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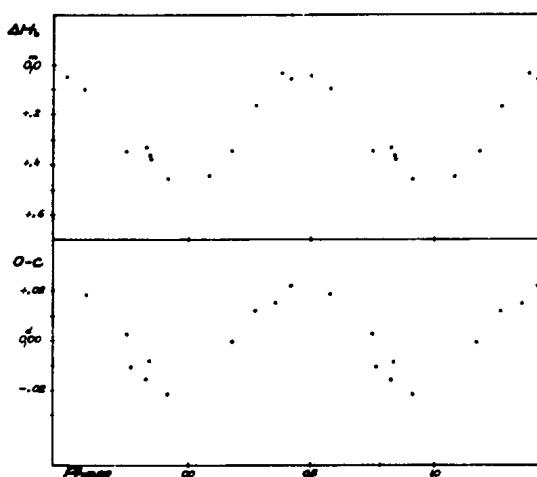
Konkoly Observatory
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THE SECONDARY PERIOD OF THE RRab STAR
Z CANUM VENATICORUM

Photoelectric observations of Z CVn carried out in 1964 at the Konkoly Observatory utilizing an EMI 9502B multiplier attached to the 24" Newton telescope showed that the light curve changed periodically. During the spring of 1966 twelve maxima have been obtained, which enabled us to derive the secondary period:

$$P_b = 22^{d}75$$

being the shortest one among the secondary periods so far known for RRab stars.



The first column of the Table contains the observed maxima, the second column the O - C values computed with the following elements:

$$\text{Max. hel.} = 2439\ 172,602 + 0,6537975 \text{ E} \quad (1)$$

In the third column the heights of the maxima relative to the comparison star are listed in blue (ΔM_b) and yellow (ΔM_y) in the instrumental system.

In the figure the ΔM_b and O-C values obtained in 1966 are plotted against the phase of the secondary period. The phase of the secondary period was computed by the formula:

$$\text{Min. ampl.} = 2439\ 176,12 + 22,75^d \quad (2)$$

J. D. max.	O - C	M_b	M_y
2439 172,593	-0,009 ^d	+0,365	+0,655
182,420	+0,011	0,170	0,450
195,455:	--	0,380	0,610
216,395	-0,011	--	--
240,581	-0,016	0,335	--
242,536	-0,022	0,460	0,670
246,475	-0,006	0,450	0,750
248,441	-0,001	0,350	0,640
252,379	+0,014	0,040	0,375
261,520	+0,002	0,350	0,695
280,497	+0,018	0,100	0,400
299,460	+0,021	0,060	0,390

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