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PHOTOELECTRIC BVI$_C$ OBSERVATIONS AND NEW ELEMENTS FOR THE CEPHEID V898 CENTAURI

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Name of the object:
V898 Cen = GSC 8620.0280 = HIP 54659

Equatorial coordinates:	**Equinox:**
R.A.= $11^h11^m20^s$ **DEC.**= $-54°33'25''$	2000

Observatory and telescope:
South African Astronomical Observatory, 0.5-m reflector

Detector:	Photomultiplier Hamamatsu

Filter(s):	BVI_c

Comparison star(s):	No. We conducted "all sky photometry"

Check star(s):	No. See above

Transformed to a standard system:	BVI_c
Standard stars (field) used:	Standard stars from E-regions

Availability of the data:
Through IBVS Web-site as 4724-t1.txt

Type of variability:	DCEPS

Table 2

Max JD hel 2400000+	Uncertainty	E	$O-C$	Number of observations	Reference
48019.577	±0.013	−460	0.009	49	HIPPARCOS data
48446.386	±0.012	−339	0.010	63	HIPPARCOS data
48841.413	±0.020	−227	−0.025	39	HIPPARCOS data
51268.253	±0.008	461	0.005	51	This paper

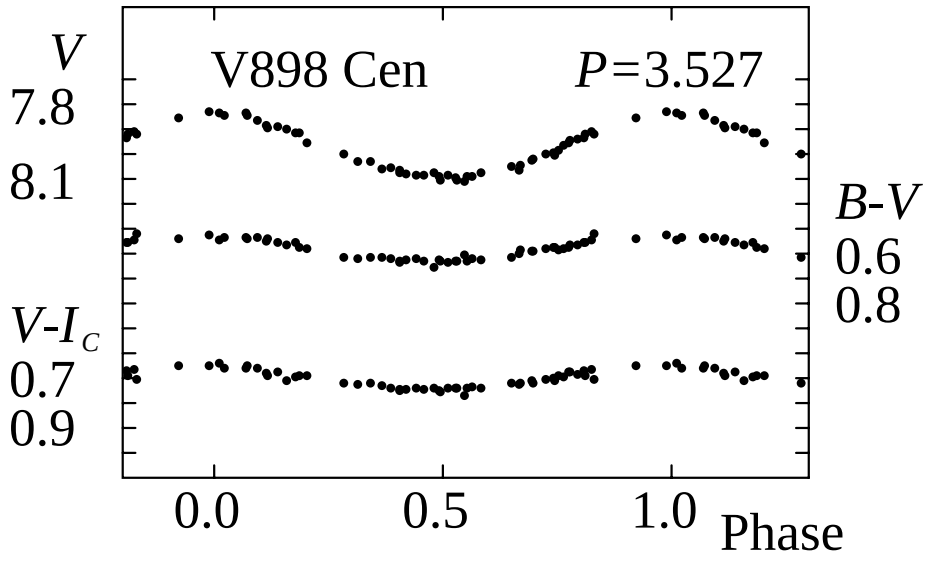

Figure 1.

Remarks:

Variability of V898 Cen was announced by Strohmeier et al. (1964). According to HIPPARCOS data this star (HIP 54659) is a Cepheid variable with elements

$$\text{Max JD}_{\text{hel}} = 2448502.836 + 3^{\text{d}}.52692 \times E.$$

The accuracy of our individual data is near $0^{\text{m}}.01$ in all filters. We analysed all existing observations by Hertzsprung's method (Berdnikov, 1992), and the derived epochs of light maximum are given in Table 2. The times of light maximum were introduced into a linear least-squares program that resulted in the following improved ephemeris:

$$\text{Max JD}_{\text{hel}} = 2449642.144 + 3^{\text{d}}.527340 \times E.$$
$$\pm 0.011 \quad \pm 0.000029$$

This ephemeris was used to calculate the $O - C$ values in Table 2, as well as for plotting the light and colour curves in Figure 1.

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References:

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