

iPLEX Lunch Abstract

Speaker: Leslie Rogers

Date: November 2, 2012

Time: 12-1pm

The presence of liquid water has been hypothesized as an important ingredient for planet habitability. A sub-Neptune mass planet with a liquid water ocean below a hydrogen-rich envelope is an intriguing prospect. If the planet transits, its atmosphere could be amenable to characterization with transmission spectroscopy. A practical method to assess whether a transiting sub-Neptune planet could potentially harbour a liquid water ocean is needed. With interior structure models, I explore the conditions needed to reach pressures and temperatures conducive to liquid water at the planet surface. I apply this approach to constrain the prospects for liquid water oceans on GJ1214b and Kepler-22b.