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Exoplanet characterization and monitoring at Universidad de Chile

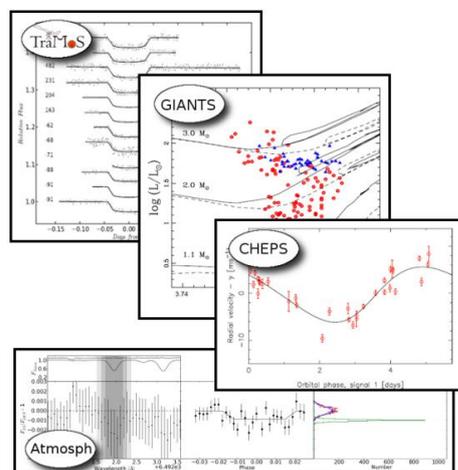


Prof. Patricio Rojo (Universidad de Chile)

Dr. Patricio Rojo is currently a professor of Astronomy at Universidad de Chile, Santiago, Chile. He received his Ph.D. degree in Astronomy at Cornell University in 2007 with the dissertation entitled: Transit Spectroscopy of the Extrasolar Planet HD209458b: the Search for Water. His research is centered on ground-based observations of Extrasolar Planets. He has published articles in both the search for new worlds and their atmospheric characterization and leads long term surveys with state-of-the-art telescopes and instrumentation. His main interest revolves around astrobiology research with the overarching goal of finding and characterizing Earth analogs. He has mentored several M.Sc. and Ph.D. theses on these topics.

Abstract

I will introduce the ground-based efforts in characterizing and monitoring exoplanets at Universidad de Chile. Transiting planets provide the best mean to learn about exoplanetary atmospheres; however, ground-based observations provide particular challenges and advantages. Preliminary results will be presented. I will also present and highlight the first results of the three main exoplanet surveys we are currently conducting at Universidad de Chile: CHEPS, Red Giant Exoplanets (radial velocity), and TraMoS (transit lightcurves). We have several interesting candidates at the Calan-Hertfordshire Extrasolar Planet Search (CHEPS) project, which is aimed at searching for the currently missing southern bright transiting planets at a few m/s radial velocity precision. Using the same technique, we are also characterizing the planetary population in a constrained sample of Red Giant stars. The Transit Monitoring from the South (TraMoS) project is aimed both at improving transit parameters and detecting any kind of lightcurve variability from known southern exoplanet systems.



All are welcome! Tea, coffee, biscuits will be served at 2:15 P.M.

You are welcome to nominate speakers to Weimin Yuan (wmy@nao.cas.cn), Mei Zhang (zhangmei@bao.ac.cn), Licai Deng (licai@bao.ac.cn), Xuelei Chen (xuelei@cosmology.bao.ac.cn), Shude Mao (smao@nao.cas.cn)