	-1831	0.52345	17	Pojmanski (2002)
2452724.30640	0.00716	V	-1008	0.48197	88	Pojmanski (2002)
2452808.62069	0.00550	V	-809	0.04409	68	Pojmanski (2002)
2453150.91088	0.00976	V	-5	-0.08154	38	Pojmanski (2002)
2453486.80238	0.01062	V	783	0.20839	34	Pojmanski (2002)
2453546.01295	0.00923	V	923	-0.20568	65	Pojmanski (2002)
2453610.76095	0.01234	V	1075	-0.19301	31	Pojmanski (2002)
2453858.64838	0.00816	V	1657	-0.17375	41	Pojmanski (2002)
2453859.07774	0.00660	V	1658	-0.17028	41	Pojmanski (2002)
2454269.44528	0.01012	V	2621	0.06488	63	Pojmanski (2002)
2454579.97615	0.01026	V	3350	0.12171	45	Pojmanski (2002)
2454627.68647	0.00579	V	3462	0.13231	87	Pojmanski (2002)
2454678.37624	0.00634	V	3581	0.14114	42	Pojmanski (2002)
2454979.93900	0.01014	V	4289	0.17355	35	Pojmanski (2002)
V1017 Oph						
2452057.04098	0.00781	V	-8948	-0.00200	21	Pojmanski (2002)
2452703.59130	0.01341	V	-6836	-0.01851	35	Pojmanski (2002)
2453483.66290	0.00702	V	-4288	0.00939	57	Pojmanski (2002)
2453493.15266	0.01257	V	-4257	0.00882	7	Drake et al. (2013)
2453855.30117	0.01022	V	-3074	-0.00582	20	Pojmanski (2002)
2453856.23020	0.00158	V	-3071	0.00479	47	Drake et al. (2013)
2454229.10925	0.00117	V	-1853	0.00581	28	Drake et al. (2013)
2454267.97866	0.00552	V	-1726	-0.00451	39	Pojmanski (2002)
2454617.89983	0.01244	V	-583	-0.00090	38	Pojmanski (2002)
2454624.33631	0.00111	V	-562	0.00665	16	Drake et al. (2013)
2454995.66848	0.02200	V	651	-0.00852	18	Pojmanski (2002)
2455217.63403	0.00308	V	1376	0.00582	20	Drake et al. (2013)
2455949.92543	0.00274	V	3768	0.01130	22	Drake et al. (2013)
2457535.39886	0.00550	V	8947	-0.01226	6	This paper
V1041 Oph						
2451329.02416	0.00510	V	-8797	-1.08535	93	Wils et al. (2006)
2451611.46002	0.00808	V	-7996	-1.10745	25	Wils et al. (2006)
2452713.80855	0.00761	V	-4871	-0.73286	24	Pojmanski (2002)
2453459.27491	0.00707	V	-2757	-0.72982	51	Pojmanski (2002)
2453547.43479	0.00265	V	-2507	-0.72786	52	Drake et al. (2013)
2453893.41840	0.00151	V	-1527	-0.32328	41	Drake et al. (2013)
2454067.62423	0.00722	V	-1033	-0.31749	55	Pojmanski (2002)
2454218.55330	0.00116	V	-605	-0.31477	44	Drake et al. (2013)
2454538.38489	0.00191	V	302	-0.32009	40	Drake et al. (2013)
2454719.24414	0.03101	V	815	-0.36088	34	Pojmanski (2002)
2454833.19123	0.00150	V	1138	-0.31382	12	Drake et al. (2013)
2455016.93760	0.00184	V	1658	0.06409	31	Drake et al. (2013)
2455317.39240	0.00114	V	2510	0.07671	48	Drake et al. (2013)
2455663.99869	0.00131	V	3493	0.04608	44	Drake et al. (2013)
2456029.24721	0.00174	V	4529	-0.03180	32	Drake et al. (2013)
2456367.35304	0.00131	V	5488	-0.09973	40	Drake et al. (2013)
2457535.65240	0.00147	V	8801	-0.06906	7	This paper
UU Sco						
2451354.23893	0.00394	V	-5347	0.03037	59	Wils et al. (2006)
2452050.06092	0.00236	V	-4140	0.02491	63	Pojmanski (2002)

Table 2: cont.

