

# 44<sup>th</sup> DDA Meeting – Final Program

## DDA Business Meeting

Invitation-Only Event – 05 May 2013 04:00 PM to 05:30 PM – Auditorium (House of Culture)

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## Welcome Reception

Attendee Event – 05 May 2013 06:00 PM to 08:00 PM – Foyer (House of Culture)

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## 100 – Exoplanets I

Oral Session – 06 May 2013 08:00 AM to 10:05 AM – Chair(s): Sylvio Ferraz Mello

### 100.01 – Planet Detection and Characterization from Transit Timing Variations

*David Nesvorny*

08:00 AM-08:40 AM; Auditorium (House of Culture)

### 100.02 – Rapid Dynamical Chaos in the Kepler-36 System

*Katherine Deck, et al.*

08:40 AM-09:05 AM; Auditorium (House of Culture)

### 100.03 – The Initial Mass Distribution for Exoplanetary Systems

*Miles L. Timpe, et al.*

09:05 AM-09:25 AM; Auditorium (House of Culture)

### 100.04 – Spin-Orbit Coupling in Exoplanetary Systems with High Mutual Inclinations

*Rory Barnes, et al.*

09:25 AM-09:45 AM; Auditorium (House of Culture)

### 100.05 – Secular Evolution of Extrasolar Planetary Systems: An Extension of the Laplace-Lagrange Secular Theory

*Marco Sansottera, Anne-Sophie Libert*

09:45 AM-10:05 AM; Auditorium (House of Culture)

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## 105 – Exoplanets II

Oral Session – 06 May 2013 10:35 AM to 11:15 AM – Chair(s): Kevin Walsh

### 105.01 – Stability criteria in real planetary systems

*Cristian Giuppone, et al.*

10:35 AM-10:55 AM; Auditorium (House of Culture)

### 105.02 – Secular Orbital Evolution of Compact Planetary Systems

*Douglas P. Hamilton, et al.*

10:55 AM-11:15 AM; Auditorium (House of Culture)

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## 101 – Asteroids I

Oral Session – 06 May 2013 11:15 AM to 12:15 PM – Chair(s): Kevin Walsh

### 101.02 – A Multi-domain Approach to Asteroid Family Halos Identification

*Valerio Carruba, et al.*

11:15 AM-11:35 AM; Auditorium (House of Culture)

### 101.04 – Quasi-satellite Orbits in the Context of Coorbital Dynamics

*Vladislav Sidorenko, et al.*

11:35 AM-11:55 AM; Auditorium (House of Culture)

### 101.05 – Yarkovsky-driven Impact Predictions: Apophis and 1950 DA

*Davide Farnocchia, et al.*

11:55 AM-12:15 PM; Auditorium (House of Culture)

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## 102 – Asteroids II

Oral Session – 06 May 2013 02:00 PM to 03:20 PM – Chair(s): Marina Brozovic

### 102.02 – Radiation Recoil Effects on the Dynamical Evolution of Asteroids

*Desirée Cotto-Figueroa, et al.*

02:00 PM-02:20 PM; Auditorium (House of Culture)

### 102.03 – Evolution of Small Binary Asteroids with the Binary YORP Effect

*Julien Frouard*

02:20 PM-02:40 PM; Auditorium (House of Culture)

**102.04 – Minimum Energy Configurations for the General 3-Body Problem**

*Daniel J. Scheeres, et al.*

02:40 PM-03:00 PM; Auditorium (House of Culture)

**102.05 – Investigating Satellite Formation Around the Rapidly Rotating, Oblong Asteroid 216 Kleopatra**

*Frank Laipert, David A. Minton*

03:00 PM-03:20 PM; Auditorium (House of Culture)

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**103 – Stars**

Oral Session – 06 May 2013 03:20 PM to 04:20 PM – Chair(s): Douglas Hamilton

**103.01 – Lack of Energy Equipartition in Globular Clusters**

*Michele Trenti*

03:20 PM-03:40 PM; Auditorium (House of Culture)

**103.02 – Exploring Stellar Collisions within Very Wide Binaries**

*Nathan A. Kaib, Sean N. Raymond*

03:40 PM-04:00 PM; Auditorium (House of Culture)

**103.03 – Probabilities for Solar Siblings**

*Mauri Valtonen, et al.*

04:00 PM-04:20 PM; Auditorium (House of Culture)

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**104 – Brouwer Award Talk**

