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### FG Vir, Additional Photoelectric Observations

In a study of blue stragglers stars of old disk population, Eggen (1971), detected four additional variables that presented behaviour like  $\delta$  Scuti stars. One of them was FG Vir (HD 106384) where, with one night of observation, Eggen proposed a period of 0.<sup>d</sup>07 and an amplitude of 0.<sup>m</sup>05 in V (measured peak to peak). Later on, López de Coca et al. (1984) confirmed the pulsational character of this star where, with three nights of observation, they confirmed the  $\delta$  Scuti behaviour for FG Vir (they showed in their figures, for example, that the maximum light appears together with the maximum temperature). Additionally, they found, with Fourier analysis, that there existed at least one period of about 0.<sup>d</sup>079 that lead  $M_v$  of 1.<sup>m</sup>73 approximately (via P-L-C of Breger, 1979). However, they pointed out that more observations are needed, in order to find the whole period content of the star. Hence, with the aim to obtain in the future the whole periodic content of FG Vir, we present in this paper additional photoelectric observations for this  $\delta$  Scuti star, although more photometric observations are considered in the near future.

FG Vir was observed on March 28, 1986 in the V Johnson's filter using the 84 cm telescope of San Pedro Mártir Observatory, Baja California, México, a refrigerated 1P21 photomultiplier was used,  $C_1=BD -4^\circ 3219$  and  $C_2=BD -5^\circ 3487$  where chosen as comparison stars, the observational sequence was  $C_1, V, C_2, V, C_1, \dots$  and this was followed through the whole night, with an internal average between successive observations of the variable star of 5 minutes. Each observation consisted at least of 5 integrations of 10 seconds of the star, followed by one 10-seconds integration of the sky.

Table I shows the differential photometry obtained for FG Vir minus  $BD -4^\circ 3219$  in the V filter, the accuracy of each observation is better than 0.<sup>m</sup>003, time is given in Heliocentric Julian Day, and its precision is 0.<sup>d</sup>001; these values are shown plotted in Figure 1

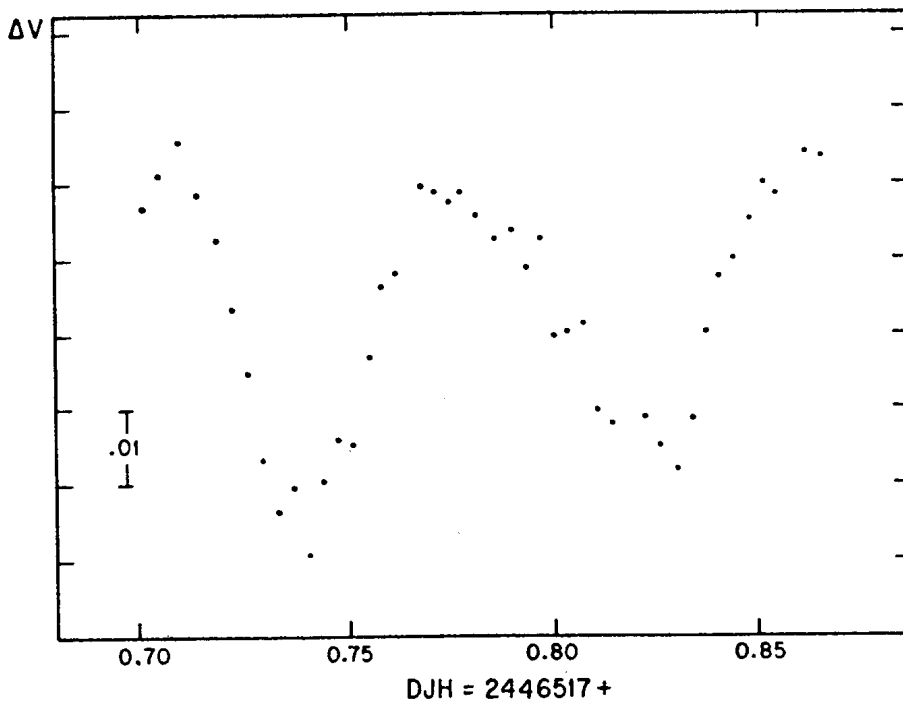


Fig. 1.- Differential photoelectric photometry for  
FG Vir - (BD  $-4^{\circ} 3219$ )

TABLE I.- Differential photometry of FG Vir

HJD	$\Delta V$	HJD	$\Delta V$	HJD	$\Delta V$
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0.701	-0.691	0.758	-0.681	0.810	-0.664
0.705	-0.696	0.762	-0.682	0.814	-0.662
0.710	-0.700	0.765	-0.681	0.822	-0.663
0.714	-0.693	0.768	-0.684	0.826	-0.659
0.718	-0.687	0.772	-0.683	0.830	-0.656
0.722	-0.678	0.775	-0.682	0.834	-0.663
0.726	-0.669	0.778	-0.683	0.837	-0.675
0.729	-0.658	0.782	-0.680	0.841	-0.682
0.733	-0.651	0.786	-0.687	0.844	-0.684
0.736	-0.654	0.790	-0.688	0.848	-0.690
0.740	-0.648	0.794	-0.683	0.851	-0.694
0.744	-0.655	0.797	-0.687	0.854	-0.693
0.747	-0.660	0.800	-0.674	0.857	-0.705
0.751	-0.660	0.803	-0.675	0.861	-0.698
0.755	-0.671	0.807	-0.676	0.865	-0.698

(the photometric behaviour of the comparison stars was highly constant, the sigma for the difference  $C_2 - C_1$  was  $0.^m005$ ). In this figure we can see that the amplitude is approximately the same than that reported by Eggen. A Fourier analysis of this data, indicate a period of  $0.^d079$  in agreement with the period given by López de Coca et al. (1984).

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