
EAPS Planetary Lunch Colloquium Series (PICS)

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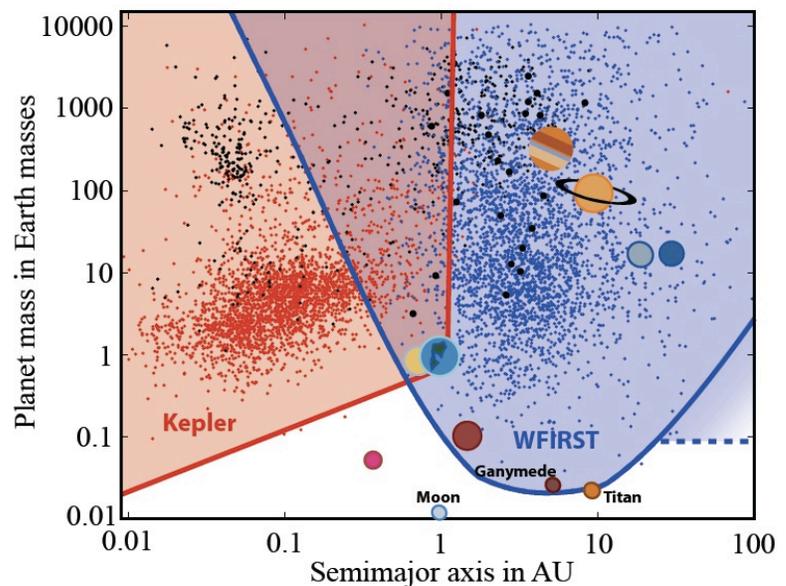
Tuesday, May 2nd

12:30pm

54-517

Gravitational Microlensing Surveys for Exoplanets: A Watershed

Measurements of the demographics of exoplanets over a range of planet and host star properties provide fundamental empirical constraints on theories of planet formation and evolution. Because of its unique sensitivity to low-mass, long-period, and free-floating planets, microlensing is an essential complement to our arsenal of planet detection methods. Although microlensing has already produced several important results regarding exoplanet demographics, it has yet to reach its full potential. I will demonstrate that this will soon change. With current and near-future next-generation ground and space-based surveys, microlensing is poised to revolutionize our understanding of the demographics of planets beyond the snow line, the abundance of free-floating planets, and the Galactic distribution of planets. Ultimately, a microlensing survey with WFIRST will complete the census of planets begun by Kepler, and yield a nearly complete picture of the demographics of planetary systems throughout the Galaxy.



For more information, contact John Biersteker (jo22395@mit.edu)