COMMISSIONS 27 AND 42 OF THE IAU
INFORMATION BULLETIN ON VARIABLE STARS
Number 4625

Konkoly Observatory
Budapest
1 September 1998
HU ISSN 0374 – 0676

FIRST PHOTOMETRIC OBSERVATIONS AT THE TURKISH NATIONAL OBSERVATORY

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In this short paper, we give some information on the recently founded Turkish National Observatory and report the first photometric observations. After a site-testing observations carried out between 1982 and 1986 (Aslan et al., 1989) the mountain known as Bakırlıtepe near the Mediterranean coast at the latitude $+36°51'$, longitude $-30°20'$, altitude 2485 m, was selected as the National Observatory site, which is about 50 km west of the city of Antalya.

The construction of the Observatory (TUG for short) is practically complete. It is affiliated to TÜBİTAK (Scientific and Technical Research Council of Turkey). Initially TUG will have two telescopes, one of them is a small, 0.4 m Cassegrain telescope, which will be devoted to photometric observations of variable stars. The second telescope is a Ritchey–Chrétien of 1.5 m aperture, which will hopefully see the first light in September 1998. The 1.5 m telescope facility is a joint project between TÜBİTAK, IKI-RAN (Space Research Institute of the Russian Academy of Sciences), and KSU (Kazan State University).

The well-known close binary system W UMa was observed in three colours on 18 January 1997 using a SSP5A photometer attached to the 0.4 m telescope. BD $+56°1399$ (Hamzaoğlu et al., 1982) and BD $+56°1397$ were used as comparison and check stars, respectively. The B, V, and R light curves are plotted in Fig. 1. The standard error of a single differential measure does not exceed $0\overset{m}{.}005$ in any colour. The mean extinction coefficients for the night came out to be 0.207 ± 0.004, 0.118 ± 0.002, and 0.074 ± 0.004 in B, V, and R, respectively. The night of the first light turned out to be very good photometrically as can be judged from Figures 1 and 2. We do not yet have observations covering the whole year to assess the photometric quality of the site, but preliminary results suggest that the worst months are April and May. For example, the extinction coefficients obtained on 31 May 1997 are relatively high: they are 0.305, 0.174 and 0.086 in B, V, and R, respectively, and the standard error of one differential measure is 0^m03 in B and R, and 0^m02 in V.

References:

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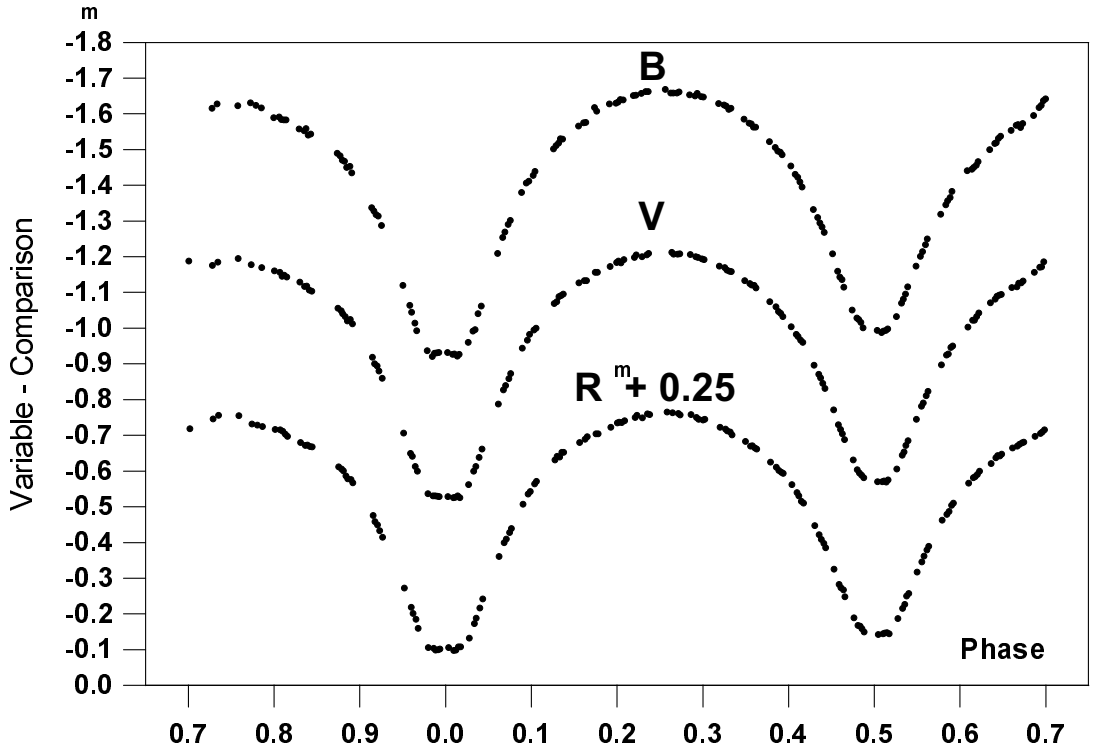

