

**American Astronomical Society – Division on Dynamical Astronomy
Talk Schedule**

Monday, 7 May, 2012

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| 01 Exoplanets Mt. Hood, 8:10AM - 11:40AM | 01.00C Chair - Douglas P. Hamilton, University of Maryland. |
| 8:10AM - 8:20AM | 01.00C1: Opening Remarks - Daniel Scheeres, The University of Colorado at Boulder. |
| 8:20AM – 9:00AM | 01.01 INVITED: Dynamical Evolution of Multiple-planet Systems - Soko Matsumura, University of Maryland. |
| 9:00AM - 9:20AM | 01.02: Stability of Multiple Planet Systems - Alice C. Quillen, University of Rochester. |
| 9:20AM - 9:40AM | 01.03: Architecture and Dynamics of Kepler's Multi-transiting Planetary Systems - Daniel C. Fabrycky, University of California, Santa Cruz. |
| 9:40AM – 10:00AM | 01.04: Mean Motion Resonances Among Kepler Planets - Konstantin Batygin, California Institute of Technology |
| 10:00AM - 10:20AM | Coffee Break, Raven's Nest |
| 10:20AM – 10:40AM | 01.05: Propagation of Coupled Changes in Orbital e and a via Secular Perturbations - Richard Greenberg, University of Arizona. |
| 10:40AM - 11:00AM | 01.06: Secular Dynamics of the Kepler-11 System - Christa L. Van Laerhoven, University of Arizona. |
| 11:00AM - 11:20AM | 01.07: On the Orbit of the Circumbinary Planet Kepler-16b - Man Hoi Lee, The University of Hong Kong, Hong Kong. |
| 11:20AM - 11:40AM | 01.08: On the Dynamical State of the HD 82943 Planetary System - Xianyu Tan, The University of Hong Kong, Hong Kong. |
| 11:40AM - 12:00PM | 01.09: Probability Of Capture For The 3:1 Mean-motion Resonance - Ka Ho Chan, The University of Hong Kong, Hong Kong. |
| 12:00PM – 1:40PM | Lunch on your Own |
| 02 Planet Formation Mt. Hood, 1:40PM - 4:00PM | 02.00C: Chair - Soko Matsumura, University of Maryland |
| 1:40PM - 2:00PM | 02.01: Tackling Some Issues in Planet Formation - From Mars's Size to a Fast Formation of Neptune - Harold F. Levison, Southwest Research Institute. |
| 2:00PM - 2:20PM | 02.02: Iceless Icy Moons: Is the Nice Model In Trouble? - Henry C. (Luke) Dones, Southwest Research Institute. |
| 2:20PM - 2:40PM | 02.03: Accretion of Rocky Planets By Hot Jupiters - Jake Ketchum, University of Michigan Physics. |
| 2:40PM - 3:00PM | Coffee Break, Raven's Nest |
| 3:00PM - 3:20PM | 02.04: Constraining the Dynamical History of Fomalhaut Using High-Resolution ALMA Observations - Aaron C. Boley, University of Florida. |
| 3:20PM - 3:40PM | 02.05: Shepherd Planets - Matthew J. Payne, University of Florida. |
| 3:40PM - 4:00PM | 02.06: Orbital Dynamics and Habitability I: Triggering a Runaway Greenhouse via Tidal |

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Heating

- Rory Barnes, University of Washington.

03 Brouwer Award Lecture
Mt. Hood, 4:00PM - 5:00PM

03.01 INVITED: Manifold-driven Spirals in Barred Galaxies
- E. Athanassoulas, LAM/OAMP, France.

Raven's Nest, 5:00PM – 6:00PM

Brouwer Lecture Reception

Mt. Hood, 6:00PM – 7:30PM

DDA Business Meeting

Tuesday, 8 May, 2012

04 Rings
Mt. Hood, 8:00AM - 12:00PM

04.00C: Chair
- Daniel J. Scheeres, University of Colorado.

8:00AM - 8:40AM

04.01 INVITED: Dynamics of Dusty Rings
- Matthew M. Hedman, Cornell University.

8:40AM - 9:00AM

04.02: WISE Constraints on the Particle Properties in Saturn's Phoebe Ring
- Douglas P. Hamilton, University of Maryland.

9:00AM - 9:20AM

04.03: Chaos at Uranus Spreads Dust Across the Regular Satellites
- Dan Tamayo, Cornell University.

9:20AM - 9:40AM

04.04: LAGEOS Satellite Drag: the Eclipse Season Mystery Remains
- Victor J. Slabinski, U.S. Naval Observatory.

9:40AM - 10:00AM

04.05: A Propeller in the B-ring
- Joseph N. Spitale, Planetary Science Institute.

10:00AM – 10:20AM

Coffee Break, Raven's Nest

10:20AM - 10:40AM

04.06: The Edge of the B Ring, Part II
- Philip D. Nicholson, Cornell University.

10:40AM - 11:00AM

04.07: The Eccentricity Of Mimas And The Cassini Division: A Common History
- Benoit Noyelles, University of Namur, Belgium.

11:00AM - 11:20AM

04.08: The Morphology of Saturn's F Ring
- Carl D. Murray, Queen Mary, University Of London, United Kingdom.

