

Name: Victor Silva Aguirre
Email: victor@phys.au.dk
Institution: Stellar Astrophysics Centre, Aarhus University, Denmark
Title: Precise ages of exoplanet host-stars determined from asteroseismology
Type: Contributed Talk
Session: Characterizing Transiting Planets
Abstract: Authors:
Victor Silva Aguirre, William Chaplin, and the KASOC team.

Abstract:

The Kepler mission has detected thousands of candidate exoplanets around various types of stars. Validation as well as characterization of these planet candidates depend critically on our knowledge of the host star properties, which are often poorly constrained. Asteroseismology has been extremely successful in providing accurate masses and radii of Kepler targets, helping in better determining occurrence rates and sizes of planets. In this talk, we discuss an ongoing programme whose objective is to derive robust and very precise ages for a large sample of solar-like asteroseismic KOIs. Having ages for an ensemble of planetary host stars will allow us to comment on theory of planet formation. We discuss our results in the context of temporal constraints of processes such as evolution of eccentricity, orbital synchronization and circularization, efficiency of resonances, and obliquities.