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UBV PHOTOELECTRIC PHOTOMETRY OF THE LATE TYPE STARS HD 22649 AND HD 23475

Within our research programme on magnetic stars, photometric and magnetic observations were planned of the late type stars in which magnetic fields have been measured by Babcock (1958). However, while it was not possible to perform magnetic field measurements, photoelectric observations of the star HD 22649 (HR 1105=BD Cam, S 3.5) were carried out in 1973 and 1974 at the Stellar Station of the Catania Astrophysical Observatory. The measurements were performed in the UBV system at the 90 cm telescope with the equipment described by Blanco et al. (1978). The chosen comparison stars were HD 22764 (HR 1112, K4Ib) and HD 22375 (HR 1155, M2LLab). Search in the literature soon revealed that HD 23475 was also variable (with name BE Cam, Stebbins and Huffer 1930) so that the observations were referred to the other comparison, i.e. HD 22764. By the time when the programme on late type magnetic stars was dropped out because of a lot of difficulties, among which mainly the impossibility of systematic monitoring of these stars during

Table I
Magnitude differences HD 22649 minus HD 22764 versus Julian day in our natural system

JD 244 0000,0+	ΔU	ΔB	ΔV
1963.503	-0.830	-0.804	-0.707
1964.533	-0.842	-0.799	-0.706
1992.429	-0.769	-0.749	-0.693
2004.444	-0.765	-0.756	-0.715
2043.431	-0.822	-0.771	-0.709
2061.369	-0.812	-0.751	-0.681
2071.375	-0.802	-0.715	-0.648
2097.353	-0.821	-0.773	-0.712
2365.522	-0.856	-0.696	-0.610
2397.443	-0.783	-0.665	-0.609

winter time, we had collected some sets of measurements which were averaged to give one measurement per night. These data are listed in Table I for HD 22649 and in Table II for HD 23475, in the form of magnitude differences (variable minus comparison) versus Julian day.

Table II

Magnitude differences HD 23475 minus HD 22764 versus Julian day in our natural system

JD 244 0000.0+	ΔU	ΔB	ΔV
1963.509	-1.234	-1.326	-1.406
1964.542	-1.220	-1.295	-1.392
1992.438	-1.082	-1.219	-1.366
2004.481	-1.112	-1.235	-1.385
2043.437	-1.017	-1.180	-1.330
2061.384	-1.040	-1.211	-1.359
2071.382	-1.013	-1.172	-1.308
2097.362	-1.041	-1.254	-1.144
2365.526	-1.042	-1.166	-1.319
2397.448	-1.013	-1.163	-1.299

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