

Exoplanets and Planet Formation

Monday 11 December 2017 – Friday 15 December 2017
Shanghai, China

Programme

The conference will consist of oral talks and posters. The posters will be on display throughout the conference. Poster presenters will also have opportunity to present one-minute, one-slide review of their posters.

ORAL TALK SCHEDULE

Note: Each talk is either 15 min (12 min talk + 3 min question) or 20 min (17 min talk + 3 min question).

Monday, December 11

Welcome/Introduction (8:45 am)
Session 1: Exoplanet population, Masses and Radii, etc. (8:55 am – 10:20 am) Chair: Dong Lai
Howard, Andrew (California Institute of Technology), 20 min Exoplanet masses and Radii – An Update from K2 and a NASA-Keck Key Project (Abstract 152)
PETIGURA, Erik (Caltech) , 15 min The California-Kepler Survey (Abstract 140)
DONG, Subo (KIAA-PKU), 15 min LAMOST Reveals Neptune-size Cousins of hot Jupiters, preferentially in “(metal-)rich” and “one-child” Kepler families (Abstract 142)
Huber, Daniel (University of Hawaii), 20 min Exoplanet Formation through the Eyes of Asteroseismology (Abstract 57)
VAN EYLEN, Vincent (Leiden University), 15 min Understanding planet formation through asteroseismology (Abstract 109)
Coffee Break (10:20 am – 11:00 am)
Session 2: Planet Mass-Radius, Hot and Warm Jupiters (11:00 am - 12:30 pm) Chair: Eugene Chiang
Owen, James (Imperial College London), 20 min Understanding planet formation by understanding atmospheric escape (Abstract 49)
Fortney, Jonathan (UC Santa Cruz), 20 min Population-Level Analysis of Hot Jupiter Composition, Structure, and Radius Inflation (Abstract 41)
TREMBLIN, Pascal (CEA Paris-Saclay, France), 15 min Advection of Potential Temperature in the Atmosphere of Irradiated Exoplanets: A Robust Mechanism to Explain Radius Inflation (Abstract 139)
WU, Yanqin (University of Toronto), 20 min Back to hot Jupiters (Abstract 29)

<p>Vick, Michelle (Cornell University), 15 min Chaotic Growth and Dissipation of Dynamical Tides in Giant Planets Undergoing High-Eccentricity Migration: Formation of Hot and Warm Jupiters (Abstract 112)</p>
<p>Lunch Break (12:30 pm – 14:00 pm)</p>
<p>Session 3: Hot and Warm Jupiters, Multi-Planet Systems (14:00 pm - 15:30 pm) Chair: Doug Lin</p>
<p>Zhou, George (Harvard Smithsonian Center for Astrophysics), 15 min Planets around A-stars as anchors for planet migration (Abstract 45)</p>
<p>MASUDA, Kento (Princeton University) , 15 min A Search for Non-transiting Companions to Kepler Warm Jupiters: Clues to their Formation (Abstract 117)</p>
<p>HUANG, Xu (MIT Kavli Institute for Astrophysics and Space research) , 15 min On the tiny friends of giant planets (Abstract 90)</p>
<p>Anderson, Cassandra (Cornell University) , 15 min Eccentric Warm Jupiters from Secular Interactions with Exterior Companions (Abstract 87)</p>
<p>Steffen, Jason (UNLV) , 20 min Establishing the Architectures of Planetary Systems (Abstract 39)</p>
<p>Poster Review, 10 min (One minute, one slide each poster)</p>
<p>Coffee Break (15:30 pm – 16:10 pm)</p>
<p>Session 4: Multi-Planet Systems (16:10pm - 17:35 pm) Chair: JiLin Zhou</p>
<p>Lauren Weiss (University of Montreal) , 15 min Multiplanet Systems as Laboratories for Planet Formation (Abstract 16)</p>
<p>Xie, Jiwei (Nanjing University) , 15 min Orbital Shape and Spacing of Exoplanets: Observational Patterns (Abstract 46)</p>
<p>PU, Bonan (Cornell University) , 15 min Dynamical evolution of inner planet systems with outer giant planets (Abstract 15)</p>
<p>NESVORNY, David (Southwest Research Institute) , 15 min Dynamics and Transit Variations of Resonant Exoplanets (Abstract 121)</p>
<p>Sari, Re'em (Hebrew University), 15 min Inferring Masses and Eccentricities from Transit Time Variations: Modal Decomposition and Geometric Interpretation (Abstract 154)</p>
<p>Poster Review, 10 min (One minute, one slide each poster)</p>

