2018 DDA Meeting Schedule

2018 Annual Meeting of the DDA

Oral Presentations

All oral presentation sessions are located in the ballroom of the Four Points Sheraton San Jose Airport

Sunday, April 15

4:00	DDA Committee Meeting in the Chantilly Boardroom of the Four Points Sheraton San Jose Airport		
4:00	Registration opens at Hangar Bar and Grill, restaurant of the Four Points Sheraton San Jose Airport		

Opening Reception
Hangar Bar and Grill, restaurant of the Four Points Sheraton San Jose Airport
5:00 - 8:00

6:00	Food available at the reception until 7:30		

Monday, April 16

8:20	Seth Jacobson, Matija Cuk, and Matthew Tiscareno	SOC and LOC chairs	Introduction and announcements

The Astronomer Always Rings Twice
Dynamics of Planetary Rings
Chair: Matthew Tiscareno, SETI Institute
8:30 - 9:30

8:30	Phil Nicholson	Cornell University	Stellar occultations by Saturn's rings
8:45	Matthew Hedman	University of Idaho	Axisymmetric density waves in Saturn's rings
9:00	Maryame El Moutamid	Cornell University	Derivation of the torque associated to tesseral resonances
9:15	Robert Chancia	University of Idaho	The structure of Jupiter’s main ring from New Horizons: a comparison with other ring-moon systems

Party in the Spin Room
Dynamics of Rotation
Chair: Phil Nicholson, Cornell University
9:30 - 10:00

9:30	Victor Slabinski	US Naval Observatory	Episodic spin-up and spin-down torque on Earth
9:45	Matija Cuk	SETI Institute	Early dynamics of the Moon's core

Coffee Break and Poster Viewing
10:00 - 10:30

Pebble in the Sky: Meteoroids and Their Orbits
Convener and Chair: Matija Cuk, SETI Institute
10:30 - 12:30

10:30	Althea Moorhead	NASA Marshall Space Flight Center	The formation and early evolution of meteoroid streams (Invited)
11:00	Luke Dones	Southwest Research Institute	Asteroids and meteorites from Venus? Only the Earth goddess knows
11:15	Margaret Campbell-Brown	University of Western Ontario	Meteoroid orbits from observations (Invited)
11:45	Peter Jenniskens	SETI Institute	A shower look-up table to trace the dynamics of meteoroid streams and their sources
12:00	Sigrid Close	Stanford University	Electromagnetic effects from impacts on spacecraft (Invited)

Lunch break
12:30 - 2:00

'N Sync
Dynamics of Resonant Objects
Chair: Marina Brozovic, NASA Jet Propulsion Laboratory
2:00 - 3:45

2:00	Brett Gladman	University of British Columbia	The prevalence of resonances among large-a trans-Neptunian objects
2:15	Kathryn Volk	University of Arizona	Two objects in Neptune's 9:1 resonance -- implications for resonance sticking in the scattering population
2:30	Lei Lan	University of Arizona	Neptune's 5:2 mean motion resonance in the Kuiper belt
2:45	Thomas Rimlinger	University of Maryland	The stability of resonant chains of moons
3:00	Yukun Huang	Tsinghua University	Dynamics of the retrograde 1:1 mean motion resonance
3:15	Paul Wiegert	University of Western Ontario	The first retrograde Trojan asteroid
3:30	Alex Davis	University of Colorado	Full two-body problem mass parameter observability explored through doubly synchronous systems

Coffee break and poster viewing
3:45 - 4:15

The Fault in Our Stars
Dynamics of Stars and Black Holes
Chair: Heidi Newberg, Rensselaer Polytechnic Institute
4:15 - 5:30

4:15	Monica Valluri	University of Michigan	Estimating biases in the stellar dynamical black hole mass measurements in barred galaxies and prospects for measuring SMBH masses with JWST
4:30	Heather Wernke	University of Colorado	Tidal disruption events from eccentric nuclear disks
4:45	Rosemary Wyse	Johns Hopkins University	Stellar angular momentum distributions and preferential Radial Migration
5:00	Jing Luan	University of California at Berkeley	DAVs: red edge and outbursts
5:15	Kevin Rauch	University of Maryland	HNbody: a simulation package for hierarchical N-body systems

