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## UBV PHOTOMETRY OF V511 Per

V511 Per (DHK 9) is an Algol type system discovered by Kaiser et al. (1990). Very little is known about the system. Photoelectric observations reveal a primary minimum of  $\approx 0^{\text{m}}_{\text{}}4$  and the secondary minimum is almost insignificant.

New observation of V511 Per were made on 30 nights during 1990/1991 observing season with the 30 cm Maksutov telescope of Ankara University Observatory. Differential observations were secured by using an EMI 9789QB photomultiplier. All observations were made with Johnson's UBV filters. The comparison star was BD+39°0782 and check stars were BD+40°0748 and BD+40°0729. The standard deviations of the comparison minus check stars measurements are  $0^{m} 11(U)$ ,  $0^{m} 035(B)$  and  $0^{m} 039(V)$ . These values were averaged over the all comparison minus check measurements. The light and colour curves of V511 Per are plotted in Figure 1 by using the ephemeris given by Kaiser et al. (1990), as

## Min. I = HJD 2435988.336+ $3^{d}$ 0452976 × E

One minimum time is obtained from our own observations by using Kwee and van Woerden's (1956) method:

## Min. I = HJD 2448169.5174 $\pm 0.0024$

The observational data can be obtained from the authors.

Figure 1 shows that phasing and thus the light elements by Kaiser et al. (1990) do not need any revision. The phases outside eclipse are not well covered in Figure 1, and no appreciable proximity effect is visible. We therefore attempted the solution of the B and V light curves by using a simple spherical model assumption (see Kopal and Demircan 1978, and Demircan 1978). The mean solution, as given in Table 1, indicates that the system is highly interacting with relatively large fractional radii of the components, and thus the proximity effects would not be negligible. We therefore think the system deserves further photometric and spectroscopic study.

The observational data can be obtained from authors.

Table 1. Some orbital parameters of V511 Per

	$r_1$	$r_2$	$L_1$	$U_1$	i(°)	$K^2$
	(fractional)	(fractional)	(fractional)			(E-5)
В	0.375	0.240	0.97	0.24	81.6	6.5
V	0.389	0.235	0.93	0.25	80.9	9.0
Av.	0.382	0.238	0.95	0.25	81.25	7.75



Figure 1. The light and colour curves of V511 Per. Solid line represents theoretical light curve

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