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New Semiregular and Irregular Pulsating Variable Stars

A. V. Khruslov
Russia, Tula

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(E-mail for contact: khruslov@bk.ru)

#	Name	Other	Coord (J2000)	Type	Max	Min	System	Period	Epoch (JD)	type	Sp	Comment	L.Curve	Find.Chart	Data
1		GSC 3263-00332	00 59 04.47, +45 52 22.2	SR	10.95	11.4	R	70	2451573	max		Comm. 1	1.PNG	chart1.PNG	NSVS 3759665
2		TYC 2311 01258 1	01 53 37.51, +33 25 07.7	SR	9.91	10.14	R	90	2451520	max		Comm. 2	2.PNG	chart2.PNG	NSVS 6478741
3		TYC 4506 01186 1	01 55 38.00, +81 07 08.5	LB	10.23	10.67	R			other		Comm. 3	3.PNG	chart3.PNG	NSVS 269292 NSVS 325535
4		GSC 2820-01419	01 56 21.28, +40 35 17.4	SR	11.35	11.65	R	50.5	2451476	max		Comm. 4	4.PNG	chart4.PNG	NSVS 3854053 NSVS 3963184
5		TYC 2834 01146 1	02 15 45.85, +40 14 20.8	LB	9.86	10.15	R			other		Comm. 5	5.PNG	chart5.PNG	NSVS 3981020
6		GSC 2327-01813	02 25 32.07, +32 38 27.6	SR	10.55	10.76	R	49	2451505	max		Comm. 6	6.PNG	chart6.PNG	NSVS 6554925
7		GSC2.2 N332102017544	03 47 10.63, +53 23 15.1	M	13.2	15.2:	R	305:	2451523.	max		Comm. 7	7.PNG	chart7.PNG	NSVS 1977244
8		GSC 4075-00664	03 48 44.84, +67 16 12.9	SR	12.3	12.8	R	70	2451444	max		Comm. 8	8.PNG	chart8.PNG	NSVS 414861 NSVS 506331 NSVS 2014038 NSVS 2051761
9		GSC 4071-00033	03 56 24.61, +65 16 14.4	SR	10.6	10.8	R	29	2451483	max		Comm. 9	9.PNG	chart9.PNG	NSVS 2019594 NSVS 2053542
10		GSC 4333-00964	04 43 36.94, +69 32 20.5	SR	11.6	12.15	R	49.7	2451423	max		Comm. 10	10.PNG	chart10.PNG	NSVS 532163
11		GSC 4519-01505	04 44 24.06, +78 54 12.4	SRD	12.5	12.8	R	56.5	2451493	max		Comm. 11	11.PNG	chart11.PNG	NSVS 447224 NSVS 493013 NSVS 613583
12		TYC 4528 01982 1	05 22 02.28, +77 27 44.3	SRD	11.05	11.3	R	44.5	2451536.5	min		Comm. 12	12.PNG	chart12.PNG	NSVS 580863
13		GSC 4352-00037	05 43 53.47, +72 54 51.2	SR	11.37	11.68	R	48	2451571	max		Comm. 13	13.PNG	chart13.PNG	NSVS 554190 NSVS 649851
14		GSC 4533-00360	06 09 27.35, +79 25 46.9	SR	12.13	12.33	R	33.8	2451499	max		Comm. 14	14.PNG	chart14.PNG	NSVS 588716 NSVS 629791
15		TYC 4349 00308 1	06 10 44.68, +70 34 15.5	SR	9.95	10.25	R	50.4	2451515	max		Comm. 15	15.PNG	chart15.PNG	NSVS 564754 NSVS 655260
16		GSC 4107-00012	06 13 53.79, +67 21 00.0	SR	11.4	11.65	R	61	2451536	max		Comm. 16	16.PNG	chart16.PNG	NSVS 569586 NSVS 653032 NSVS 2248047
17		GSC 4529-01142	06 15 19.59, +77 19 52.1	LB	10.45	10.85	R			other		Comm. 17	17.PNG	chart17.PNG	NSVS 592862 NSVS 628841
18		TYC 4362 01638 1	06 25 08.81, +69 48 51.9	SRB	10.24	10.46	R	35.8:	2451572	max		Comm. 18	18.PNG	chart18.PNG	NSVS 659510
19		TYC 4362 00280 1	06 32 18.00, +70 08 15.6	SRD:	11.25	11.4	R	32.2	2451528	max		Comm. 19	19.PNG	chart19.PNG	NSVS 662340
20		GSC 4370-00526	06 40 44.77, +73 22 01.1	SRD	12.3	12.6	R	25.4	2451517	max		Comm. 20	20.PNG	chart20.PNG	NSVS 604192 NSVS 666832
21		GSC 4526-00535	07 14 12.80, +76 49 50.7	SR	12.2	12.7	R	67	2451481	max		Comm. 21	21.PNG	chart21.PNG	NSVS 604337 NSVS 640398 NSVS 705567 NSVS 735443
22		GSC 3475-00983	14 16 14.63, +48 39 22.1	SRD:	11.05	11.35	R	70	2451577	max		Comm. 22	22.PNG	chart22.PNG	NSVS 5115967
23		TYC 2560 01211 1	14 37 32.02, +35 28 18.7	SR	9.8	10.2	R	80:	2451359	max		Comm. 23	23.PNG	chart23.PNG	NSVS 7756697 NSVS 7762916
24		TYC 3874 00324 1	15 07 28.57, +58 06 46.8	SRD	10.67	10.90	R	23.1	2451401	max		Comm. 24	24.PNG	chart24.PNG	NSVS 2750698 NSVS 2801355
25		GSC 3056-01824	15 36 05.63, +42 00 22.8	SRD	11.55	11.74	R	54	2451442	max		Comm. 25	25.PNG	chart25.PNG	NSVS 5169277
26		GSC 3872-00669	15 39 43.43, +56 55 49.2	SR	11.3	11.65	R	45:	2451336	max		Comm. 26	26.PNG	chart26.PNG	NSVS 2811065
27		GSC 3514-00421	17 46 47.16, +48 34 36.5	LB	11.5	11.8	R			other		Comm. 27	27.PNG	chart27.PNG	NSVS 5393827
28		GSC 3515-01332	17 50 41.60, +48 27 16.9	LB	11.35	11.73	R			other		Comm. 28	28.PNG	chart28.PNG	NSVS 5396406
29		TYC 2623 01037 1	18 21 22.34, +31 41 16.6	SRB	9.75	10.0	R	44	2451400	max		Comm. 29	29.PNG	chart29.PNG	NSVS 8106911
30		GSC2.2 N01330218480	21 30 22.67, +70 19 28.9	LB	12.3	12.7	R			other		Comm. 30	30.PNG	chart30.PNG	NSVS 1355729

