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New Semiregular Variable Star in Draco

K. V. Sokolovsky[#1,2], D. Gareeva[#2], E. Gorbovskoy[#2], A. Kuznetsov[#2], V. Yurkov[#3], E. Sinyakov[#3]

#1. Astro Space Center of Lebedev Physical Institute, Moscow, Russia;
#2. Sternberg Astronomical Institute, Lomonosov Moscow State University, Moscow, Russia;
#3. Blagoveshchensk State Pedagogical University, Blagoveshchensk, Russia

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(E-mail for contact: kirx@scan.sai.msu.ru)

Star Name:	2MASS 20031968+6504085		
Coordinates (J2000):	20 03 19.69, +65 04 08.6		
Variability type:	SR;	**Limits, System:**	11.7-12.7 (R);
Period:	191 d;	**Epoch(max):**	JD 2455636

Remarks:

The variability of 2MASS 20031968+6504085 was discovered using a series of 58 unfiltered CCD images obtained with the MASTER-Amur robotic telescope (D = 400 mm, F = 1000 mm, Apogee Alta U16m CCD camera; Lipunov et al. 2010) between January 26 and March 27, 2011. After the standard calibration (dark subtraction, flat fielding) the images were processed with the VaST variability search software (Sokolovsky & Lebedev 2005). Red magnitudes of USNO-B1.0 stars (Monet et al. 2003) in the field of view were used to set the magnitude scale zero point.

The MASTER-Amur lightcurve was combined with archival data from the Northern Sky Variability Survey (NSVS, Wozniak et al. 2004). The combined lightcurve together with the 2MASS infrared color J–Ks = 1.3 corresponding to M spectral type (Bessell & Brett 1988) allow us to classify the object as a red semiregular variable star. The difference in observed variability amplitude between MASTER-Amur and NSVS lightcurves may result from different spectral responses of CCD chips used for observations: blue-sensitive KAF-16803 used in Apogee Alta U16m camera and red-sensitive Thomson TH7899M installed in Apogee AP-10 cameras used by NSVS. The real change in variability amplitude is not uncommon for this type of stars and cannot be excluded.

Coordinates of the star are drawn from the 2MASS point source catalog (Skrutskie et al. 2006).

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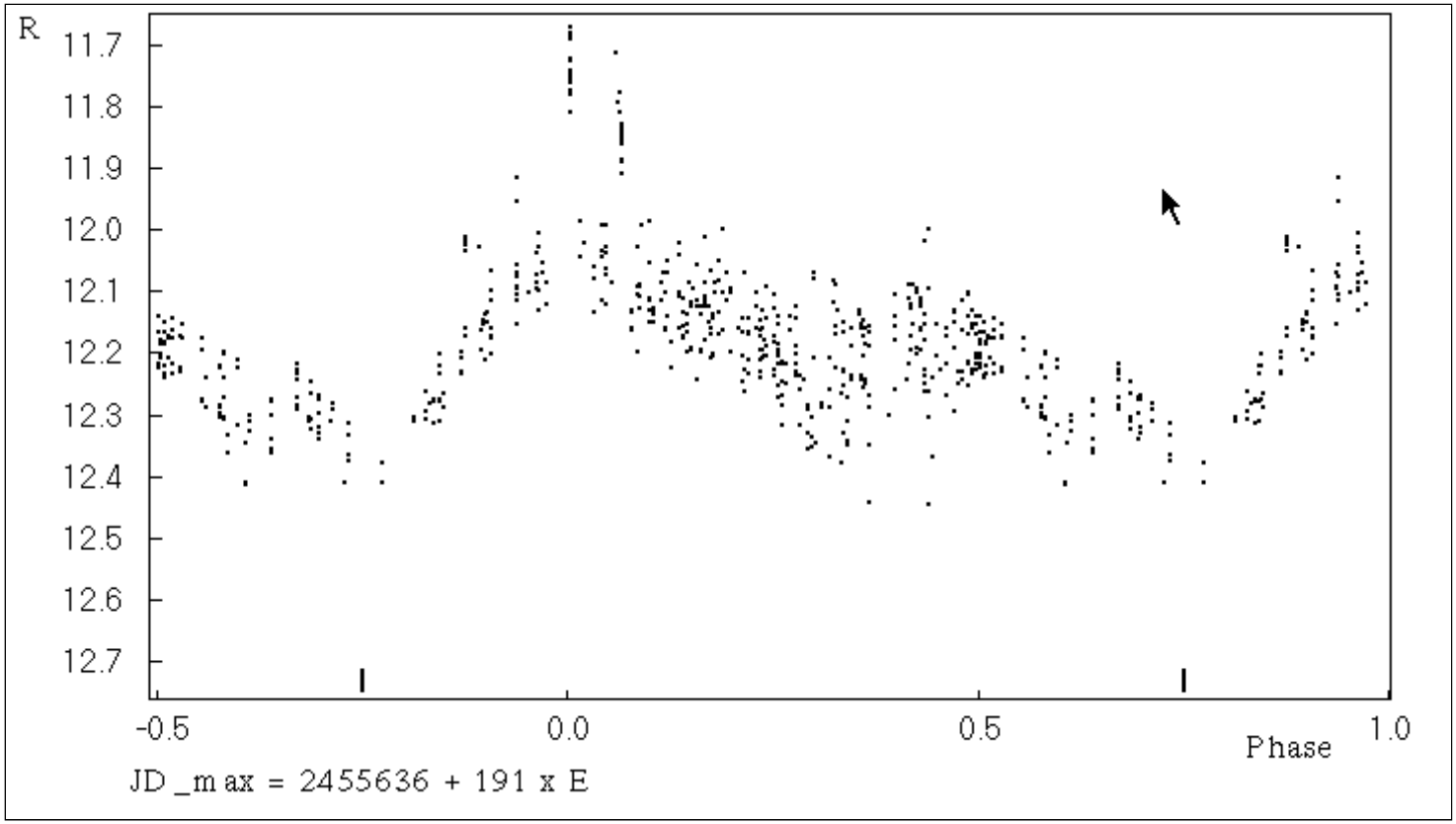
Light Curve



Data Source

1. redstar.txt