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OBSERVATIONS OF THE SUSPECTED VARIABLE STAR TAU CASSIOPEIAE

This paper represents a continuation of previous photoelectric observations of the suspected variable star τ Cassiopeiae (Leiker et al., 1989, 1988). τ Cassiopeiae (τ Cas, HR 9008, HD 223165, SAO 35763, K1 III, $V = 4.87$ m) was observed by Leiker, Hoff, and Caruso at the Oak Ridge Observatory in Harvard, MA from September 1990 through February 1991. A 0.4 meter Cassegrain telescope and a STARLIGHT-1 photon counting photometer with standard B and V filters was used. This is the same photometer that was used in our previous work.

τ Cas is listed in the *New Catalogue of Suspected Variable Stars* as a possible variable star (Kholopov et al, 1982). Previous observations of τ Cas made at University of Northern Iowa indicate that it may be a variable star (Leiker and Hoff, 1988, 1989). 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 τ Cas - HR 9010 and are not corrected for color or extinction. Table I lists the mean delta magnitudes obtained for τ 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.

Table I. τ Cas ΔV and ΔB magnitudes obtained by Leiker, Hoff, and Caruso

HJD	ΔV_m	σ	HJD	ΔB_m	σ
2448108.8	-0.659	0.017	2448108.8	-1.149	0.024
2448116.6	-0.663	0.022			
2448130.6	-0.683	0.002	2448130.6	-1.191	0.007
2448131.7	-0.745	0.047	2448131.8	-1.203	0.010
2448153.59	-0.690	0.016	2448153.6	-1.195	0.002
2448155.56	-0.687	0.002	2448155.58	-1.182	0.017
2448162.58	-0.695	0.014			
			2448169.76	-1.184	0.011
2448180.72	-0.674	0.016	2448180.76	-1.201	0.014
2448189.54	-0.679	0.005	2448189.52	-1.204	0.008
2448192.64	-0.676	0.003	2448192.63	-1.180	0.025
2448196.55	-0.682	0.004	2448196.56	-1.186	0.001
2448204.69	-0.683	0.004	2448204.68	-1.189	0.002
2448285.52	-0.681	0.015	2448285.53	-1.182	0.026
2448289.54	-0.703	0.007			

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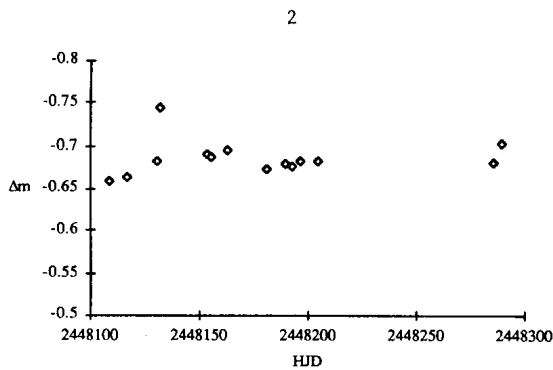


Figure 1. ΔV magnitudes of τ Cas obtained by Leiker, Hoff, and Caruso

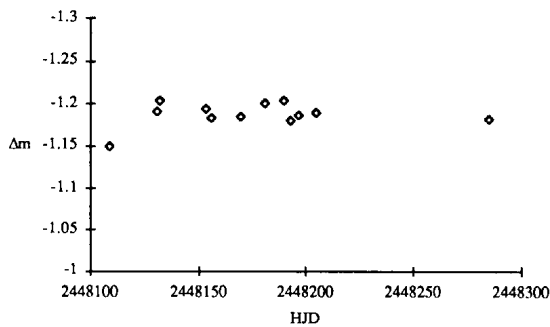


Figure 2. ΔB magnitudes of τ Cas obtained by Leiker, Hoff, and Caruso

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