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<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Speaker</th>
<th>Institution</th>
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<tbody>
<tr>
<td>8:10AM - 11:40AM</td>
<td>01 Exoplanets</td>
<td>01.00C Chair</td>
<td>Douglas P. Hamilton, University of Maryland.</td>
<td></td>
</tr>
<tr>
<td>8:10AM - 8:20AM</td>
<td>01.00C1: Opening Remarks</td>
<td></td>
<td>Daniel Scheeres, The University of Colorado at Boulder.</td>
<td></td>
</tr>
<tr>
<td>8:20AM – 9:00AM</td>
<td>01.01 INVITED:</td>
<td>Dynamical Evolution of Multiple-planet Systems</td>
<td>Soko Matsumura, University of Maryland.</td>
<td></td>
</tr>
<tr>
<td>9:00AM - 9:20AM</td>
<td>01.02: Stability of</td>
<td>Multiple Planet Systems</td>
<td>Alice C. Quillen, University of Rochester.</td>
<td></td>
</tr>
<tr>
<td>9:40AM – 10:00AM</td>
<td>01.04: Mean Motion</td>
<td>Resonances Among Kepler Planets</td>
<td>Konstantin Batygin, California Institute of Technology</td>
<td></td>
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<tr>
<td>10:00AM - 10:20AM</td>
<td>01.05: Propagation of</td>
<td>Coupled Changes in Orbital e and a via Secular Perturbations</td>
<td>Richard Greenberg, University of Arizona.</td>
<td></td>
</tr>
<tr>
<td>10:20AM - 11:00AM</td>
<td>01.06: Secular Dynamics</td>
<td>of the Kepler-11 System</td>
<td>Christa L. Van Laerhoven, University of Arizona.</td>
<td></td>
</tr>
<tr>
<td>11:00AM - 11:20AM</td>
<td>01.07: On the Orbit of</td>
<td>the Circumbinary Planet Kepler-16b</td>
<td>Man Hoi Lee, The University of Hong Kong, Hong Kong.</td>
<td></td>
</tr>
<tr>
<td>11:20AM - 11:40AM</td>
<td>01.08: On the Dynamical</td>
<td>State of the HD 82943 Planetary System</td>
<td>Xianyu Tan, The University of Hong Kong, Hong Kong.</td>
<td></td>
</tr>
<tr>
<td>11:40AM - 12:00PM</td>
<td>01.09: Probability Of</td>
<td>Capture For The 3:1 Mean-motion Resonance</td>
<td>Ka Ho Chan, The University of Hong Kong, Hong Kong.</td>
<td></td>
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<tr>
<td>12:00PM – 1:40PM</td>
<td>Lunch on your Own</td>
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<tr>
<td>1:40PM - 2:00PM</td>
<td>02.01: Tackling Some</td>
<td>Issues in Planet Formation - From Mars's Size to a Fast Formation of Neptune</td>
<td>Harold F. Levison, Southwest Research Institute.</td>
<td></td>
</tr>
<tr>
<td>2:20PM - 2:40PM</td>
<td>02.03: Accretion of</td>
<td>Rocky Planets By Hot Jupiters</td>
<td>Jake Ketchum, University of Michigan Physics.</td>
<td></td>
</tr>
<tr>
<td>2:40PM - 3:00PM</td>
<td>Coffee Break, Raven’s</td>
<td>Nest</td>
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<tr>
<td>3:00PM - 3:20PM</td>
<td>02.04: Constraining the</td>
<td>Dynamical History of Fomalhaut Using High-Resolution ALMA Observations</td>
<td>Aaron C. Boley, University of Florida.</td>
<td></td>
</tr>
<tr>
<td>3:20PM - 3:40PM</td>
<td>02.05: Shepherd Planets</td>
<td></td>
<td>Matthew J. Payne, University of Florida.</td>
<td></td>
</tr>
<tr>
<td>3:40PM - 4:00PM</td>
<td>02.06: Orbital Dynamics</td>
<td>and Habitability I: Triggering a Runaway Greenhouse via Tidal</td>
<td></td>
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</table>
### American Astronomical Society – Division on Dynamical Astronomy

