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Discussion to the paper of WALKER

O'CONNELL: Have you worked out the absolute dimensions of RW Tri from the data obtained with this very effective technique? Secondly, have you got other eclipsing binaries on your programme, e. g. DQ Her?

WALKER: The absolute dimensions are just being calculated and definitive values are not yet available. I certainly plan to observe VX UMa, and to obtain further observations of RW Tri at times when the light curve is different. DQ Her may be possible but is more difficult owing to its faintness; the time-resolution will be poorer.

RW Arietis; an RR Lyrae Variable Star in an Eclipsing System

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Abstract:

RW Arietis was observed photoelectrically in the UBV-system during fall and winter 1966 with the 70 cm telescope at the Lunar and Planetary Laboratory Catalina station, University of Arizona, Tucson, on 19 nights. Peculiar variations of the usually stable RRc light curve observed on three nights can be interpreted as a superposition of the RR Lyrae type variation and an eclipsing type variation.

From the additional variations it is concluded that the RR Lyrae star is part of the eclipsing system with the elements

Primary Minimum = JD 243984.97 + 3.1754 · E.

The elements of the RR Lyrae variation are

Maximum = JD 2428183.324 + .3543184 · E.

Since the RR Lyrae variation does not disappear during primary minimum, and since the depth of primary minimum is about $0^m.8$ in V the pulsating component is eclipsing the brighter secondary star during primary eclipse. If it is assumed that the RR Lyrae star is (at minimum light) a Fo giant then the color indices found lead to the conclusion that the secondary component should be a blue giant or a young B-type star.

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