

A Study of 41 Red Variables

[E. V. Kazarovets](#), [E. N. Pastukhova](#)

Institute of Astronomy, Russian Academy of Sciences, Moscow, Russia

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(E-mail for contact: helene@inasan.ru, pastukhova@sai.msu.ru)

#	Name	Other	Coord (J2000)	Type	Max	Min	System	Period	Epoch (JD)	type	Sp	Comment	L.Curve	Find.Chart	Data
1		GSC 7909-00515	18 21 06.04, -42 15 07.5	SR	10.9	12.4	V	126	2454975	max			1lc.jpg	1ch.jpg	ASAS 182106-4215.1
2	NSV 11102	BV 1394	18 38 02.45, -47 10 40.5	SR	9.8	10.8	V	680	2455025	max			11102lc.jpg	11102ch.jpg	ASAS 183802-4710.7
3	NSV 11155	S 9914	18 38 43.99, +10 25 32.8	SR	10.0	10.6	V	331	2453820	max	M4	Comm. 3	11155lc.jpg	11155ch.jpg	ASAS 183844+1025.5
4	NSV 11167	HV 10020	18 40 58.38, -50 11 01.9	SR	12.6	13.6	V	385	2454850	max			11167lc.jpg	11167ch.jpg	ASAS 184058-5011.0
5	NSV 11258	GSC 6292-00411	18 44 01.82, -21 42 09.6	SR	10.1	11.3	V	1210	2454200	max	M5	Comm. 5	11258lc.jpg	11258ch.jpg	ASAS 184402-2142.1
6	NSV 11360	Innes 156	18 49 31.28, -31 10 05.8	SR	11.7	13.6	V	94.0	2455040	max		Comm. 6	11360lc.jpg	11360ch.jpg	ASAS 184930-3110.0
7	NSV 11375	HV 10075	18 50 57.58, -56 11 32.3	BY	13.15	13.32	CV	4.955	2455104.95	max		Comm. 7	11375lc.jpg	11375ch.jpg	11375dat.txt
8	NSV 11545	AN 779.1936	18 55 49.82, -05 56 13.1	M	13.0	<17.5	V	213	2455110	max		Comm. 8	11545lc.jpg	11545ch.jpg	ASAS 185549-0556.2
9	NSV 11542	AN 778.1936	18 55 57.41, -18 02 22.1	M	12.35	<15.7	V	292	2455080	max			11542lc.jpg	11542ch.jpg	ASAS 185557-1802.4
10	NSV 11576	AN 228.1930	18 56 48.90, +14 30 27.0	M	13.0	<16.2	V	306	2454350	max			11576lc.jpg	11576ch.jpg	ASAS 185649+1430.5
11	NSV 11566	AN 780.1936	18 57 00.87, -21 28 21.1	M	13.2	<16.5	V	228	2455023	max		Comm. 11	11566lc.jpg	11566ch.jpg	ASAS 185701-2128.3
12	NSV 11560	S 7444	18 57 35.64, -45 28 09.3	SR	12.1	13.6	V	195	2454972	max			11560lc.jpg	11560ch.jpg	ASAS 185735-4528.5
13	NSV 11606	AN 87.1934	18 58 11.48, +21 52 52.6	M	12.4	<14.5	V	279	2455062	max			11606lc.jpg	11606ch.jpg	ASAS 185811+2152.9
14	NSV 11613	BV 1710	18 59 32.52, -14 29 37.3	SR	13.1	14.5	V	182	2455005	max			11613lc.jpg	11613ch.jpg	ASAS 185933-1429.6
15	NSV 11668	AN 942.1936	19 02 23.63, -25 32 35.1	SR	13.2	14.3	V	311	2454830	max		Comm. 15	11668lc.jpg	11668ch.jpg	ASAS 190224-2532.6
16	NSV 11674	AN 791.1936	19 02 29.77, -04 59 02.7	M	12.5	<14.5	V	250.5	2455083	max		Comm. 16	11674lc.jpg	11674ch.jpg	ASAS 190230-0459.1
17	NSV 11675	AN 792.1936	19 02 36.01, -01 06 17.8	M	13.6	<16.5	V	276	2454552	max			11675lc.jpg	11675ch.jpg	ASAS 190236-0106.3
18	NSV 11672	S 7456	19 03 21.00, -45 58 39.0	SRA	12.0	14.0	V	142.0	2455092	max			11672lc.jpg	11672ch.jpg	ASAS 190321-4558.6
19	NSV 11740	S 9352	19 05 24.49, +47 33 46.0	SR	13.2	13.8	*	88	2451503	max	M7		11740lc.jpg	11740ch.jpg	11740dat.txt
20	NSV 11728	SVS 624	19 06 13.17, -15 49 49.2	M	10.5	<15.0	V	480	2455043	max			11728lc.jpg	11728ch.jpg	ASAS 190613-1549.8
21	NSV 11733	Kooreman 68	19 06 37.67, -31 23 16.8	SR	11.6	12.7	V	820	2454820	max	M5-M6	Comm. 21	11733lc.jpg	11733ch.jpg	ASAS 190637-3123.3
22	NSV 11755	GSC 0471-00924	19 08 16.64, +04 29 52.0	M	11.9	<14.6	V	580	2454285	max		Comm. 22	11755lc.jpg	11755ch.jpg	ASAS 190817+0429.9
23	NSV 11818	S 10526	19 13 07.94, -01 27 13.0	SR	12.8	14.0	V	83.5	2455065	max			11818lc.jpg	11818ch.jpg	ASAS 191308-0127.2

