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OBSERVATIONS OF THE SUSPECTED VARIABLE STAR  $\tau$  CASSIOPEIAE

The star  $\tau$  Cassiopeiae ( $\tau$  Cas, HR 9008, HD 223165, SAO 35763, K1 III,  $V = 4.87$  m) was observed at the University of Northern Iowa (UNI) Hillside Observatory from May 1988 until January 1989. We used a 0.4 meter Cassegrain telescope and a STARLIGHT-1 photon counting photometer with standard B and V filters.

$\tau$  Cas is listed in the *New Catalogue of Suspected Variable Stars* as a possible variable star (Kholopov, et al, 1982). Previous observations of  $\tau$  Cas made at UNI indicate that it may be a variable star (Leiker and Hoff, 1988). HR 9010 (HD 223173, SAO 35761, K3 II,  $V = 5.51$  m,  $B-V = 1.65$ ) was used as the comparison star. The delta magnitudes were obtained in the sense of  $\tau$  Cas - HR 9010 and are not corrected for color or extinction. Table 1 lists the mean delta magnitudes obtained for  $\tau$  Cas. Each mean and standard deviation was calculated from three delta magnitudes. Standard deviation was calculated in the usual manner. See also Figures 1 and 2.

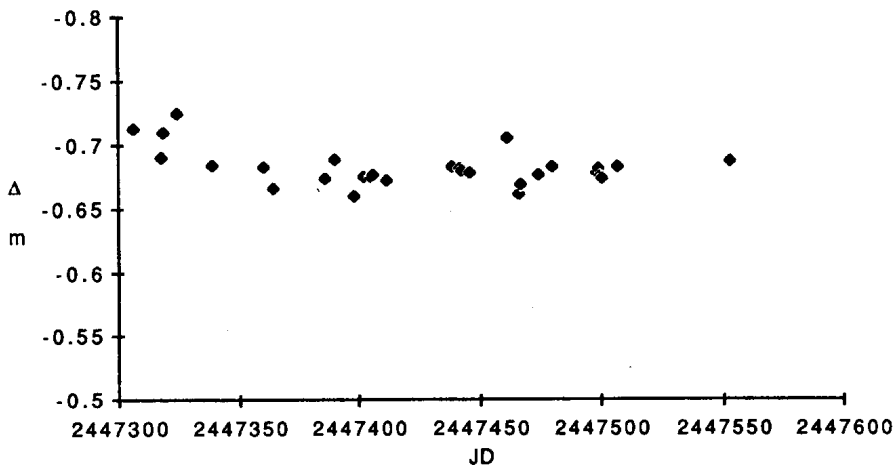


Figure 1  
 $\tau$  Cas Visual Delta Magnitudes

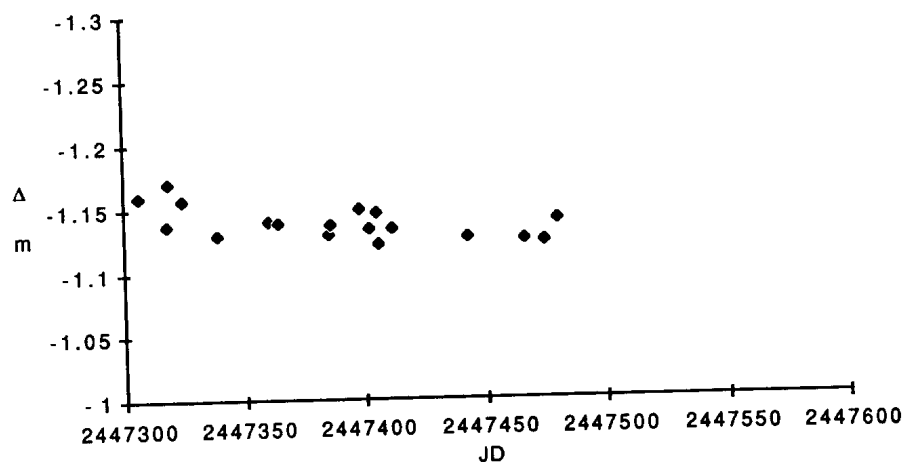


Figure 2  
 $\tau$  Cas Blue Delta Magnitudes

Table 1  
 $\tau$  Cas Visual and Blue Delta Magnitudes

JD	V mean	sd	JD	B mean	sd
2447306.683	-0.713	0.045	2447306.694	-1.160	0.018
2447317.690	-0.690	0.015	2447317.701	-1.137	0.013
2447318.675	-0.710	0.021	2447318.686	-1.170	0.012
2447323.682	-0.724	0.016	2447323.695	-1.157	0.015
2447338.681	-0.684	0.002	2447338.692	-1.130	0.004
2447359.673	-0.682	0.004	2447359.682	-1.140	0.009
2447363.711	-0.666	0.003	2447363.721	-1.138	0.002
2447384.641	-0.673	0.010	2447384.651	-1.129	0.011
2447385.642	-0.674	0.010	2447385.656	-1.136	0.018
2447389.659	-0.688	0.013	2447397.695	-1.149	0.006
2447397.684	-0.660	0.032	2447401.757	-1.133	0.006
2447401.746	-0.675	0.015	2447404.744	-1.146	0.002
2447404.734	-0.675	0.004	2447405.689	-1.122	0.001
2447405.678	-0.677	0.010	2447411.666	-1.133	0.004
2447411.650	-0.672	0.009	2447442.614	-1.127	0.011
2447438.656	-0.682	0.012	2447465.597	-1.125	0.000
2447441.656	-0.681	0.010	2447473.681	-1.123	0.003
2447442.603	-0.680	0.001	2447479.556	-1.140	0.004
2447445.617	-0.678	0.008			
2447460.674	-0.706	0.048			
2447465.588	-0.662	0.006			
2447466.682	-0.668	0.009			
2447473.670	-0.676	0.007			
2447479.546	-0.683	0.003			
2447497.509	-0.678	0.010			
2447498.725	-0.681	0.006			
2447499.548	-0.675	0.003			
2447500.524	-0.674	0.012			
2447506.511	-0.683	0.007			
2447553.531	-0.686	0.006			