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PHOTOELECTRIC OBSERVATIONS OF 20 CVn*

In spite of many reports (Danziger and Dickens 1967, Breger 1969, Leung 1970, Shaw 1976, and others) on the possible Delta Scuti-type light variations, 20 CVn is listed in the Finding List (Wood et al. 1980) as an interacting binary whose orbital period is very short, $P = 0.^d.135$ or $0.^d.176$. In addition to this the Finding List gives auxiliary informations such as small light variation of $0.^m.03$ possibly due to the elliptical nature of the system.

Our attention to 20 CVn was paid to clarify the nature of the light variations of this star, the amount of light variations, and the period of light variation of this star. Using the 60-cm reflector of the Yonsei University Observatory, differential magnitudes in the two colours, B and V, were made with the observations of 19 CVn as the comparison star. Atmospheric extinction coefficients were derived from the comparison star measurements for each night and the differential corrections for the variable star were made.

Out of 10 nights attempted only 4 nights turned out to be useful to cover enough for one full period. The results are given in Table I and the light curves are shown in Figure 1. As are clear in the figure the small light

Table I
Periods and amplitudes of 20 CVn.

JD Hel.	Filter	Period	Amplitude
2445070	v	$0.^d.12$	$0.^m.03$
2445084	v	0.12	0.03
	b	0.12	0.04
2445378	v	0.13	0.02
	b	0.14	0.03
2445399	v	0.13	0.04
	b	0.13	0.04

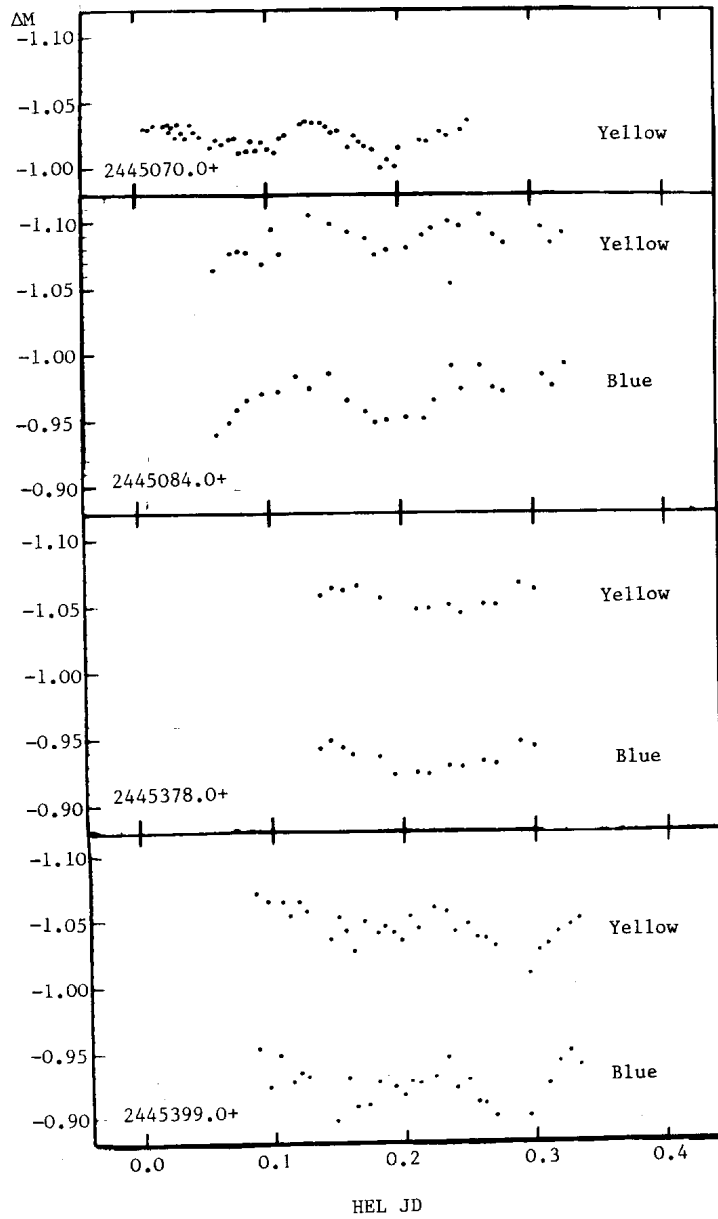


Figure 1

Yellow and blue light curves of 20 CVn

variations with periodicities are indeed present but the shape of light curves are subject to change night to night. Furthermore, the estimates of the periods, $0^{\text{d}}.12 - 0^{\text{d}}.14$, and the amplitudes, $0^{\text{m}}.02 - 0^{\text{m}}.04$, of light curves listed in the table suggest that the light variation cannot be originated by the close binary nature.

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