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NEW PHOTOELECTRIC MINIMA OF 44i BOOTIS

The close visual binary  $\Sigma 1909 = \text{ADS } 9494$  consists of the bright component A and the faint components B+C. The latter is a W UMa system which belongs to the W class in Binnendijk's (1970) classification.

According to Bergeat et al. (1972) its light curve presents "active" and "quiet" periods. We observed 44i Boo during its previous "active" period in 1978 (Rovithis and Rovithis-Livaniou, 1981), and we re-observed it during 1988. The corresponding light-curves will be published elsewhere in the near future. Here we give only the 9 new minima times obtained during our observations which were made between 21 and 25 March and between 25 and 29 June 1988.

The two-beam, multi-mode, nebular-stellar photometer, of the National Observatory of Athens, was used, attached to the 48 inch Cassegrain reflector at the Kryonerion Astronomical Station. The same comparison and check stars have been used as in our previous observations. Reduction of the observations has been made as usual and the pass bands of the B and V filters used are in close accordance to the standard ones.

The nine new minima times (5 primaries and 4 secondaries) obtained during our observations in 1988 were derived using Kwee and Van Woerden's (1956) method, and are the mean values of B and V colours. They are presented in Table I, the successive columns of which give: the Hel. J.D., the type of the minimum and the O-C residuals. In the latter, the C's have been calculated using the following ephemeris formulae:

$$(I) \quad \text{Min I} = 2439852.4903 + 0.^d.2678159 \cdot E$$

Kholopov et al. (1985) (due to Duerbeck, 1975)

$$(II) \quad \text{Min I} = 2443834.3769 + 0.^d.2678172 \cdot E$$

Lunel et al. (1985)

$$(III) \quad \text{Min I} = 2439370.387 + 0.^d.2678178 \cdot E$$

SAC No.60 (due to Danielkiewicz-Krosniak, 1989)

As one can notice from Table I, the smallest differences between the observed and the calculated values are given using Danielkiewicz-Krosniak's (1989) ephemeris formula, indicating that the period of 44i Boo has increased

Table I

Hel. J.D.	Minimum	(O-C) <sub>I</sub>	(O-C) <sub>II</sub>	(O-C) <sub>III</sub>
	Type	days	days	days
7242.4883	II	+0.0200	+0.0036	-0.0012
7242.6248	I	+0.0224	+0.0062	+0.0014
7245.4395	II	+0.0252	+0.0088	+0.0040
7245.5701	I	+0.0219	+0.0055	+0.0007
7338.3675	II	+0.0211	+0.0043	-0.0008
7338.5006	I	+0.0203	+0.0035	-0.0016
7340.3756	I	+0.0206	+0.0037	-0.0013
7341.3174	II	+0.0250	+0.0062	+0.0031
7341.4445	I	+0.0182	+0.0014	-0.0041

from  $0^d.2678159$  (Duerbeck, 1975) to  $0^d.2678178$  (SAC No.60, 1989). Of course, we must not forget that the used ephemeris formulae are simple and do not include the orbital light-time effect which has been taken into account by Hill et al. (1989).

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