Exoplanets and Disks: Their Formation and Diversity II

The 5th Subaru International Conference in Keauhou Kona, Hawaii
Sunday, December 8, 2013 – Thursday, December 12, 2013
Sheraton Kona Resort & Spa at Keauhou Bay, The Big Island of Hawaii

Scientific Program and Posters

Exoplanets and Disks: Their Formation and Diversity II

Scientific Program

Registration and Reception: Sunday, December 8

17:00–19:30 Registration (17:30–19:30 Reception)

Day 1: Monday, December 9

Session: From Disks to Planets

7:30– Registration (cont.)

8:30–8:40 Opening by Nobuo Arimoto (Subaru Director)

8:40–9:10 Nienke van der Marel (Leiden Observatory)
"Resolved gas and dust observations of a transitional disk and its cavity"

9:10–9:40 Jeroen Bouwman (MPIA)
"Solids in protoplanetary disks"

9:40–10:10 Jun Hashimoto (Oklahoma Univ.)
"NIR observations of protoplanetary disks"

10:10–10:30 Break

10:30–10:45 Satoshi Okuzumi (TITECH)
"The fate of planetesimals in turbulent protoplanetary disks"

10:45–11:00 Karl Stapelfeldt (Goddard)
"HST Imaging of New Edge-on Circumstellar Disks"

11:00–11:15 Shu-ichiro Inutsuka (Nagoya Univ.)
"The Fate of the Rings in Protoplanetary Disks"

11:15–11:30 Michihiro Takami (ASIAA)
"Vertical structures of protoplanetary disks inferred from near-IR imaging polarimetry"

11:30–11:45 Carol Grady (Eureka Scientific and GSFC)
"Transitional Disks Associated with Intermediate-Mass Stars: Results of the SEEDS Intermediate-Mass Star"

11:45–12:00 Flavien Kiefer (IAP)
"New insights on beta Pictoris comets: discovery of two different populations"

12:00–14:00 Lunch

14:00–14:30 Masahiro Ikoma (University of Tokyo)
"Composition and Origin of Short-Period Low-Mass Planets: The Importance of Observation of Their Atmospheres"

14:30–15:00 Masao Saito (JAO/NAOJ)
"Recent Progress of Observations of Protoplanetary Disks at mm – submm"

15:00–15:30 Nagayoshi Ohashi (Subaru)
"Disk formation revealed with ALMA"

15:30–16:00 Break

16:00–16:30 Andrew N. Youdin (Univ. of Colorado)
"The Origin and Early Evolution of Planetesimals in Gas Disk"

16:30–16:45 David Wilner (CfA)
"Imaging the CO Snow Line in the TW Hya Disk"

16:45–17:00 Takayuki Muto (Kougakuin Univ.)
"ALMA Observations of the Asymmetrically Gapped Disk around HD 142527"

17:00–17:15 Yuri Aikawa (Kobe Univ.)
"Water in protoplanetary disks"

17:15–17:30 Wlad Lyra (Caltech)
"Vortex theory meets observations: is ALMA seeing vortices in transitional disks?"

17:30–17:45 Akimasa Kataoka (NAOJ)
"Fluffy dust forms icy planetesimals by static compression"

17:45–18:00 Kyoko Tanaka (ILTS, Hokkaido Univ.)
"Evaporation of icy planetesimals and recondensation of icy particles due to bow shocks"

20:00–22:00 Bar & Poster

Day 2: Tuesday, December 10

Session: From Disks to Planets (cont.)

8:30–9:00 Hiroshi Kobayashi (Nagoya Univ.)
"Critical Effects of Collisional Fragmentation on Planet Formation"

9:00–9:30 Mark C. Wyatt (Cambridge Univ.)
"Observations and theory of debris disks"

Session: Planets and Disks Imaging

9:30–10:00 Ben Oppenheimer (AMNH)
"Project 1640: Results and Status of the Planet Characterization Survey"

10:00–10:30 Break

10:30–10:45 Michael Liu (UH)
"The Gemini NICI Planet-Finding Campaign"

10:45–11:00 Thayne Currie (Univ. Toronto)
"Properties of the First Directly-Imaged Planets"

11:00–11:15 Olivier Absil (Univ. Liege)
"Hitting the diffraction limit: first results of the AGPM-VORTEX project"

11:15–11:30 Sasha Hinkley (Caltech)
"An AO Survey Spanning Two Hemispheres of the First Sample of Debris Disk Stars from WISE"

