

COMMISSION 27 OF THE I. A. U.
INFORMATION BULLETIN ON VARIABLE STARS

Number 3515

Konkoly Observatory
Budapest
10 September 1990
HU ISSN 0374 - 0676

SEARCH FOR SLOW LIGHT VARIATIONS OF RED DWARF STARS. II

Eight active late-type dwarfs were studied for long-term variability in the mean light using the Sternberg Institute plate collection by the method published in [1]. The yearly mean light for the investigated stars and their comparison stars are shown in Figures 1 and 2. The vertical bars in Figures represent standard deviations of single measurement from yearly mean as it has been made in [2]. The total number of plates for each star is given in Figures. The measurement errors were not larger than $0^{\text{m}}07$ and the light variations with amplitude more $0^{\text{m}}2$ can be suggested as real. The stars in Figure 1 - CU Cnc, CV Cnc, and V780 Tau - showed such variations. On the light curves of these stars one can see the smooth changes or decreases in some time intervals of about 10 or more years with amplitudes up to $0^{\text{m}}3$. The large scatter in several years indicates the short-term variations during the year. For V780 Tau the amplitude of such variations exceeds $0^{\text{m}}5$.

All stars in Figure 2 did not show the visible variability in mean light. But the mean light for only one star - OU Gem - can be considered as constant with confidence. For the other stars the data are scanty and additional investigations are needed.

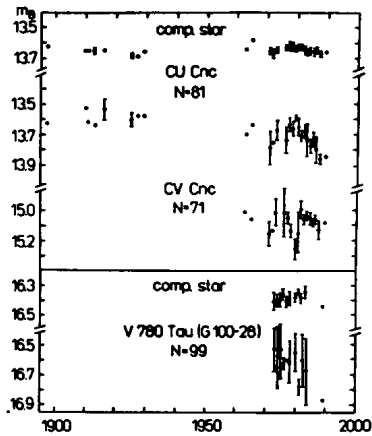


Fig.1. The mean light curves for the stars with suspected variability

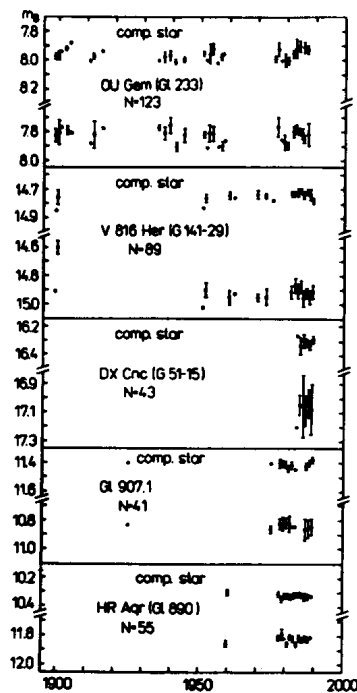


Fig.2. The mean light curves for the stars with no certain variability

N.I.BONDAR'

Crimean Astrophysical Observatory
Nauchny, Crimea, 334413 USSR

REFERENCES

1. Bondar', N.I. 1990, in Flare stars in star clusters, associations and the solar vicinity, eds. L.V. Mirzoyan and B.R. Pettersen (Reidel, Dordrecht), in press
2. Phillips, M.J., and Hartmann, L. 1978, Astrophys. Journal, 224, 182-184.