



ASTROPHYSICS & SPACE PHYSICS SPECIAL JOINT SEMINAR

“Beyond Hot Jupiters: Exploring the Diversity of Exoplanetary Atmospheres”

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Friday, September 21, 2012

Refreshments at 3:30pm in CAS 500

Talk begins at 4:00pm in CAS 502

Abstract:

Observations of extrasolar planets over the past two decades have revealed an amazing diversity of systems, with a wide range in masses, compositions, temperatures, and orbital properties. These alien worlds provide an invaluable opportunity to study planetary atmospheres beyond the confines of our own solar system, and to improve our knowledge of the fundamental processes that shape these atmospheres. In my talk I will focus on recent progress in three key areas, including global climate models for short-period gas giant planets, the transition to methane-dominated chemistry in cooler planetary atmospheres (analogous to the L-T transition in cool stars), and the search for new low-mass transiting planets suitable for detailed characterization.