11:30–11:45 Timothy Rodigas (Arizona/Carnegie DTM)
"High-Contrast LBTI/MagAO Images of Debris Disks at 2-4 microns"

11:45–12:00 Beth Biller (MPIA)
"Statistical Analysis of Exoplanet Populations from Large-Scale Direct Imaging Survey"

12:00–14:00 Lunch

14:00–14:30 Masayuki Kuzuhara (TITECH)
"SEEDS Direct Imaging Survey for Exoplanets"

14:30–15:00 Markus Feldt (MPIA)
"The Status of the VLT Planet Finder Instrument SPHERE"

15:00–15:10 Short Break

15:10–15:40 Tyler Groff (Princeton)
"The CHARIS High Contrast Imaging Spectrograph"

15:40–16:10 Christian Thalmann (Swiss Federal Institute of Technology)
"The Tools of High-Contrast Imaging"

16:10– Free Time

Day 3: Wednesday, December 11

Session: Planet Characterization and New Developments

8:30–9:00 Travis Barman (Lowell Observatory)
"Exoplanet Atmospheres and Direct Spectroscopy"

9:00–9:30 Kevin C. France (Univ. of Colorado)
"Molecular Gas in the 0.1–10 AU Circumstellar Environments around Young Stars"

9:30–10:00 Matteo Brogi (Leiden Observatory)
"Exoplanet atmospheres at high spectral resolution"

10:00–10:30 Break

10:30–10:45 Vincent Bourrier (IAP/CNRS)
"3-D model of atmospheric escape: hot Jupiters characterization and beyond"

10:45–11:00 Kiyoshi Kuramoto (Hokkaido Univ.)
"Hydrodynamic escape of hydrogen from early Earth atmosphere"

11:00–11:15 Pedro Figueira (Centro de Astrofisica da Universidade do Porto)
"Spectroscopic Direct Detection of an Exoplanet's Reflected Light"

11:15–11:30 Thomas Henning (MPIA)
"From protoplanetary gas disks to exoplanet atmospheres"

11:30–11:45 Deborah Padgett (NASA/GSFC)
"HST Imaging of WISE Debris Disks"

11:45–12:00 Jean-Charles Augereau (IPAG, U. Grenoble)
"Exozodiacal dust around nearby stars"

12:00–14:00 Lunch

14:00–14:30 Andreas Seifahrt (Univ. Chicago)
"Near infrared radial velocities – current state and future prospects"

14:30–15:00 Masahiro Ogihara (Nagoya Univ.)

"Crowding Out of Giants by Dwarfs: an Origin for the Lack of Companion Planets in Hot Jupiter Systems"

15:00–15:30 Nader Haghighipour (UH)
"Dynamics of planet formation – in binaries and outside"

15:30–16:00 Break

16:00–16:30 Olivier Guyon (Arizona/Subaru)
"High contrast imaging: technology and scientific opportunities from ground and space"

16:30–16:45 Takashi Onaka (UTokyo)
"Disk lifetime and the disk fraction"

16:45–17:00 Tobias Schmidt (Astrophysical Institute and University–Observatory Jena)
"Mass determination of young directly imaged planet candidates and brown dwarfs"

17:00–17:15 Takayuki Kotani (NAOJ)
"IRD: InfraRed Doppler Instrument for Subaru Telescope"

17:15–17:30 Erika Nesvold (University of Maryland)
"SMACK: A New Algorithm for Modeling Collisions and Dynamics of Planetesimals in Debris Disks

17:30–17:45 Shin–ichi Takehiro (Kyoto Univ.)
"Diversity of atmospheric circulations of synchronized rotating Jovian type planets"

17:45–18:00 Norio Narita (NAOJ)
"Transiting Exoplanet Search and Characterization with Subaru's New Infrared Doppler Instrument (IRD)"

19:00–21:00 Banquet

Day 4: Thursday, December 12

Session: Earth–like, Habitable Planets and Future Missions

8:30–9:00 Keiko Hamano (UTokyo)
"Emergence of two types of terrestrial planet on solidification of magma ocean"

9:00–9:30 Ravi K. Kopparapu (Pennsylvania State Univ.)
"Habitable Zone Limits and the Occurrence of Potential Habitable Planets"

9:30–10:00 Taro Matsuo (Kyoto Univ.)
"Direct Imaging of Exoplanets on ELTs"

10:00–10:30 Break

10:30–10:45 Yutaka Abe (UTokyo)
"Variety of water planets"

