

# Astrophysics Seminar

## Wednesday, April 29, 2015

## MINERVA: The MINIature Exoplanet Radial Velocity Array

**Jason Eastman**

*Harvard University*

*Harvard-Smithsonian Center for Astrophysics*

### Abstract:

MINERVA will be a robotic observatory with four 0.7 meter telescopes at Mt. Hopkins, Arizona. All four telescopes feed the same precision spectrograph capable of sub m/s radial velocities of bright, nearby stars, to discover and characterize small exoplanets. We can robotically switch between the fiber fed spectrograph and wide field imagers capable of precise photometry. I will discuss the scientific motivation behind MINERVA, the design and implementation, its current status, future plans, and present the first photometric results which demonstrate sub-millimag precision on 3-5 minute timescales over several hours. These results show that MINERVA is well-equipped to address its secondary science goal of searching for transits of known and newly discovered super-Earth exoplanets detected by radial velocity, including future detections from the MINERVA spectrograph.

**3:30 pm**

Refreshments  
CAS Room 502

**4:00 pm**

Seminar  
CAS Room 502

### Next Week

- *There are no more seminars for the Spring Semester.*
- *Good luck on finals and see you next fall!*

