

Through their pre-main sequence phase (PMS phase), intermediate mass stars evolve from a fully convective phase [2]. During this transition, the frequency occurence of strong magnetic field drops from 100% to 7-8% [1]. The reason of this drop is yet unclear, and in order to understand it we need to characterize the magnetic fields of these intermediate mass PMS stars, especially in the vicinity of the convective/radiative limit (CR limit). To perform this study, we first need to determine with a high accuracy the stellar fundamental parameters. This poster shows the methodology of our ESPaDOnS spectra processing, and displays preliminary results of our study.



# **Determination of stellar parameters for intermediate mass T Tauri stars**

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# ABSTRACT



 Typical uncertainties we get so far on our 4 stellar parameters. From top to bottom : Teff, Vsin(i), Vr, and Vmic. Each point represents one spectrum, and each 'cluster' of points are different spectra of the same star.

**Discussion :** some tracks to explore when dealing with difficult cases could be the veiling or multiplicity of the stars : strong accretion or binary companion can make spectrum fitting more complex.

The surface gravity log(g) as well can impact the stellar spectra. We fixed it at  $\log(g)=4$  in our first run of fits.

The typical Teff uncertainties we get (between 400-150K) should enable us to accurately position the stars in the HR diagram.