



# PHYSICS AND ASTRONOMY COLLOQUIUM

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## **“New Insights into Planet Formation from the Kepler Satellite & Our Solar System”**

### Abstract

I will discuss recent insights that we have gained into planet formation from the Kepler Satellite and our Solar System. I will present a simple model for orbital resonances with dissipation and show that it can explain the surprising paucity of mean motion resonance among exoplanet pairs and discuss its implications for the origin of these systems. In addition, I will talk about the Kuiper belt, located at the outskirts of our planetary system, which provides a snapshot of earlier stages of planet formation and is therefore an ideal laboratory for testing planet formation theories. I will show how we can use the Kuiper belt size distribution to constrain the formation of planets in the outer solar system and the initial sizes of planetesimals that are the building blocks of planets.

Wednesday, September 25, 2013

3:30 p.m.

Bob Wright Centre

Room A104