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**THE ORBITAL PERIOD OF THE ROSAT CATAclySMIC
VARIABLE S 10932 COMAE BERENICES**

S 10932 Com, the optical counterpart of the ROSAT X-ray source RX J1239.5 + 2108, was – by observations on Sonneberg photographic plates – not only found to have high (17^m) and low (18^m) brightness states like magnetic cataclysmics; there could be noticed also an eruption (13^m.5) similar to that of a dwarf nova (Richter and Greiner, 1995). The only star hitherto known to show a similar behaviour is V426 Oph (Wenzel and Splittgerber, 1990). May be that S 10932 is related to this object, whose exact physical nature is, however, still poorly known.

Additionally, large fluctuations in the above mentioned states of high minimum light and apparently also in the rare low states were observed. We therefore decided to carry out time-resolved differential photometry of S 10932 at the Sonneberg 60/180 cm reflector by means of a CCD camera of Wright Instruments Ltd, type EEV 02-06-1-206. Three night series of “repeated exposures” in the R band led to the detection of an eclipsing variability. The elements of brightness variations are:

$$\text{Min. (hel.)} = \text{J.D. } 244\,9486.4821 + 0^{\text{d}}08703 \times E \\ \pm 0.00002$$

Figure 1 shows the greater part of our series of 1994 May 15/16; Δm means the magnitude difference against one of the our comparison stars. The R band amplitude of the eclipses is about 1.5 mag and their duration approximately 10 min. In the following table the five minima observed in the three nights of 1994 and the deviations from the ephemeris are listed:

HJD 2440000+	E	O–C
9484.3934	–24	0 ^d 0000
9484.4807	–23	+0.0003
9486.4816	0	–0.0005
9488.3969	22	+0.0001
9488.4841	23	+0.0002

Figure 2 gives all eclipse observations, folded by the above elements.

Interestingly, the period length is just at the lower boundary of the well-known period gap of cataclysmic variables (0^d088...0^d118).

Most objects with period lengths similar to that of S 10932 are either SU Ursae Maioris or AM Herculis stars. S 10932, however, is an outstanding object and deserves further attention.

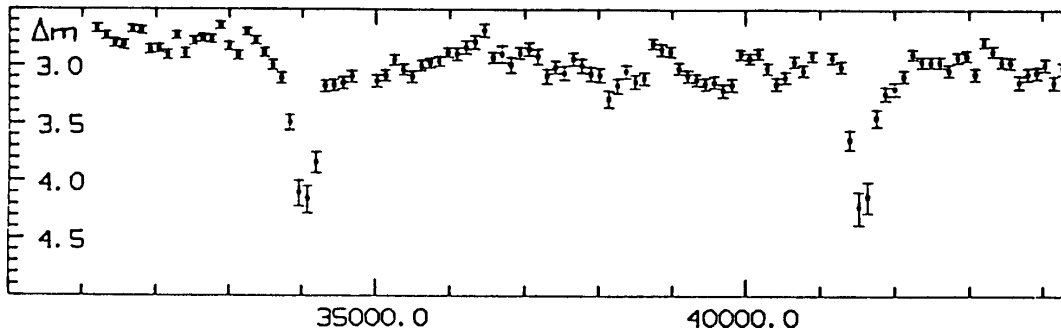


Figure 1. Geocentric observing time (s after beginning of the current Julian Day)

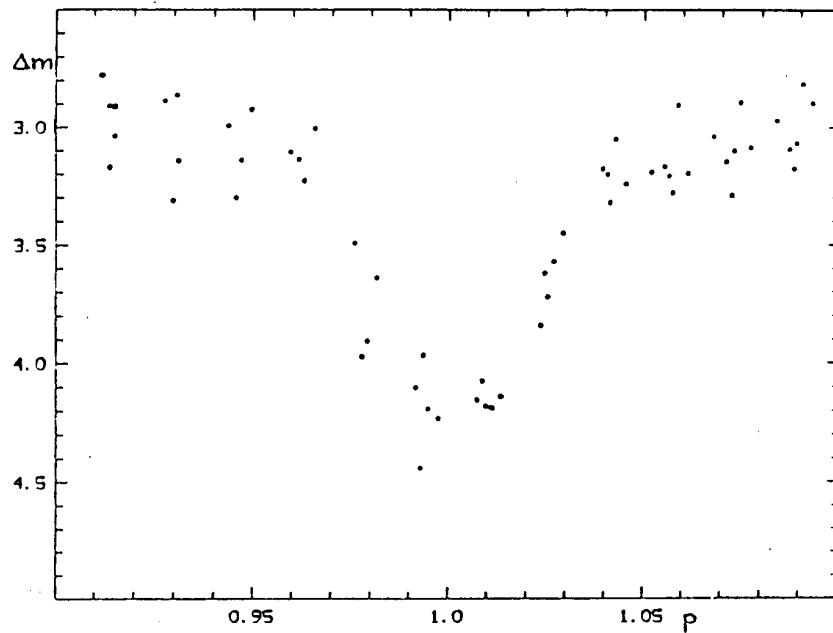


Figure 2

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