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TWO COLOUR PHOTOELECTRIC LIGHT CURVES OF WW Dra

The RS CVn type eclipsing binary WW Dra (BD +60° 1691 A), the brighter component of the visual binary ADS 10052, was observed photoelectrically at the Ege University Observatory from June 30 to December 20, 1980. The observations were made with the 48 cm Cassegrain telescope equipped with an unrefrigerated EMI 9781 A photomultiplier.

BD +61° 1595 and BD +60° 1682 were used as comparison and check stars, respectively. The B and V filter which are approximately in the standard UBV system, were used and a total of 288 observations in each colour were obtained on 37 nights. All the differential observations in the sense comparison minus variable were corrected for atmospheric extinction and the times of individual observations were reduced to the Sun's centre.

During the observations only one primary minimum time was obtained as given below.

Observed Min I time: Hel.J.D. 24 44 446.3406

Using the photoelectric times of primary minimum given by Kizilirmak and Pohl (1974), Mardirossian et al. (1980) and given above, the following new light elements were computed with the method of least squares:

$$\text{Min.I} = \text{Hel.J.D. } 24 \ 41 \ 918.4994 + 4^{\text{d}}.6297444. \text{ E}$$

+32 +71

The phases of the observations were computed from light elements already given above. The differential magnitudes were plotted against phases and are shown in Figure 1 and 2.

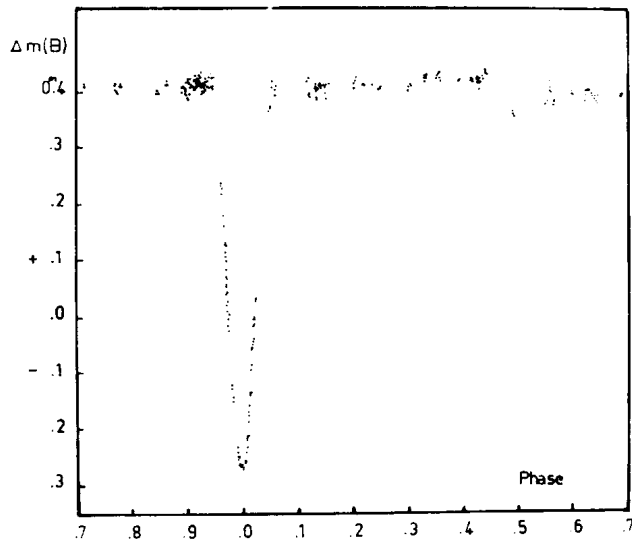


Figure 1 B light curve of WW Dra

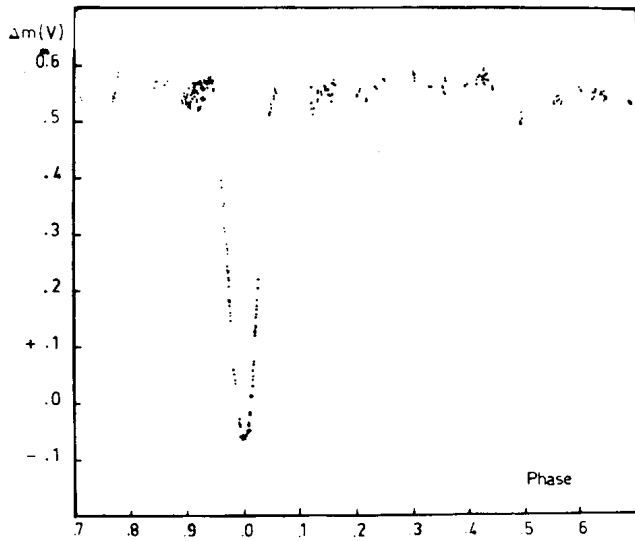


Figure 2 V light curve of WW Dra

The analysis of the light curves are in progress and the observations of the system will be continued in the coming observing season.

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