24	NSV 11860	Innes 171	19 17 07.51, -31 00 19.0	SR	12.4	14.7:	V	203	2454990	max			11860lc.jpg	11860ch.jpg	ASAS 191708-3100.3
25	NSV 11890	BV 1711	19 18 49.27, -13 06 41.2	M:	13.1	<15.0	V	257	2454922	max			11890lc.jpg	11890ch.jpg	ASAS 191849-1306.6
26	NSV 11911	AN 805.1936	19 20 08.64, -03 01 59.2	M	12.7	<14.9	V	321	2454219	max		Comm. 26	11911lc.jpg	11911ch.jpg	ASAS 192009-0302.0
27	NSV 11903	AN 948.1936	19 20 16.29, -28 17 42.1	M	12.4	<15.0	V	307	2455075	max		Comm. 27	11903lc.jpg	11903ch.jpg	ASAS 192016-2817.7
28	NSV 11935	S 10550	19 21 30.85, +00 16 59.4	SR	12.7	13.8	V	430	2454710	max			11935lc.jpg	11935ch.jpg	ASAS 192131+0017.0
29	NSV 11956	AN 9.1905	19 22 53.38, -00 37 17.0	M	12.7	<15.1	V	332	2455013	max			11956lc.jpg	11956ch.jpg	ASAS 192253-0037.3
30	NSV 11941	BV 1397	19 23 03.03, -46 20 36.5	SR	10.3	11.3	V	630	2455100	max			11941lc.jpg	11941ch.jpg	ASAS 192303-4620.6
31	NSV 11969	AN 13.1905	19 23 30.16, +01 31 19.6	M	13.2	<16.4	V	306	2455103	max		Comm. 31	11969lc.jpg	11969ch.jpg	ASAS 192330+0131.3
32	NSV 11904	AN 132.1932	19 23 31.24, -74 13 29.8	SR	12.0	14.3	V	142	2455022	max		Comm. 32	11904lc.jpg	11904ch.jpg	ASAS 192331-7413.5
33	NSV 11983	S 4399	19 24 12.18, +03 08 36.9	SR	12.7	<14.0	V	70.5	2455100	max			11983lc.jpg	11983ch.jpg	ASAS 192412+0308.6
34	NSV 12009	IRC +40346	19 24 59.07, +36 01 42.0	M	9.8:	13.2	*	450:	2451570	max	M8III		12009lc.jpg	12009ch.jpg	12009dat.txt
35	NSV 12050		19 27 40.18, +06 53 59.9	M	13.7	<15.9	V	225	2454986	max	M6		12050lc.jpg	12050ch.jpg	ASAS 192740+0654.0
36	NSV 12077	GSC 2125-01189	19 29 01.93, +23 16 04.5	SR	11.1	12.1	V	160	2454970	max			12077lc.jpg	12077ch.jpg	ASAS 192902+2316.1
37	NSV 12100	AN 21.1905	19 31 00.82, +02 43 21.7	M	13.5	<17.0	V	290	2454230	max			12100lc.jpg	12100ch.jpg	ASAS 193101+0243.4
38	NSV 12091	AN 326.1933	19 31 14.03, -35 18 52.2	SRA	12.5	14.6	V	119.2	2455060	max		Comm. 38	12091lc.jpg	12091ch.jpg	ASAS 193114-3518.9
39	NSV 12134	AN 962.1935	19 34 23.99, -45 23 32.3	M	12.9	<15.2	V	392	2452553	max		Comm. 39	12134lc.jpg	12134ch.jpg	ASAS 193424-4523.5
40	NSV 12241	AN 299.1943	19 38 54.88, +06 19 58.3	SR	12.3	14.1	V	80.0	2454633.8	max			12241lc.jpg	12241ch.jpg	ASAS 193855+0619.9
41	NSV 12254	HV 5439	19 39 10.63, +08 30 18.9	M	13.8	<15.0	V	263	2454607	max		Comm. 41	12254lc.jpg	12254ch.jpg	ASAS 193911+0830.3