Tuesday, December 12

Session 5: Obliquities, Direct Imaging Planets (8:45 am - 10:10 am) Chair: Jean-Michel Desert
Winn, Josh (Princeton University), 20 min Constraints on the Obliquities of Kepler Planet-Hosting Stars (Abstract 38)
ALBRECHT, Simon (Aarhus University), 15 min News from the world of stellar obliquities and orbital inclinations (Abstract 122)
Wang, Songhu (Yale University), 15 min A New Look at an Old Classic: Kepler-9's Obliquity, Masses, and Resonant Properties (Abstract 59)
Zanazzi, J.J. (Cornell University), 15 min Planet Formation in Star-Disk-Binary Systems: Can Primordial Spin-Orbit Misalignment be Produced? (Abstract 83)
MAWET, Dimitri (California Institute of Technology), 20 min Direct imaging and spectroscopy of giant exoplanets: how and where to look? (Abstract 137)
Coffee Break (10:10 am – 10:50 am)
Session 6: Direct Imaging Planets (10:50 am - 12:20 pm) Chair: Jian Ge
LIU, Michael (University of Hawaii), 20 min Mapping Substellar Evolution with Young Gas-Giant Planets and their Free-Floating Brown Dwarf Analogs (Abstract 143)
BRANDT, Timothy (University of California, Santa Barbara), 15 min Early Science with the CHARIS High-Contrast Integral-Field Spectrograph (Abstract 93)
BOWLER, Brendan (University of Texas at Austin), 15 min High-Contrast Imaging of Accelerating Stars from McDonald Observatory (Abstract 123)
WANG, Ji(Caltech), 15 min New Frontier of Exoplanetary Science: High Dispersion Coronagraphy (Abstract 6)
STOLKER, Tomas (ETH Zurich), 15 min Unveiling the formation sites of directly imaged planets in scattered light (Abstract 129)
Poster Review, 10 min (One minute, one slide each poster)
Lunch Break, Transportation and visit Tsung-Dao LEE Library/Shanghai Jiaotong University (12:20 pm – 14:30 pm)
Tuesday afternoon session will take place at the Tsung-Dao LEE Library

Session 7: Microlensing, Planet Formation (14:30 pm - 16:00 pm) Chair: Shude Mao
SHVARTZVALD, Yossi (JPL) , 15 min Probing unexplored exoplanet demographics with new microlensing campaigns (Abstract 48)
Zhu, Wei (Canadian Institute for Theoretical Astrophysics), 15 min The Architecture of Planetary Systems from Microlensing (Abstract 92)
BENNETT, David (NASA Goddard Space Flight Center), 15 min Implications of Exoplanet Microlensing for Planet Formation Theories (Abstract 128)
ZURLO, Alice (Universidad Diego Portales), 15 min Measuring the mass of Proxima Cen from a microlensing event (Abstract 10)
MURRAY-CLAY, Ruth (University of California, Santa Cruz), 20 min Disks, Planet Formation, and the Structure of Planetary Systems (Abstract 124)
Poster Review, 10 min (One minute, one slide each poster)
Coffee Break (16:00 pm – 16:40 pm)
Session 8: Giant Planet Formation (16:40 pm - 18:00 pm) Chair: Subo Dong
BITSCH, Bertram (Lund University), 20 min Giant planet formation in the pebble accretion scenario (Abstract 68)
LAMBRECHTS, Michiel (Lund University), 15 min Gas accretion onto giant planets (Abstract 125)
ALI-DIB, Mohamad (CPS - University of Toronto), 15 min The origin of the occurrence rate profile of gas giants inside 100 days (Abstract 56)
KOUWENHOVEN, M.b.n. (Xi'an Jiaotong-Liverpool University (XJTLU)), 15 min Formation of massive planetary companions and free-floating Jupiters through circumstellar disk fragmentation (Abstract 13)
Poster Review, 15 min (One minute, one slide each poster)
Reception/Dinner with Chinese Music Performance at Tsung-Dao Lee Institute/Shanghai Jiaotong University (18:00 pm)

