



## SPACE PHYSICS SEMINAR

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M.I.T.

### **Super-Earths and Sub-Neptunes in the Solar Neighborhood**

**Thursday, March 6, 2014**

**725 Commonwealth Ave.**

**Refreshments at 3:30pm in CAS 500**

**Talk begins at 4:00pm in CAS 502**

#### Abstract:

Results from the NASA Kepler Mission indicate that planets intermediate in size between Earth and Neptune make up a significant fraction of the Milky Way's planet population, yet no such planets exist in our own Solar System. The composition, formation, and evolution of these alien worlds is still largely a mystery. Our current best hope to learn more about super-Earths and sub-Neptunes is to find such planets transiting very nearby, very small stars. In this talk I will review the progress we've made toward finding such systems, the complicated picture that observations of their masses, sizes, and atmospheres of these planets have painted so far, and our very real prospects for improving our knowledge of these enigmatic planets in the next five years.