

New Short Periodic Eclipsing Binaries V

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#	Name	Other	Coord (J2000)	Type	Max	Min	System	Period	Epoch (JD)	type	Sp	Comment	L.Curve	Find.Chart	Data
1		GSC 4029-01087	00 58 37.56, +66 34 56.0	EW	13.55	14.15	R	0.27073	2451472.747	min		Comm. 1	1.PNG	chart1.PNG	NSVS 232062 NSVS 1639435 NSVS 1680744
2		USNO-A2.0 1500-01070260	01 01 56.34, +66 19 36.5	EW	14.1	14.7	R	0.31167	2451467.746	min		Comm. 2	2.PNG	chart2.PNG	NSVS 234239 NSVS 1641723 NSVS 1682392
3		GSC 2313-01533	02 06 40.16, +33 43 28.7	EW	12.25	12.55	R	0.33344	2451494.608	min		Comm. 3	3.PNG	chart3.PNG	NSVS 6489114
4		GSC 2339-00364	03 02 24.39, +30 04 29.6	EW	13.85	14.15	R	0.30872	2451514.806	min		Comm. 4	4.PNG	chart4.PNG	NSVS 6596662 NSVS 6624226
5		GSC 2344-00092	03 16 49.49, +33 30 15.5	EW	14.0	14.8	R	0.23414	2451491.563	min		Comm. 5	5.PNG	chart5.PNG	NSVS 6662264 NSVS 6608882
6		GSC 2344-00527	03 17 52.49, +32 00 12.5	EW	13.9	14.35	R	0.7978	2451492.570	min		Comm. 6	6.PNG	chart6.PNG	NSVS 6663120
7		GSC 2411-00613	05 27 11.38, +35 15 09.5	EB	12.85	13.15	R	0.84175	2451531.735	min		Comm. 7	7.PNG	chart7.PNG	NSVS 6878421 NSVS 6968396
8		GSC 3762-00102	05 49 50.37, +58 42 08.7	EW	12.45	12.75	R	0.44405	2451518.936	min		Comm. 8	8.PNG	chart8.PNG	NSVS 2272340 NSVS 2166858 NSVS 2210968
9		TYC 3758 00046 1	05 53 22.51, +57 17 34.9	EW	12.75	13.02	R	0.60930	2451514.755	min		Comm. 9	9.PNG	chart9.PNG	NSVS 2273942 NSVS 2169444
10		GSC 3469-00462	13 35 32.97, +51 24 36.0	EW	13.1	13.35	R	0.32311	2451416.523	min		Comm. 10	10.PNG	chart10.PNG	NSVS 5071866 NSVS 2683074 NSVS 2723386
11		GSC 3469-00844	13 40 17.22, +51 08 57.4	EW	13.85	14.2	R	0.45904	2451390.785	min		Comm. 11	11.PNG	chart11.PNG	NSVS 5073316 NSVS 2724688
12		TYC 3464 00581 1	13 58 23.95, +46 51 02.1	E:	10.4	10.7	R	0.9583	2451356.76	min		Comm. 12	12.PNG	chart12.PNG	NSVS 5110042
13		GSC 3475-00348	14 24 06.18, +48 51 15.4	EW	14.8	15.3	R	0.25369	2451421.637	min		Comm. 13	13.PNG	chart13.PNG	NSVS 5118749 NSVS 5126891
14		GSC 3039-00747	14 29 10.07, +41 07 03.5	EW	14.15	14.5	R	0.295824	2451415.777	min		Comm. 14	14.PNG	chart14.PNG	NSVS 5104552 NSVS 5143233
15		GSC 3039-00709	14 33 03.44, +40 28 45.7	EW	13.85	14.4	R	0.32572	2451400.661	min		Comm. 15	15.PNG	chart15.PNG	NSVS 5106106 NSVS 5144426
16		GSC 3473-00996	14 39 01.43, +45 48 42.4	EW	12.85	13.2	R	0.32119	2451390.550	min		Comm. 16	16.PNG	chart16.PNG	NSVS 5106765 NSVS 5124708 NSVS 5131085 NSVS 5147639
17		TYC 3864 00488 1	15 06 17.41, +56 41 07.0	EW	11.13	11.25	R	0.31997	2451418.644	min		Comm. 17	17.PNG	chart17.PNG	NSVS 2750863 NSVS 2800370
18		GSC 4418-00800	15 31 46.86, +73 08 10.8	EA	13.85	14.3	R	1.38008	2451460.725	min		Comm. 18	18.PNG	chart18.PNG	NSVS 990280 NSVS 1063994
19		TYC 4182 01480 1	15 58 53.87, +61 27 32.8	EW:	10.30	10.46	R	0.60636	2451410.930	min		Comm. 19	19.PNG	chart19.PNG	NSVS 2798040 NSVS 2817253 NSVS 2841764
20		GSC 3883-00926	16 01 59.79, +57 47 44.5	EW	13.8	14.35	R	0.33414	2451400.559	min		Comm. 20	20.PNG	chart20.PNG	NSVS 2818031 NSVS 2818494
21		GSC 4190-00894	16 23 42.13, +60 03 22.5	EA	14.2	14.9	R	0.33488	2451427.810	min		Comm. 21	21.PNG	chart21.PNG	NSVS 2825454 NSVS 2850237
22		GSC 4193-00044	16 28 15.65, +62 43 02.9	EA	14.4	15.1	R	0.89123	2451407.973	min		Comm. 22	22.PNG	chart22.PNG	NSVS 2851086 NSVS 2868574
23		GSC 4194-02180	16 49 38.53, +64 19 12.5	EW	13.9	14.45	R	0.268218	2451400.647	min		Comm. 23	23.PNG	chart23.PNG	NSVS 2857880 NSVS 2876338
24		GSC 4423-01233	16 50 12.98, +71 46 46.1	EB:	13.38	13.60	R	0.69728	2451454.762	min		Comm. 24	24.PNG	chart24.PNG	NSVS 1081024 NSVS 1082103
25		GSC 0410-01013	17 05 29.75, +06 55 01.4	EW	14.3	14.9	R	0.34371	2451391.688	min		Comm. 25	25.PNG	chart25.PNG	NSVS 13665004
26		GSC 4424-01958	17 13 29.17, +70 37 27.2	EA	14.0	14.7	R	0.378035	2451460.548	min		Comm. 26	26.PNG	chart26.PNG	NSVS 1088458
27		GSC 4424-02294	17 19 41.69, +70 32 08.7	EB	13.6	14.15	R	0.50623	2451460.789	min		Comm. 27	27.PNG	chart27.PNG	NSVS 1090328
28		GSC 4207-00158	17 28 48.11, +65 12 35.3	EW	14.4	15.3	R	0.31747	2451395.736	min		Comm. 28	28.PNG	chart28.PNG	NSVS 2890371
29		GSC 4208-00035	17 50 25.49, +64 19 44.2	EW	14.1	14.6	R	0.38968	2451400.823	min		Comm. 29	29.PNG	chart29.PNG	NSVS 2959863
30		GSC 4212-00034	17 52 20.12, +66 14 34.4	EW	14.3	14.8	R	0.31976	2451392.810	min		Comm. 30	30.PNG	chart30.PNG	NSVS 2960180 NSVS 2989513
31		GSC 2744-01229	22 44 57.86, +34 16 41.4	EW	14.2	14.8	R	0.32377	2451446.742	min		Comm. 31	31.PNG	chart31.PNG	NSVS 8917719
32		GSC 2740-01859	22 46 40.67, +32 46 55.6	EW	13.95	14.35	R	0.24817	2451447.718	min		Comm. 32	32.PNG	chart32.PNG	NSVS 8919439
33		GSC 3230-00078	23 20 11.26, +38 40 19.9	EA:	13.45	13.75	R	0.7724	2451441.857	min		Comm. 33	33.PNG	chart33.PNG	NSVS 3596364 NSVS 6161978 NSVS 9022746