10:45–11:00 Jay Farihi (Univ. of Cambridge)
"Archaeology of Extrasolar Terrestrial Planetary Systems"

11:00–11:15 Eiichiro Kokubo (NAOJ)
"Formation of Terrestrial Planets from Protoplanets: Effects of System Size and Position"

11:15–11:30 Ramon Brasser (Acdemia Cinica)
"Long–term insolation variations on habitable exoplanets"

11:30–11:45 Jeremy Kasdin (Princeton)
"Coronagraphy on AFTA–WFIRST"

11:45–12:00 Takahiro Sumi (Osaka Univ.)
"Current and Future of Microlensing Exoplanet Search"

12:00–14:00 Lunch

14:00–14:30 Mark Clampin (STScI)
"JWST"

14:30–15:00 Wesley Traub (JPL)
"Future Coronagraph Missions"

15:00–15:10 Short Break

15:10–15:40 Keigo Enya (JAXA)
"Exoplanet studies with SPICA mission"

15:40–16:10 David Bennett (Univ. of Notre Dame)
"The WFIRST Cool and Cold Exoplanet Survey"

16:10– Closing Remark and adjourn

Poster Presentations

[P01] Masahiko Arakawa (Kobe University)
"Impact strength of small icy bodies experienced multiple collisions"

[P02] Kevin Baillie (Universite Paris)
"Protoplanetary disk characteristics as a function of the turbulent viscosity parameter and influence of deadzones"

[P03] Christoph Baranec (Univ. Hawaii / IfA)
"PULSE: Palomar Ultraviolet Laser for the Study of Exoplanets"

[P04] Charles Beichman (NASA)
"Brown Dwarf Parallax Program"

[P05] Mickael Bonnefoy (Institut de Planétologie et d'Astrophysique de Grenoble)
"Characterization of gaseous companion to the B-type star Kappa Andromedae"

[P06] Mickael Bonnefoy (Institut de Planétologie et d'Astrophysique de Grenoble)
"Direct imaging discovery of a probable 4-5 MJup"

[P07] Mickael Bonnefoy (Institut de Planétologie et d'Astrophysique de Grenoble)
"Properties of the distant brown-dwarf binary companion to the young and dusty A-type star HR6037"

[P09] Anthony Cheetham (University of Sydney)
"Companions to Ultracool Dwarfs at the diffraction limit"

[P10] Minho Choi (Korea Astronomy and Space Science Institute)
"Magnetic Activities of Class 0 Protostars"

[P11] Valentin Christiaens (University of Chile)
"Spirals in the disk of HD 142527 from CO emission lines with ALMA"

[P12] Christophe Sebastien Jean Claude (Subaru Telescope / Paris Observatory)
"The Subaru Coronagraphic Extreme AO High Sensitivity Visible Wavefront Sensors"

[P13] Ian Crossfield (MPIA)
"Dusty Atmospheres of Cool, Low-Mass Planets"

[P14] Kate Brutlag Follette (University of Arizona)
"Sub-mm vs Scattered Light Transitional Disks: Structural Discrepancies in Oph IRS 48 and SR21"

[P15] Yuri I. Fujii (Nagoya University)
"On the Origin of Angular Momentum Transfer in Circumplanetary Disks"

[P16] Yuka Fujii (TITECH)
"Photometric Variability of Solar System Solid Bodies: Implications for Rocky/Icy Exoplanets"

[P17] Akihiko Fukui (NAOJ)
"Atmospheric Study of Transiting Planets through Optical and Infrared Observations"

[P18] Antonio Garufi (ETH Zurich)
"The interplay between disks and (forming) planets from VLT/NACO PDI and ADI observations"

[P19] Andras Gaspar (Steward Observatory)
"The Collisional Evolution of Debris Disks: Connecting Observations with Theory"

[P20] Adam Hardy (Universidad de Valparaiso)
"SAM observations of the transition disk MY Lup"

[P22] Yukihiko Hasegawa (Osaka University)
"Kelvin-Helmholtz Instability in Multi-sized Dust Layers"

[P23] Kanae Haze (ISAS/JAXA)
"Laboratory experiments with the free-standing binary-pupil mask coronagraphs for SPICA"

[P24] Teruyuki Hirano (TITECH)
"Probing Stellar Obliquities for Transiting Exoplanetary Systems with Subaru"

[P25] Peng Hong (The University of Tokyo)
"Reducing atmospheres and habitability of deep-ocean exoplanets"

