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REVISED PHOTOMETRIC RESULTS OF SAO 072799

A request for a confirmation of the variability of the star SAO 072799 (Frank, 1980) led us to observe this star photoelectrically in August-September 1981, as well as in September 1982. The observations made during these seasons had been reduced according to the preliminary ephemeris (Frank, 1981)

$$\text{Min I} = \text{JD Hel } 2444632.2326 + 4^{d}.215095 \times E \qquad (1)$$

and the results have been given in I.B.V.S. No. 2435. From the shape of the light curves given in Figures 1 and 2 of the above mentioned work, it was difficult to define the type and the period of the variability of SAO 072799.

But more recent photometric work (Fernandes and Frank, 1981, Kroll, 1983) led us to reanalyse our observations according to the ephemeris (Fernandes and Frank, 1981)

$$\text{Min I} = \text{JD Hel } 2444257.2826 + 7^{d}.351785 \times E \qquad (2)$$

Two times of the secondary minimum, given in Table I, have been derived, one by essentially visual inspection and the other by extrapolation of the ascending branch of the respective minimum.

Table I

HJD	$(O-C)_1$	$(O-C)_2$	E	Filter	Min.
2444849.2483	+0.1470	+0.1643	80.5	B,V	II*
2445231.5414	+0.1473	+0.1782	132.5	B,V	II

The $(O-C)_1$ values have been computed by using the ephemeris given by Equation (2), while the $(O-C)_2$ values have been found according to the ephemeris (Kroll, 1983).

$$\text{Min I} = \text{JD Hel } 2444257.2865 + 7^{d}.351522 \times E$$

The observed light curves are given in Figures 1 and 2. From an inspection of Figure 2 it is obvious that a secondary minimum occurs at the phase 0.52 (see also Fernandes and Frank, 1981). Here the descending and a small part

* By extrapolation

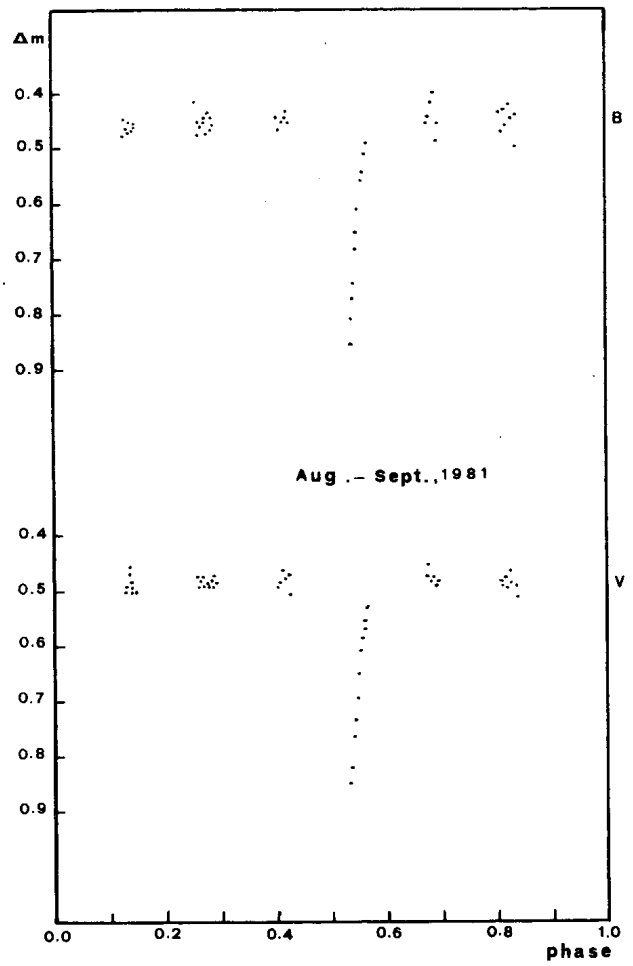

Figure 1

B and V light curves of SAO 072799

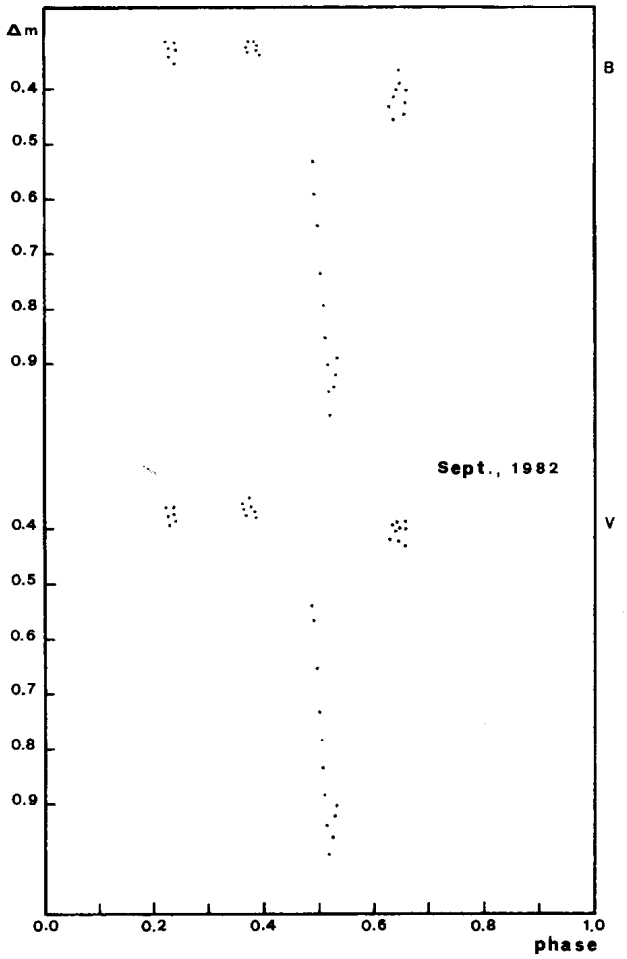

Figure 2

B and V light curves of SAO 072799

of the ascending one can easily be seen. In Figure 1 the ascending branch of the secondary minimum is clearly shown. By extrapolating this part of the light curve we expect the minimum time roughly at the phase 0.52. The maximum light in both Figures seems to be distorted.

From our observations and those made by others (Frank, 1980, Fernandes and Frank, 1981; Kroll, 1983) there is no doubt that the star SAO 072799 is an eclipsing variable with primary and secondary minima of almost equal depth. For a better understanding of this newly discovered eclipsing variable more observations are needed.

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