<i>Max HJD</i>	<i>Uncertainty</i>	<i>Filter</i>	<i>E</i>	<i>O–C</i>	<i>N</i>	<i>Reference</i>
UU Sco						
2452478.37414	0.00743	V	–3397	0.00359	26	Pojmanski (2002)
2452775.83449	0.00303	V	–2881	–0.00662	63	Pojmanski (2002)
2453111.34395	0.00695	V	–2299	–0.01628	41	Pojmanski (2002)
2453535.05881	0.00173	V	–1564	–0.02401	93	Pojmanski (2002)
2453613.45789	0.00474	V	–1428	–0.02803	16	Drake et al. (2013)
2453843.49325	0.00358	V	–1029	–0.01351	43	Pojmanski (2002)
2453916.71591	0.00161	V	–902	–0.00550	59	Drake et al. (2013)
2454258.58224	0.00348	V	–309	0.00029	58	Pojmanski (2002)
2454270.10552	0.00262	V	–289	–0.00630	39	Drake et al. (2013)
2454614.29020	0.00321	V	308	0.01186	57	Pojmanski (2002)
2454616.01341	0.01865	V	311	0.00559	25	Drake et al. (2013)
2454972.29156	0.00472	V	929	0.01086	36	Pojmanski (2002)
2454978.04311	0.00422	V	939	–0.00252	60	Drake et al. (2013)
2455314.72025	0.00544	V	1523	0.00252	28	Drake et al. (2013)
2455895.81508	0.00241	V	2531	–0.00793	39	Drake et al. (2013)
2456410.62367	0.00318	V	3424	–0.00788	23	Drake et al. (2013)
2457518.68033	0.02951	V	5346	0.02860	11	This paper
BT Sco						
2451312.15243	0.00236	V	–5668	0.59734	65	Wils et al. (2006)
2451616.67529	0.00511	V	–5113	0.57458	18	Wils et al. (2006)
2452039.21568	0.00749	V	–4343	0.59222	44	Pojmanski (2002)
2452610.98895	0.00477	V	–3301	0.58796	44	Pojmanski (2002)
2452826.62915	0.00361	V	–2907	0.02821	42	Pojmanski (2002)
2453136.08706	0.00379	V	–2343	0.00192	35	Pojmanski (2002)
2453459.80572	0.00587	V	–1753	–0.03061	36	Pojmanski (2002)
2453558.58515	0.00903	V	–1573	–0.02273	14	Drake et al. (2013)
2453592.59965	0.00437	V	–1511	–0.02955	45	Pojmanski (2002)
2453842.83532	0.00557	V	–1055	–0.01514	51	Pojmanski (2002)
2453876.30756	0.00229	V	–994	–0.01548	58	Drake et al. (2013)
2454209.93722	0.00585	V	–386	–0.01417	45	Pojmanski (2002)
2454237.93759	0.00713	V	–335	0.00093	39	Drake et al. (2013)
2454335.58037	0.00456	V	–157	–0.03038	44	Pojmanski (2002)
2454565.49342	0.00518	V	262	–0.03556	44	Pojmanski (2002)
2454595.13065	0.00444	V	316	–0.02979	34	Drake et al. (2013)
2454674.14979	0.00443	V	460	–0.02789	51	Pojmanski (2002)
2454936.98930	0.00692	V	939	–0.03045	35	Pojmanski (2002)
2454955.67486	0.00567	V	973	–0.00174	27	Drake et al. (2013)
2454992.96108	0.00464	V	1041	–0.02922	70	Pojmanski (2002)
2455048.93525	0.00645	V	1143	–0.02560	35	Pojmanski (2002)
2455367.23140	0.00318	V	1723	0.00667	34	Drake et al. (2013)
2456080.04215	0.00399	V	3022	0.01606	35	Drake et al. (2013)
2456418.05564	0.00718	V	3638	0.01135	14	Drake et al. (2013)
2457530.43773	0.00091	V	5665	0.11603	5	This paper
T Sex						
2448057.08028	0.00150	V	–14514	–0.38937	37	HIPPARCOS (1997)
2448712.00996	0.00134	V	–12497	–0.37473	43	HIPPARCOS (1997)
2451467.12979	0.00096	V	–4012	–0.31395	89	Wils et al. (2006)
2451601.55455	0.00082	V	–3598	–0.31399	89	Wils et al. (2006)
2452673.07092	0.00083	V	–299	0.02503	70	Pojmanski (2002)
2452675.66902	0.00103	V	–291	0.02555	25	Pojmanski (2002)
2452938.99620	0.00166	V	520	0.02298	25	Pojmanski (2002)
2453081.53716	0.00150	V	959	0.02170	25	Pojmanski (2002)
2453151.99785	0.00086	V	1176	0.02301	70	Pojmanski (2002)

Table 2: cont.