Wednesday, December 13

Session 9: Protoplanetary Disks (8:45 am - 10:25 am) Chair: Xuening Bai
ANDREWS, Sean (Harvard-Smithsonian CfA), 20 min Observing the Evolution of Solids in Protoplanetary Disks (Abstract 72)
HUANG, Jane (Harvard-Smithsonian Center for Astrophysics), 15 min High-resolution ALMA observations of gas and dust in protoplanetary disks (Abstract 64)
CZEKALA, Ian (Stanford University), 15 min Mutual Inclinations of Circumbinary Protoplanetary Disks (Abstract 22)
PANIC, Olja (University of Leeds, United Kingdom), 15 min Secrets of giant planet formation: Massive HerbigAe discs (Abstract 141)
REGGIANI, Maddalena (Université de Liège (ULg)), 15 min Search for young planets in transition disks: investigating the early phases of planet formation with the Keck/NIRC2 vortex coronagraph (Abstract 111)
ESPAILLAT, Catherine (Boston University), 20 min Studying the end stages of the protoplanetary disk phase (Abstract 114)
Coffee Break (10:25 am – 11:05 am)
Session 10: Disks, Planets in Binaries (11:05 am - 12:35 pm) Chair: Yanqin Wu
CHIANG, Eugene (Berkeley), 20 min Avalanches in the AU Mic Debris Disk (Abstract 113)
CATALDI, Gianni (Subaru telescope, NAOJ), 15 min ALMA resolves Cl emission from the Pictoris debris disk (Abstract 23)
WYATT, Mark (University of Cambridge), 20 min Inward delivery of volatiles to inner planetary systems (Abstract 120)
IDA, Shigeru (ELSI, Tokyo Tech), 20 min Formation of wide-orbit gas giants near the stability limit in multi-stellar systems (Abstract 91)
LEE, Man Hoi (The University of Hong Kong), 15 min Dynamics of Circumstellar Planets in Binary Systems (Abstract 104)
Free Afternoon and Evening

Thursday, December 14

Session 11: Small Stars and Small Planets (8:45 am - 10:20 am) Chair: Josh Winn
TRIAUD, Amaury (University of Birmingham), 20 min Changing perspective on planet formation: small stars and binaries (Abstract 70)
ORMEL, Chris (University of Amsterdam), 15 min Formation of TRAPPIST-1 and other low-mass planetary systems (Abstract 74)
Lee, Eve (California Institute of Technology), 15 min Ultra-Short Period Planets, Magnetospheric Truncation, and Tidal Inspiral (Abstract 80)
Liu, Beibei (University of Amsterdam) , 15 min Magnetospheric rebound: a mechanism to re-arrange the orbital configurations of close-in super-Earths during disk dispersal (Abstract 9)
TAN, Jonathan (University of Florida) , 15 min Inside-Out Planet Formation (Abstract 147)
MOHANTY, Subhanjoy (Imperial College London) , 15 min Viscously Unstable Inner Disks: A New In Situ Formation Mechanism for Close-in Earths and Super-Earths (Abstract 105)
Coffee Break (10:20 am – 11:00 am)
Session 12: Small Planets, Planetary Dynamics (11:00 am - 12:35 pm) Chair: Re'em Sari
KOKUBO, Eiichiro (National Astronomical Observatory of Japan) , 20 min Orbital Architecture of Close-in Planetary Systems Formed by Giant Impacts (Abstract 148)
Tamayo, Daniel (University of Toronto at Scarborough / Canadian Institute for Theoretical Astrophysics) , 15 min A million-fold speedup in the dynamical characterization of multi-planet systems (Abstract 54)
Petit, Antoine (IMCCE, Observatoire de Paris) , 15 min AMD-stability and the classification of planetary systems (Abstract 53)
MOGAVERO, Federico (Observatoire de Paris - ENS Lyon) , 15 min Predicting planetary architectures via statistical mechanics (Abstract 89)
Li, Gongjie (Harvard/Georgia Tech) , 15 min On the Spin-axis Dynamics of Planets (Abstract 25)
HAGHIGHIPOUR, Nader (University of Hawaii) , 15 min Existence, Frequency, and Detectability of Inclined and Non-Transiting Circumbinary Planets (Abstract 78)
Lunch Break (12:35 pm – 14:00 pm)