[P26] Yasunori Hori (NAOJ)
"Characterizing Low-mass Planets Orbiting Cool Stars With Water and Hydrogen"

[P27] Daiki Ishimoto (Kyoto University)
"Chemistry in protoplanetary disks with the effects of disk wind and grain growth"

[P28] Masaki Ishiwatari (Hokkaido University)
"Numerical experiments on atmospheres of synchronously rotating planets: a case with a non-gray radiation scheme and a cloud scheme"

[P29] Yuichi Ito (Tokyo Tech, The University of Tokyo)
"Thermal structure and detectability of atmospheres of hot rocky super-Earths"

[P30] Nemanja Jovanovic (Subaru Telescope)
"Status of the Subaru Coronagraphic Extreme Adaptive Optics System for high contrast imaging"

[P31] Nemanja Jovanovic (Subaru Telescope)
"Detecting Earth-like planets in the habitable zone around M-dwarfs with photonic technologies"

[P32] Kazuhiro Kanagawa (ILTS / Hokkaido University)
"Gap formation around a planet in protoplanetary disks"

[P33] Akihiro Kikuchi (TITECH)
"Orbital evolution of eccentric, gas-accreting protoplanets: Formation of distant jupiters in nearly circular orbits"

[P34] Shigeo Kimura (Osaka University)
"Role of the inner region of a circumstellar disk for understanding episodic accretion"

[P35] Takanori Kodama (The University of Tokyo)
"Evolution of terrestrial planets with water loss"

[P36] Mihoko Konishi (Osaka University)
"Direct Imaging Search for Extrasolar Giant Planets around 100 Myr-old Stars with Subaru Telescope"

[P37] Yuji Matsumoto (TITECH)
"The behavior of critical numbers of the orbital stability of planets trapped in the mean-motion resonances"

[P38] Jae-Min Lee (University of Zurich)
"Spectral Retrieval Analysis of the Directly Imaged exoplanets around HR 8799"

[P39] Karen Michelle Lewis (TITECH)
"Constraining Gas Giant Formation: Robust exo-moon radius and semi-major axis limits"

[P40] Naohiko Maeshima (Nagoya University)
"The numerical calculations and analitycal evaluations of type I migration in protoplanetary disks heated by stellar irradiation"

[P41] Alexis Matter (IPAG)
"Evidence of a discontinuous disc structure around the Herbig Ae star HD 139614"

[P42] Michael W. McElwain (NASA Goddard)
"Science with CHARIS: A high contrast integral field spectrograph for Subaru"

[P43] Kyle Aaron Mede （The University of Tokyo）
"The CHARIS Data Extraction Software: Integral Field Spectroscopy at High Contrast"

[P44] Farisa Y. Morales (NASA/JPL)
"HERSCHEL-RESOLVED OUTER BELTS OF TWO-BELT DEBRIS DISKS AROUND A-TYPE and SOLAR-TYPE STARS"

[P45] Tamami I. Mori （The University of Tokyo）
"Experimental Study on deuterated hydrocarbon materials"

[P46] Claire Moutou （CFHT）
"Planet-Finder survey with SPHERE/IRDIFS"

[P47] Eric Ludwig Nielsen (University of Hawai'i at Mānoa)
"A Unified Analysis of Brown Dwarf and Exoplanet Companions from Direct Imaging Surveys"

[P48] Ricky Nilsson (American Museum of Natural History)
"Panning for Planets in Stellar Glare: Methods for High-Contrast Imaging with Project 1640 "

[P49] Jun Nishikawa (NAOJ/GUAS)
"A coronagraph system with unbalanced nulling interferometer : upgrade of 2013"

[P50] Masashi Omiya (TITECH)
"A precise Doppler survey of late-M dwarfs using IRD"

[P51] Masanori Onishi (Kobe University)
"Development of radiative transfer model for exoplanets with steam atmospheres"

[P52] Shoichi Oshino (NAOJ)
"N-body simulations for planetary accretion in the presence of hot Jupiter"

[P53] James Owen (CITA)
"Models of transition discs: success and failures"

[P54] Masahito Oya (Nihon University, NAOJ)
"Adaptive optics operation with a focal plane wavefront sensing in a coronagraph"

[P55] Itsuki Sakon （The University of Tokyo）
"Challenges towards the Identification of the Unidentified Infrared Bands from the Laboratory Experimental Approaches"