<i>Max HJD</i>	<i>Uncertainty</i>	<i>Filter</i>	<i>E</i>	<i>O-C</i>	<i>N</i>	<i>Reference</i>
T Sex						
2453321.81707	0.00128	V	1699	0.02539	26	Pojmanski (2002)
2453392.91621	0.00377	V	1918	0.01576	8	Pojmanski (2002)
2453662.42210	0.00094	V	2748	0.02265	69	Pojmanski (2002)
2454114.72525	0.00097	V	4141	0.02206	59	Pojmanski (2002)
2454543.64777	0.00081	V	5462	0.01906	52	Pojmanski (2002)
2454872.23814	0.00099	V	6474	0.01547	61	Pojmanski (2002)
2456296.62961	0.00240	V	10861	-0.04139	16	This paper
2457483.01196	0.00317	V	14515	-0.10403	9	This paper
AF Sex						
2451290.96614	0.00727	V	-5824	0.14646	27	Wils et al. (2006)
2451535.14171	0.00429	V	-5364	0.03193	80	Wils et al. (2006)
2451602.06041	0.00309	V	-5238	0.03638	94	Wils et al. (2006)
2452683.90902	0.00751	V	-3201	0.10471	34	Pojmanski (2002)
2453064.57815	0.01139	V	-2484	-0.00007	24	Pojmanski (2002)
2453403.35553	0.01625	V	-1846	-0.04244	26	Pojmanski (2002)
2453443.72963	0.00861	V	-1770	-0.02931	53	Pojmanski (2002)
2453444.26716	0.00535	V	-1769	-0.02284	53	Pojmanski (2002)
2453483.04915	0.01150	V	-1696	-0.00863	27	Pojmanski (2002)
2453495.27475	0.00179	V	-1673	0.00247	12	Drake et al. (2013)
2453495.27833	0.00128	V	-1673	0.00605	12	Drake et al. (2013)
2453744.30515	0.00374	V	-1204	-0.03682	23	Drake et al. (2013)
2453746.96741	0.00352	V	-1199	-0.02989	25	Drake et al. (2013)
2453795.27474	0.01471	V	-1108	-0.04951	48	Drake et al. (2013)
2453804.21191	0.02422	V	-1091	-0.14045	42	Pojmanski (2002)
2453847.73402	0.00868	V	-1009	-0.16571	23	Drake et al. (2013)
2454108.99713	0.00713	V	-517	-0.18679	37	Drake et al. (2013)
2454193.03103	0.01980	V	-359	-0.06123	30	Pojmanski (2002)
2454430.49245	0.00836	V	88	0.01394	23	Drake et al. (2013)
2454477.75887	0.00439	V	177	0.01554	48	Drake et al. (2013)
2454520.77447	0.00587	V	258	0.01484	25	Drake et al. (2013)
2454539.33814	0.00970	V	293	-0.00878	50	Pojmanski (2002)
2454811.78752	0.00427	V	806	0.00403	15	Drake et al. (2013)
2454864.90239	0.00220	V	906	0.01236	36	Drake et al. (2013)
2454889.33884	0.01151	V	952	0.01980	31	Pojmanski (2002)
2454902.61239	0.00289	V	977	0.01672	21	Drake et al. (2013)
2455266.44695	0.00199	V	1662	0.07146	29	Drake et al. (2013)
2455266.46134	0.00506	V	1662	0.08585	29	Drake et al. (2013)
2455576.61172	0.01566	V	2246	0.09402	27	Drake et al. (2013)
2455614.80699	0.00406	V	2318	0.05257	54	Drake et al. (2013)
2455653.56908	0.00440	V	2391	0.04689	27	Drake et al. (2013)
2455972.69094	0.00327	V	2992	-0.00158	40	Drake et al. (2013)
2457476.14686	0.00071	V	5823	0.00811	8	This paper
GH Vir						
2451394.54210	0.00513	V	-5032	0.02117	91	Wils et al. (2006)
