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**GSC 4261.1197: A NEW ECLIPSING BINARY**

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In a photometric investigation in the field of PX Cep, one of the stars, GSC 4261.1197, proved to be variable. A check of the GCVS and NSV catalogs did not reveal any previously known variable at this position. The Guide Star Catalog quotes GSC 4261.1197 as a non-stellar object, possibly caused by a nearby 15<sup>m</sup> star, merging with the new variable. The brightness of GSC 4261.1197 is given as 13<sup>m</sup>96.

Observations were performed in 14 nights between June and November 1996. An ST6 CCD-camera without filters attached to a 20cm SC-telescope was used. The primary and secondary minima have an amplitude of 0<sup>m</sup>45 and 0<sup>m</sup>38 respectively. As the variable always was measured together with its companion in the differential aperture photometry, the real amplitude of both minima may be somewhat greater. GSC 4261.1333 served as comparison star; several other stars in the same field were used to check its constancy. The time between first and last contact is about 4.5 hours; a total eclipse could not be detected. The individual measurements are sent via e-mail on request. Obviously the brightness in maximum light is not constant. This may result from interference with the nearby companion. If not, GSC 4261.1197 may be of RS CVn-type.

A period analysis program based on the algorithm of Schwarzenberg-Czerny (1989) together with the times of minimum light resulted in the preliminary ephemeris:

$$\text{Min I} = \text{HJD } 2450249.4783 + 2^{\text{d}553689} \times E \quad (1)$$

$\pm 4 \qquad \qquad \pm 8$

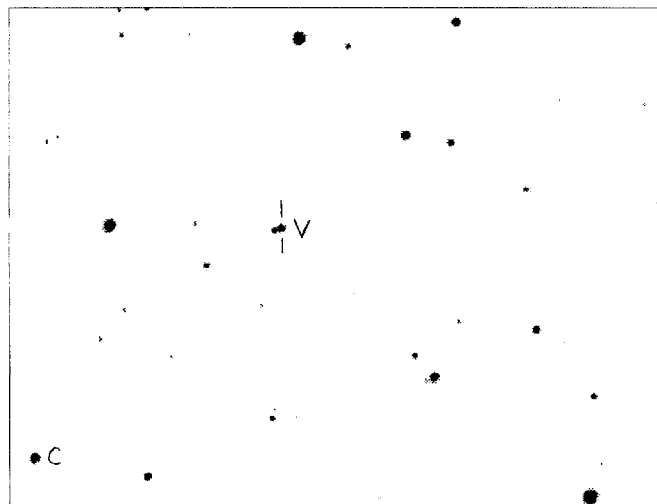


Figure 1. Finding chart for GSC 4261.1197 (v); the comparison star is c. North is up, east to the left. The field is 8'.6 × 6'.5.

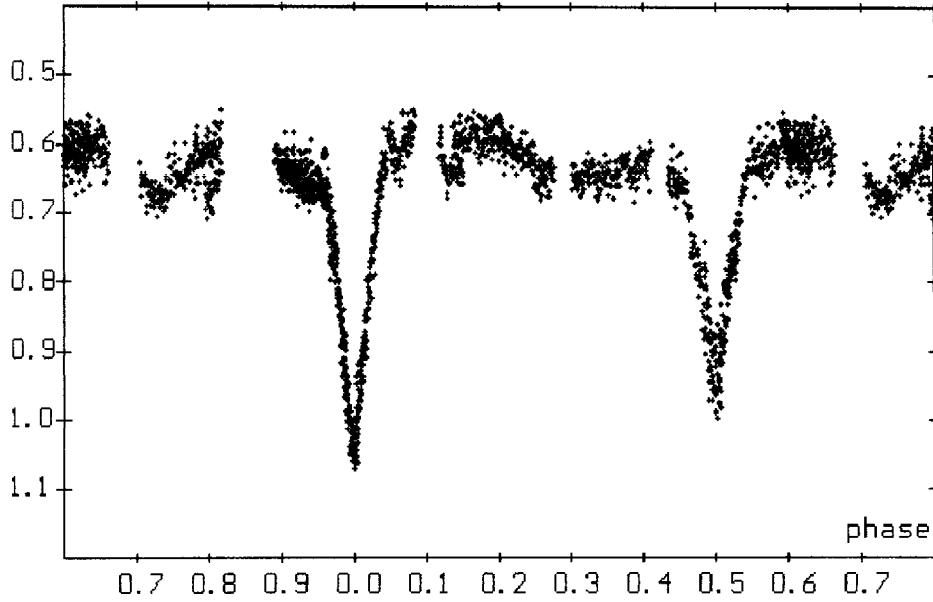


Figure 2. Differential light curve of GSC 4261.1197, drawn with the ephemeris derived in this paper.

Table 1. Times of CCD-measured minima for GSC 4261.1197, epochs and residuals computed with respect to the ephemeris derived in this paper.

N	JD hel	W	Epoch	O-C
1	2450249.4765	2	0.0	-0.0018
2	50304.3891	1	21.5	+0.0065
3	50360.5625	2	43.5	-0.0013
4	50369.5022	2	47.0	+0.0005
5	50392.4843	2	56.0	-0.0006

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Reference:

Schwarzenberg-Czerny, A.: 1989, *Monthly Notices R. Astr. Soc.*, **241**, 153