Public Lecture: Extreme Solar Systems
Cristobal Petrovich, Canadian Institute for Theoretical Astrophysics
6:30 - 7:30 at San Jose State University (map [1])

Tuesday, April 17

8:00	Registration opens		
8:20	Seth Jacobson, Matija Cuk, and Matthew Tiscareno	SOC and LOC chairs	Announcements

Vera Rubin Prize Lecture
Chair: Luke Dones, Southwest Research Institute
8:30 - 9:15

8:30	Dan Fabrycky	University of Chicago	The realm of close-in planets

Hot, Flat, and Crowded
Dynamics of Tightly-Packed Exoplanets
Chair: Pierre Gratia, Northwestern University
9:15 - 10:00

9:15	Sam Hadden	Harvard University	A resonance overlap criterion for the onset of chaos in systems of two eccentric planets
9:30	Daniel Tamayo	University of Toronto at Scarborough	Predicting instability timescales in closely-packed planetary systems
9:45	Aaron Boley	University of British Columbia	Transit duration variations due to secular interactions in systems with tightly-packed inner planets

Coffee Break and Poster Viewing
10:00 - 10:30

An Oblique Reference to Pop Culture

Dynamics of Exoplanets
Chair: Christa Van Laerhoven, University of British Columbia
10:30 - 12:30

10:30	Kassandra Anderson	Cornell University	Teetering stars: resonant excitation of stellar obliquities by hot and warm Jupiters with external companions
10:50	Christopher Spalding	California Institute of Technology	The resilience of Kepler multi-systems to stellar obliquity
11:05	Sarah Millholland	Yale University	On the obliquities of planets in close-in, compact systems
11:25	Daniel Jontof-Hutter	University of the Pacific	Dynamical constraints on non-transiting planets at Trappist-1
11:40	Elizabeth Bailey	California Institute of Technology	Probing the parameters of the HAT-P-2 system
12:00	David Fleming	University of Washington	On the lack of circumbinary planets orbiting isolated binary stars
12:15	Agueda Granados Contreras	University of British Columbia	The formation of co-orbital planets and their resulting transit signatures

Lunch break
12:30 - 2:00

In the Beginning There Was Chaos
Dynamics of Planet Formation
Chair: Wing-Kit Lee, Northwestern University
2:00 - 4:00

2:00	Juliette Becker	University of Michigan	Forming hot Jupiters: observational constraints on gas giant formation and migration
2:15	Masahiro Ogihara	National Astronomical Observatory of Japan	Formation of close-in super-Earths in an evolving disk due to disk winds
2:30	Mickey Rosenthal	University of California at Santa Cruz	How turbulence can set the radial distribution of gas giants formed by pebble accretion
2:45	Spencer Wallace	University of Washington	High resolution N-body simulations of terrestrial planet growth
3:00	Matthew Clement	University of Oklahoma	Saving the inner solar system with an early instability
3:15	Rogerio Deienno	Southwest Research Institute	Exciting an initially cold asteroid belt through a planetary instability

3:30	Renata Frelikh	University of California at Santa Cruz	Dynamical upheaval in ice giant formation: a solution to the fine-tuning problem in the formation story
3:45	Yu-Cian Hong	Cornell University	Orbital dynamics of exomoons during planet–planet scattering

Coffee Break and Poster Viewing
4:00 - 4:30

Lick Observatory Tour
Meet at the entrance of the Four Points Sheraton San Jose Airport at 4:15 pm
6:00 - 10:00 at the observatory

Wednesday, April 18

8:00	Registration opens		
8:20	Seth Jacobson, Matija Cuk, and Matthew Tiscareno	SOC and LOC chairs	Announcements

