CIPS Planetary Lunch
Wendesday, Jan. 23, 544 Campbell Hall Noon - 1:00pm

Alyssa Sarid (UCB - EPS)

"The Dynamics of Europa as Inferred From Tidally-Driven Fractures"

Europa's icy surface records a rich history of tectonic activity. At least some of the features attributed to tectonics have been shown to correlate well with the patterns of tidal stress that change throughout Europa's eccentric orbit. However, eccentricity does not exclusively govern tidal stress patterns on Europa. In this talk, I will describe other orbital and rotational parameters that influence tidal stress and drive tectonic activity, show that we can, in turn, use surface features to constrain Europa's dynamical parameters, and explain the methodology I am employing to do just that. Understanding Europa's orbital and rotational state will provide insight as to how an outer solar system body maintains liquid water and may have implications on the search for "habitable" extrasolar planets.

*** Please note change of location from last semester. ****