

MONDAY 03.06.19

09:00 – 10:30 Welcome/Reception/Introduction

Session 1: Circumstellar and circumbinary disks (Chair: Trifon Trifonov)

10:30 – 11:00 Exoplanetary Systems Dynamics with ALMA – Virginie Faramaz (JPL)

11:00 – 11:25 Witness planet–disk interactions at the stage of formation – Miriam Keppler (MPIA Heidelberg)

11:25 – 11:50 Dynamics of circumbinary discs and planet migration – Anna Penzlin (Universitaet Tuebingen)

12:00 – 13:30 Lunch Break

Session 2: Planet formation and migration: planet–disk interactions (Chair: Alice Quillen)

13:30 – 13:55 Formation of systems of gas giants – Bertram Bitsch (MPIA)

13:55 – 14:20 Planet formation in discs with inclined binary companions: can primordial spin–orbit misalignment be produced? – J. J. Zanazzi (Canadian Institute for Theoretical Astrophysics)

14:20 – 14:45 Formation of Hot Jupiters and Ultima–Thule–like objects from non–secular Lidov–Kozai oscillations – Evgeni Grishin (Technion, Israel Institute of Technology, Haifa, Israel)

14:45 – 15:10 Fly–bys of HD 106906: dynamics of a planet in a complex evolving architecture – Laetitia Rodet (IPAG Grenoble)

15:20 – 16:00 Coffee Break

Session 3: Planet formation and migration: planet–disk interactions (Chair: Alexandre Correia)

16:00 – 16:25 Formation of hot Jupiters through secular chaos and dynamical tides – Jean Teysandier (Cornell University)

16:25 – 16:50 Formation of short–period planets by disk migration of resonant chains – Daniel Carrera (Pennsylvania State University)

16:50 – 17:15 Formation of Solar System Analogues: from the gaseous protoplanetary disk to the final stage of giant impacts – Maria Paula Ronco (Instituto de Astrofisica – Pontificia Universidad Catolica de Chile – Nucleo Milenio de Formacion Planetaria)

TUESDAY 04.06.19

Session 4: Observational results of multi-planet systems (RVs) (Chair: Sabine Reffert)

09:00 – 09:30 Giant Stars: From Radial Velocities to Planetary Systems – Andreas Quirrenbach
(Landessternwarte, ZAH)

09:30 – 09:55 Hunt for Additional Planetary Companions: Revisiting Single Planet Systems with High Precision Doppler Spectroscopy – Martin Kuerster (MPIA)

09:55 – 10:20 GJ 4276: One eccentric planet or two planets in a 2:1 resonance? – Stefan Czesla
(Hamburger Sternwarte)

10:30 – 11:10 Coffee Break

Session 5: Observational results of multi-planet systems (RVs) (Chair: Martin Kuerster)

11:10 – 11:35 Dynamical characterization and prospects of habitability for the GJ 1148 system Trifon Trifonov (MPIA)

11:35 – 12:00 A tightly packed multiplanetary system around an active M dwarf – Stephan Stock
(Landessternwarte, ZAH Heidelberg)

12:00 – 12:25 Dynamical stability analysis for the six planet system HD34445: an attempt to validate the radial velocity solution – Nikolaos Georgakarakos (New York University Abu Dhabi)

12:25 – 12:50 Ups. Andromeda revisited. Dynamical characterization and a fourth outer Jovian planet in the system – Jakub Morawski (University of Warsaw)

12:50 – 14:30 Lunch Break

Session 6: Observational results of multi-planet systems (Transits) (Chair: Rosemary Mardling)

14:30 – 14:55 Probing Exoplanetary Orbital Precession from Transit Variations – Yair Judkovsky
(Weizmann Institute of Science)

14:55 – 15:20 Kepler-82f – a new non-transiting planet from photodynamical modelling – Jantje Freudenthal (Institut für Astrophysik, Universität Göttingen)

