

# Search for a Secondary Frequency in the Large-Amplitude $\delta$ Scuti Star CY Aqr

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## Abstract

The large-amplitude  $\delta$  Scuti star CY Aqr was observed from sites in the U.S.A., South Africa and Australia during August 1988. Coates *et al.* (1991) published 48 new times of maximum light derived from these observations and assembled, from the literature, previous times of maximum light. It is clear that the period of the star is changing with the balance of evidence favouring discrete changes in 1951 and 1966, rather than a continuous change.

It has been suggested by Fitch (1973) and Else (1972), from an analysis of the observations of Zissell (1968), that there is a secondary frequency present in CY Aqr. Coates *et al.* (1992) have analysed both the 1988 observations and those of Zissell. After subtracting the primary frequency and its harmonics, they find no stable secondary frequency above the noise level of two millimagnitudes.

## References:

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