

COMMISSION 27 OF THE I. A. U.
INFORMATION BULLETIN ON VARIABLE STARS
Number 1167

Konkoly Observatory
Budapest
1976 August 16

PHOTOELECTRIC OBSERVATIONS OF HD 184905 AND HD 134793

Photoelectric observations of the magnetic variable star HD 184905 in UBV system have been performed by Burke et al. [1] in 1967-68. In terms of those observations they noticed periodic light variations and the period was even estimated ($P=1.855$ days). In 1970 Morrison et al. [2] observed the star photoelectrically in four colours (u,v,b,y). They also ascertained the elements of light variations. The period was estimated as $P=2.17$ days. On the basis of presenting all the observations with both periods these authors came to the conclusion that none of these periods can be given preference to.

In 1968 the magnetic variable HD 184905 was observed photoelectrically with the Abastumani Astrophysical Observatory 33cm reflector and in 1969 the observations were performed with the 48cm reflector (A3T-14A) in three colours (U,B,V).

Differences between the comparison stars were determined. The variation of the differences between the comparison stars drew our attention; either a change in the instrumental system or the variations of one of the comparison stars might have explained this fact. The analysis of our observational material showed no substantial change in the instrumental system. This gave rise to suspicion concerning the variations of HD 184695. Then we considered the difference in light between the variable and only the comparison star HD 184787.

We made an effort to set out our observations with both periods and then to compare them. It is clear that the observations in yellow and ultraviolet present themselves almost similarly with both periods. The observations in blue presented with $p=1.855$ days do not exhibit any periodic light variations while with $p=2.17$ days they do (though the amplitude is small ~ 0.02). Besides, the light variation curve in blue is in phase with those constructed for other colours. In terms of the foregoing we came to the conclusion that our observations are presented better with $p=2.17$ days.

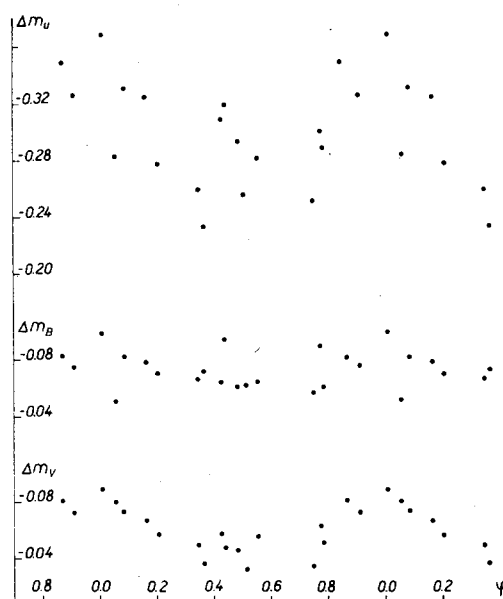


Figure shows the average curves of light variation for HD 184905 in UVB light based on $p=2.17$ days.

According to the photoelectric observations of Burke et al.

[1] light variations more than O^m015 were not noticed for the magnetic variable HD 134793. We have observed this variable photoelectrically in 1967-69. The observations show possible variations of light, O^m08 and O^m05 in ultraviolet, blue and yellow, respectively.

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References:

- 1 Burke E., Rolland W., Boy W. 1970, JRAS Can., 65, N 6
- 2 Morrison N. and Wolf S. 1971, Publ.A.S.P., 83, N 494