

Título/Title:

Understanding the stellar jitter across the HR diagram

Orientador/Supervisor:

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Descrição/Description:

Our ability to detect planets around stars with the radial-velocity (RV) method has a strong dependence on our understanding on the stellar noise of such stars, i.e. what is their intrinsic RV variability. This noise can be caused by stellar magnetic activity, pulsations or granulation and it behaves on a different way depending on the spectral type of the stars and on their evolutionary stage.

The goal of this project is to analyze and characterize the stellar jitter in a sample of giant stars within different open clusters and to find possible correlations with the stellar parameters and/or evolutionary stage. This study will help us to better understand the stellar noise of evolved stars and to better constrain the kind of planets we will be able to discover across the HR diagram.

Requisitos/Requirements:

The candidate should have some experience in basic programming.