*Communication from the Observatory at Leiden*

# A PHOTOELECTRIC MINIMUM OF THE ECLIPSING VARIABLE RZ CAS

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Photoelectric observations of a minimum of RZ Cas have been obtained in December 1961. The computed time of minimum and the individual observations are given.

One minimum of the eclipsing variable RZ Cas has been obtained photoelectrically at the Leiden Observatory. RZ Cas shows a variability in its period, which needs further study. The observations were made by the author on December 28, 1961 in yellow light with the 18″ Zunderman reflector.
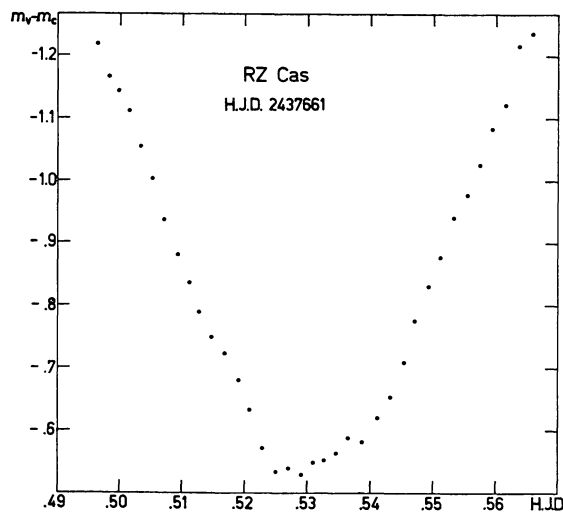


A yellow filter Corning 3384 was used, with an effective wavelength of 5390 Å. RZ Cas is of spectral type A0 and the comparison star BD + 69° 180, of spectral type F2.

The differences "star minus sky" were read off the Brown recorder charts with an accuracy of about .3 per cent, and the magnitude differences $m_v - m_c$ were derived in three decimals. The time was measured in seconds and has been computed in five decimals of a Julian Day, after reductions to the sun had been applied. The table gives the individual observations, and the figure shows the observed light-curve during the minimum.

The time of minimum and its mean error were computed with the method of Hertzsprung, as revised and described by KWEE and VAN WOERDEN (1956). The resulting epoch is: J. D. Hel. 2437661.53084 ± .00010 m.e.

Individual observations

| J. D. Hel.–2 437 661 | $m_v - m_c$ | J. D. Hel.–2 437 661 | $m_v - m_c$ |
|---|---|---|---|
| 0.496 42 | $-1.219$ | 0.532 71 | $-0.551$ |
| 0.498 29 | $-1.167$ | 0.534 66 | $-0.563$ |
| 0.499 82 | $-1.144$ | 0.536 60 | $-0.587$ |
| 0.501 55 | $-1.112$ | 0.538 68 | $-0.581$ |
| 0.503 36 | $-1.055$ | 0.541 11 | $-0.619$ |
| 0.505 23 | $-1.002$ | 0.543 19 | $-0.653$ |
| 0.507 18 | $-0.937$ | 0.545 35 | $-0.724$ |
| 0.509 33 | $-0.881$ | 0.547 15 | $-0.775$ |
| 0.511 20 | $-0.836$ | 0.549 30 | $-0.830$ |
| 0.512 66 | $-0.788$ | 0.551 17 | $-0.876$ |
| 0.514 74 | $-0.748$ | 0.553 27 | $-0.941$ |
| 0.516 82 | $-0.722$ | 0.555 41 | $-0.977$ |
| 0.519 04 | $-0.679$ | 0.557 56 | $-1.025$ |
| 0.520 92 | $-0.632$ | 0.559 36 | $-1.083$ |
| 0.522 93 | $-0.571$ | 0.561 58 | $-1.122$ |
| 0.525 01 | $-0.533$ | 0.563 74 | $-1.216$ |
| 0.527 02 | $-0.538$ | 0.565 89 | $-1.236$ |
| 0.529 04 | $-0.528$ | | |
| 0.530 98 | $-0.547$ | | |

## Reference

K. K. KWEE and H. VAN WOERDEN, 1956, *B.A.N.* **12** 327 (No. 464)