Session 13: Planet-Disk interaction (14:00 pm - 15:30 pm) Chair: Ruth Murray-Clay
PAARDEKOOOPER, Sijme-jan (jointly with R.Nelson) (Queen Mary University of London) , 15 min Migration of low-mass planets in laminar discs (Abstract 8)
Nelson, Richard (jointly with S.PAARDEKOOOPER) (Queen Mary University of London) , 15 min Migration of low mass planets in laminar, magnetically torqued protoplanetary discs (Abstract 26)
MASSET, Frederic (UNAM) , 15 min Impact of thermal diffusion and heat release on the orbital evolution of low-mass protoplanets (Abstract 88)
FUNG, Jeffrey (University of California at Berkeley) , 15 min Save the Planet, Feed the Star: Migration Feedback and Disk Accretion (Abstract 103)
Xu, Wenrui (Princeton University) , 15 min Migration of planets into and out of mean motion resonances in protoplanetary disks: the effect of nonlinear eccentricity damping (Abstract 75)
JI, Jianghui (Purple Mountain Observatory, Chinese Academy of Sciences) , 15 min Exoplanets formation in near Mean Motion Resonances (Abstract 106)
Coffee break (15:30 pm – 16:10 pm)
Session 14: Planet-Disk interaction: Interpreting observations; Solar system (16:10pm - 17:35 pm) Chair: Sean Andrews
Dong, Ruobing (University of Arizona) , 20 min Connecting simulations of disk-planet interactions with observations of protoplanetary disks (Abstract 24)
PINILLA, Paola (Steward Observatory, University of Arizona) , 15 min Rings, gaps and cavities in protoplanetary disks: How to distinguish between different potential origins? (Abstract 28)
Zhu, Zhaohuan (University of Nevada-Las Vegas) , 20 min Accreting Circumstellar and Circumplanetary Disks (Abstract 97)
SZULAGYI, Judit (ETH Zurich), 15 min Forming planets and their circumplanetary disks (Abstract 34)
Dvorak, Rudolf (University of Vienna), 15 min Why is there no Hilda planet in our Solar System? (Abstract 11)
Transportation to Banquet Post-dinner speaker: Doug Lin

Friday, December 15

Session 15: Protoplanetary Disk Theory and Planet Formation (8:45 am - 10:20 am) Chair: Catherine Espaillat
Bai, Xuening (Tsinghua University), 20 min Towards Realistic Understandings of Gas Dynamics in Protoplanetary Disks (Abstract 33)
LIN, Min-kai (ASIAA), 15 min Dust-free modeling of dusty protoplanetary disks (Abstract 4)
MUTO, Takayuki (Kogakuin University), 15 min Physical Mechanisms of Rossby Wave Instability and its Non-linear Outcome: Implications for Lopsided Structures in Protoplanetary Disks (Abstract 79)
Munoz, Diego (Northwestern University), 15 min Accreting Circumbinary Disks: a Link Between Star and Planet Formation (Abstract 131)
LAIBE, Guillaume (ens de lyon) , 15 min On linear growth of streaming instability in pressure bumps (Abstract 108)
STAMATELLOS, Dimitris (University of Central Lancashire) , 15 min The life of young planets in self-gravitating discs (Abstract 118)
Coffee Break (10:20 am – 11:00 am)
Session 16: Exoplanet Atmospheres (11:00 am - 12:30 pm) Chair: Jonathan Fortney
Sing, David (University of Exeter) , 20 min A Panchromatic Comparative View of Exoplanet Atmospheres (Abstract 27)
DESERT, Jean-michel (University of Amsterdam, Netherlands) , 20 min Comparative Exoplanetology From Atmospheric Studies (Abstract 135)
LINES, Stefan (University of Exeter) , 15 min Exo-Nephology: 3D simulations of cloudy hot-Jupiter atmospheres with the UK Met Office climate model (Abstract 14)
Zhang, Xi (University of California Santa Cruz) , 20 min Exotic clouds in cold and hot planetary atmospheres (Abstract 86)
ROUAN, Daniel (LESIA Observatoire de Paris) , 15 min What JWST will bring to exoplanet origin and characterization (Abstract 12)
Lunch Break (12:30 pm – 14:00 pm)
Session 17: Planet Interior, Solar System, New Search (14:00 pm - 15:25 pm) Chair: Jianghui Ji
CHABRIER, Gilles (CRAL, ENS-Lyon) , 20 min Physical processes in the interior and the atmosphere of (solar and extrasolar) giant planets (Abstract 151)