Stability, or Instability, That is the Question
Dynamics of Planetary System Stability
Chair: Kassandra Anderson, Cornell University
8:30 - 10:00

8:30	Sacha Gavino	University of Bordeaux	Orbital stability of compact three-planets systems
8:45	Fred Adams	University of Michigan	The stability of tidal equilibrium for hierarchical star-planet-moon systems
9:00	Pierre Gratia	Northwestern University	Stability considerations of packed multi-planet systems
9:15	Jack Lissauer	NASA Ames Research Center	Stability of multi-planet systems orbiting in the Alpha Centauri AB system
9:30	Billy Quarles	University of Oklahoma	Dynamics of circumbinary planets near the stability limit
9:45	Alexander Zderic	University of Colorado	Instability timescale for the inclination instability in the solar system

Coffee Break and Poster Viewing
10:00 - 10:30

1I/`Oumuamua: the First Known Interstellar Asteroid
Convener and Chair: Luke Dones, Southwest Research Institute
10:30 - 12:30

10:30	Karen Meech	University of Hawaii	Observations of 1I/`Oumuamua (Invited)
11:00	Darryl Seligman	Yale University	The feasibility and

			benefits of in situ exploration of 1I/`Oumuamua-like objects
11:15	Quan-Zhi Ye	California Institute of Technology	Telescopic and meteor observation of 1I/`Oumuamua, the first known interstellar asteroid (Invited)
11:45	Daniel Scheeres	University of Colorado	Stability limits for rubble pile asteroid shapes
12:00	Darin Ragozzine	Brigham Young University	On the detectability of interstellar objects like 1I/'Oumuamua (Invited)

Lunch break
12:30 - 2:00

The Good, the Bad, the Ugly: How Do Simulations Compare Their Data to Observers and How Can They Do It Better?
Convener and Chair: Sarah Loebman, University of California at Davis
2:00 - 3:30

2:00	Nathan Kaib	University of Oklahoma	Using real and simulated TNOs to constrain the outer solar system (Invited)
2:30	Robyn Sanderson	California Institute of Technology	Science with synthetic stellar surveys (Invited)
3:00	Kelly Holley-Bockelmann	Vanderbilt University	Supermassive black holes as revealed by LISA: how gravitational wave astronomy will be a game changer (Invited)

Coffee Break and Poster Viewing
3:30 - 4:00

Stretched Out Dwarfs
Dynamics of Galaxies
Chair: TBA
4:00 - 4:45

4:00	Cristobal Petrovich	Canadian Institute for Theoretical Astrophysics	Merging black holes in non-spherical nuclear star clusters
4:15	Heidi Newberg	Rensselaer Polytechnic Institute	Reconstructing the dwarf galaxy progenitor from tidal streams using MilkyWay@Home [2]
4:30	Andrew Wetzel	University of California at Davis	Implications of stellar feedback for dynamical modeling of the Milky Way and dwarf galaxies

Dirk Brouwer Award Lecture
Chair: Luke Dones, Southwest Research Institute
4:45 - 5:30

4:45	Ortwin Gerhard	Max Planck Institute for Extraterrestrial Physics	The barred inner region of the Milky Way

DDA Member's Annual Meeting
Chair: Luke Dones, Southwest Research Institute
5:30 - 6:30

Conference Banquet
Jade Cathay (1339 N 1st St, San Jose, CA 95110)
Starts at 7:00

Thursday, April 19

8:00	Registration opens		
8:20	Seth Jacobson, Matija Cuk, and Matthew Tiscareno	SOC and LOC chairs	Announcements

Flat Cats Instead of Spherical Cows
Dynamics of Disks
Chair: Kathryn Volk, University of Arizona
8:30 - 10:00

