

Looking for Accreting Protoplanets through H_α observations

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Abstract

Young planets embedded in disks are expected to accrete material from the surrounding media. As a result of this process, they can emit in accretion tracers (like the H_α or Pa_β lines). In this poster, we show observations designed to detect embedded planets in the H_α line. Since our main result is the non-detection of accreting protoplanets, we explain this as a combination of different factors, like e.g. episodic accretion or/and extinction from the circumstellar and circumplanetary disks. Finally, we provide estimations of the line luminosity in different transitions used as accretion tracers. In particular, we show estimations for the Pa_β and Br_α lines, which are better suited to overcome high extinction.

My poster in zenodo.org can be found here