Plenary Session – 06 May 2013 04:40 PM to 05:40 PM – Chair(s): Douglas Hamilton

**104.01 – The Spiral Structure in Galaxies**

*Jerry Sellwood*

04:40 PM-05:40 PM; Auditorium (House of Culture)

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**Business Meeting**

Town Hall – 06 May 2013 05:40 PM to 07:00 PM – Chair(s): Douglas Hamilton – Auditorium (House of Culture)

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**Brouwer Prize Reception**

Attendee Event – 06 May 2013 07:00 PM to 08:00 PM – Foyer (House of Culture)

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**200 – Comets and TNOs I**

Oral Session – 07 May 2013 09:00 AM to 10:00 AM – Chair(s): Katherine Kretke

**200.01 – Trans-Neptunian Objects as Natural Probes to the Unknown Solar System**

*Patryk S. Lykawka*

09:00 AM-09:40 AM; Auditorium (House of Culture)

**200.02 – A Compound Model for the Origin of Earth's Water**

*Nader Haghighipour, et al.*

09:40 AM-10:00 AM; Auditorium (House of Culture)

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**201 – Comets and TNOs II**

Oral Session – 07 May 2013 10:30 AM to 12:15 PM – Chair(s): Matthew Tiscareno

**201.01 – Dynamical Explanation for the Lack of Binary Asteroids Among the Plutinos**

*Audrey Compère, et al.*

10:30 AM-10:55 AM; Auditorium (House of Culture)

**201.02 – The Orbits and Masses of Pluto's Satellites**

*Marina Brozovic, Robert A. Jacobson*

10:55 AM-11:15 AM; Auditorium (House of Culture)

**201.03 – Exploring the Dynamical Consequences of the Collisional Environment of the Kuiper Belt on the Orbits of Pluto's Small Satellites**

*Alex Gonring, David A. Minton*

11:15 AM-11:35 AM; Auditorium (House of Culture)

**201.04 – The Formation of Pluto's Small Satellites**

*Harold F. Levison, Kevin J. Walsh*

11:35 AM-11:55 AM; Auditorium (House of Culture)

**200.05 – Constraints on Mechanisms of Comet Disruption from Icy Satellite Craters and Dynamical Simulations**

*David A. Minton, et al.*

11:55 AM-12:15 AM; Auditorium (House of Culture)

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**202 – Comets and TNOs III**

Oral Session – 07 May 2013 03:00 PM to 03:40 PM – Chair(s): Katherine Kretke

**202.01 – Where is the Oort Cloud Located?**

*Julio Fernandez*

03:00 PM-03:40 PM; Auditorium (House of Culture)

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**203 – Rotation**

Oral Session – 07 May 2013 03:40 PM to 04:40 PM – Chair(s): Daniel Tamayo

**203.01 – Effects of High Inclined and Eccentric Disturbors on the Dynamics of the Equator of an Axy-Symmetric Body**

*Tadashi Yokoyama, et al.*

03:40 PM-04:00 PM; Auditorium (House of Culture)

**203.02 – The Role of Tides in the Rotational History of Mercury**

*Benoit Noyelles, et al.*

04:00 PM-04:20 PM; Auditorium (House of Culture)

**203.03 – Tidal Perturbations of the Rotation of the Moon. The Creep Tide Approach.**

*Sylvio Ferraz-Mello, Hugo Folonier*

04:20 PM-04:40 PM; Auditorium (House of Culture)

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**204 – Poster Session**

Poster Session – 07 May 2013 04:40 PM to 06:40 PM – Foyer (House of Culture)

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**300 – Planet and Satellite Formation I**

Oral Session – 08 May 2013 08:00 AM to 09:40 AM – Chair(s): David Minton

**300.01 – Distribution and Origin of Hot Planets**

*Cristian Beauge*

08:00 AM-08:40 AM; Auditorium (House of Culture)

**300.02 – Dynamical Structures from Planet Formation in the Beta Pictoris Debris Disk**

*Mark Wyatt*

08:40 AM-09:00 AM; Auditorium (House of Culture)

**300.03 – Consequences of an Eccentric Fomalhaut b**

*Daniel Tamayo, Joseph A. Burns*

09:00 AM-09:20 AM; Auditorium (House of Culture)

**300.04 – Problems and Promises of Pebble Accretion**

*Katherine A. Kretke, Harold F. Levison*

09:20 AM-09:40 AM; Auditorium (House of Culture)

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**301 – Planet and Satellite Formation II**

