

UFRN contribution to NIRPS



Board of Observational Astronomy
UFRN, Natal-RN, Brazil

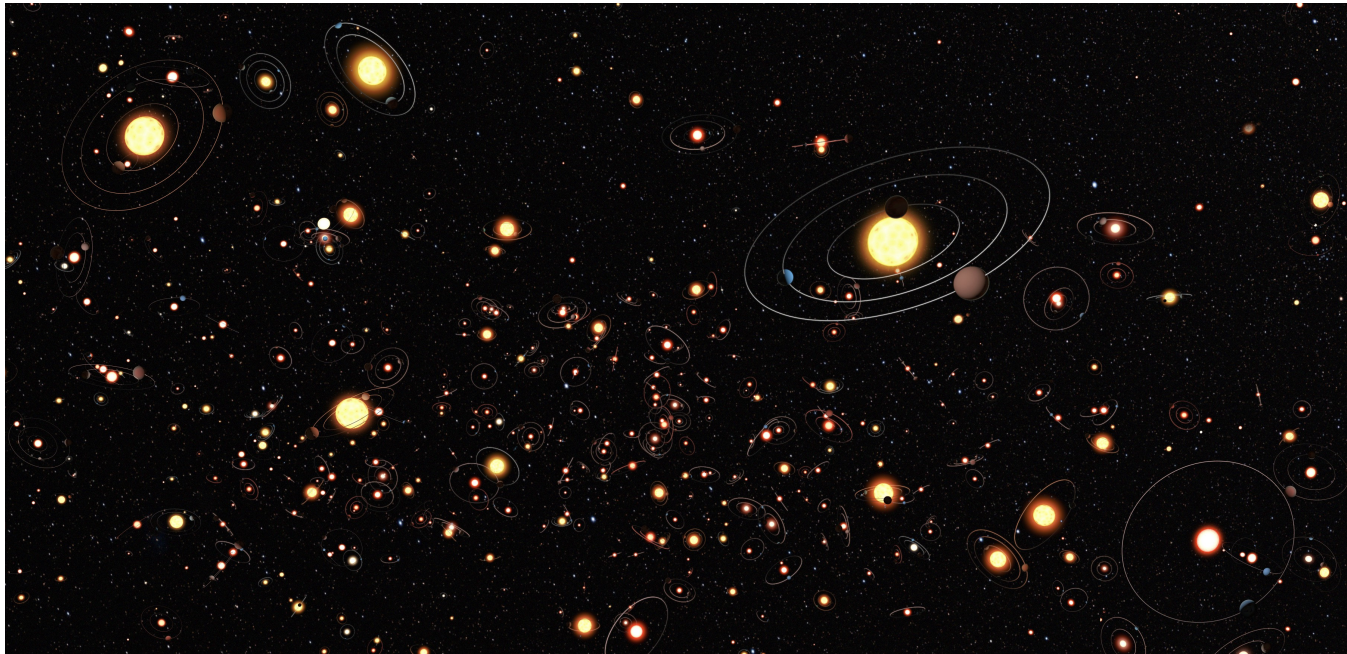
NIRPS Kick-off Meeting – Geneva Observatory – January 2016

Current **UFRN** production

- **Stellar rotation and activity**
 - CoRoT and Kepler data.
 - Several spectroscopic data (HARPS, FEROS, UVES, HYDRA ...)
 - Leão et al. (2015); Ferreira Lopes et al. (2015a,b); Costa et al. (2015); Cortés et al. (2015); ...
- **Exoplanets**
 - De Medeiros et al. (2009)
 - Open Cluster program (Canto Martins et al. 2016, in prep)
- **Star-planet interaction**
 - Alves et al. (2010); Canto Martins et al. (2011); Paz-Chinchón et al. (2015)

UFRN budget participation and GTO

- **UFRN contribution:** US\$ 400K (in addition to US\$ 1.4M from Brazillian agencies).
- **GTO:** 40 nights.
 - Main subjects: exoplanets and fundamental constants.



HARPS-LFC

- **Experience** for future LFCs, including for NIRPS.
- **UFRN contribution:**
 - **Technical:** diagnostic software (drift, profile studies), data reduction (wavelength solution with LFC data), conduction of observations.
 - ESO Press Release ann15037
 - **Science:** currently improving orbital solutions for known exoplanets using commissioning data; searching for additional exoplanets in known systems.
 - Leão et al. (2016, in prep): four planet-host stars under analysis. Improving LFC calibration and planet orbits (UFRN+ESO).