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**THE FIRST GROUND-BASED PHOTOMETRIC
OBSERVATIONS OF V899 Her**

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The relatively bright EW type binary V899 Her (HD 149684 = BD +33°2748, $\alpha_{2000} = 16^{\text{h}}35^{\text{m}}02^{\text{s}}.0$, $\delta_{2000} = +33^{\circ}12'48''.0$) was first discovered by HIPPARCOS (ESA, 1998). The photometric observations of the system by HIPPARCOS show a W UMa type light curve with an amplitude of $0^{\text{m}}121$ ranging from $7^{\text{m}}935$ to $8^{\text{m}}056$ and with two equal minima depths. The mean orbital period derived by HIPPARCOS from the best light curve fit is $0^{\text{d}}.421173$ and the epoch is given as JD 2448500.136 (ESA, 1998). The spectral type of the system is given as F8.

The first ground-based observations of V899 Her were made on 2 nights during 2000 observing season with the same equipments and technique described by Özdemir et al. (2001). The comparison star is BD +33°2771 (HIP 81763), and the check stars are BD +34°2826 (HIP 81732), BD +34°2799 (HIP 80806), BD +34°2820 (SAO 65448), and BD +34°2776 (HIP 80279). Differential magnitudes, in the sense checks minus comparison, were used to determine the standard errors (which are $0^{\text{m}}020$, $0^{\text{m}}016$, and $0^{\text{m}}021$) of our observations in *U*, *B* and *V* bands, respectively.

The light and color curves were plotted in Figure 1 together with the HIPPARCOS light curve. The light level estimates by taking a $\Delta\Phi = \pm 0.03$ interval around the maxima and minima, and their differences are listed in Table 1. It can be seen in Figure 1 and Table 1 that the maxima of all light curves, especially in *U* band, show a marginal evidence of being unequal with exhibiting slightly higher maxima at 0.25. There is not any clear evidence for the asymmetry in the light curves. A new minima time is derived from the observations by using the Kwee and van Woerden (1956) method and given in Table 2, together with Hipparcos' determination. These minima times were used in forming the *O – C* diagram of V899 Her and were fitted by a linear function to obtain a new light element of the system:

$$\text{H.J.D. Min I} = 2448500.13600 + 0^{\text{d}}.42117220(4) \times E. \quad (1)$$

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Table 1: The light levels and their differences in the light curves of V899 Her

	u	b	v	HIP
Max. light at 0.75	0.007	-0.026	-0.071	7.935
Max. light at 0.25	-0.008	-0.029	-0.075	7.939
Min. light at 0.00	0.131	0.109	0.065	8.056
Min. light at 0.50	0.141	0.102	0.061	8.054
Δ max. ($m_{0.75} - m_{0.25}$)	0.015	0.003	0.004	-0.004
Δ min. ($m_{0.00} - m_{0.50}$)	-0.010	0.007	0.004	0.002
Depth of Min. I	0.132	0.137	0.138	0.119
Depth of Min. II	0.142	0.130	0.134	0.117

Table 2: All available minima times of V899 Her. The $O - C$ values were calculated by using the improved ephemeris

JD Hel.	Min	Filter	$O - C$	Reference
2400000 +				
48500.13600	I		0.0	HIPPARCOS ESA (1998)
51708.415(26)	II	UBV	0.0	This work

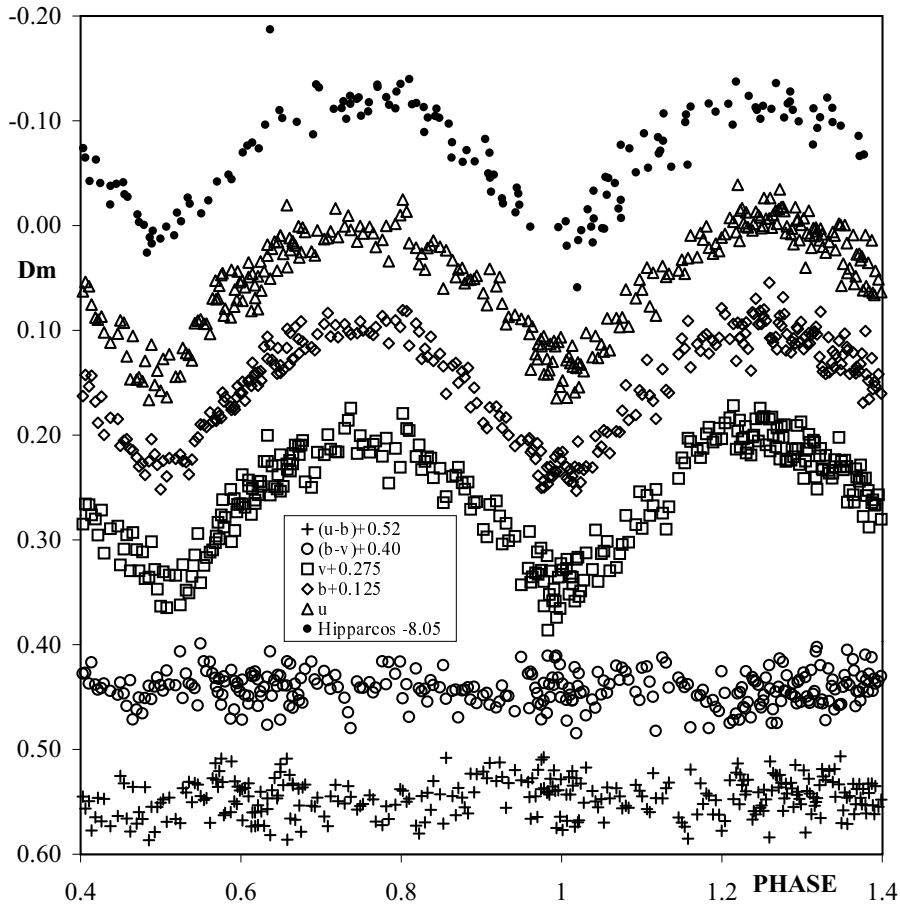


Figure 1. The light and color curves of V899 Her

References:

ESA, 1998, The Hipparcos & Tycho Catalogues, SP-1220

Kwee, K.K., and van Voerden, H., 1956, *B.A.N.*, **12**, 327

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2001, *IBVS*, No. 5033

ERRATUM FOR IBVS 4941

In IBVS 4941 a minimum time (2448383.4256) of BO CVn is wrong. The correct value is 2448383.4156.

Berahitdin ALBAYRAK