

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

Number 2410

Konkoly Observatory
Budapest
12 October 1983
HU ISSN 0374-0676

ON THE PERIOD OF BW VULPECULAE

BW Vul was observed at the Wroclaw Observatory for the World-wide Observing Campaign on BW Vulpeculae organized in 1982 by M.S. Snowden and C. Sterken. The observations were carried out with a 60-cm Cassegrain reflector and a photoelectric photometer equipped with an EMI 6256S photomultiplier tube and a Strömgen b filter. The weather conditions were relatively poor. Our data are, however, sufficiently accurate and numerous to derive a mean epoch of maximum light.

Taking the period of BW Vul as equal to $P_0 = 0^d.20103$, and assuming an initial epoch $T_0 = 2428000.5$, a mean light-curve was derived. It is shown in Figure 1. The points are the individual observations and the solid line, drawn by hand, represents the mean curve.

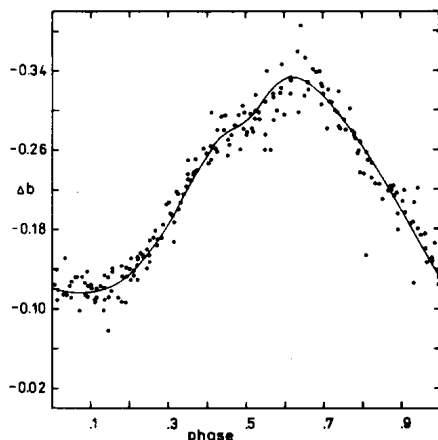


Figure 1

The mean b light-curve of BW Vul. Δb is the magnitude difference
"BW Vul minus a mean of HD 198820 and HD 198527"

The following epoch of maximum of BW Vul was derived from the above-mentioned light-curve:

$$\text{Hel. JD (max. light)} = 2445228^{\text{d}}.482 \pm 0.002^{\text{d}}$$

The (O-C) residuals obtained from this epoch of maximum and from the quadratic ephemerides of Valtier (1976) and Margrave (1979) are 0.036^{d} and 0.014^{d} , respectively. On the other hand, the linear ephemeris of Tunca (1978) yields (O-C) = 0.005^{d} . This results indicates that Tunca's two linear ephemerides fit the observations better than the quadratic ephemeris of either Valtier or Margrave. Our observations provide, therefore, another argument in favour of a discontinuous increase of the period of BW Vul.

E. SZUSZKIEWICZ AND S. RATAJCZYK

Wroclaw University Observatory
ul. Kopernika 11
51-622 Wroclaw
Poland

References:

- Margrave, T.E., 1979, Publ. A.S.P. 91, 666
Tunca, Z., 1978, Inf. Bull. Var. Stars No. 1386
Valtier, J.-C., 1976, Astron. Astrophys. 51, 465