

MOMENTS OF EXTREMA OF THE CATAclySMIC VARIABLE TT ARI

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ABSTRACT. 44 moments of extrema of TT Ari in B and V are listed. The phases show very large scatter due to physical variability of the system.

Key words: Stars: Cataclysmic: TT Ari

The star was observed at the 50-cm telescope of the Lviv University Observatory in the instrumental BV systems. The star "c" (Götz 1985) was used for comparison. The data were smoothed by the method of "running parabolae" (Andronov 1990) with a value $\Delta t = 0.05^d$ adopted for recent international campaign (Tremko et al. 1994). The extrema are listed in Table 1. They may be used with other data to study period variations. The phases $E + \varphi = (t - T_0)/P$ are computed according to the ephemeris by Rößiger (1988): $\text{Max HJD} = 2437646.672 + 0.13277082 \cdot E$. One may note apparent shifts between the corresponding extrema in B and V up to $0.1P$. This may be caused by "20-min" physical variability of the system which deforms light curves obtained not simultaneously in both bands. Previous results of our observations were published by Wenzel et al. (1986) and Tremko et al. (1990). Detailed analysis will be presented elsewhere.

References

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Table 1. Characteristics of the extrema

t-2440000	$E + \varphi$	Δm	Rem
8178.550	79323.740±.013	-0.46±.05	Max V
8178.538	79323.651 .031	-1.06 .02	Max B
8183.403	79360.295 .066	-0.27 .02	min V
8183.463	79360.745 .056	-0.32 .02	Max V
8183.533	79361.274 .163	-0.22 .03	min V
8183.391	79360.203 .030	-0.97 .02	min B
8183.472	79360.814 .072	-1.02 .03	Max B
8183.537	79361.298 .078	-0.83 .03	min B
8187.415	79390.506 .165	-0.33 .04	Max V
8187.431	79390.632 .034	-0.99 .02	Max B
8188.425	79398.117 .067	-0.25 .02	Max V
8188.462	79398.398 .042	-0.18 .03	min V
8188.550	79399.061 .064	-0.30 .03	Max V
8188.422	79398.096 .033	-0.95 .02	Max B
8188.463	79398.400 .032	-0.85 .02	min B
8188.500	79398.680 .027	-1.00 .03	Max B
8502.600	81764.414 .011	-1.01 .03	min B
8503.612	81772.035 .050	-0.38 .03	Max V
8503.649	81772.311 .022	-0.32 .02	min V
8503.603	81771.966 .041	-1.05 .03	Max B
8503.644	81772.272 .007	-0.96 .02	min B
8512.577	81839.557 .087	-0.30 .02	Max V
8512.648	81840.094 .063	-0.25 .03	min V
8512.613	81839.825 .023	-0.92 .03	min B
8512.684	81840.362 .067	-0.98 .02	Max B
8535.526	82012.403 .048	-1.01 .02	Max B
8890.425	84685.425 .040	-0.30 .03	min V
8890.464	84685.717 .118	-0.40 .05	Max V
8890.513	84686.083 .348	-0.33 .03	Max V
8890.461	84685.696 .070	-0.95 .03	min B
8890.513	84686.084 .021	-1.04 .03	Max B
8891.440	84693.066 .047	-0.35 .02	Max V
8891.483	84693.392 .027	-0.29 .02	min V
8891.413	84692.863 .049	-1.05 .03	Max B
8891.481	84693.375 .073	-1.01 .03	min B
8891.518	84693.655 .085	-1.05 .03	Max B
8893.409	84707.897 .065	-0.22 .04	min V
8893.400	84707.828 .093	-0.84 .06	min B
8915.447	84873.886 .067	-0.37 .03	Max V
8915.495	84874.248 .061	-0.27 .03	min V
8915.552	84874.670 .063	-0.41 .02	Max V
8915.432	84873.769 .076	-1.09 .03	min B
8915.443	84873.850 .069	-1.09 .04	Max B
8915.493	84874.231 .130	-0.97 .04	min B