15:20 – 15:45 L 98-59: Three Transiting, Terrestrial-Sized Planets Orbiting a Nearby M-dwarf observed by TESS – Veselin Kostov (NASA/GSFC and SETI Institute)

15:50 – 16:30 Coffee Break

Session 7: Resonant and near-resonant multi-planet systems (Chair: Bertram Bitsch)

16:30 – 17:00 Relaxation of resonant two-planet systems and their TTVs – Rosemary Mardling (Monash University)

17:00 – 17:25 Pure Three-body and Double Two-body Resonances in Multi-planet Systems – Ka Ho Wong (The University of Hong Kong)

17:25 – 17:50 The onset of instability in resonant chains – Gabriele Pichierri (Observatoire de la Cote d'Azur)

WEDNESDAY 05.06.19

Session 8: Obliquities (Chair: Melvyn B. Davies)

09:00 – 09:30 Obliquity-Driven Sculpting of Exoplanetary Systems– Gregory Laughlin (Yale University)

09:30 – 09:55 Asynchronous and chaotic rotation for compact planetary systems – Alexandre Correia (University of Coimbra)

09:55 – 10:30 Poster session (each poster – 3 min.)

10:30 – 11:10 Coffee Break

Session 9: Obliquities (Chair: Virginie Faramaz)

11:10 – 11:40 Spin dynamics in multiple planet and multiple satellite systems – Alice Quillen (University of Rochester, NY)

11:40 – 12:05 Obliquities of exoplanet host stars – Simon Albrecht (Aarhus University)

12:05 – 12:20 Conference Photo

Free Afternoon and Evening

Options (self paid):

– Sightseeing [Heidelberg](#)

– Boat trip on the [Neckar river](#)

THURSDAY 06.06.19

Session 10: Secular dynamics and chaos (Chair: Andreas Quirrenbach)

09:00 – 09:30 AMD-stability of planetary systems – Jacques Laskar (Paris Observatory)

09:30 – 09:55 Resonance overlap criterion and the onset of chaos for eccentric planets – Sam Hadden (Harvard–Smithsonian Center for Astrophysics)

09:55 – 10:20 Secular dynamics of non–coplanar extrasolar systems – Anne–Sophie Libert (University of Namur)

10:20 – 11:00 Coffee Break

Session 11: Secular dynamics and chaos (Chair: Simon Albrecht)

11:00 – 11:30 Survival of scattered planets in potentially habitable orbits Melvyn B. Davies (Lund University)

11:30 – 11:55 Evolution of the co–orbital resonance in protoplanetary disc – Adrien Leleu (University of Bern)

11:55 – 12:20 Mutual Inclinations in Multi–Planet Systems with External Perturbors – Chi Ho Lau (The University of Hong Kong)

12:30 – 14:00 Lunch Break

Session 12: Dynamics of S– and P–type planets in binaries (Chair: Dimitri Veras)

14:00 – 14:25 Do Circumbinary Planets Stop Migration at the Boundary of Stability? – Nader Haghighipour (Institute for Astronomy, University of Hawaii)

14:25 – 14:50 Quantifying the Effects of Stellar Flybys on Planetary Systems – Garrett Brown (University of Toronto)

14:50 – 15:15 Is there a planetary companion in the eccentric binary system Epsilon Cygni? – Paul Heeren (Landessternwarte Heidelberg)

15:15 – 15:40 Numerical Determination of the Elements of Circumbinary Orbits – Man Hoi Lee (The University of Hong Kong)

15:40 – 16:20 Coffee Break

Session 13: Numerical tools (Chair: Man Hoi Lee)

16:20 – 16:45 Should N –body integrators be (fully) symplectic? – David M. Hernandez (Harvard–Smithsonian CfA/RIKEN CCS)

16:45 – 17:10 How much can ignoring disc self–gravity in hydrodynamical simulations affect the resonant configuration? Sareh Ataiee (University of Tuebingen)