Comments:

1. MinII = 14.0. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
2. MinII = 14.6. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
3. MinII = 12.45. The star has a faint close companion 2MASS 02064073+3343231. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
4. MinII = 14.1. Perhaps a blend of two stars, GSC 2339-00364 and GSC 2339-00223, in the NSVS. The variability amplitude can be underestimated. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
5. MinII = 14.7.
6. MinII = 14.3.
7. MinII = 13.05. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
8. MinII = 12.7. All observations with correction flag 50 were rejected.
9. MinII = 12.97.
10. MinII = 13.3.
11. MinII = 14.2.
12. BD+47 2107. The system's mean brightness varies. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
13. MinII = 15.3.
14. MinII = 14.5. Period $P = 0.347172$ days is not excluded. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
15. MinII = 14.4.
16. MinII = 13.1. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
17. MinII = 11.24. X-ray source 1RXS J150615.9+564111. ELL type is possible.
18. MinII = 13.9, $D = 0.13$ P. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
19. HD 143775, BD+61 1552. MinII = 10.43. A twice shorter period and type RRC are possible. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
20. MinII = 14.25. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
21. There is a faint close companion. A twice longer period is possible. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
22. MinII = 14.6. EA type is not excluded. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
23. MinII = 14.45.
24. MinII = 13.51. The colour index $J-H = 0.103$ (2MASS) is in agreement with EB type. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
25. MinII = 14.9.
26. MinII = 14.5. $D = 0.18$ P. EW type is not excluded. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
27. MinII = 13.9. Slight O'Connell effect. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
28. MinII = 15.1. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
29. MinII = 14.5. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
30. MinII = 14.8. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
31. MinII = 14.7. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
32. MinII = 14.35. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
33. MinII = 13.65. $D = 0.14$ P. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.

Remarks:

I present the discovery of 33 new short-period (mostly EW) eclipsing binaries. A search for variables was carried out in the publicly available data of the Northern Sky Variability Survey (NSVS, Wozniak et al. 2004, also see <http://skydot.lanl.gov/nsvs>). These observations were analyzed using the period-search software developed by Dr. V.P. Goranskij for Windows environment. The coordinates were drawn either from the Tycho-2 or 2MASS catalogs.

References:

Wozniak, P.R., Vestrand, W.T., Akerlof, C.W., et al., 2004, *Astron. J.*, 127, 2436