



SAN FRANCISCO  
STATE UNIVERSITY

Physics

&

A  
s  
t  
r  
o  
n  
m  
y

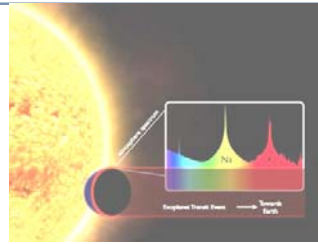
MONDAY, OCTOBER 20TH



**Dr. Suvrath Mahadevan**  
Penn State University

4:00 PM in TH 411  
Refreshments served at 3:50 PM

In Quest of Low Mass Planets in the Habitable Zones of M dwarfs



*Abstract:*

M dwarfs are attractive targets for transit and radial velocity searches for low-mass planets. I will discuss instrumental and astrophysical challenges in detecting and confirming these planets including the design and construction of the near infrared Habitable Zone Planet Finder (HPF) spectrograph we are building to conduct a Doppler RV survey of mid and late M dwarfs. I will also discuss the insidious effect of stellar activity in masquerading as planetary signals around M dwarfs (Gliese 581, Gliese 667) as well as recent work on spectroscopic activity indicators that may help identify and correct for stellar activity.