2016 DDA Meeting - Program

All talks, Business meeting, coffee breaks, and poster sessions will take place at
Vanderbilt University, 2201 West End Ave., Nashville, TN 37235
in Wilson Hall

Rules for speakers:
35 minute invited talks (30 minutes + 5 minutes for questions)
15 minute contributed talks (12 minutes + 3 minutes for questions)

Sunday, May 22nd

17:00	Committee meeting	- Wilson Hall
19:00	Opening reception	- Wilson Hall

Monday, May 23rd

9:00-9:10	Welcome Address: Kelly Holley-Bockelmann (DDA Chair)	

Planet Formation and Migration (Chair: Renu Malhotra)

9:10	Konstantin Batygin	"Origins of Hot Jupiters, Revisited"
9:25	Aaron Boley	"The in situ formation of giant planets at short orbital periods"
9:40	Sean Mills	"Kepler-233: A resonant chain of four transiting, sub-Neptune planets"
9:55	Craig Agnor	"On the nature and timing of giant planet migration in the solar system"
10:10	Juliette Becker	"WASP-47: a hot Jupiter with close friends"
10:25	Christopher Spalding	"Dynamical origins of the Kepler dichotomy"
10:40-11:10	Coffee Break	

Tidal Dynamics and Moon Formation (Chair: Alice Quillen)
BROUWER LECTURE:

11:10	Sylvio Ferraz Mello	"Anelastic tides of close-in satellites and exoplanets"
11:45	Billy Quarles	"Obliquity variations of a rapidly rotating Venus"
12:00	Benoit Noyelles	"On the rotation of viscoelastic satellites"
12:15	Matija Cuk	"Did the Kozai resonance help form Pluto's small moons"
12:30-14:00	Lunch	

Stability of Many-body systems/non-conservative system (Chair: Fred Adams)

14:00	Daniel Scheeres	"Hill stability in the finite density N-body problem"
14:20	Daniel Tamayo	"A library for adding additional effects to N-body simulations"
14:40	David Tsang	"Symplectic integrators: variational integrators for nonconservative systems"
15:00	Xianyu Wang	"High eccentricity MMRs in the circular planar restricted three-body problem"

Poster Introductions (4x2 minutes)

15:15	Alice Quillan	Simulating Tidal evolution and encounters with mass-spring models
15:17	Karl Jaehnig	The Structural Evolution of Forming and Early Stage Star Clusters
15:19	Christina Davis	Galaxy Transformation from Flyby Encounters
15:21	Indranil Banik	Galaxy cluster collision speeds as a test of LCDM: possible systematics & how to avoid them
15:25-15:45	Coffee Break (Poster viewing)	

Effects of unseen planets (Chair: Daniel Scheeres)

15:45	Christa Van Laerhoven	"Effect of Unseen Planets on Secular Interactions"
16:05	Fred Adams	"Interaction Cross Sections and Survival Probabilities for Proposed Solar System Member Planet Nine"
16:45	Kathryn Volk	"Dynamics of the Most Distant Kuiper Belt Objects"

17:15 DDA Business Meeting
Tuesday, May 24th

Special-Session: Impact of Astrometry on Dynamics (Chair: Alice Monet)

9:00	Gurtina Besla	"HSTPROMO and the dynamics of the Local Group" [INVITED]
9:35	Maria Tiongco	"Effects of dynamical evolution on the internal kinematical properties of star clusters" [DUNCOMBE]
9:50	Sebastien Lepine	"Local stellar kinematics from large astrometric surveys: mapping the Galactic phase-space substructure" [INVITED]
10:25	Keivan Stassun	"Determination of Precise Pre-main-sequence stellar properties through stellar and disk orbital dynamics"
10:40-11:10	Coffee Break	
11:10	Seigfried Eggl	"Is astrometry enough? Deflection relevant Near Earth Object characterization efforts in Europe" [INVITED]
11:45	Maria Kudryashova	"Solar system object observations with Gaia Mission"
12:00	Davide Farnocchia	"Scout: short-arc orbit analysis and hazard assessment for newly discovered asteroids"
12:15	Victor Slabinski	
12:30	P.K. Seidelmann	"Why the Greenwich Meridian Moved"
12:45-14:00	Lunch	

Multiplanet Systems: Stability and Characterization (Chair: Craig Agnor)

14:00	Jack Lissauer	"Orbital eccentricity and the stability of planets in the Alpha Centauri system"
14:15	Sarah Morrison	"Orbital stability of High Mass Planetary systems"
14:30	Alysa Obertas	"The stability of tightly-packed and evenly-spaced planetary systems"
14:45	Daniel Jontof-Hutter	"Eccentricity inferences in multi-planet systems with transit timing; degeneracies and apsidal alignment"
15:00	Kyle Conroy	"Discovery of a triple star system through dynamical Eclipse timing variations with Kepler eclipsing binaries"
15:15	Abhijit Krishna Puranam	"Tidal Q of a Super Earth: Dynamical constraints from the GJ 876 System"

Poster Introductions (4x2 minutes)

15:30	Robert Jacobson	The Gravity Field of Saturn and the Mass of the Saturnian Rings at the end of the Cassini Mission
15:32	Oleksiy Golubov	Modelling evolution of asteroid's rotation due to the YORP effect
15:34	B. Carter & M. Hedman	A dusty ringlet with connections to both Prometheus and the F ring
15:36	Charlie Finch	URAT Parallax Catalog: the largest parallax catalog since Hipparcos
15:40-16:10	Coffee Break (Poster viewing)	
16:10	Renu Malhotra	"The mass distribution function of planets in the Galaxy"
16:25	Eva Bodman	"Cometary source for the strange behavior of KIC 8462852" [DUNCOMBE]
16:40	Karen Collins	"A case study in dynamical planet ingestion by a hot host star"
19:00-22:00	Public event at Dyer Observatory (optional): Panel discussion on Exoplanets	

