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**An improved, unambiguous period of the  
Ap star 108 Aqr**

The star 108 Aqr = HR 9031 = HD 223640, classified B9pSiSrCr by Cowley et al. 1969, has been observed in the Geneva photometric system between 1986 and 1988 at ESO La Silla with the 70 cm Swiss telescope.

The period ( $3.73 \pm 0.03$  days) published by Morrison & Wolff 1971, was not satisfactory because it was based on uvby measurements taken only once a night, so that the alias frequency  $1 - \nu$  (i.e.  $P = 1.37$  days) was not excluded at all. Our 64 Geneva observations allow to exclude clearly the alias period ( $P = 1.37$  days), and our V data combined with the 36 y data of Morrison & Wolff 1971, yield the period

$$P = 3.735236^d \pm 0.000024$$

while the maximum light in the V band occurs on  $HJD = 2444655.047$ . The resulting lightcurve is shown in Fig. 1, together with the fitted curve (a Fourier series truncated to the first harmonic). The r.m.s. residual scatter of all 100 V and y data together around the fitted curve is only 0.0042 magnitudes.

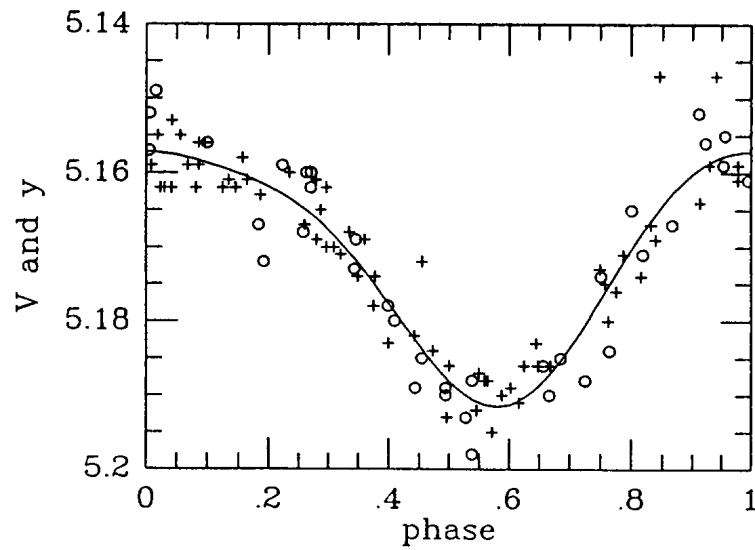


Figure 1: Lightcurve of 108 Aqr in the Geneva V band (crosses) and in Ström-gren's y band (open dots). See the ephemeris in the text.

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