Figure 1. Observations of W UMa in B, V and R bands

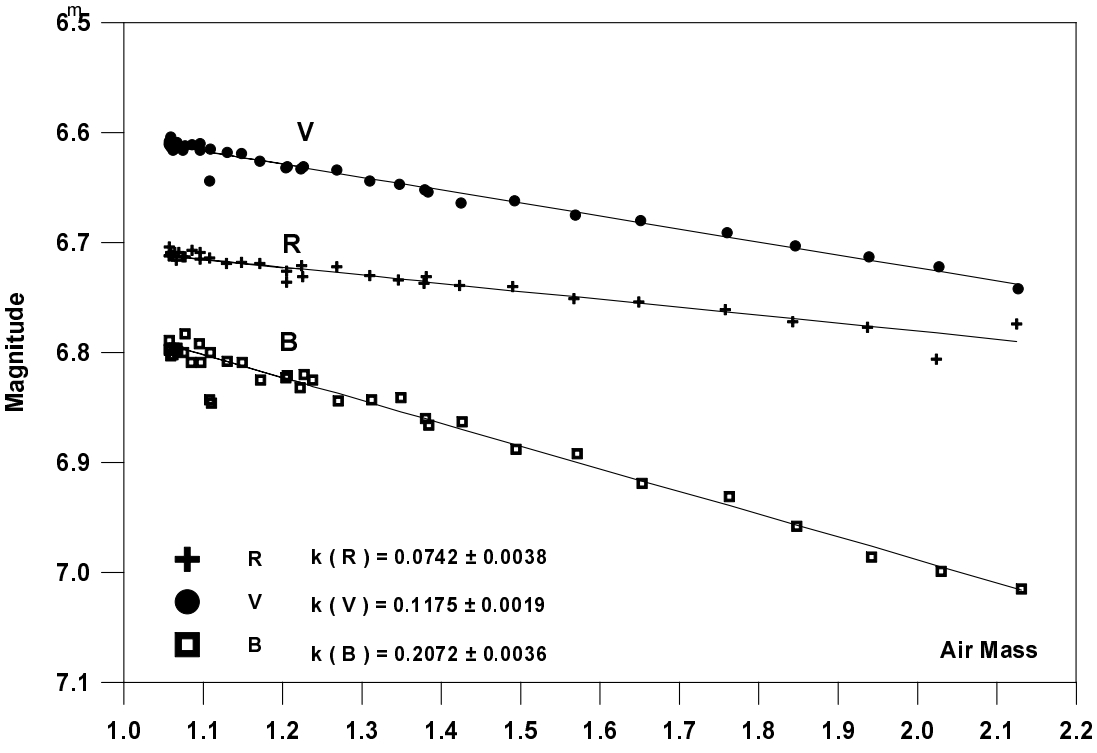

Figure 2. Atmospheric extinction curves of the comparison star