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THE SECONDARY PERIOD OF RZ CEPHEI

We have analyzed the 20 light maxima obtained by Todoran during 1972-1973 (I.B.V.S. No.915, 1974) and 2 maxima observed in the same period by Cester and Todoran (Mem.SAIt, 47, 217).

At first we have derived the following elements valid from J.D. 2441475 to J.D. 2442006:

$$\text{Max.}_{\text{hel}} = 2441475.378 + 0^{\text{d}}30868218 \cdot E \quad (1)$$

Table I contains the 22 maxima and the O-C values derived from the ephemeris (1).

Based on an harmonic analysis we have derived the secondary period of the star: $P_{\text{d}} = 96.8$ $P_{\text{o}} = 29^{\text{d}}.88$.

In Figure 1 the values of O-C are plotted against the phase of the secondary period computed by the formula:

$$\text{Lowest Maximum} = 2441464.147 + 29^{\text{d}}.88 \cdot N \quad (2)$$

The phases of the light maxima performed with the elements (2) are given in third column of Table I.

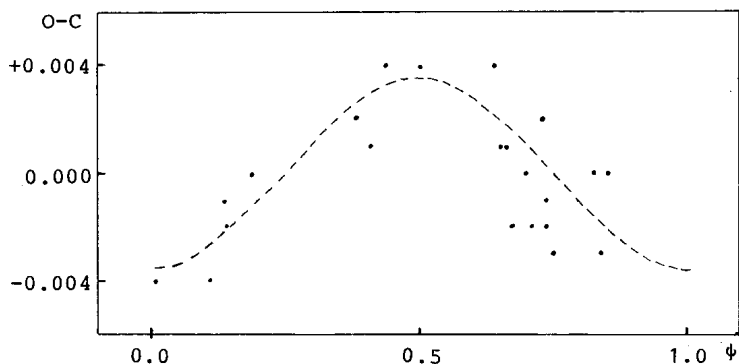


Table I

Max.hel. 2440000	O-C	ψ
1475.380	+0.002	0.38
1519.519	0.000	0.85
1546.372	-0.003	0.75
1559.339	0.000	0.19
1605.335	0.002	0.73
1605.640	-0.002	0.74
1608.420	0.000	0.83
1897.350	0.004	0.50
1902.286	0.001	0.66
1902.592	-0.002	0.67
1903.520	0.000	0.70
1904.445	-0.001	0.74
1907.530	-0.003	0.84
1942.410	-0.004	0.01
1946.425	-0.002	0.14
1963.402	-0.002	0.71
1975.439	-0.004	0.11
1984.396	0.001	0.41
1985.325	0.004	0.44
1991.190	0.004	0.64
1991.495	0.001	0.65
2006.310	-0.001	0.14

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