

COMMISSION 27 OF THE I. A. U.  
INFORMATION BULLETIN ON VARIABLE STARS

Number 2277

Konkoly Observatory  
Budapest  
1983 February 14  
HU ISSN 0374-0676

OBSERVATIONS OF V711 TAURI IN OCTOBER 1981/JANUARY 1982\*

The observations of V711 Tau were obtained in ESO, La Silla, Chile during two photometric programmes: 1. the uvby photometry with the 50 cm Danish telescope in October 1981, 2. the UBVRI (Cousins) photometry with the 50 cm ESO telescope in January 1982. The same comparison star 10 Tau was used on both occasions. The uvby photometric data for the comparison star based on 9 nights are:  $V = 4.287$ ,  $(b-y) = 0.366$ ,  $m_1 = 0.173$ ,  $c_1 = 0.374$  (m.e.  $\pm 0.002$  in all cases); they agree very well with the previous results of Olsen (1977). The UBVRI mean data based on 6 nights are:  $V = 4.36 \pm 0.01$ ,  $(B-V) = 0.550 \pm 0.003$ ,  $(U-B) = 0.031 \pm 0.005$ ,  $(V-R)_c = 0.349 \pm 0.005$ ,  $(V-I)_c = 0.689 \pm 0.009$ . When compared with the previous UBVI data they reveal a reasonably good agreement of the (B-V) and (U-B) colours and an unexplained drop in V which is probably caused by some transformation problem.

The differential observations of V711 Tau are listed in Tables I and II and are plotted in Fig. 1. The ephemeris used to compute phases was based on the spectroscopic one by Bopp and Fekel (1976; cf. also Dorren et al. 1981): MJD 42765.569 + 2.83782 E; it predicts moments of conjunction with the more active component in front.

We would like to point out the following:

1. The light curve has a long lasting depression and a short maximum at phases around 0.7 to 0.8.
2. The location of this maximum is strengthened by addition of a few uvby observations by Olson (1982) made exactly on the same nights in October 1981 as the present uvby observations but plotted by Olson with a considerable and perhaps misleading phase shift.

\* Based on observations obtained at the European Southern Observatory, La Silla, Chile.

3. The UBVR observations made in January 1982 agree well with those obtained by Mohin et al. (1982). They indicate an increase in the minimum light level by about 0.06 mag. in 2 months.

Table I

Differential uvby observations of V711 Tau  
October 1981

MJD (hel) (=JD-2400000.5)	Phase	$\Delta V$	$\Delta(b-y)$	$\Delta m_1$	$\Delta c_1$
44898.246	0.519	1.561	0.221	0.150	-0.111
44899.273	.881	1.495	0.221	0.166	-0.105
44900.239	.222	1.573	0.225	0.149	-0.112
44901.209	.564	1.540	0.220	0.150	-0.122
44905.196	.969	1.533	0.224	0.145	-0.124
44906.225	.331	1.563	0.226	0.141	-0.118
44907.248	.692	1.483	0.219	0.148	-0.112
44908.248	.044	1.558	0.224	0.146	-0.111
44909.247	0.396	1.564	0.227	0.137	-0.109

Table II

Differential UBVR observations of V711 Tau  
January 1982

MJD (hel) (JD-2400000.5)	Phase	$\Delta V$	$\Delta(B-V)$	$\Delta(U-B)$	$\Delta(V-R)$	$\Delta(V-I)$
44987.035	0.807	1.424	0.377	0.486	0.207	0.380
44988.092	.180	1.505	0.372	0.448	0.205	0.392
44989.041	.514	1.503	0.376	0.443	0.203	0.391
44990.037	.865	1.438	0.384	0.461	0.210	0.378
44992.037	.570	1.504	0.362	0.439	0.215	0.419
44993.041	0.924	1.504	0.369	0.449	0.221	0.412

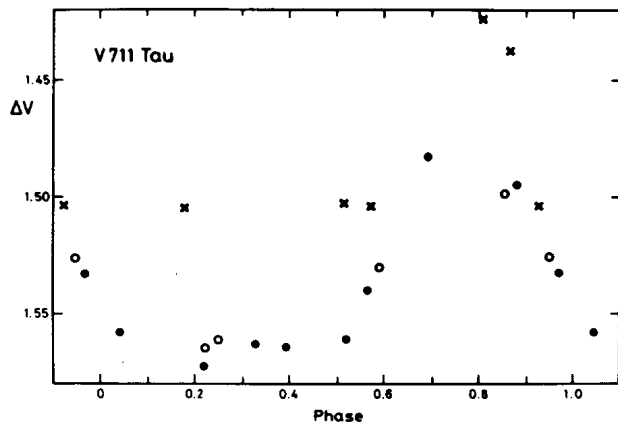


Figure 1

The light curve of V711 Tau obtained in October 1981 (filled circles) and January 1982 (crosses). Observations obtained simultaneously by Olson (1982) in October 1981 are also plotted (open circles).

It is the pleasant duty to acknowledge that the present observations have been obtained during author's association with the Max-Planck-Institut für Astrophysik in Garching, West Germany.

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