17:10 – 17:35 Rocky planets around a low–mass star – Stefan Dreizler (University Goettingen)

19:00 Conference Dinner downtown Heidelberg at [Zum Gueldenenen Schaf](#)

FRIDAY 07.06.19

Session 14: Post–MS evolution dynamics (Chair: Nader Haghighipour)

09:00 – 09:30 Violent dynamics in planetary systems around dying stars – Dimitri Veras (University of Warwick)

09:30 – 09:55 Measuring the Orbital Parameters of Radial Velocity Systems in Mean Motion

Resonance a Case Study of HD 200964 – Mickey M Rosenthal (University of California, Santa Cruz)

09:55 – 10:20 A second Jupiter orbiting in 4:3 resonance in the 7 CMa system – Rafael Luque (Instituto de Astrofisica de Canarias)

10:30 – 11:10 Coffee Break

Session 15: Dust grain, Comets and Kuiper belt objects (Chair: Trifon Trifonov)

11:10 – 11:35 Temporary capture of charged dust close to outer mean–motion resonance with a planet – Christoph Lhotka (Oesterreichische Akademie der Wissenschaften)

11:35 – 12:00 Inward scattering of exocomets by planet chains – Sebastian Marino Estay (MPIA)

12:00 – 12:25 Secular dynamics of resonant Kuiper belt objects: Kozai–Lidov cycles and adiabatic chaos – Sergey Efimov (MIPT)

12:30 – 14:00 Lunch Break

End of the conference

Posters

- 1 – Forming transition disks with planets – Thomas Rometsch (University of Tübingen)
- 2 – Dust traps in the protoplanetary disc MWC 758: two vortices produced by two giant planets? – Marcelo Barraza (MPIA)
- 3 – Thermal torque effects on the migration of growing low-mass planets – Maria Paula Ronco (Instituto de Astrofisica – Pontificia Universidad Catolica de Chile – Nucleo Milenio de Formacion Planetaria)
- 4 – The dynamical fate of Solar systems in open clusters – Francesco Maria Flammini Dotti (Xi'an Jiaotong-Liverpool University)
- 5 – How planetary systems are shaped by their birthplace – Katja Reichert (Astronomisches Rechen-Institut, ZAH, Heidelberg)
- 6 – Free-floating massless particles in star clusters – Qi Shu (Peking University)
- 7 – Signatures of star clusters on Kepler planetary systems – Maxwell Cai (Leiden)
- 8 – Dynamics of Planetary Systems in Interaction with the Supermassive Black hole in the Galactic Centre – Nazanin Davari (University of Rome Sapienza)
- 9 – Resonances in the Kepler-18 system – Pavol Gajdos (Institute of Physics, Pavol Jozef Safarik University in Kosice, Slovakia)
- 10 – Stability of NY Virginis System in the Light of New Eclipse Timing Data – Ekrem Murat Esmer (CFisUC, Department of Physics, University of Coimbra)
- 11 – Reverse Population Synthesis for Observed Planets around Evolved Stars – Vera Wolthoff (Landessternwarte, ZAH, Heidelberg)
- 12 – Statistics of Multi-Planetary Systems and Planets in Stellar Binaries involving Giant Stars – Sabine Reffert (Landessternwarte, ZAH, Heidelberg)
- 13 – Orbital stability as a way to refine multiplanetary systems – Manu Stalport (University of Geneva)
- 14 – Gas accretion onto multiple giant planets in protoplanetary discs – Camille Bergez-Casalou (MPIA)
- 15 – High order regularised symplectic integrator for collisional planetary systems – Antoine Petit (Observatoire de Paris)
- 16 – Transit and Radial velocity Interactive Fitting tool for Orbital analysis and N-body simulations: The Exo-Striker – Trifon Trifonov (MPIA, Heidelberg)
- 17 – The Origin of Chaos in the Orbit of Comet 1P/Halley – Tjarda Boekholt (University of Aveiro)