



Friday February 28th, 2014
4:10 – 5:00 pm, EPS108

“Minerva: Big Exoplanet Science with Small Telescopes”

Nate McCrady, University of Montana

Abstract:

The Kepler mission has identified over 3000 candidate planets in the past two years, adding to the over 800 confirmed planets from radial velocity (RV) surveys. One of the most striking results of these surveys is that the number of planets increases rapidly with decreasing size. It is apparent that there are more small rocky planets in the Galaxy than stars. These planets must be common around nearby stars, though few have yet been discovered. Finding these planets requires high precision RV measurements and high cadence observing to densely sample the orbital phase. Project Minerva is a robotic observatory dedicated to detection of rocky planets in the habitable zone around nearby stars. The observatory will consist of four 0.7-m telescopes that will use fiber optics to simultaneously feed a stable spectrograph to perform an intense campaign of precise velocimetry on the brightest, nearest, Sun-like stars. I will present simulated Minerva observations to estimate our expected exoplanet yield and habitable zone planet detections.

Host:

Angela Des Jardins

******Refreshments served in the EPS second floor lobby at 3:45******
