Angular momentum evolution of young stars

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Abstract

I present a review of the angular momentum evolution of stars during the pre-main-sequence phase of stellar evolution. For many years the rotation rate distributions of young stars has been explained via a process of angular momentum exchange with the accretion disc - the so called 'disc-locking scenario'. I review some of the theoretical challenges faced by this model, and summarise the observational evidence for and against the model. Finally, I discuss the reliability of rotational period estimates for accreting stars.

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