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NSV 07453 IS A NEW SHORT PERIOD CEPHEID OR A LONG PERIOD RR LYRAE STAR

The variability of NSV 07453=CSV 7263=WR 88 was discovered by Weber (1959). The author pointed out the brightness range $12^{m}2-13^{m}6$ and the possible type: Cepheid with the period of about 12^{d} .

The star was studied on 247 photographic plates obtained during J. D. 2418528-48394. The chart and the magnitudes of the comparison stars are given in Fig. 1 and Table 1 respectively. The analysis of the observations revealed that the brightness range is $12^{\circ}5 - 13^{\circ}8$ pg.

The following elements have been obtained:

J. D.
$$\max = 2441828.36 + 0.929172 \times E$$
, $M-m = 0.2$.

The average light curve constructed with the new elements is given Fig.2. This period is unusual for such an amplitude. Note that the one-day alias of this period is equal to 13⁴3. This value is very close to the period determined by Weber.

We compiled a sample list from GCSV (Kholopov, 1985) of the stars with the period 0.987 < P < 1.90 and amplitudes $\ge 1^m$. The list of these stars is given in Table 2. These objects are sometimes called the BL Her stars, but BL Her itself has a slightly longer period (P=1.9307). There exists a very similar object, FY Vir (Goranskij and Shugarov, 1979). FY Vir has P=1.9082 and the range from 15.77 to 17.73 pg.

Additional high quality spectroscopic observations are desirable to classify this object correctly.

Table 1

Star	B_{pg}	
a	12 ^m 58	
b	13.07	
c	13.59	
d	14.15	

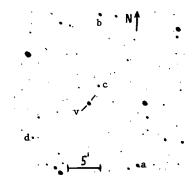


Fig.1

Table 2. Selected GCSV Stars (see text)

Name	Max-Min	Period	Туре	M-m
V000 A ~1	$14^{\text{m}}_{\cdot}6 - 16^{\text{m}}_{\cdot}$	0d874	R.R.	20:
V900 Aql				
V524 Her	14.6 - 16.2	0.933	RRAB	11
V742 Cyg	15.9 - 16.7	0.93946	CWB	25
IZ Aps	13.7 - 14.7	0.9775	RRAB	20
EN Pav	15.2 - 16.4	0.9775	RRAB	20

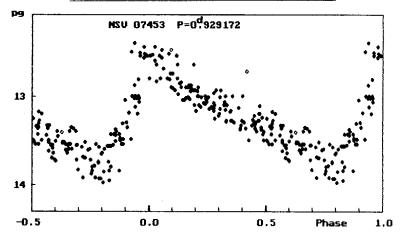


Fig. 2. The mean light curve of NSV 07453

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