Comments:

1. Second GSC entry: GSC 3263-02027. J-H = 0.907 (2MASS). The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.

2. B-V = 1.771 (Tycho 2).

3. IRAS 01497+8052. B-V = 2.247 (Tycho 2). The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.

4. J-H = 0.915 (2MASS).

5. IRAS 02126+4000. B-V = 2.376 (Tycho 2).

6. J-H = 0.915 (2MASS).

7. IRAS 03434+5314 . J-H = 1.412 (2MASS). The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.

8. J-H = 1.100 (2MASS). The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.

9. IRAS 03517+6507. J-H = 1.123 (2MASS).

10. J-H = 0.899 (2MASS). The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.

11. J-H = 0.653 (2MASS).

12. B-V = 0.945 (Tycho 2).

13. J-H = 0.951 (2MASS).

14. J-H = 0.747 (2MASS).

15. B-V = 1.869 (Tycho 2).

16. J-H = 0.857 (2MASS).

17. J-H = 0.935 (2MASS). Type SR is not excluded. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.

18. B-V = 2.181 (Tycho 2).

19. B-V = 1.558 (Tycho 2).

20. J-H = 0.637 (2MASS). The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.

21. J-H = 0.953 (2MASS). The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.

22. J-H = 0.729 (2MASS).

23. B-V = 2.237 (Tycho 2).

24. B-V = 1.108 (Tycho 2).

25. J-H = 0.569 (2MASS).

26. J-H = 0.857 (2MASS).

27. J-H = 0.873 (2MASS).

28. J-H = 0.846 (2MASS). Type SRB is not excluded.

29. IRAS 18195+3139 . B-V = 2.172 (Tycho 2). The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.

30. J-H = 1.146 (2MASS). Type SRB is not excluded. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.

Remarks:

I present the discovery of 30 new semiregular (SR, SRB, SRD) and irregular (LB) pulsating variable stars. 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.

In several cases the ROTSE data with photometric correction flags (usually rejected) were kept for the analysis. The use of these data considerably increases the number of available observations without deteriorating quality and allows us to determine the period more accurately.

References:

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