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MAXIMA OF RZ CEPHEI

During 1972-1973 photoelectric observations of the RRc star RZ Cephei were carried out at the Cluj Astronomical Observatory. The preliminary results are given.

The observations were made in V light with a 50 cm Newton reflector, a photometer employing an unrefrigerated 1P21 photomultiplier tube and a Corning 3384 filter.

The light curve shows a broad maximum with some fine structure, i.e., a pre-maximum hump which may be variable in shape.

Having in view the shape of the light curve during its maximum, Pogson's method was used in order to derive the time of maxima.

In order to have a general picture of the period variation we continued Geyer's (Z.f.Ap.44,98,1958) O-C diagram and for this purpose (O-C)₁'s were computed by using the linear elements

$$\text{Max.hel.} = \text{J.D. } 2410000.000 + 0^d.308668 \cdot E$$

Comparing our results with figure 2 of Geyer's paper we conclude that the period has been lengthening. For the last ten years we have derived the following elements

$$\text{Max.hel.} = \text{J.D. } 2441475.373 + 0^d.308686 \cdot E$$

which were used to compute the differences O-C₂.

The numbers of the observations used are given under n.

Max.hel.	n	E ₁	O-C	E ₂	O-C ₂
2440000					
1475.380	24	101970	+0 ^d .504	0	+0 ^d .007
1519.519	24	102113	.504	143	+ .004
1546.372	15	102200	.502	230	+ .001
1605.335	24	102391	.510	421	+ .005
1605.640	9	102392	.506	422	+ .002
1608.420	40	102401	.508	431	+ .003
1897.350	20	103337	.525	1367	+ .003
1902.286	13	103353	.522	1383	.000
1902.592	10	103354	.520	1384	- .002
1903.520	29	103357	.522	1387	.000
1904.445	30	103360	.521	1390	- .002
1907.530	22	103370	.519	1400	- .003
1942.410	41	103483	.519	1513	- .005
1963.402	40	103551	.522	1581	- .004
1975.439	19	103590	.521	1620	- .005
1984.396	30	103619	.527	1649	.000
1985.325	7	103622	.530	1652	+ .003
1991.190	14	103641	.530	1671	+ .003
1991.495	21	103642	.526	1672	- .001
2006.310	25	103690	.525	1720	- .003

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