Comments:

3. Superposed variations with P = 47.3 d.

5. Superposed variations with P = 119 d.

6. Was suspected by Innes (1917). Recovered by us.

7. HV 10075 = 1RXS J185057.0-561148.

8. Was suspected by Luyten (1937). Recovered by us.

11. Was suspected by Luyten (1937). Recovered by us.

15. Was suspected by Luyten (1937). Recovered by us.

16. Was suspected by Luyten (1937). Recovered by us.

21. Discovered by Kooreman (1965).

22. M. Sitek and G. Pojmanski (2014) gave Mira type with a wrong period of 1173 d.

26. Was suspected by Luyten (1937). Recovered by us.
27. Was suspected by Luyten (1937). Recovered by us.
31. We proofed our $P = 306$ d using the NSVS data.
32. Was suspected by Luyten (1932). Recovered by us.
38. Was suspected by Luyten (1933). Recovered by us.
39. Was suspected by Luyten (1935). Recovered by us.
41. Was suspected by Hoffleit (1932). Recovered by us.

Remarks:

In the process of improving coordinates of variable stars in the electronic version of NSV catalog (Samus et al. 2007–2015), we determined light elements and types of variability for 40 red suspected variables. 1 variable was discovered when we were searching for Luyten's star NSV 11908. Finding charts for recovered variable stars mentioned in the comments are published for the first time. The study of the variables was made using the publicly available electronic archives of CCD observations of the ASAS-3 project (Pojmanski 2002) and the Catalina Sky Survey photometric data (Drake et al. 2009). We studied the variability of NSV 11740 and NSV 12009 in the Northern Sky Variability Survey (NSVS) data (Woźniak et al. 2004). We measured minimal brightness for many Mira variables using Digitized Sky Survey images (R-band) of the STScI Archive. Variability of 10 stars was discovered in the ASAS-3 survey; the stars enter in variable-star catalog as a MISC-type with a wrong periods: 72.35 d for #1, 182.75 d for NSV 11102, 52.96 d for NSV 11155, 121.9 d for NSV 11258, 97.1 d for NSV 11360, 127.1 d for NSV 11560, 128.8 d for NSV 11733, 67.91 d for NSV 11860, 240.2 d for NSV 11890, and 483.9 d for NSV 11941.

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