2451595.47707	0.00545	V	-4700	-0.00676	89	Wils et al. (2006)
2452701.38060	0.00869	V	-2873	-0.00447	28	Pojmanski (2002)
2453111.78268	0.00911	V	-2195	-0.00252	16	Pojmanski (2002)
2453477.98943	0.00868	V	-1590	-0.00828	39	Pojmanski (2002)
2453513.71805	0.01327	V	-1531	0.00705	20	Drake et al. (2013)
2453811.51341	0.00540	V	-1039	-0.01007	67	Drake et al. (2013)
2453830.27651	0.00909	V	-1008	-0.01158	40	Pojmanski (2002)
2454198.93084	0.00656	V	-399	0.00900	36	Drake et al. (2013)
2454209.77987	0.00839	V	-381	-0.03755	42	Pojmanski (2002)

Table 2: cont.

<i>Max HJD</i>	<i>Uncertainty</i>	<i>Filter</i>	<i>E</i>	<i>O–C</i>	<i>N</i>	<i>Reference</i>
GH Vir						
2454534.27148	0.00347	V	155	0.00794	48	Drake et al. (2013)
2454563.91148	0.00805	V	204	−0.01224	43	Pojmanski (2002)
2454893.23412	0.00882	V	748	0.02179	33	Drake et al. (2013)
2454924.05738	0.00929	V	799	−0.02575	34	Pojmanski (2002)
2455263.09063	0.00766	V	1359	0.03394	32	Drake et al. (2013)
2455632.30832	0.00418	V	1969	0.01257	51	Drake et al. (2013)
2455974.92757	0.00378	V	2535	0.02640	44	Drake et al. (2013)
2456359.88192	0.00501	V	3171	0.00363	48	Drake et al. (2013)
2457485.73047	0.00476	V	5031	−0.02429	8	This paper
V348 Vir						
2451430.85171	0.00261	V	−5359	−0.52130	120	Wils et al. (2006)
2452013.01031	0.00303	V	−4329	−0.55072	75	Pojmanski (2002)
2452474.22844	0.00704	V	−3513	−0.56116	18	Pojmanski (2002)
2452763.62707	0.00341	V	−3002	0.00438	74	Pojmanski (2002)
2453116.31601	0.00427	V	−2378	−0.01088	41	Pojmanski (2002)
2453495.57203	0.00373	V	−1707	−0.02492	64	Pojmanski (2002)
2453559.42962	0.02045	V	−1594	−0.03844	20	Drake et al. (2013)
2453833.57598	0.00441	V	−1109	−0.02916	54	Pojmanski (2002)
2453875.97071	0.00271	V	−1034	−0.02676	39	Drake et al. (2013)
2454213.44407	0.01167	V	−437	0.00364	42	Drake et al. (2013)
2454238.29290	0.00472	V	−393	−0.01770	59	Pojmanski (2002)
2454578.00423	0.00211	V	208	−0.01026	40	Drake et al. (2013)
2454600.61907	0.00380	V	248	−0.00466	67	Pojmanski (2002)
2454943.72019	0.00487	V	855	0.00119	49	Pojmanski (2002)
2455145.51814	0.00458	V	1212	0.01164	60	Drake et al. (2013)
2455676.84300	0.00000	—	2152	0.01927	—	Le Borgne et al. (2012)
2455688.74063	0.00572	V	2173	0.04705	40	Drake et al. (2013)
2455744.65400	0.00000	—	2272	0.00254	—	Le Borgne et al. (2012)
2455983.77300	0.00000	—	2695	0.02879	—	Le Borgne et al. (2008)
2456004.72100	0.00000	—	2732	0.06324	—	Le Borgne et al. (2008)
2456017.70500	0.00000	—	2755	0.04693	—	Le Borgne et al. (2008)
2456038.60000	0.00000	—	2792	0.02838	—	Le Borgne et al. (2008)
