

COMMISSIONS 27 AND 42 OF THE IAU
INFORMATION BULLETIN ON VARIABLE STARS

Number 3953

Konkoly Observatory
Budapest
22 November 1993

HU ISSN 0324 - 0676

1992 PHOTOMETRY OF UZ LIBRAE

Heckert and Hickman (1991) and Heckert (1992) report light curves of UZ Librae (= #102 in the catalog of Strassmeier *et al.* 1988) from 1988 to 1991. Grewing *et al.* (1989) deduce properties of the components and the period.

I present new photometry on 12, 13, 20 and 27 May, 25 July, and 3, 4, and 10 August 1992. I used the San Diego State University 24 inch telescope at Mount Laguna Observatory. During May the photometer was equipped with a Hamamatsu GaAs phototube and UBVR filters. During July and August this tube was replaced with a less red sensitive EMI 9789 tube equipped with UB filters only. The data are transformed to the standard Johnson-Cousins UBVR system. The comparison and check stars are BD -07° 4044 and BD -08° 3998. The check star data show no systematic differences between the transformed data taken with the different tubes. Following Grewing *et al.* (1989) I computed the orbital phase using: $\phi = 2445428.88 + 4.767885 E$.

TABLE I

Julian Day	Phase	ΔU	ΔB	ΔV	ΔR	ΔI
2448754.893	0.587	-0.614	-0.352	-0.316	-0.340	-0.416
2448755.875	0.793	-0.605	-0.341	-0.309	-0.341	-0.423
2448762.840	0.253	-0.598	-0.357	-0.316	-0.350	-0.419
2448769.814	0.716	-0.587	-0.315	-0.280	-0.311	-0.391
2448828.714	0.070	-0.586	-0.335	-0.298		
2448837.679	0.950	-0.624	-0.335	-0.300		
2448838.726	0.169	-0.616	-0.346	-0.314		
2448844.673	0.417	-0.746	-0.449	-0.399		

Table I shows the differential magnitudes in the sense star - comparison, and the B and V light curves are in Figure 1. The light curves show a double peaked structure similar to the 1983 to 1990 light curves, but with the larger and smaller maxima interchanged (Heckert and Hickman 1991 and Heckert 1992). The single peaked light curve in 1991 seems to be a transition stage where the larger and smaller maxima are switching places. In terms of the spot structure, I

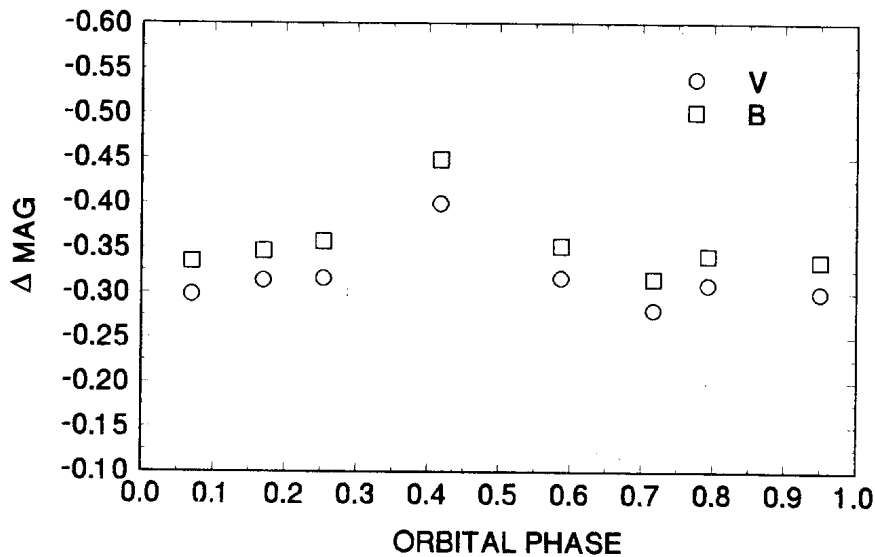


Figure 1. UZ Librae-1992

interpret these data as showing the larger spot at roughly phase 0.1 to 0.2 and the smaller spot at roughly phase 0.5 to 0.6 from 1988 to 1990. In the transition year, 1991, the spot at phase 0.1 to 0.2 had broken up, leaving only the spot at phase 0.6. In 1992 this spot became the larger spot at roughly phase 0.7 and a smaller spot reappeared at roughly phase 0.0 to 0.1.

Ron Angione scheduled very generous amounts of time on the Mt. Laguna 24" telescope for this work. The Research Corporation provided support for this work.

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