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A NEW EXTREME LIGHTCURVE OF THE W UMa SYSTEM TZ BOOTIS

Photometric observations by Binnendijk (1969), Carr (1971) and Hoffmann (1978) revealed the very strong variations of the lightcurve of TZ Bootis. This W UMa system should be classified as W type, although the considerably deeper transit minima of 1967 and 1975 suggest the opposite. Such a behaviour is known only for very few systems. In three subsequent nights in April 1978 the observations of TZ Bootis with the double beam photometer at the 106cm telescope of Hoher List Observatory could be continued. The B measurements are shown in Figure 1 together with the 1971 lightcurve for illustration. Now the variation at the transit minimum reaches almost half the amplitude of the lightcurve during the last years itself. It is larger than the adopted luminosity of the secondary.

The only reliable tool for the determination of minimum times seems to be the incidence of the second and third contact at occultation. From these phases an (O-C)-value of  $+0.012$  has been adopted (ephemeris by Binnendijk, 1969), suggesting an increase of the period since 1976. Possibly rapid changes in the degree of contact are taking place. A publication of more details and further observations are planned for the near future.

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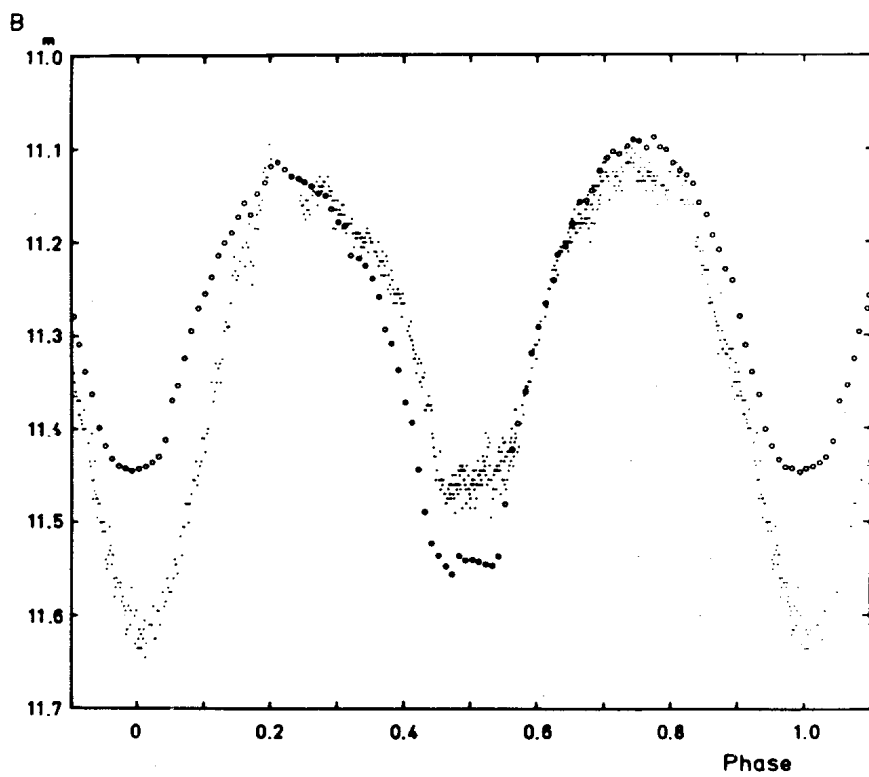


Figure 1: B lightcurves of TZ Bootis. Small dots: 1978 observations, open circles: 1970 normal points.