

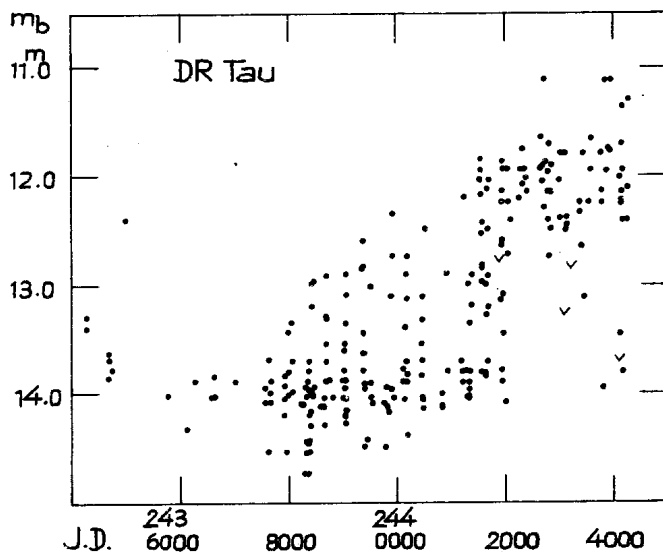
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THE BRIGHTNESS INCREASE OF DR TAURI

The star was inspected on 691 blue-sensitive sky patrol plates of Sonneberg Observatory covering the years from 1931 to January 1980, in order to complete the light curve of the object given by Chavarría-K.(1). Most of these plates ($n=587$, observer H. Huth) were exposed between the years 1952 and 1980. Their limiting magnitude amounts to about $14^m.0$ on the average.

For calibration purposes the chosen comparison stars which include those given by Kholopov (2) were linked to the UBV-sequence of NGC 1647 (3) situated in the neighbourhood of DR Tau.



The result of the investigation is shown in Figure 1.
There is no doubt that the star increased in mean brightness

during the last 20 years. The continuous increase which is superimposed by highly short time variations amounts to more than $3^m.5$ in the blue region. Occasionally the short time variability is characterized by changes of more than $1^m.5$ per day. The scattered observations given by other authors (see also (1)) are in agreement with our results and follow the light curve without contradiction.

The beginning of the increase at 1960 (J.D. 243 7000) can be stated also by the number of plates on which the star is invisible. The percentage of such plates in relation to the respective whole number amounts to 80% or 90% in the years before 1960 and is decreasing continuously to 1980 when the object is visible on all plates. Therefore and because of the worse limiting magnitude the plates exposed before 1960 show the star only in phases of maximum brightness.

The obtained results and a discussion of the light curve in detail will be published in MVS.

W. GÖTZ

Akademie der Wissenschaften
der DDR Zentralinstitut für
Astrophysik, Sternwarte Sonneberg

References:

- (1) Chavarria-K. C., 1979, Astron. Astrophys. 79, L18-L21
- (2) Kholopov, P.N., 1951, VS 8, 83
- (3) Hoag, A.A., Johnson, H.L., Iriarte, B., Mitchell, R.I.,
Hallam, K.L., Sharpless, S., 1961, Publ. US Naval Obs.,
2nd Ser, Vol.17.,No. VII