COMMISSION 27 OF THE I. A. U.
INFORMATION BULLETIN ON VARIABLE STARS
Number 2536

Konkoly Observatory
Budapest
18 June 1984
HU ISSN 0374-0676

VARIABILITY OF HD 207739
(BAV Mitteilung Nr. 35)

Parsons et al. (1983) analyzed IUE spectra of HD 207739 (BD +43°04060) and found a strange composite structure (F8III + B:) with some resemblance to shell and pre-main sequence B stars. As they pointed out, however, it more closely matched the spectra of the eclipsing systems VV Cep and SX Cas. The authors suggested HD 207739 to be an interacting binary, from radial velocity data they expected a period of less than a month.

HD 207739 was observed with a "Schnitzer"-photometer attached to a 25 cm Schmidt-Cassegrain telescope and using filters for B and V. As comparison served HD 208220 (V = 9.49, B-V = 0.04), as check star HD 7754. For the latter the following magnitudes were derived: V = 7.06+0.016 and B = 8.242+0.015 (CE). Because of the large zenith distances of the observations between JD 2443720 and 840 the check star was used as comparison in view of its much smaller angular distance to HD 207739.

The figure shows the results of the measurements. HD 207739 exhibited small variations between 8.59 and 8.39 in V and 9.22 and 9.03 in B whereas HD 207754

![Figure 1](image)

The light curve of HD 207739 (o) in comparison with that of HD 207754 (x).
did not show significant light changes. The light curve of HD 207739 is wave
like with smooth maxima and minima. The amplitude varies in V but not in B,
periodicity seems possible but cannot be definitely shown by the present ob-
servations. If a period exists it should be around 65 days or in view of the
different amplitudes in B and V the double of this value, thus much longer
than expected by Parsons et al. (1983). The only UBV-magnitudes available in
the literature (Parsons and Montemayor, 1982) were obtained on 1980 Aug. 29
and 30 and Sep. 1. The authors found no significant variability, the mean
values \( V = 8.59 \) and \( B-V = +0.66 \) are almost exactly those of the minimum
around JD 2445675 in the above figure. Assuming that 9 epochs have elapsed a
period of 132.4 can be calculated. However, the star needs further observa-
tions to ensure periodicity of its light variations.

The author is grateful to Mirek J. Plavec for calling attention to
HD 207739.

M. FERNANDES
BAV, Munsterdamm 90
1000 Berlin 41, Germany

References: