COMMISSIONS 27 AND 42 OF THE IAU
INFORMATION BULLETIN ON VARIABLE STARS
Number 4220

Konkoly Observatory
Budapest
25 July 1995
HU ISSN 0374 – 0676

VARIABILITY OF HD 205117 IN THE OPEN CLUSTER M 39 (NGC 7092)

M 39 is one of relatively nearby open clusters (r=275 pc) which is considered to be of the II2p type. Among its 15 brightest members, Abt and Sanders (1973) discovered six true and one suspected binaries. For these binaries, we made an attempt to detect eclipsing effects by means of photoelectric B,V photometry. The observations were carried out in 1989/92 with the 60 cm telescope at Mt. Maidanak Observatory in Uzbekistan. After careful analysis of our monitoring data, light changes of small amplitude (0.051V) have been detected for HD 205117 (Sp: A0IV). The star was identified by Abt and Sanders (1973) as a probable binary. The light-curve of the star is shown in Figure 1 (the average signal-to-noise ratio is 4.48). We suggest that periodic sinusoidal variations of the star are connected with the orbital motion of its components. In this case, the real period of the binary should be 113.2 days. According to its spectrum, both components may be subgiants. The large scatter on the light curve of the binary may be interpreted as conditioned by nonstability processes in the system.

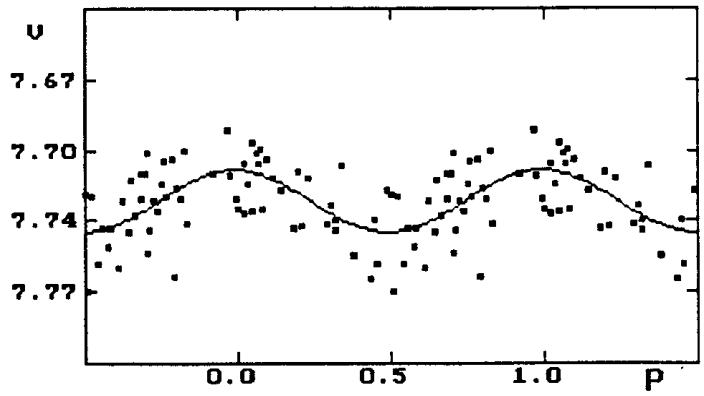

Figure 1. The light curve for HD 205117

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