MIGUEL, Yamila (Observatoire de la Cote d'Azur) , 20 min Discovering the Interior of Jupiter with Juno (Abstract 21)
MOUTAMID, Maryame El (Cornell University) , 15 min Evidence of differential rotation inside Saturn from waves of its rings (Abstract 150)
YIN, Qing-zhu (University of California at Davis) , 15 min Testing Grand Tack Model with Meteorites Isotopic Records (Abstract 62)
TRIFONOV, Trifon (Max-Planck-Institut für Astronomie) , 15 min First results from CARMENES visual-channel radial-velocity measurements (Abstract 82)
Coffe Break (15:25 pm – 16:05 pm)
Session 18: New Instruments and Search, Discussion (16:05 pm - 17:30 pm) Chair: Dong Lai
Ge, Jian (University of Florida) , 20 min The Dharma Planet Survey of Low-mass and Habitable Rocky Planets around Nearby Solar-type Stars (Abstract 36)
Zhou, JiLin (Nanjing University) , 20 min Time Domain Observatory of Nanjing University and our related works (Abstract 153)
Panel/Open Floor Discussion, 45 min (Missing Topics, Important/Unsolved Problems, Future) Panelists: Catherine Espailat, Jonathan Fortney, Andrew Howard, Ruth Murray-Clay, Re'em Sari, Yanqin Wu
End of Conference

POSTERS

BAILLIE, Kevin (Abstract 138)

Joint growth of young star and protoplanetary disk

BLECIC, Jasmina (Abstract 100)

Microphysical Kinetic Cloud Model in 1D Retrieval

BOEHLE, Anna (Abstract 110)

L'-band Direct Imaging Search for Exoplanets Around Nearby Stars in Archival VLT/NACO Data

Cai, Maxwell (Abstract 146)

How planetary systems are shaped by their birth environments in star clusters?

CAZZOLETTI, Paolo (Abstract 99)

Comparing ALMA and VLT-SPHERE images of HD 135344B: different implications for potential planets

CHEN, Guo (Abstract 77)

A GTC survey of transiting exoplanet atmospheres

DAI, Yuanzhe (Abstract 76)

Photo-evaporation of protoplanetary disks in young open clusters

Deng, HongPing (Abstract 50)

Fragmentation of early massive circumstellar disk, with and without MRI turbulence

DIPIERRO, Giovanni (Abstract 145)

An opening criterion for dust gaps in protoplanetary discs

DVORAK, Rudolf (Abstract 11)

Why is there no Hilda planet in our Solar System?

ERCOLANO, Barbara (Abstract 71)

Accreting Transition Discs with large cavities created by X-ray photoevaporation in C and O depleted discs

Fang, Min (Abstract 43)

Winds from T Tauri stars

FUJISAWA, Kotaro (Abstract 69)

Rapidly rotating substellar objects

GONZALEZ, Jean-françois (Abstract 31)

Self-induced dust traps: overcoming planet formation barriers

GU, Pin-gao (Abstract 94)

Planet Eccentricity Sabotages Vortex Survival

Guo, Zhen (Abstract 116)

Observational evidences of star-disk interaction on pre-main-sequence star

HALL, Cassandra (Abstract 51)

Protostellar disc fragments in SPH simulations

Hu, Xiao (Abstract 98)

Interpreting HL-Tau In A Non Ideal Way

HU, Yongyun (Abstract 0)

Abrupt climate transition of icy worlds from snowball to moist or runaway greenhouse

HUANG, Pinghui (Abstract 130)

Detectability of Vortices in Transition Disks

JANKOVIC, Marija (Abstract 67)

Formation of Close-in Earths and Super-Earths: Locating the MRI-Induced Pressure Barrier

Jia, Shi (Abstract 63)

Instability of mass transfer in a planet-star system

JIANG, Chaofeng (Abstract 95)

Interesting patterns in MMRs among adjacent planet pairs

KAUSHAL, Kaushal (Abstract 96)

Automatic Analysis Tools for Stellar Parametrization and classification of cool stars

LI, Sinan (Abstract 73)

