## American Astronomical Society - Division on Dynamical Astronomy Talk Schedule

Monday, 7 May, 2012

| 01 Exoplanets <br> Mt. Hood, 8:10AM - 11:40AM | 01.00C Chair <br> - Douglas P. Hamilton, University of Maryland. |
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| 8:10AM - 8:20AM | 01.00C1: Opening Remarks <br> 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 Perturbation 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. |
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| 11:00AM - 11:20AM | 01.07: On the Orbit of the Circumbinary Planet Kepler-16b <br> 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 <br> Ka Ho Chan, The University of Hong Kong, Hong Kong. |
| 12:00PM - 1:40PM | Lunch on your Own |
| 02 Planet Formation <br> Mt. Hood, 1:40PM - 4:00PM | 02.00C: Chair <br> - Soko Matsumura, University of Maryland |

1:40PM-2:00PM

2:00PM - 2:20PM

2:20PM - $2: 40 \mathrm{PM}$

2:40PM - 3:00PM
3:00PM - 3:20PM

3:20PM - $3: 40 \mathrm{PM}$

3:40PM-4:00PM
02.01: Tackling Some Issues in Planet Formation - From Mars's Size to a Fast Formation of Neptune

- Harold F. Levison, Southwest Research Institute.
02.02: Iceless Icy Moons: Is the Nice Model In Trouble?
- Henry C. (Luke) Dones, Southwest Research Institute.
02.03: Accretion of Rocky Planets By Hot Jupiters

Jake Ketchum, University of Michigan Physics.

## Coffee Break, Raven's Nest

02.04: Constraining the Dynamical History of Fomalhaut Using High-Resolution ALMA Observations

- Aaron C. Boley, University of Florida.


### 02.05: Shepherd Planets

Matthew J. Payne, University of Florida.
02.06: Orbital Dynamics and Habitability I: Triggering a Runaway Greenhouse via Tidal

|  | Heating <br> Rory Barnes, University of Washington. |
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| 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 <br> Mt. Hood, 8:00AM - 12:00PM | 04.00C: Chair <br> - 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 <br> Mt. Hood, 1:40PM - 4:20PM | 05.00C: Chair <br> - Harold F. Levison, Southwest Research Institute. |
| 1:40PM - $2: 00 \mathrm{PM}$ | 05.01: Signatures Of A Putative Planetary Mass Solar Companion On The Orbital Distribution Of Tno's And Centaurs <br> - 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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| 2:20PM - $2: 40 \mathrm{PM}$ | 05.03: Neptune's Wild Days: Constraints from the Classical Kuiper Belt Rebekah I. Dawson, Harvard-Smithsonian CfA. |
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| 2:40PM - 3:00PM | 05.04: Simulations of Giant Planet Core Formation Henry Ngo, Queen's University, Canada. |
| 3:00PM - 3:20PM | Coffee Break, Raven's Nest |
| 3:20PM - 3:40PM | 05.05: Planetesimal Capture by an Evolving Gaseous Giant Planet Nader Haghighipour, University of Hawaii. |
| 3:40PM - 4:00PM | 05.06: The Galaxy's Role in Destabilizing Planets within Wide Binaries Nathan A. Kaib, Queen's University, Canada. |
| 4:00PM - 4:20PM | 05.07: Long-Term Obliquity Variations of a Moonless Earth Jason W. Barnes, University of Idaho. |
| 09 Poster Session <br> Raven's Nest, 4:20PM - 6:00PM | Pease refer to abstracts for the list of poster presentations. |
| ROOM TBD, 6:00PM - 8:00PM | Banquet |


| 06 Galaxies <br> Mt. Hood, 8:00AM - 12:00PM | 06.00C: Chair Matthew M. Hedman, Cornell University. |
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| 8:00AM - 8:40AM | 06.01 INVITED: Velocity Fields and Dark Matter Halos <br> Rachel Kuzio de Naray, Royal Military College of Canada, Canada. |
| 8:40AM - 9:00AM | 06.02: The Shape of the Local Stellar Velocity Ellipsoid Jerry Sellwood, Rutgers University. |
| 9:00AM - 9:20AM | 06.03: Structural Parameter Restrictions of Normal Spiral Galaxies Based on Chaotic and Ordered Orbital Behavior <br> Maria de Los Angeles Perez Villegas, IA-UNAM, Mexico. |
| 9:20AM - 9:40AM | 06.04: A New Dataset of Automatically Extracted Structure of Arms and Bars in Spiral Galaxies Wayne B. Hayes, UC, Irvine. |
| 9:40AM - 10:00AM | 06.05: Recent results from the Spitzer Survey of Stellar Structure in Galaxies (S4G) Albert Bosma, LAM/OAMP, France. |
| 10:00AM - 10:20AM | Coffee Break, Raven's Nest |
| 10:20AM - 10:40AM | 06.06: Time-Variable Disk Photo-Evaporation Rates in Dense Star Clusters Henry B. Throop, PSI. |
| 10:40AM - 11:00AM | 06.08: The Role of Magnetic Fields in Relativistic Astrophysical Jets Nathaniel Hamlin, University of California, Los Angeles. |
| 11:00AM-11:20AM | 06.09: From Massive Galactic Spiral Arms to Subtle Solar System Perturbations Stacy S. McGaugh, University of Maryland. |
| 11:20AM - 11:40AM | 06.10: The Origins Program <br> - Henry B. Throop, CDAP and OSS Program Manager |


| 11:40AM - 2:00PM | Lunch on your Own |
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| 07 Asteroids | 07.00C: Chair |
| Mt. Hood, 2:00PM - 5:40PM | - Seth A. Jacobson, University of Colorado at Boulder. |
| 2:00PM - $2: 20 \mathrm{PM}$ | 07.01: Indeterminacy in the Stable States of 4-Grain Rubble Piles Daniel J. Scheeres, University of Colorado. |
| 2:20PM - $2: 40 \mathrm{PM}$ | 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 <br> - 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 <br> 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 <br> Mt. Hood, 8:00AM - 11:40AM | 08.00C: Chair <br> Dan Tamayo, Cornell University. |
| 8:00AM - 8:40AM | 08.01 INVITED: Tidal Evolution of Multiple Moons around Solid Planets Matija Cuk, SETI Institute. |
| 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 <br> 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 <br> - Seth A. Jacobson, University of Colorado. |


| 10:00AM - 10:20AM | Coffee Break, Raven's Nest |
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| 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. |

