

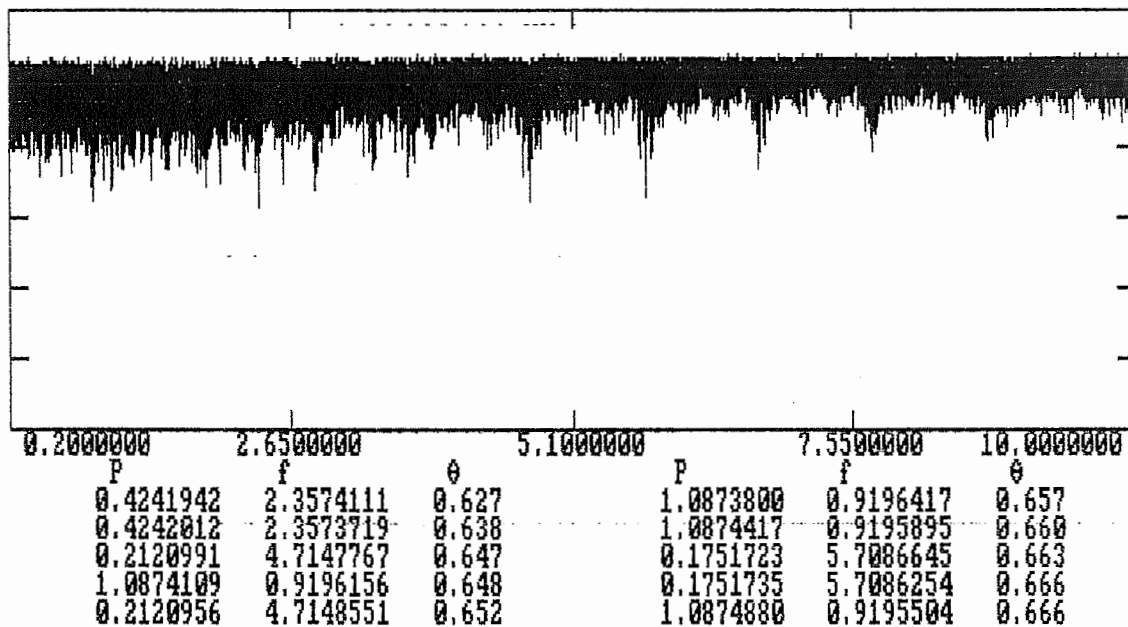
## NSV 12223 DRA : PERIOD AND TYPE

### INTRODUCTION

W. Strohmeier (1958) discovered the variability of NSV 12223 (= BV 238 = GSC 4456.1244) on photographic plates. He mentioned variations going from magnitude 12.0 to 12.5 (p) and probable eclipsing type. The star is situated in Draco at 19h 34min 31sec ; + 74° 03' (2000). The variation was confirmed by C. Hoffmeister (1965).

### VISUAL OBSERVATIONS

I began to observe NSV 12223 visually in July 1998 and now I have gathered 151 estimates. Even if I saw every night relatively rapid variations, my estimates were too scattered to allow me to discriminate between all the possible periods until August 2000. Two nights of further observations made the suspected period appearing more clearly. The graphics are not exceptional, but my experience in period searches on my estimates make me think that the probability of having found the actual period is 90 %.



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12223DR1      PDM (10, 2)
ΔT = 766.1729, Δ = 0.00001305, N = 151 --- Press any key to return to menu.8
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Fig. 1 : periodogram of a PDM search between 0.1 and 5 days

The first period appearing is 0.42419 day and the fitted light curve of the estimates (fig. 2) is shaped like an EW light curve. In fact, the half period is the second pike of the periodogram. In frequency, we have  $f = 2.35741$ ,  $2f = 4.71478$  and  $2f + 1 = 5.708866$ .

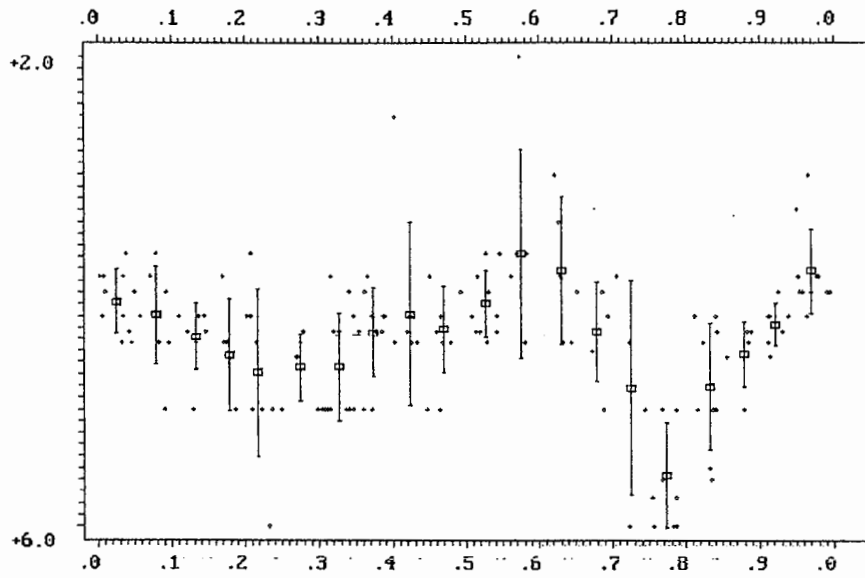


Fig. 2 : fitted light curve of my 151 estimates of NSV 12223 with period = 0.4241942 day

#### CONCLUSION

Future visual estimates would be able to confirm the period and a good monitoring of several minima would be desirable. CCD measurements, in preference in two colours, would be necessary to conclude this study.

#### BIBLIOGRAPHY

- W. Strohmeier, KVB n° 24, 1958
- C. Hoffmeister, VSS 6 H. 3, 125, 1965

Jacqueline Vandebroere