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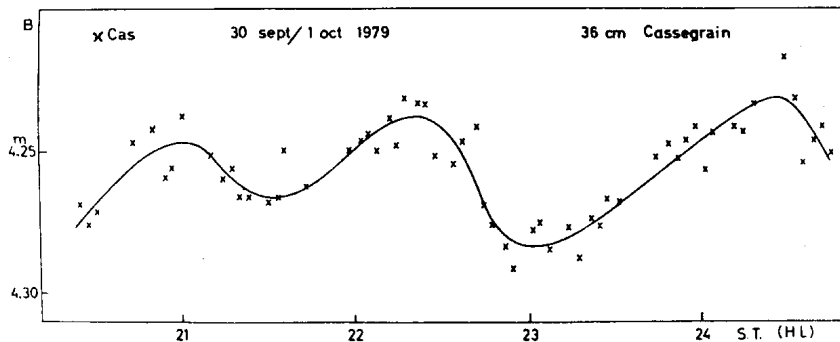
SPECTROSCOPIC AND PHOTOMETRIC VARIATION OF  $\alpha$  Cas

Although J.F. Heard (1949, Ap.J.109) did not find any periodic variation in the observed radial velocities of  $\alpha$  Cas (B1 Ia), we have reexamined his observations.

From this, by means of Fourier transform and a least squares sine curve, it appeared that the observations could be fairly well interpreted as periodic variable with a period equal to

$$P_{RV} = 0^d.14035$$

Therefore, we have observed  $\alpha$  Cas during several nights at the Hoher List Observatory, with the 36 cm Cassegrain photometric telescope. After a few hours of continuous observation it became clear that  $\alpha$  Cas is really variable, but with a period which differs remarkably from  $P_{RV}$  (Figure 1).



From the photometric investigation we have deduced the following value for the B-light periodic variation:

$$P_{\text{photom.}} = 0.^{\text{d}}09028 (\pm 0.00001)$$

x Cas shows strong modulation features, which could explain why radial velocities (and photometric observations) from different epochs are hard to reconcile on the basis of a mean period.

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