

New Eclipsing Variable Stars Discovered in Krasnoyarsk

[S. A. Veselkov](#)^{#1}, [E. G. Lapukhin](#)^{#1}, [S. V. Antipin](#)^{#2,3}, [N. N. Samus](#)^{#3,2}

#1. Siberian State Aerospace University, Krasnoyarsk, Russia;

#2. Sternberg Astronomical Institute, Moscow, Russia;

#3. Institute of Astronomy, Russian Academy of Sciences, Moscow, Russia

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(E-mail for contact: veselkovsa@sibsau.ru)

#	Name	Other	Coord (J2000)	Type	Max	Min	System	Period	Epoch (JD)	type	Sp	Comment	L.Curve	Find.Chart	Data
1		USNO-A2.0 1425-00364307	00 15 20.98, +53 42 49.5	EW	13.3	<13.8		0.33424	2455507.272	min		Comm. 1	1425-364307.png	ch1425-364307.png	1425364307.txt
2		USNO-A2.0 1425-00379853	00 16 02.53, +53 54 19.9	EA	14.3	<15.4		1.1579	2455507.1258	min		Comm. 2	1425-379853.png	ch1425-379853.png	1425379853.txt
3		USNO-A2.0 1425-00413000	00 17 30.20, +55 11 15.4	EB	13.5	<14.15		0.89359	2455513.176	min		Comm. 3	1425-413000.png	ch1425-413000.png	1425413000.txt
4		USNO-A2.0 1425-00458499	00 19 29.78, +53 39 58.0	EW	13.25	13.75		0.37990	2455507.1422	min		Comm. 4	1425-458499.png	ch1425-458499.png	1425458499.txt

Comments:

1. MinII 13^m.74.

2. MinII 14^m.50.

3. MinII 13^m.73.

4. MinII 13^m.70. Slight O'Connell effect.

Remarks:

On August 20 – November 12, 2010, we obtained about 1500 unfiltered CCD observations of a field in Cassiopeia. Our observations were performed in the city of Krasnoyarsk with a Hamilton telescope (D = 400 mm, F = 915 mm) equipped with an FLI ML9000 CCD chip (3056x3056 pixels, pixel size 12 μm). The magnitudes were referred to red magnitudes of comparison stars from the USNO-A2.0 catalog (Monet et al. 1998). The limiting magnitude of these data is about 16^m, due to light pollution in a large city and transparency problems. MaxImDL software was used for photometry.

We have started using these observations for search for new variable stars. Four new eclipsing variable stars could be discovered and studied during the first stage of this project. Our search for variable stars made use of the [C-Munipack package](#). To search for periods, we applied WinEfk software provided by V.P. Goranskij.

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References:

Monet, D., Bird, A., Canzian, B., et al., 1998, USNO-A2.0, A Catalog of Astrometric Standards (U.S. Naval Observatory, Washington, DC), Centre de Donnees Astronomiques de Strasbourg, I/252