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NEW ELEMENTS OF CK Boo

The star CK Boo (HD 128141, BD+9^o2916) is a W UMa-type eclipsing binary discovered by Bond (1975). Its light curve varies from night to night. Aslan and Derman (1986) suggested these long-term changes to be due to a starspot cycle with a period of about 7 years.

New photoelectric observations were obtained during May 1988 at Mt. Suhora Observatory (1000 m above sea level, $\phi=+49^{\circ}35'$, $\lambda=-1^{\text{h}}20^{\text{m}}22^{\text{s}}$) of the Pedagogical University (Cracow) using the 60 cm Cassegrain telescope equipped with a one-channel photometer. An uncooled EMI 9865B photomultiplier as well as blue and yellow filters close to UVB Johnson-Morgan system were used. The data logging was controlled automatically by a Commodore-64 microcomputer.

The observations allowed us to determine the following times of minima by parabolic fitting:

JDhel	Filter	Minimum type
2447290.4153 \pm 0.0007	V	II
47290.4146 \pm 0.0007	B	II
47291.4796 \pm 0.0003	V	II
47292.3699 \pm 0.0005	V	I
47298.4072 \pm 0.0002	V	I

Adding these times of minima to those available in the literature (see e.g. Aslan and Derman 1986, Demircan 1987) we could improve the elements of the system. The new elements are as follows:

$$\text{JDhel}(\text{min}) = 2446183.5876 + 0.35515102 E$$

± 1 ± 2

The O-C residuals calculated using the above elements are plotted in Figure 1.

The new elements are more precise than those given by Aslan (1978) (see O-C's in Figure 2 according to Aslan's elements).

A complete discussion and light curve analysis of the system will be published soon.

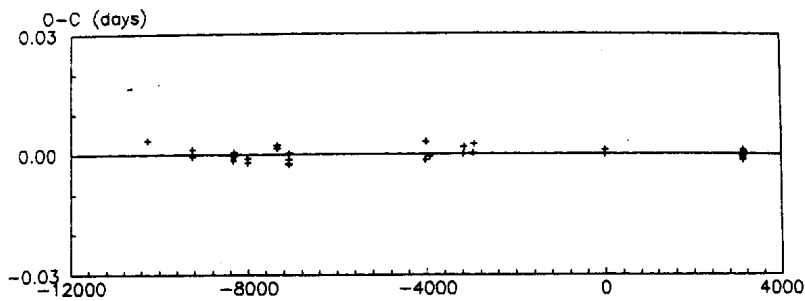


Figure 1

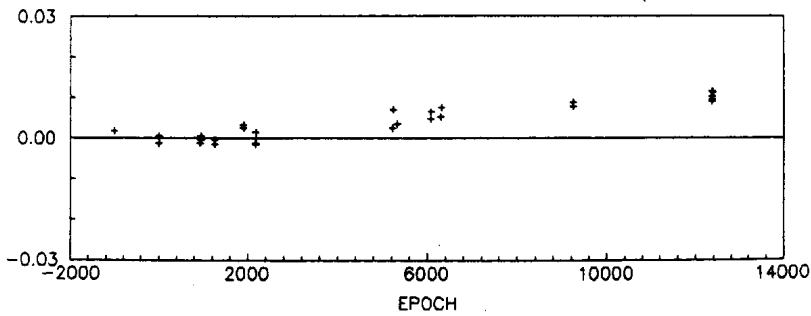


Figure 2

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