2456044.25854	0.00346	V	2802	0.03460	32	Drake et al. (2013)
2456056.66200	0.00000	—	2824	0.00298	—	Le Borgne et al. (2008)
2456099.64700	0.00000	—	2900	0.03042	—	Le Borgne et al. (2008)
2456402.61563	0.00408	V	3436	0.03518	45	Drake et al. (2013)
2457490.04763	0.00738	V	5360	−0.03743	8	This paper
V354 Vir						
2451305.70657	0.00375	V	−5193	0.01704	59	Wils et al. (2006)
2451591.90177	0.00262	V	−4712	−0.00299	141	Wils et al. (2006)
2452620.70164	0.00375	V	−2983	−0.03086	78	Pojmanski (2002)
2453083.67748	0.00446	V	−2205	0.00225	52	Pojmanski (2002)
2453468.67226	0.00572	V	−1558	0.00481	56	Pojmanski (2002)
2453757.87833	0.00646	V	−1072	0.02043	66	Drake et al. (2013)
2453800.10870	0.00634	V	−1001	0.00282	55	Pojmanski (2002)
2454154.15187	0.00365	V	−406	−0.00405	51	Drake et al. (2013)
2454192.84162	0.00603	V	−341	0.00797	55	Pojmanski (2002)
2454526.64160	0.00635	V	220	−0.01065	49	Drake et al. (2013)
2454556.40725	0.00546	V	270	0.00290	75	Pojmanski (2002)
2454908.64909	0.01049	V	862	−0.02017	46	Drake et al. (2013)
2454912.81710	0.00620	V	869	−0.01745	56	Pojmanski (2002)
2455234.15320	0.00326	V	1409	−0.00407	36	Drake et al. (2013)
2455629.86038	0.00373	V	2074	0.00013	53	Drake et al. (2013)

Table 2: cont.

<i>Max HJD</i>	<i>Uncertainty</i>	<i>Filter</i>	<i>E</i>	<i>O–C</i>	<i>N</i>	<i>Reference</i>
V354 Vir						
2455998.81602	0.00232	<i>V</i>	2694	0.02969	67	Drake et al. (2013)
2456370.10913	0.00307	<i>V</i>	3318	0.01655	91	Drake et al. (2013)
2457485.18709	0.00980	<i>V</i>	5192	−0.01433	11	This paper
V419 Vir						
2451304.87564	0.00256	<i>V</i>	−6098	−0.01052	55	Wils et al. (2006)
2451579.52735	0.00285	<i>V</i>	−5560	−0.01815	95	Wils et al. (2006)
2451617.30285	0.00416	<i>V</i>	−5486	−0.02107	96	Wils et al. (2006)
2453477.66226	0.00319	<i>V</i>	−1842	0.00634	57	Pojmanski (2002)
2453821.75709	0.00304	<i>V</i>	−1168	0.01122	53	Pojmanski (2002)
2453886.08494	0.00237	<i>V</i>	−1042	0.01365	65	Drake et al. (2013)
2454069.86784	0.00351	<i>V</i>	−682	0.00964	35	Drake et al. (2013)
2454217.91763	0.00314	<i>V</i>	−392	0.00886	47	Pojmanski (2002)
2454574.26402	0.00279	<i>V</i>	306	0.01284	63	Pojmanski (2002)
2454730.99960	0.00561	<i>V</i>	613	0.01902	39	Drake et al. (2013)
2454934.68468	0.00451	<i>V</i>	1012	0.00694	54	Pojmanski (2002)
2455121.01942	0.00177	<i>V</i>	1377	0.00216	24	Drake et al. (2013)
2455426.29904	0.00304	<i>V</i>	1975	−0.00870	38	Drake et al. (2013)
2456014.43562	0.00602	<i>V</i>	3127	0.00975	38	Drake et al. (2013)
2456378.93326	0.00309	<i>V</i>	3841	−0.00333	36	Drake et al. (2013)
2457531.15592	0.00739	<i>V</i>	6098	−0.02253	9	This paper
