

CCD photometry of XX Cyg

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XX Cyg ($\alpha=20^{\text{h}} 02^{\text{m}} 17^{\text{s}}$, $\delta=58^{\circ} 48' 44''$ (1950), $V=12$ mag, A5) is well known as metal-poor, high-velocity SX Phe star (McNamara & Feltz, 1980). It shows a period of light variation of 0.13486507 d, and an amplitude up to 1 mag (from the General Catalog of Variable Stars). The photometric observation of XX Cyg in different years show the variation of amplitude and period during a long time (Zhou et al., 2002). New observations of XX Cyg were made in 7

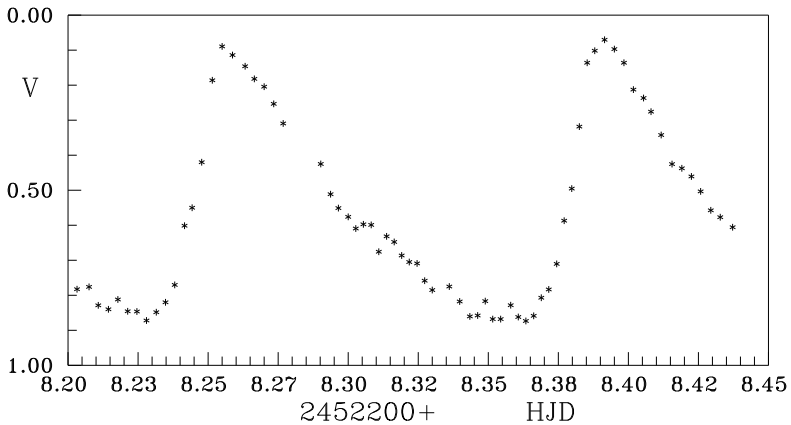


Figure 1: The light curve of XX Cyg (V) 25-26 October 2001.

nights of October 2001 and were continued in 2002 using the 48 cm reflector at the Astronomical Observatory of Odessa National University. One star ($\alpha=20^{\text{h}} 02^{\text{m}} 24^{\text{s}}$, $\delta=58^{\circ} 51' 43''$) was used as a comparison star and monitored in the frame simultaneously. The CCD photometer was created using a chip ISD015 (520x580 pixels), vacuum housing and thermoelectric (Peltier) cooler. In the observations the V filter of the UBV system was used.

A typical observed light curve of XX Cyg is shown in Figure 1. A preliminary analysis of the light curve shows a total light range of 0.8 mag in the filter V. Possibly, the light curve shows, besides the primary maximum, a small bump of an amplitude of approximately 0.1 mag. The light variation of XX Cyg can be fit with a single pulsation frequency, but an analysis on multiple mode pulsation is being carried out.

References

- Zhou, Ai-Ying, Jiang, Shi-Yang, Chayan, B., Du, Bai-Tian 2002, Ap&SS 281(4)
McNamara, D. H., Feltz, K. A., Jr. 1980, PASP 92