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UBV OBSERVATIONS OF T CORONAE BOREALIS

The cataclysmic variables exhibit light variations on different time scales. At Rojen observatory a program has been initiated for searching for relatively long-time variations of the brightest old novae and recurrent novae. In this paper the photoelectric observations of T CrB, carried out with the 60-cm telescope in 1985 are presented. The star A of SA 60 has been used as a standard (Priser, 1974).

A continuous 2.5 hour observation of T CrB in B band on 14/15 May 1985 showed the presence of short-time variations of amplitude  $\leq 0.07$  on a time scale of 6 - 10 min. In Fig. 1 the differences  $\Delta m = m_{\text{var}} - m_{\text{std}}$  are given for 10 second integration time of the photon counting. The values of V, B-V and U-B during the whole night are presented in Figure 2.

In the observations for long-time variability when they last 10 minutes or more, the small range short-time variations are averaged. Shorter observations are less representative. In Table I the values of V, B-V and U-B are given for 1985. The accuracy of the data has been estimated from the observations of the standard star on good photometric nights. The mean error  $\sigma$  is

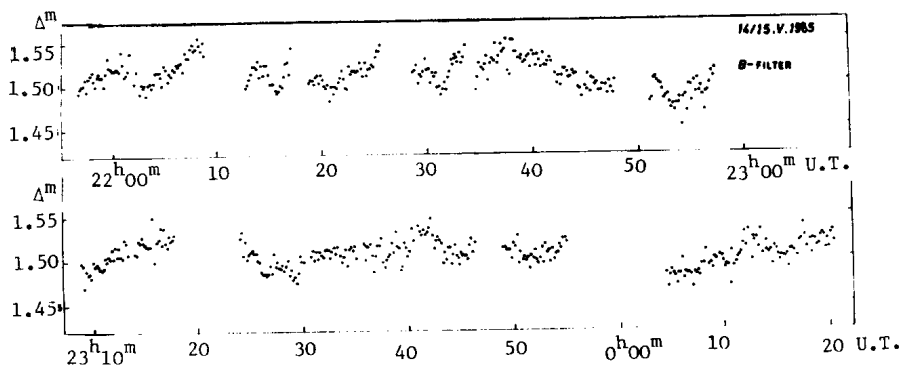


Figure 1

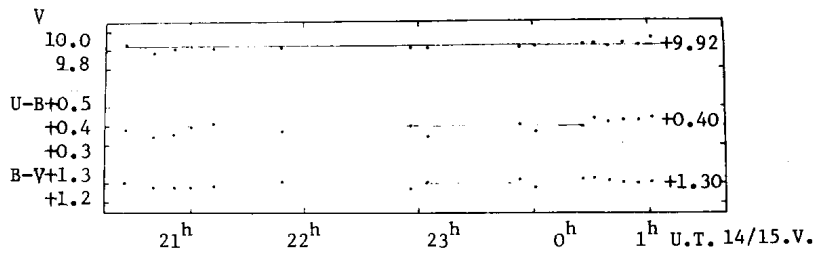


Figure 2

less than  $\pm 0.02$  for V and B-V values and  $\pm 0.05$  for U-B. We point out two cases of rapid variations: (i) on 16 July (J.D. 2446263..) U-B exhibits two jumps in 35 minutes by 0.32 mag. and 0.11 mag. respectively, V and B-V being constant within the error: (ii) on 20 July (J.D. 2446267..) B-V and U-B change by  $0^m.1$ , V being constant. On both nights the atmospheric conditions are referred as good ones.

Table I

J.D.	V	B-V	U-B	Duration of observation 100 <sup>m</sup>
2446200,370	9.92	+1.29	+0.37	60
200,524	9.93	+1.32	+0.43	15
203,833	9.91	+1.33	+0.52	55
209,510	9.89	+1.37	+0.66	15
210,493	9.88	+1.34	+0.52	35
227,452	9.92	+1.28	+0.47	10
230,451	10.01	+1.50	+0.56	10
263,403	10,16	+1.20	-0.16	10
263,408	10,19	+1.18	+0.16	15
263,416	10,17	+1.16	+0.05	15
267,381	10,11	+1.06	-0.13	15
267,388	10,09	+1.15	-0.03	10
290,454	9,91	+1.34	-0.32	45
302,338	10,12	+1.20	+0.09	45
324,341	9,93	+1.34	+0.62	30
329,292	9,94	+1.33	+0.57	

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