V433 Vir						
2453768.53909	0.00112	<i>V</i>	−2221	0.00321	71	Drake et al. (2013)
2454209.39333	0.00105	<i>V</i>	−1472	−0.00182	32	Drake et al. (2013)
2454522.52642	0.00139	<i>V</i>	−940	−0.00242	36	Drake et al. (2013)
2454933.37139	0.00112	<i>V</i>	−242	0.00173	66	Drake et al. (2013)
2455309.48174	0.00105	<i>V</i>	397	−0.00150	48	Drake et al. (2013)
2455683.24125	0.00123	<i>V</i>	1032	−0.00119	40	Drake et al. (2013)
2456014.62262	0.00106	<i>V</i>	1595	−0.00002	59	Drake et al. (2013)
2456381.90926	0.00095	<i>V</i>	2219	0.00199	51	Drake et al. (2013)
V494 Vir						
2451366.71576	0.00628	<i>V</i>	−5637	0.05027	112	Wils et al. (2006)
2452629.66116	0.01079	<i>V</i>	−3329	0.00974	23	Pojmanski (2002)
2453454.33426	0.00810	<i>V</i>	−1822	0.02088	46	Pojmanski (2002)
2453749.28032	0.00198	<i>V</i>	−1283	0.01485	61	Drake et al. (2013)
2453835.72008	0.00630	<i>V</i>	−1125	−0.00630	32	Pojmanski (2002)
2454224.79228	0.00542	<i>V</i>	−414	−0.00818	43	Drake et al. (2013)
2454477.05746	0.00641	<i>V</i>	47	−0.01186	42	Pojmanski (2002)
2454549.28263	0.00603	<i>V</i>	179	−0.01985	41	Drake et al. (2013)
2454933.41651	0.00970	<i>V</i>	881	−0.03507	21	Pojmanski (2002)
2454937.25918	0.00185	<i>V</i>	888	−0.02295	27	Drake et al. (2013)
2455296.21730	0.01276	<i>V</i>	1544	−0.04176	38	Drake et al. (2013)
2455317.50618	0.00560	<i>V</i>	1583	−0.09450	25	Drake et al. (2013)
2455670.02017	0.00238	<i>V</i>	2227	0.00920	48	Drake et al. (2013)
2456030.08583	0.00322	<i>V</i>	2885	0.00349	48	Drake et al. (2013)
2456030.11193	0.00370	<i>V</i>	2885	0.02959	56	Drake et al. (2013)
2456416.45020	0.00318	<i>V</i>	3591	0.02987	48	Drake et al. (2013)
2457535.01256	0.00011	<i>V</i>	5635	0.07263	7	This paper

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References:

- Berdnikov, L. N., 1992, *Soviet Astronomy Letters*, **18**, 207
Berdnikov, L. N., et al. 2012, *Astron. Rep.*, **56**, 290 DOI
Cousins A. W. J., 1976, *MmRAS*, **81**, 25
Drake, A. J., Catelan, M., Djorgovski, S. G., et al. 2013, *ApJ*, **765**, 154 DOI
HIPPARCOS 1997, ESA SP-1200: The Hipparcos and Tycho Catalogues
Hertzsprung, E., 1919, *AN*, **210**, 17 DOI
Le Borgne, J. F., et al., 2007a, *IBVS*, **5767**
Le Borgne, J. F., et al., 2007b, *IBVS*, **5790**
Le Borgne, J. F., et al., 2008a, *IBVS*, **5823**
Le Borgne, J. F., et al., 2008b, *IBVS*, **5853**
Le Borgne, J. F., et al., 2009, *IBVS*, **5895**
Le Borgne, J. F., et al. 2012, *IBVS*, **6009**
Le Borgne, J. F., et al., 2013, *IBVS*, **6043**
Pojmanski, G., 2002, *AcA*, **52**, 397
Wils P., Lloyd C., Bernhard K., 2006, *MNRAS*, **368**, 1757 DOI