**Talk Schedule**

#### Heating
- Rory Barnes, University of Washington.

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<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>03 Brouwer Award Lecture</td>
<td>Mt. Hood, 4:00PM - 5:00PM 03.01 INVITED: Manifold-driven Spirals in Barred Galaxies - E. Athanassoula, LAM/OAMP, France.</td>
</tr>
<tr>
<td>Raven’s Nest, 5:00PM – 6:00PM</td>
<td>Brouwer Lecture Reception</td>
</tr>
<tr>
<td>Mt. Hood, 6:00PM – 7:30PM</td>
<td>DDA Business Meeting</td>
</tr>
</tbody>
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**Tuesday, 8 May, 2012**

### 04 Rings
- Daniel J. Scheeres, University of Colorado.

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:00AM - 8:40AM</td>
<td>04.01 INVITED: Dynamics of Dusty Rings - Matthew M. Hedman, Cornell University.</td>
</tr>
<tr>
<td>8:40AM - 9:00AM</td>
<td>04.02: WISE Constraints on the Particle Properties in Saturn's Phoebe Ring - Douglas P. Hamilton, University of Maryland.</td>
</tr>
<tr>
<td>9:00AM - 9:20AM</td>
<td>04.03: Chaos at Uranus Spreads Dust Across the Regular Satellites - Dan Tamayo, Cornell University.</td>
</tr>
<tr>
<td>9:40AM - 10:00AM</td>
<td>04.05: A Propeller in the B-ring - Joseph N. Spitale, Planetary Science Institute.</td>
</tr>
<tr>
<td>10:00AM – 10:20AM</td>
<td>Coffee Break, Raven’s Nest</td>
</tr>
<tr>
<td>10:20AM - 10:40AM</td>
<td>04.06: The Edge of the B Ring, Part II - Philip D. Nicholson, Cornell University.</td>
</tr>
<tr>
<td>10:40AM - 11:00AM</td>
<td>04.07: The Eccentricity Of Mimas And The Cassini Division: A Common History - Benoit Noyelles, University of Namur, Belgium.</td>
</tr>
<tr>
<td>11:00AM - 11:20AM</td>
<td>04.08: The Morphology of Saturn's F Ring - Carl D. Murray, Queen Mary, University Of London, United Kingdom.</td>
</tr>
<tr>
<td>11:20AM - 11:40AM</td>
<td>04.09: Global N-body Simulations of Broad Planetary Rings and Narrow Ringlets - Joseph M. Hahn, Space Science Institute - Austin.</td>
</tr>
<tr>
<td>11:40AM - 12:00PM</td>
<td>04.10: A New Method for Modeling Collisions in Debris Disks - Erika Nesvold, University Maryland, Baltimore County.</td>
</tr>
<tr>
<td>12:00PM – 1:40PM</td>
<td>Lunch on your Own</td>
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### 05 Planet Formation
- Harold F. Levison, Southwest Research Institute.

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<tr>
<td>1:40PM - 2:00PM</td>
<td>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.</td>
</tr>
<tr>
<td>2:00PM - 2:20PM</td>
<td>05.02: The Origin of Resonant Kuiper Belt Objects - Kathryn Volk, University of Arizona.</td>
</tr>
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</table>
American Astronomical Society – Division on Dynamical Astronomy
Talk Schedule

2:20PM - 2:40PM
05.03: Neptune's Wild Days: Constraints from the Classical Kuiper Belt
- Rebekah I. Dawson, Harvard-Smithsonian CfA.

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: Planetaryesimal 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
Raven’s Nest, 4:20PM – 6:00PM
Pease refer to abstracts for the list of poster presentations.

ROOM TBD, 6:00PM – 8:00PM
Banquet

Wednesday, 9 May, 2012

06 Galaxies
Mt. Hood, 8:00AM - 12:00PM
06.00C: Chair
- Matthew M. Hedman, Cornell University.

8:00AM - 8:40AM
06.01 INVITED: Velocity Fields and Dark Matter Halos
- 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
- 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
- Henry B. Throop, CDAP and OSS Program Manager
# Talk Schedule

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