



HAO Colloquium Series

(Refreshments served)

Speaker: Rafael Garcia, IRFU/DSM/CEA Saclay

Time: 1:30–2:30 pm

Date: Wednesday, April 18, 2012

Location: CG1-1210 South Auditorium

Title: **From the core of the Sun to the stars with SoHO, CoRoT and Kepler:** An amazing journey of 16 years

Abstract:

Since the launch of SoHO on December 2, 1995, our knowledge of the interior of the Sun and the stars has been improved thanks to the constraints imposed by high-quality observations and by using seismic tools. We have changed from a static vision of the stellar interiors to a more dynamical view. Today it is possible to put constraints on the rotation of the solar core and, even more, to measure the internal differential rotation in many more evolved stars, constraining the acceleration of the core rotation during the contraction of the core in the RGB phase. We can, as well, disentangle the nature of the nuclear reactions taking place inside these stars, otherwise impossible to determine with classical techniques. In this talk we will review some of these new results obtained from SoHO, CoRoT and *Kepler*.