DETERMINING ROTATION RATES FROM LIGHT CURVES: RW MON AND RW TAU

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ABSTRACT. We present light curve solutions for the non-synchronously rotating Algols RW Mon and RW Tau, and we illustrate how rotation rates are determined from light curves. We find RW Mon's primary component to spin at about 5 times the synchronous rate, which confirms the indication of fast rotation from reported emission line activity. RW Tau turns out to be only a mildly rapidly rotating Algol system, and our light curve solutions do not yield any firm value for the rotation rate of the primary component. It is suggested that continued efforts should be made to do good quality line broadening studies in order to find rotation rates for systems with only modest degrees of rapid rotation, and in order to further test photometric rotation rates against those of line broadening studies.

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