The Critical Core Mass of Core Accretion Model for Planet Formation:the Effect of Mixing Length Theory

LIN, Douglas (Abstract 134)

Dynamical Interaction between close-in Super Earths and their Magnetically Active Stars

Lin, Min-Kai (Abstract 5)

Vertical shear instability in dusty protoplanetary disks

Lin, Min-Kai (Abstract 19)

Vortex survival in 3D self-gravitating discs Content

Liu, Hui-Gen (Abstract 55)

Photometry of Proxima Centauri in Antarctica: A Candidate Transit Event of its Earth-size Planet

LIVINGSTON, John (Abstract 119)

Validation of Planets from K2's Second Year

Long, Feng (Abstract 58)

An ALMA Survey of CO isotopologue emission from Protoplanetary Disks in Chamaeleon I

LUPU, Roxana (Abstract 102)

Constraining Methane Abundance and Cloud Properties from the Reflected Light Spectra of Directly Imaged Exoplanets

MAH, Jingyi (Abstract 107)

Dynamical stability of the TRAPPIST-1 system

Maindl, Thomas (Abstract 52)

The role of collisions in water transport and water loss during planet formation

MENG, Tong (Abstract 133)

Dynamical evolution and stability maps of the Proxima Centauri system

MILLS, Sean (Abstract 132)

A Circumbinary Planet Orbiting A Pair of Active Stars

MONSCH, Kristina (Abstract 47)

X-Ray Photoevaporation and the Final Location of Giant Planets

OHNO, Kazumasa (Abstract 18)

Microphysical Modeling of Convective Dust Clouds in Warm Super-Earths

PICOGNA, Giovanni (Abstract 85)

Planet-disc interaction in laminar and turbulent discs

PICOGNA, Giovanni (Abstract 66)

The dispersal of planet forming discs: a new generation of X-ray photoevaporation models

SHAN, Yutong (Abstract 81)

The Obliquity Variations of Habitable Zone Planets Kepler-62f and Kepler-186f

SKEMER, Andy (Abstract 115)

Characterizing the Coldest Exoplanets

SUTO, Yasushi (Abstract 32)

Searching for Exoplanetary Rings via Transit Photometry

TAKAHASHI, Sanemichi, Muto, T. (Abstract 37)

Early evolution of protoplanetary disks: a ring-gap structure formation

UBEIRA GABELLINI, Maria Giulia (Abstract 127)

The gas and dust disk around the CQ Tau protostar

Wang, Su (Abstract 60)

Formation of Planetary Systems in Near Mean Motion Resonances

WANG, Xuefeng (Abstract 44)

Dynamic portrait of the planar 3:1 mean motion resonance

WONG, Ka Ho (Abstract 65)

Stability of Coplanar Circumstellar Retrograde Orbits in Binary Systems

Xu, Rui (Abstract 40)

Chemical network reduction in protoplanetary disks

XU, Ziyang; BAI, Xuening; MURRAY-CLAY, Ruth (Abstract 20)

Pebble Accretion in Turbulent Protoplanetary Disks

YAN, Dongdong (Abstract 149)

The observational signals of exoplanets' atmospheric escape

Yang, Yi (Abstract 42)

Subaru/HiCIAO High-contrast Near-infrared Observations towards Protoplanetary Disks in Binary Systems

Yee, Samuel (Abstract 30)

A new distant, eccentric Jovian around HAT-P-11

YU, Cong (Abstract 2)

Formation of Super-Earths by Tidally-Forced Turbulence

Zanazzi, J.J. (Abstract 84)

Inclination Evolution of Protoplanetary Disks Around Eccentric Binaries

Zhang, Hui (Abstract 7)

Searching for Exoplanet from Dome A Antarctica

ZHANG, Xiaojia (Abstract 101)

Gas dynamics of retrograde circumprimary disks in close binaries

ZHENG, Xiaochen (Abstract 3)

Clearing Residual Planetesimals By Sweeping Secular Resonances in Transitional Disks: A Lone-Planet Scenario for The Wide Gaps in Debris Disks Around Vega and Fomalhaut

ZHOU, Yifan (Abstract 126)

Cloud Atlas: A Comparative Study of Directly Imaged Planetary-Mass Companions with Hubble Space Telescope Time-resolved Spectroscopy