



HAO Colloquium Series

(Refreshments served)

Speaker: Michael Gruberbauer, St. Mary's University, Halifax

Time: 1:30–2:30 pm

Date: Wednesday, May 30, 2012

Location: CG1-1210 South Auditorium

Title: Monty Hall and the Search for a Solar Model

Abstract:

Recent developments in instrumentation (e.g., in particular the Kepler & CoRoT satellites) provide an opportunity to probe the interiors of stars using asteroseismology. This enables us to check and improve our stellar models, but also to potentially provide valuable additional constraints for the analysis of exoplanets, in particular around sun-like stars. However, the confidence in detailed asteroseismic studies of sun-like stars has to be calibrated with the successes and problems of helioseismology. For the sun, several problems still persist, such as the "surface effects", the age calibration, and the discrepancies between helioseismic inversion and recent analyses on the solar mixture and abundances. In this talk, I will present a new angle on these issues from a probabilistic viewpoint, and how they affect asteroseismology of solar-like stars in general.