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NEW PHOTOELECTRIC OBSERVATIONS OF THE DELTA SCUTI STAR HR 4684

HR 4684 belongs to the Coma Cluster and this was the first Delta Scuti star to be discovered in a galactic cluster (Breger and Sanwal, *Astrophys.Lett.* 1,103,1968). J.E. Elliot (*Astron.J.* 79,1082,1974) measured the star for few nights during 1970 and he determined the period  $P=0^d.0551$ .

We observed HR 4684 at the Merate Observatory through V filter during two series of consecutive nights: JD 2442862. - 866. and JD 2442912. - 916. The light curves related to the last series are plotted in Figs. 1-5.

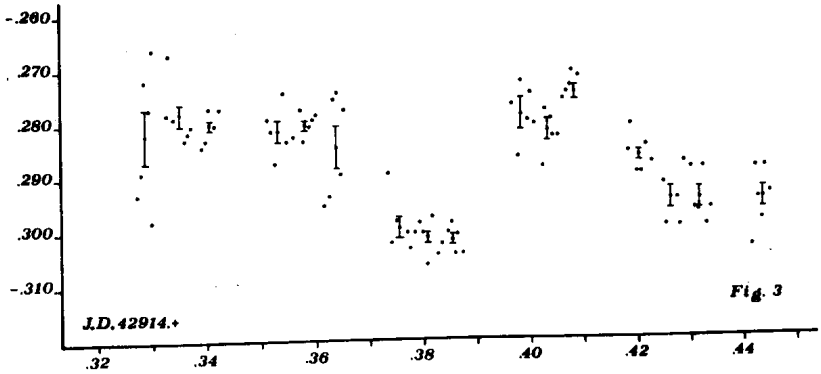
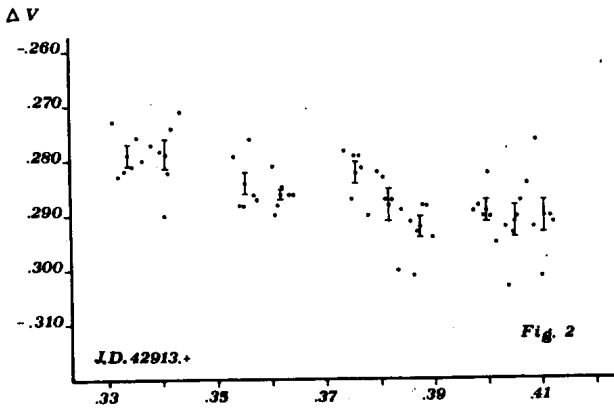
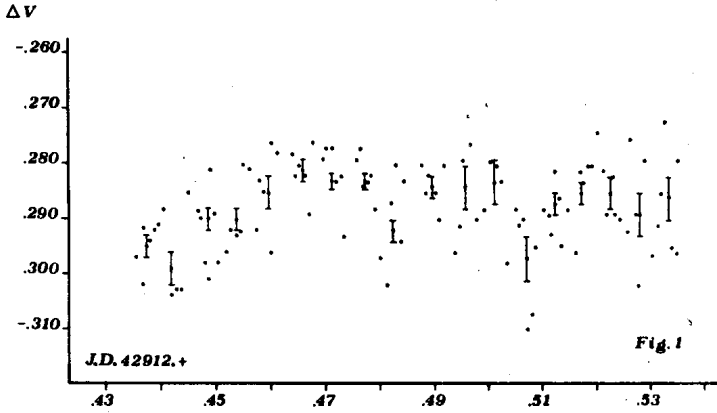
The shape and the amplitude of the light curves are different from cycle to cycle. We tried to represent our maxima and minima using the period suggested by Elliot, but with no success. On the contrary it is possible to reproduce the minima of the nights JD 42915.- 916. using  $P=0^d.0713$ , but this period is not useful for the previous nights.

We believe that a periodogram analysis is necessary and we have intention of doing it in the immediate future.

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$\Delta V$