Wednesday, May 25th

Special session: Dynamics of Disks and Rings (Chair: Matthew Tiscareno)

9:00	Henrik Latter	"Planetary rings and astrophysical disks" [INVITED]
9:35	Douglas Hamilton	"Keeping the Edges Sharp I: Honing the Theory of Narrow Rings"
9:50	Andre Izidoro	"Structure of the Asteroid Belt from the Gas Giants' Growth and Chaotic Dynamics"
10:05	Seth Jacobson	"Establishing different size distributions in the asteroid belt"
10:20	Dong Lai	"Formation and dynamics of circumbinary planets"
10:35-11:00	Coffee Break	
11:00	Alice Quillen	"Warps and streams - Pushing and lifting material out of the midplane from galactic and circumstellar disks" [INVITED]
11:35	Sarah Loebman	"Chemodynamical signatures of radial migration in the Milky Way" [INVITED]
12:10	Jon Bird	"Galaxy disks in balance: vertical settling as a result of inside-out growth"
12:25	Curtis Stuck	"Near-exponential galaxy disks produced by scattering

		processes"
12:40- 14:00	Lunch	
Dynamics of galaxies and around supermassive black holes (Chair: Sarah Loebman)		
14:00	Stacy McGaugh	"Predicting the Velocity Dispersions of the Dwarf Satellites Galaxies of Andromeda"
14:15	Indranil Banik	"Anomalous motions in the local group: Evidence of a past Milky-Way Andromeda Flyby" [DUNCOMBE]
14:30	Kelly Holley-Bockelmann	"Bar formation from Galaxy Flybys"
14:45	Monica Valluri	"Orbits in N-body bars and the origin of the X-shapes in boxy-peanut bulges"
15:00	Ann-Marie Madigan	"Gas clouds as dynamical probes of the accretion flow around Sgr A*"
15:15	Mauri Voltonen	"Orbit of the OJ287 black hole binary as determined from the General Relativity centenary flare"
15:30-16:00	Coffee Break (Poster viewing)	
Dynamics of Small Solar System Bodies (Chair: Christa Van Laerhoven)		
16:00	Henry (Luke) Dones	"Could the crates on the mid-sized moons of Saturn been made by satellite debris?"
16:15	Mark Showalter	"Orbital and rotational dynamics of Pluto's small moons"
16:30	Rachel Smullen	"The fate of debris in the Pluto-Charon system"
16:45	Daohai Li	"Himalia and Phoebe: Little moons that punch above their weight"
17:00	Paul Chodas	"Designing Asteroid Impact Scenario Trajectories"
17:15	Oleksiy Golubov	"Spin state equilibria of asteroids due to YORP effects"
17:30	Rodney Anderson	"Low-energy asteroid and comet transit analysis using isolating blocks"
19:00	**Conference Banquet:** [1] target="_blank">Sambuca, 601 12th Ave South, 7 pm, Wed. $65 *--> Sign-up for banquet by COB Monday. See Kelly H-B for details.*	
Thursday, May 26th		
Saturn and Saturn's rings (Chair: Douglas Hamilton)		
9:00	Matthew Tiscareno	"Propeller peregrinations: Ongoing observations of disk-embedded migration in Saturn's rings"
9:15	Thomas Rimlinger	"Keeping the Edges Sharp II: Honing Simulations of Narrow Rings"
9:30	Philip Nicholson	"Kronoseismology III: An update on Saturn-driven waves in the C ring"
9:45	Matthew Hedman	"An array of asymmetry in Saturn's structure revealed by its rings"
10:00	Maryame El Moutamid	"Tesseral resonances in the rings of Saturn"
10:15	Ethan Arnault	"Physical characteristics of 'wisps' in the outer edge of the Keeler gap in Saturn's rings"
10:30-11:00	Coffee Break	
11:00	Robert Jacobson	"The gravity field of Saturn and the mass of the Saturnian rings at the end of the Cassini Mission"
11:15	Joseph Spitale	"4-km body(ies?) embedded in Saturn's Huygens Ringlet"
11:30	Robert Chancia	"Persistent pattern speeds in Saturn's D ring"

Public Event on Exoplanets at Dyer Observatory:

Public nights at Dyer Observatory [2] are typically sold out a month in advance and draw about 100 visitors, limited only by the available parking on the mountain. We will provide transportation to and from Dyer for a special DDA-sponsored public event on exoplanetary dynamics and astrobiology on May 24th at 7 pm.

We plan a short introductory primer on exoplanets, followed by a 4-6 member panel debate and Q+A session on what new data reveal about the possibility of life on other worlds.

If you would like to participate in this public event as a speaker, panelist, or guest, please email Kelly Holley-Bockelmann (k.holley@vanderbilt.edu [3]) with the subject line 'DDA at Dyer'.

Last update: 29 April 2016

Source URL: https://dda.aas.org/meetings/2016/program

Links
[1] http://www.sambucarestaurant.com/home
[2] https://wp0.its.vanderbilt.edu/dyer/
[3] mailto:k.holley@vanderbilt.edu