[P56] Graeme Stanley Salter (University of New South Wales)
"Direct Imaging of Long Period Radial Velocity Targets"

[P57] Takao Sato (TITECH)
"Possibilities of water supply to the Earth with “icy-dust filtering"

[P58] Guillaume Schworer (Observatoire de Paris, University of Sydney)
"Time-Contrast-Separation-Polarization Diagrams to predict exoplanet visibility"

[P59] Garima Singh (Subaru Telescope, Observatoire de Paris)
"Phase mask coronagraphs ultra-fine pointing control system"

[P60] Satoko Sorahana (Nagoya University)
"Evidence of Chromospheric Activity in three brown dwarfs from 2.5-5.0μm AKARI spectra"

[P61] Esther Taillifet (AIM CEA Saclay/ Université Paris Diderot)
"Formation of the first Solar System solids in a turbulent protoplanetary disk"

[P62] Sanemichi Takahashi (Nagoya University, Kyoto University)
"An Origin of Ring Structures in Protoplanetary Disks"

[P63] Yasuto Takahashi （Hokkaido University）
"Comparison of Jupiter and GJ504b : similarity and differences in vertical structure and thermal radiation spectrum"

[P64] Yoshiyuki O. Takahashi （Kobe University）
"Development of a general circulation model for earth-like planetary atmospheres and its application"

[P65] Taku Takeuchi （TITECH）
"Transport of Magnetic Flux in Protoplanetary Disks as a Cause of the Transitional Phase"

[P66] Yuki Tanaka （Nagoya University）
"Magnetically driven wind from gas-giant planets"

[P67] Takayuki Tanigawa （Hokkaido Univeristy）
"Structure of Circum-Planetary Disks embedded in Protoplanetary Disks"

[P68] Takashi Tsukagoshi （Ibaraki University）
"High-resolution Submillimeter and Near-infrared Studies of the Transition Disk around Sz 91"

[P69]Yusuke Tsukamoto （Nagoya University）
"Formation, orbital and thermal evolution, and survival of planetary-mass clumps in the early phase of circumstellar disk evolution"

[P70] Barnaby Norris （University of Sydney）
"VAMPIRES – Probing the innermost regions of protoplanetary systems with polarimetric aperture-masking"

[P71] Yuta Ueda （University of Tokyo, TITECH）
"Collisional growth of organic mantle structured dusts"

[P72] Shoji Ueta （TITECH）
"Surface H_2O layers of ice-covered terrestrial planets"

[P73] Stephen C. Unwin （JPL/Caltech）
"High Contrast Imaging of Debris Disks from a High Altitude Balloon"

[P74] Chiaki Uyeda （Osaka University）
"Magnetic Orientation of Amorphous Silicate Grain in the PPD Region"

[P75] Arthur Vigan （Laboratoire d'Astrophysique de Marseille）
"The VLT/NaCo large program to probe the occurrence of exoplanets and brown dwarfs at wide orbits – Survey results and statistical analysis"

[P76] Koji Wada （PERC / Chiba Inst.Technology）
"Amount of ejecta mass at dust aggregate collisions"

[P77] John Wisniewski （University of Oklahoma）
"Near-IR Scattered Light Imagery of the DoAr 28 Transitional Disk"

[P78] Duncan John Wright （UNSW）
"The Search for The Search for Habitable-Zone Super-Earths Orbiting M Dwarfs at the Anglo-Australian Telescope"

[P79] Tetsuo Yamamoto （CPS, Kobe University）
"A new method of estimating the cooling rate experienced by chondrules in the early solar nebula"

[P80] Chikako Yasui （University of Tokyo）
"Rapid Evolution of the Innermost Dust Disk of Protoplanetary Disks Surrounding Intermediate-mass Stars"

[P81] Takashi Mikami （Hokkaido University）
"Proto-atmospheres on giant icy-satellite forming within low-temperature disk"

[P82] Masanobu Kunitomo （TITECH）
"Photoevaporating Disk Dispersal around Intermediate-mass stars"

[P83] Takatsuki Shoma　(TITECH)
″A detectability of photosputtering for H2O ice on the protoplanetary disk″

[P84] Catherine Walsh　(Leiden Observatory)
″Complex Organic Molecules in Protoplanetary Disks″

[P85] Tetsuo Taki　(TITECH)
″Evolution of Dust and Gas Density Distribution and Effect of the Streaming Instability at the Radial Pressure Bump in Protoplanetary Disks″