
Formation of strong emission lines in stellar accretion disks: The link between observations and models

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Abstract

A vast number of planetary systems are found close to young stellar objects, revolving at distances less than 1 AU. These planetary systems are yet inaccessible to the new generations of instruments.

Investigating the origin and the evolution of these systems is the goal of the Star-Planet-Inner Disk Interactions (SPIDI) project.

The project's strategy includes synergies between observational techniques and numerical modeling of planetary systems embedded in the accretion disk of their hosting star. Radiative transfer simulations of the formation of strong emission lines (Na D, helium, hydrogen lines...) will shorten the gap between the models and the observations hence between what is known and what's remain.

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