

STATISTICAL STUDY OF THE SPIN OF ALGOLS

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(Not reviewed)

Synchronous rotational velocities have been calculated for 91 Algol-type systems for which the radii of the components and orbital inclinations have been published. New values of $V \sin i$ have been measured for some of these systems. The frequency of components rotating near synchronism (F less than 1.5) is found to be higher for unevolved than for evolved systems. For Algols with periods less than 10 days and radii greater than 0.2, synchronous rotation is found to be the rule. There are 50 components of spectral type B and 44 of spectral type A in systems with periods shorter than 10^4 . The shortest period in which synchronism is found is 4 days for the A-type components and 2 days for the B-type.

Most of the systems in which rotation is asynchronous are of at least one of the following types: (a) long period and small radii, (b) large orbital eccentricity, (c) contain a B-type star, (d) contain a giant or supergiant.

We note that, for a lot of the stars, the values found both for the stellar radii and the rotational velocities are quite different from previously published results. Our judgment of whether or not rotation is synchronous depends on the values selected and we cannot yet be sure of the true situation.