8:30	Konstantin Batygin	California Institute of Technology	Schrödinger evolution of self-gravitating disks
8:45	Diana Powell	University of California at Santa Cruz	Using ice and dust lines to constrain the surface densities of protoplanetary disks
9:00	Wing-Kit Lee	Northwestern University	Long-lived eccentric modes in protoplanetary disks
9:15	Andrew Shannon	Pennsylvania State University	The dynamical imprint of lost protoplanets on the trans-Neptunian populations, and limits on the primordial size distribution of trans-Neptunian objects at Pluto and larger sizes.
9:30	Joseph A'Hearn	University of Idaho	Dynamics of multiple bodies in a corotation resonance

Danger, Will Robinson! Danger!
Dynamics of Hazardous Asteroids
Chair: Althea Moorhead, NASA Marshall Space Flight Center
9:45 - 10:30

9:45	Alan Harris	MoreData!	NEA impactors: what direction do they come from?
10:00	Douglas Hamilton	University of Maryland	Deadly sunflower orbits
10:15	Aaron Rosengren	University of Arizona	Chaotic Transport in Circumterrestrial Orbits

Coffee Break and Poster Viewing
10:30 - 11:00

Ringleaders and Fellow Travelers
Dynamics of Moons
Chair: Maryame El Moutamid, Cornell University
11:00 - 11:45

11:00	Marina Brozovic	NASA Jet Propulsion Laboratory	Orbits of the inner satellites of Neptune
11:15	Valery Lainey	NASA Jet Propulsion Laboratory	Interior properties of the inner Saturnian moons from space astrometry data
11:30	William Oldroyd	Brigham Young University	More sophisticated fits of the orbits of Haumea's interacting moons

Never Tell Me the Odds
Dynamics of the Kuiper Belt
Chair: Rogerio Deienno, Southwest Research Insitute
11:45 - 1:05

11:45	Benjamin Proudfoot	Brigham Young University	Modeling the dynamical structure of the Haumea family
12:00	Nathan Benfell	Brigham Young University	Assessing backwards integration as a method of KBO family finding
12:15	Tali Khain	University of Michigan	The generation of the distant Kuiper belt by planet nine from an initially broad perihelion distribution
12:35	Steven Maggard	Brigham Young University	Dynamical classifications of the Kuiper belt
12:50	Christa Van Laerhoven	University of British Columbia	Determining the plane of the Kuiper belt with OSSOS

Poster Presentations

All poster presentation sessions are located in the back section of the ballroom of the Four Points Sheraton San Jose Airport

Available all week

1	Aaron Boley	The University of British Columbia	The sustainable development of space: astro-environmental and dynamical considerations
2	Michael Cahill	University of Wisconsin-Washington County	Cellular analysis of boltzmann most probable ideal gas statistics
3	Rogerio Deienno	Southwest Research Institute	Terrestrial planet formation from an annulus -- revisited
4	David Fleming	University of Washington	Coevolution of binaries and circumbinary gaseous disks
5	Robert Jacobson	Jet Propulsion Laboratory	Constraints on the mass and location of planet 9

			set by range and VLBI observations of Cassini
6	Seth Jacobson	Northwestern University	Planetary cross-breeding: geochemical mixing during planet formation
7	Satish Malhotra		Gravity does it: redshift of light from the galaxies yes, expanding universe no!
8	Chris Mankovich	University of California at Santa Cruz	A View into Saturn through its Natural Seismograph
9	William Polycarpe	IMCCE	Titan crossing a 5:1 MMR with Iapetus: constraining the tidal recession of Titan and giving an explanation for Iapetus' current orbit
10	Zeeve Rogoszinski	University of Maryland	Supermassive black holes as revealed by LISA: how gravitational wave astronomy will be a game changer
11	Chris Simonson		High-velocity cloud complex h and Weaver’s “jet”: two candidate dwarf satellite galaxies for which dark matter halo models indicate distances of ~27 kpc and ~108 kpc
12	Spencer Wallace	University of Washington	The influence of dynamical friction and mean motion resonances on terrestrial planet growth

Source URL: https://dda.aas.org/meetings/2018/schedule

Links
[1] http://bit.ly/2sH98RJ
[2] mailto:MilkyWay@Home