THE ECLIPSING VARIABLE S7846 IN SAGITTARIUS

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Abstract

The variability of S7846 has been confirmed and a period of 3.74772 days has been found.

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S7846 (CPD -31°5567) was discovered by Kwee and Ponsen (Ponsen, 1957) at the Leiden Observatory. They found six minima among about 400 plates between JD 2,427,633 and JD 2,434,212, and on this basis they concluded that the star is an eclipsing variable The position was given as $\alpha = 18^h23^m01^s$, $\delta = -31°32'.0$ (1900).

Estimates on 300 plates taken at the Maria Mitchell Observatory from 1957 through 1978 have yielded the elements:

$$\text{Min} = 2{,}443{,}719.593 + 3.74882N$$

The Leiden minima fit well with this. The duration of principal minimum is about 0.4 days. No secondary minimum has yet been identified (see Figure 1).

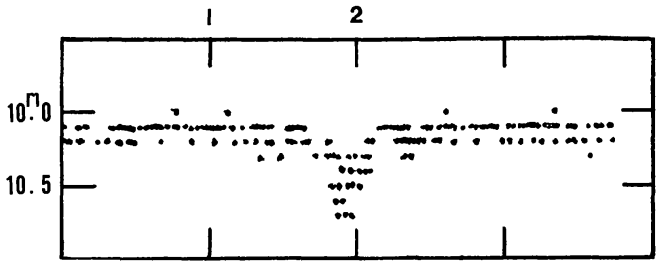

Figure 1. Light curve of S7846 showing principal minimum and no obvious secondary minimum. The graph is magnitude vs. phase for a period of 3.74882 days.

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REFERENCE

Ponsen, J. 1957, Ann. Sterrew. Leiden, 20, 419.