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Observations of NSVS 01031772 at CrAO

M. Gorbachev[#1,2], **V. Moskvin**[#1], **A. Shlyapnikov**[#1]

#1. Crimean Astrophysical Observatory, Russian Academy of Sciences, Crimea, Russia;
#2. Kazan Federal University, Kazan, Russia.

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(E-mail for contact: mark-gorbachev@rambler.ru)

Star Name:	NSVS 01031772, NSVS 920252, PM J13455+7923, UCAC4 847-011196		
Coordinates (J2000):	13 45 34.87, +79 23 48.3		
Variability type:	EA;	**Limits, System:**	14.55–15.28 (B), 13.39–14.13 (V), 12.27–12.97 (R), 10.97–11.65 (I);
Period:	0.3681405 d;	**Epoch(min):**	JD 2458685.38065

Remarks:

NSVS 01031772 is an eclipsing binary system discovered by McIntyre & Shaw (2005). Wolf et al. (2012) showed the presence of a third body in the system which has a period of about 3900 days (11 years) and a minimum mass of 0.063MΘ. In addition, according to Šmelcer et al. (2016), flare activity was detected in the system.

We observed NSVS 01031772 with the CrAO MTM-500 telescope during ongoing studies of various manifestations of magnetic activity on red dwarfs. For the interval from 2017 to mid-2019, 16 observational sets were acquired in the photometric bands *B*, *V*, *R*, *I*. About 480 brightness estimates were obtained for each filter. The accuracy of our measurements based on the comparison star (PanSTARRS DR1 ID 203242067430102239, #1 in the finding chart) is 0.02 mag. During the study, flare activity of NSVS 01031772 was not detected. The obtained result probably implies a low flare activity of the studied system.

Figure 1 shows *B*, *V*, *R*, *I*-band phased light curves of NSVS 01031772, folded with a period of 0.3681405 days.

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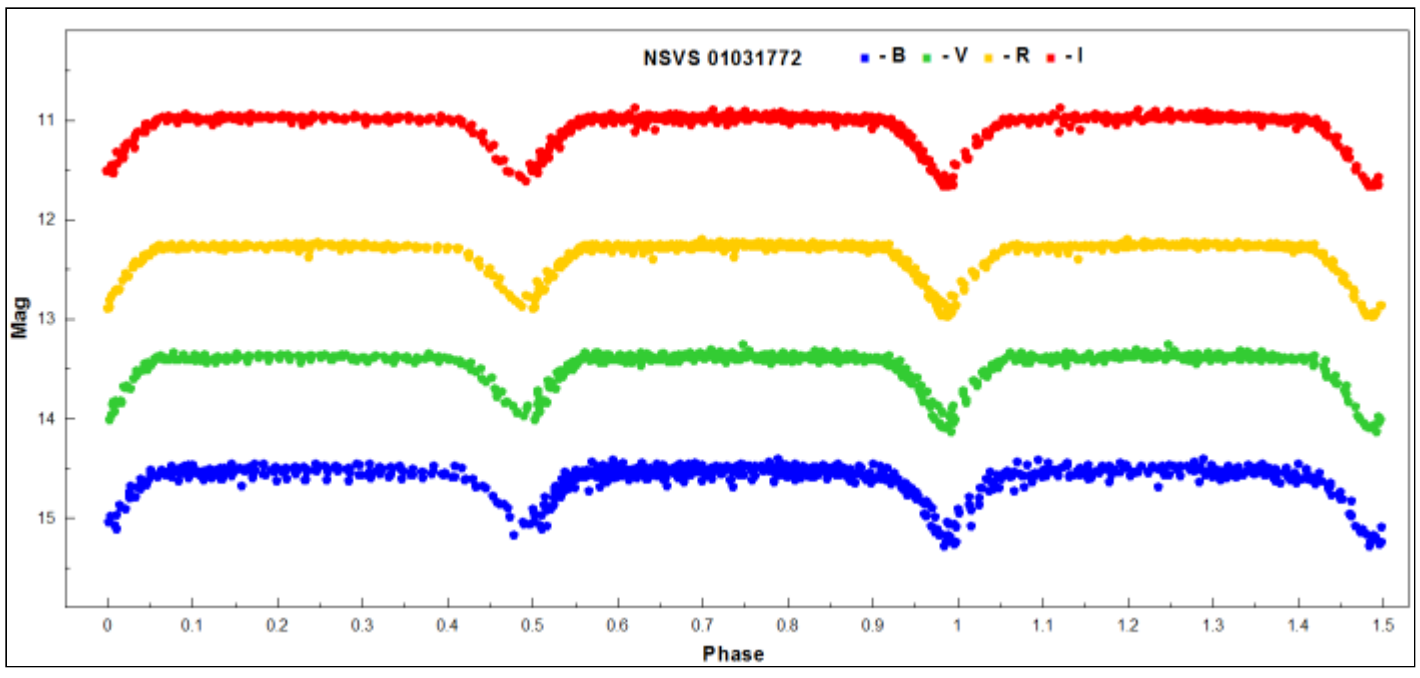
References:

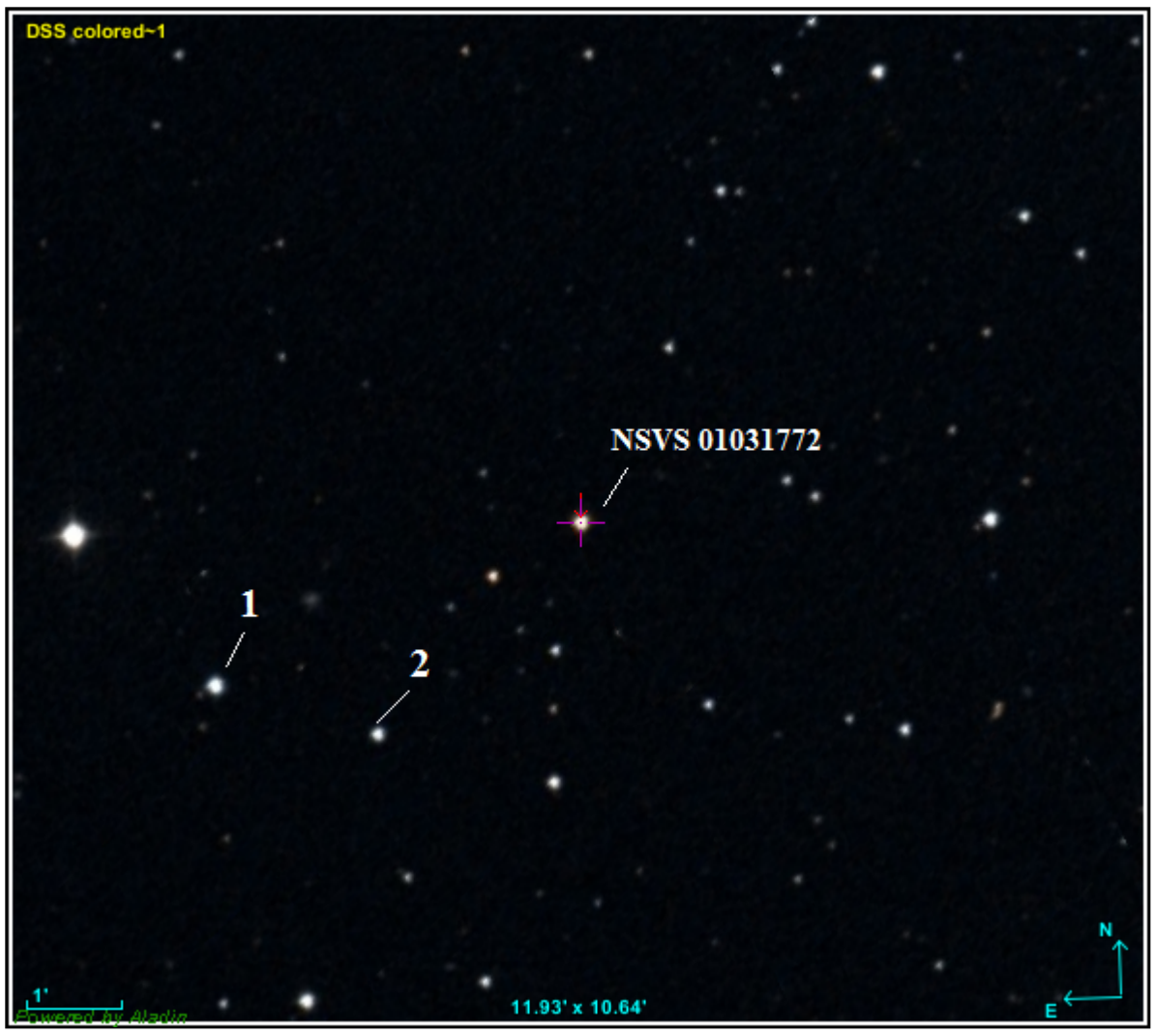
McIntyre, T., Shaw, J. S., 2005, International Amateur-Professional Photoelectric Photometry Comm., Vol. 101, p. 38
Šmelcer L., Bílek F., Pečiva T., 2016, Open European J. Var. Stars, Vol. 175, p. 1
Wolf M. Zasche, P., Hornoch, K., et al., 2012, From Interacting Binaries to Exoplanets: Essential Modeling Tools, Proc. IAU. Edited by M. T. Richards and I. Hubeny, IAU Symposium, Vol. 282, p. 490

Light Curve



Phased light curve of NSVS 01031772

Finding Chart



1 – comparison star (PanSTARRS DR1 ID 203242067430102239, 2 – check star (PanSTARRS DR1 ID 203232065888792335)

Data Source

1. data_nsvs01031772.txt