11:20AM - 11:40AM

04.09: Global N-body Simulations of Broad Planetary Rings and Narrow Ringlets
- Joseph M. Hahn, Space Science Institute - Austin.

11:40AM - 12:00PM

04.10: A New Method for Modeling Collisions in Debris Disks
- Erika Nesvold, University Maryland, Baltimore County.

12:00PM – 1:40PM

Lunch on your Own

05 Planet Formation
Mt. Hood, 1:40PM - 4:20PM

05.00C: Chair
- Harold F. Levison, Southwest Research Institute.

1:40PM - 2:00PM

05.01: Signatures Of A Putative Planetary Mass Solar Companion On The Orbital Distribution Of Tno's And Centaurs
- Rodney S. Gomes, Observatorio Nacional, Brazil.

2:00PM - 2:20PM

05.02: The Origin of Resonant Kuiper Belt Objects
- Kathryn Volk, University of Arizona.

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| 11:40AM – 2:00PM | Lunch on your Own |
| 07 Asteroids Mt. Hood, 2:00PM - 5:40PM | 07.00C: Chair - Seth A. Jacobson, University of Colorado at Boulder. |
| 2:00PM - 2:20PM | 07.01: Indeterminacy in the Stable States of 4-Grain Rubble Piles - Daniel J. Scheeres, University of Colorado. |
| 2:20PM - 2:40PM | 07.02: Fission Limit And Surface Disruption Criteria For Asteroids: The Case Of Kleopatra - Masatoshi Hirabayashi, University of Colorado at Boulder. |
| 2:40PM - 3:00PM | 07.03: Detection of Semi-Major Axis Drifts in 55 Near-Earth Asteroids - Carolyn Nugent, UCLA. |
| 3:00PM - 3:20PM | 07.04: Effect of Small Scale Surface Topology on Near-Earth Asteroid YORP and bYORP Coefficients - Jay W. McMahon, University of Colorado - Boulder. |
| 3:20PM - 3:40PM | Coffee Break, Raven's Nest |
| 3:40PM - 4:00PM | 07.05: Collapsing Binary Asteroids With YORP And BYORP - Patrick A. Taylor, Arecibo Observatory. |
| 4:00PM - 4:20PM | 07.06: Dynamical Architecture of Multi-Component Systems - Julia Fang, University of California, Los Angeles. |
| 4:20PM - 4:40PM | 07.07: Dynamics of Binary Near-Earth Asteroid System (35107) 1991 VH - Shantanu P. Naidu, University of California. |
| 4:40PM - 5:00PM | 07.08: The Trajectory Dynamics of Near-Earth Asteroid 101955 (1999 RQ36) - Steven R. Chesley, Jet Propulsion Laboratory, California Institute of Technology. |
| 5:00PM - 5:20PM | 07.09: Resonant Flyby and Tour Design Using Heteroclinic Connections - Rodney L. Anderson, Jet Propulsion Laboratory, California Institute of Technology. |
| 5:20PM - 5:40PM | 07.10: Keyholes and Jabbas: The Role of Pre-Impact Close Approaches in Asteroid Deflection - Paul Chodas, Jet Propulsion Laboratory, California Institute of Technology. |
| Thursday, 10 May, 2012 | |
| 08 Satellites and Obliquities Mt. Hood, 8:00AM - 11:40AM | 08.00C: Chair - Dan Tamayo, Cornell University. |
| 8:00AM - 8:40AM | 08.01 INVITED: Tidal Evolution of Multiple Moons around Solid Planets - Matija Cuk, <i>SETI Institute</i> . |
| 8:40AM - 9:00AM | 08.02: Compositions And Origins Of Outer Planet Systems: Insights From The Roche Critical Density - Matthew S. Tiscareno, Cornell University. |
| 9:00AM - 9:20AM | 08.03: Cupid is Still Doomed: Overlapping Power Laws and the Stability of the Inner Uranian Satellites - Robert S. French, SETI Institute. |
| 9:20AM - 9:40AM | 08.04: Rotational Kinematics and Torques for Triaxial Bodies: A Simple Derivation of Precession with Synchronous Locking - William I. Newman, UC, Los Angeles. |
| 9:40AM - 10:00AM | 08.05: Long-term Rotation State Evolution of Comet Nuclei Including the Effects of Jet Torques and Internal Dissipation - Seth A. Jacobson, University of Colorado. |

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| 10:00AM - 10:20AM | Coffee Break, Raven's Nest |
| 10:20AM - 10:40AM | 08.06: Dissipation and Synchronization due to Creeping Tides - Sylvio Ferraz-Mello, University de Sao Paulo, Brazil. |
| 10:40AM - 11:00AM | 08.07: Influence of an Inner Core on the Long-period Forced Librations of Mercury - Marie Yseboodt, Royal Observatory of Belgium, Belgium. |
| 11:00AM - 11:20AM | 08.08: Orbit Determination in the Pluto System - Marc W. Buie, Southwest Research Institute. |
| 11:20AM - 11:40AM | 08.09: Pluto's "p4" And The Search For Additional Moons And Rings - Mark R. Showalter, SETI Institute. |