NSV 11766 IS A NEW SHORT PERIOD PULSATING VARIABLE

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Name of the object:
NSV 11766 = GSC 4431_546 = BV 0062 = CSV 008121

Equatorial coordinates:	Equinox:
R.A.= $19^h06^m26\overset{s}{.}3$ **DEC.**= $+68°29'2''$	2000.0

Observatory and telescope:
Esteve Duran Observatory, 0.6-m Cassegrain telescope
l'Estelot Observatory, 0.3-m Newtonian telescope

Detector:	CCD in all cases

Filter(s):	B, V, R

Comparison star(s):	GSC 4431_386

Check star(s):	None

Transformed to a standard system:	No

Availability of the data:
Upon request

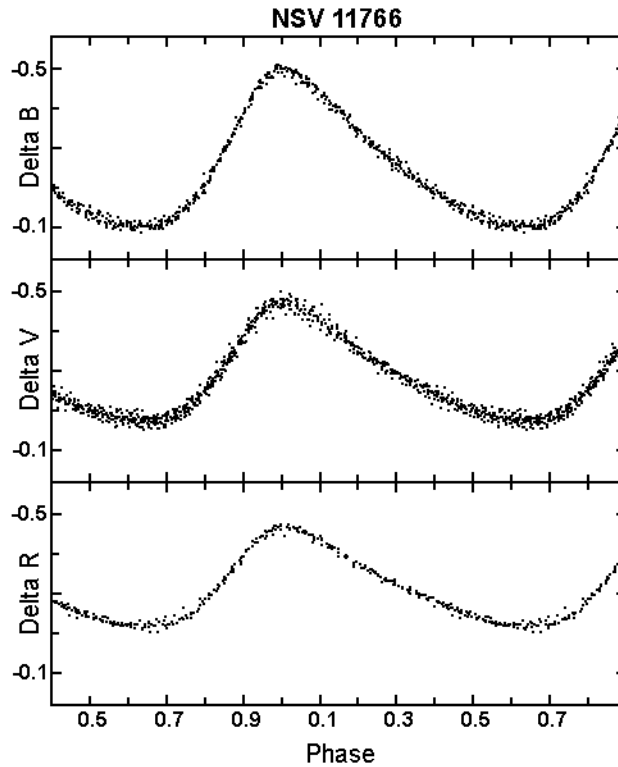| Type of variability:	SX Phe:

NSV 11766

Figure 1.

Remarks:
The variability of NSV 11766 was first announced by Geyer et al. (1955), and finally listed in the NSV catalogue (Kholopov, 1982) as an unstudied variable with rapid light changes between the photographic magnitudes 11.6 and 12.0. In a program for searching new variables, the star was observed in the B, V, and R bands between May 1997 and June 2000, and also some observations where obtained in I. Photometric data show that NSV 11766 is actually a periodic rapid variable with a period close to 0.12 days and an amplitude of $0^{m}\!30$ in the V band (Figure 1), $0^{m}\!39$ in B, $0^{m}\!25$ in R, and $0^{m}\!25$ in I. Its short period and relatively large amplitude suggest that this object might be an SX Phe variable, although additional data should definitively determine its type. Photometry also indicates that the period of this object has remained stable within the given uncertainty. The following ephemeris was computed for light maxima: $$\text{Max.} = \text{HJD } 2451697.6040 + 0^{d}\!1181533 \times E.$$ $$\pm\, 0.0015 \quad \pm\, 0.0000002$$

References:

Geyer, E., Kippenhahn, R., Strohmeier, W., 1955, *Kleine Veröffentlichungen der Universitäts-Sternwarte zu Berlin-Babelsberg*, No. 9
Kholopov, P.N., editor, 1982, New Catalogue of Suspected Variable Stars, Moscow