

DDA Schedule

Sunday, May 3rd

17:00 – Committee meeting

19:00 – Opening reception

Monday, May 4th

9:00 – Welcome Address (F. Adams, DDA Chair)

Exoplanet Theory

9:10 – *Invited talk*, TBA, Ruth Murray-Clay

9:50 – Loners, Groupies, and Long-term Eccentricity (and Inclination) Behavior: Insights from Secular Theory, Christa Van Laerhoven

10:10 – Obliquity Evolution of Earth-Like Exoplanets in Systems with Large Inclinations, Russell Deitrick

10:30-11:00 – Coffee Break

11:00 – Capture into Mean-Motion Resonances for Exoplanetary Systems, Maryame El Moutamid

11:20 – Consolidating and Crushing Exoplanet Systems, Kathryn Volk

11:40 – Mean Motion Resonances and the Origins of Extrasolar Orbital Architectures, Konstantin Batygin

12:00 – Secular star-disk coupling and the origin of exoplanetary spin-orbit misalignments, Christopher Spalding

12:20 – Inclination Excitation in Compact Extrasolar Planetary Systems, Juliette Becker

12:40-14:10 – Lunch Break

Planet Formation

14:10 – *Brouwer Award Lecture*: On the Robust Production of Super Earths and Suppressed Emergence of Gas Giants in Dynamically Evolving Protostellar Disks, Doug Lin

14:50 – Did our Solar System once have a STIP?, Brett Gladman

15:10 – The Formation of Terrestrial Planets from the Direct Accretion of Pebbles, Harold Levison

15:30-16:00 – Coffee Break

16:00 – Tidal Effects in Late Stage Accretion, Kevin Graves

16:20 – The Öpik Approximation and Giant Planet Shielding of the Inner Solar System, William Newman

16:40 – Implications of Resonant and Near-Resonant Planetary Systems for Planet Formation, Eric Ford

17:00 – The fate of debris from a giant impact on Mars, David Minton

17:30 – Business meeting

Tuesday, May 5th

Ring Dynamics

- 9:00 – Irregular Structure in Saturn's Huygens Ringlet, Joseph Spitale
9:20 – The Titan -1:0 bending wave in Saturn's C ring, Philip Nicholson
9:40 – Saturn Ring Seismology: How ring dynamics reveal the internal structure of the planet, Jim Fuller
10:00 – Saturn's F ring: A decade of perturbations and collisions, Carl Murray
10:20 – How massive is Saturn's B ring? Clues from cryptic density waves, Matthew Hedman

10:40 – 11:10 – Coffee Break

New Approaches to Classical Dynamical Problems

- 11:10 – *Invited Talk*, Modeling relativistic orbits and gravitational waves, Marc Favata
11:50 – *Invited Talk*, Instabilities in Near-Keplerian Systems, Ann-Marie Madigan

12:30-14:10 – Lunch Break

- 14:10 – The family of Quasi-satellite periodic orbits in the co-planar RTBP, Alexandre Pousse
14:30 – End-State Relative Equilibria in the Sphere-Restricted Full Three-Body Problem, Travis Gabriel

Dynamical Constraints from Exoplanet Observations

- 14:50 – Dynamical Evolution of planets in α Centauri AB, Billy Quarles
15:10 – Dynamical stability of imaged planetary systems in formation: Application to HL Tau, Daniel Tamayo

15:30-16:00 – Coffee Break

- 16:00 – Dynamical Analysis of the 6:1 Resonance of the Brown Dwarfs Orbiting the K Giant Star ν Ophiuchi, Man Lee
16:20 – Measurement of planet masses with transit timing variations due to synodic “chopping” effects, Katherine Deck
16:40 – Dialing the Love Number of Hot Jupiter HAT-P-13b, Peter Buhler

Dynamics of Small Solar System Bodies (moved early due to schedule conflict)

- 17:00 – High precision comet trajectory estimates: the Mars flyby of C/2013 A1 (Siding Spring), Davide Farnocchia

17:30 – Banquet at the Athenaeum

Wednesday, May 6th

Dynamics of Small Solar System Bodies

9:00 – The 2014 KCG meteor outburst: clues to a parent body, Althea Moorhead

9:20 – Increasing Space Situational Awareness for NEOs, Daniel Hestroffer

9:40 – The onset of dynamical instability and chaos in navigation satellite orbits, Aaron Rosengren

10:00 – The Evolution of the Grand Tack's Main Belt through the Solar System's Age, Rogerio Deienno

10:20 – The Evidence for Slow Migration of Neptune from the Inclination Distribution of Kuiper Belt Objects, David Nesvorny

10:40-11:10 – Coffee Break

11:10 – Gravity and Tide Parameters Determined from Satellite and Spacecraft Orbits, Robert Jacobson

11:30 – Contact Binary Asteroids, Samantha Rieger

11:50 – Stochastic YORP On Real Asteroid Shapes, Jay McMahon

12:10 – New Trans-Neptunian Objects in the Dark Energy Survey Supernova Fields, David Gerdes

12:30-14:10 – Lunch Break

14:10 – Lense-Thirring Effect Measurement from LAGEOS Node: Limitation from Radiation Forces, Victor Slabinski

Star Cluster and Galaxy Dynamics

14:30 – *Invited Talk*, The Relative Influence of Dynamical Nature and Nurture on the Formation of Disk Galaxies, Jonathan Bird

15:10 – Cross Sections for Planetary Systems Interacting with Passing Stars and Binaries, Fred Adams

15:30-16:00 – Coffee Break

16:00 – p-ellipse Orbit Approximations, Lindblad Zones, and Resonant Waves in Galaxy Disks, Curtis Struck

16:20 – Bars Triggered by Galaxy Flybys, Kelly Holley-Bockelmann

16:40 – Solving the Mystery of the Fermi Bubbles?, David Bartlett

Moon Formation and Dynamics (nudged earlier due to schedule conflict)

17:00 – Forced libration of tidally synchronized planets and moons, Bryan Dorland

17:30 – Poster Session

Thursday, May 7th

Moon Formation and Dynamics

9:00 – Rotational and interior models for Enceladus, Matthew Tiscareno and Radwan Tajeddine

10:40 – On the in situ formation of Pluto's small satellites, Man Yin Woo and Man Hoi Lee

10:00 -- Recent dynamical evolution of Mimas and Enceladus, Matija Cuk

10:20 – On the Spin-axis Dynamics of the Earth, Gongjie Li

10:40-11:10 – Coffee Break

11:10 -- Recent Formation of Saturnian Moons: Constraints from Their Cratering Records, Henry Dones

11:30 – Constraints on Titan's rotation from Cassini mission radar data, Bruce Bills