Oral Session – 08 May 2013 10:10 AM to 11:50 AM – Chair(s): Benoit Noyelles

**301.01 – Non-uniform Distribution of Protoplanetary Bodies as a Pre-requisite for the Formation of a Low-mass Mars**

*André Izidoro, et al.*

10:10 AM-10:30 AM; Auditorium (House of Culture)

**301.02 – Constraining the Primordial Orbits of the Terrestrial Planets**

*Kevin J. Walsh, et al.*

10:30 AM-10:50 AM; Auditorium (House of Culture)

**301.03 – A 3D Study for Binary-asteroid Captures in Jupiter System**

*Ernesto Vieira Neto, et al.*

10:50 AM-11:10 AM; Auditorium (House of Culture)

**301.04 – On the Long-term Dynamical Evolution of the Main Satellites of Uranus**

*Emilie Verheylewegen, et al.*

11:10 AM-11:30 AM; Auditorium (House of Culture)

**301.05 – Orbital Evolution of Titan and Iapetus**  
*Matija Cuk, Henry C. Dones*  
11:30 AM-11:50 AM; Auditorium (House of Culture)

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**302 – Planet and Satellite Formation III**

Oral Session – 08 May 2013 02:00 PM to 02:40 PM – Chair(s): Matija Cuk

**302.01 – Records of Migration in the Exoplanet Configurations**  
*Tatiana A. Michtchenko, et al.*  
02:00 PM-02:40 PM; Auditorium (House of Culture)

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**303 – Orbits and Chaos I**

Oral Session – 08 May 2013 02:40 PM to 04:25 PM – Chair(s): Matija Cuk

**303.01 – Chaotic Behavior Near First-order Mean Motion Resonances in the Elliptical, Planar Three Body Problem**  
*Maryame El Moutamid, et al.*  
02:40 PM-03:00 PM; Auditorium (House of Culture)

**303.02 – Retrograde Resonance in the Circular Restricted 3 Body Problem**  
*Maria Helena Morais, Fathi Namouni*  
03:00 PM-03:20 PM; Auditorium (House of Culture)

**303.03 – The Milankovitch Orbital Elements and Their Application to the Long-term Orbit Evolution of Planetary Satellites Subject to Radiation and Gravitational Perturbations**  
*Aaron Rosengren, Daniel J. Scheeres*  
03:20 PM-03:45 PM; Auditorium (House of Culture)

**303.04 – Time-varying Geometric Orbital Elements of Saturn's Moons**  
*Matthew S. Tiscareno*  
03:45 PM-04:05 PM; Auditorium (House of Culture)

**303.05 – About Hohmann Transfer with Orbital Plane Change**  
*Ángel Rincón, et al.*  
04:05 PM-04:25 PM; Auditorium (House of Culture)

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**204 – Poster Session**

Poster Session – 08 May 2013 04:30 PM to 06:30 PM – Foyer (House of Culture)

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**Banquet**

Attendee Event – 08 May 2013 07:00 PM to 09:30 PM – Restaurant Margarida

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**400 – Orbits and Chaos II**

Oral Session – 09 May 2013 09:00 AM to 09:40 AM – Chair(s): Matija Cuk

**400.01 – Chirikov and Nekhoroshev Diffusion Estimates: Bridging the Two Sides of the River**  
*Pablo Cincotta*  
09:00 AM-09:40 AM; Auditorium (House of Culture)

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**401 – Rings and Satellites I**

Oral Session – 09 May 2013 09:40 AM to 10:00 AM – Chair(s): Silvia Giuliatti Winter

**401.02 – Edge Waves and Nonlinear Mode Coupling in Saturn's B Ring**  
*Glen R. Stewart*  
09:40 AM-10:00 AM; Auditorium (House of Culture)

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**402 – Rings and Satellites II**

Oral Session – 09 May 2013 10:00 AM to 10:40 PM – Chair(s): Silvia Giuliatti Winter

**402.01 – Kronoseismology: Probing Saturn's Interior via its Rings**  
*Philip D. Nicholson, et al.*  
10:00 AM-10:20 AM; Auditorium (House of Culture)

**402.03 – Delving into D-ring Dynamics: Probes of Saturn's Interior and Clues to its Recent History**  
*Matthew M. Hedman, et al.*  
10:20 AM-10:40 AM; Auditorium (House of Culture)

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**403 – Closing Session**

Oral Session – 09 May 2013 11:10 PM to 11:30 PM – Chair(s): Douglas Hamilton – Auditorium (House of Culture)