

COMMISSION 27 OF THE I. A. U.  
INFORMATION BULLETIN ON VARIABLE STARS  
Number 1675

Konkoly Observatory  
Budapest  
1979 September 24

SEMIREGULAR 58 DAYS VARIATION IN VV Cep

The long period eclipsing binary system VV Cep was observed on nearly 100 nights from August 1976 to September 1978 in the Red and Infrared colours. A preliminary analysis of the red plates, 103aE with RGI filter, with a two minutes exposure at the focus of the 11 cm astrograph of the S.Vittore Observatory in Bologna, revealed a manifest semiregular variation with a period of approximately 58 days, as shown in Figure 1. Our period is about half of the period of 118

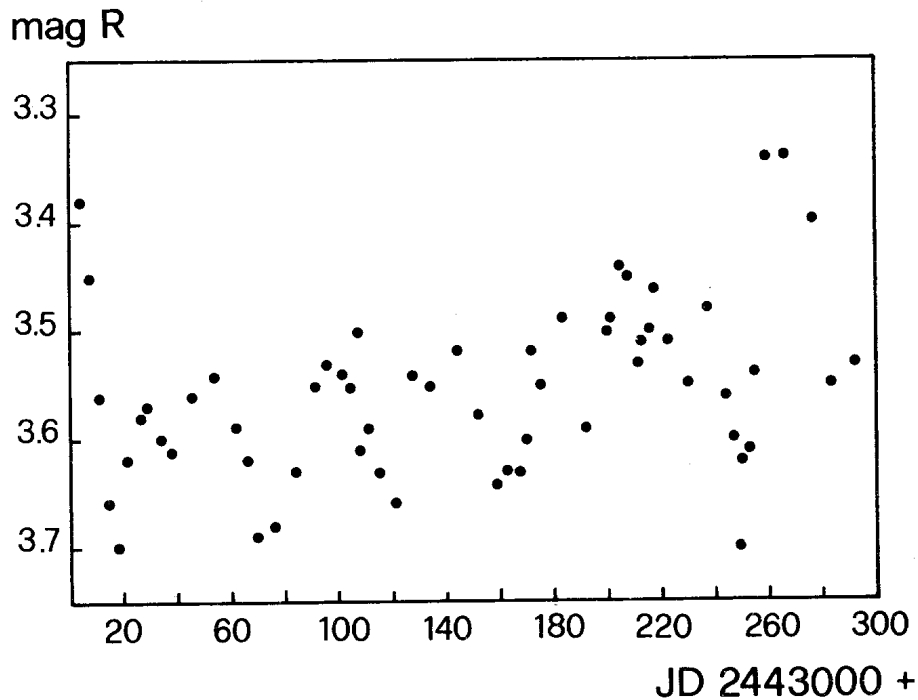


Figure 1: moving averages on three plates. The mean error of each point is about 0.04 mag.

days reported by McCook and Guinan (1978) based on H $\alpha$  photoelectric observations on 850 days, but with big intervals of straight 200 days.

According to Hutchings and Wright (1971) these variations should come from the H $\alpha$  emission region with a radius of 150 R $_{\odot}$ , surrounding the Be star, the eclipse of which should be partial. Red and Infrared observations are continued and we hope to observe before long the star also in H $\alpha$ . A complete analysis of the observations, including UBV photoelectric photometry of the eclipse, will be published elsewhere.

We would like to thank Vacchi, Sassi and Sette for having done the observations till now and L.Baldeschi, A.Dalle donne, R. Di Luca, A.Ferri, C.Frisoni, G.Mengoli, A. Prosperi for helping in the reductions.

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References:

- Hutchings, J.B., Wright, K.O. 1971, M.N.R.A.S., 155, 203.  
McCook, G.P., Guinan, E.F. 1978, I.B.V.S., 1385.