



STARPLANET2019

Ringberg Conference on Star-Planet connection

Monday, 24 June 2019



Time	Activity
8:00 – 9:00	Breakfast (60 min)
9:00 – 12:45	Arrival
13:00 – 14:00	Lunch (1h)
	Session 1: Stellar observations (activity, magnetic fields, abundances) <i>Chair: Maria Bergemann</i>
14:00 – 14:10	Welcome from the SOC (Maria Bergemann from MPIA galaxy department and Ludmila Carone from Planet and star formation department)
14:10 – 14:50 (30+10)	Review talk: Stars and Planets 2.0 Ansgar Reiners (Institut für Astrophysik Göttingen, DE)
14:50 – 15:20 (20+10)	Atmospheric escape as a tool to study stars and planets Luca Fossati (Space Research Institute, Austrian Academy of Sciences, AU)
15:20 – 15:50 (20+10)	Heavy metal rules. Exoplanet incidence and metallicity Vardan Adibekyan (Instituto de Astrofísica e Ciências do Espaço, PT)
15:50 – 16:20	Coffee (30 min)
16:20 – 16:50 (20+10)	Problems and Challenges Concerning Activity and Models of Host Stars Jeff Linsky (University of Colorado, USA)
16:50 – 17:20 (20+10)	Stellar Flares and Habitable M-dwarf Worlds: Exploring a Large Sample with TESS Maximilian Günther (MIT, USA)
17:20 – 18:20	Poster session I (60 min)
19:00 – 20:00	Dinner (1h)
20:00 – 20:30	Discussion
20:30 – 21:00	Wrap-up and round table



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Tuesday, 25 June 2019



Time	Activity
8:00 – 9:00	Breakfast (60 min)
	Session 1: Stellar observations (activity, magnetic fields, abundances) <i>Chair: Andreas Korn</i>
9:00 – 9:30 (20+10)	StarSim: Modelling of stellar photometric and radial velocity jitter to improve exoplanet detection and characterization Ignasi Ribas (Institute of Space Sciences (ICE, CSIC) & IEEC, ES)
9:30 – 10:00 (20+10)	Does planet formation imprint chemical signatures onto the host star? Fan Liu (Lund University, SE)
10:00 – 10:30 (20+10)	An extended hydrogen envelope of the hottest exoplanet KELT-9b Fei Yan (Institut für Astrophysik Göttingen, DE)
10:30 – 11:00	Coffee (30 min)
	Session 2: Stellar atmosphere models <i>Chair: Ansgar Reiners</i>
11:00 – 11:40 (30+10)	Review talk: 3D NLTE modeling in stars Andy Gallagher (MPIA Heidelberg, DE)
11:40 – 12:10 (20+10)	Synergy between stellar physics and planetology, a pathway for high-resolution spectroscopy of exoplanet atmosphere Andrea Chiavassa (Observatory of Nice, FR)
12:10 – 12:40 (20+10)	Cool star model atmospheres: current status and limitations Bertrand Plez (Université de Montpellier, FR)
13:00 – 14:00	Lunch (1h)
14:00 – 14:30 (20+10)	Carbon and oxygen in exoplanet host stars Anish Amarsi (MPIA Heidelberg, DE)
14:30 – 15:00 (20+10)	Do stellar abundances trace the specific birth-cloud environment? Andreas Korn (Uppsala University, SE)
15:00 – 15:30 (20+10)	NLTE analysis of stellar clusters Mikhail Kovalev (MPIA Heidelberg, DE)
15:30 – 16:10 (30+10)	Review talk: Stellar activity and winds shaping the atmospheres of planets Teresa Löffinger (University of Vienna, AU)
16:10 – 16:40	Discussion I (30 min), led by Ansgar Reiners
16:40 – 17:30	Poster session II (50 min)
17:30 – 18:30	Castle guided tour
19:00 – 20:00	Dinner (1h)
20:00 – 20:30	Discussion
20:30 – 21:00	Wrap-up and round table



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Wednesday, 26 June 2019



Time	Activity
8:00 – 9:00	Breakfast (60 min)
	Session 3: Planets I (tidal forces, magnetic fields, atmosphere erosion, habitability) <i>Chair: Theresa Löffinger</i>
9:00 – 9:40 (30+10)	Review talk: Predicting volatile outgassing for rocky exoplanets constrained by the interior Lena Noack (Freie Universität Berlin, DE)
9:40 – 10:10 (20+10)	Explaining the size distribution of small exoplanets as a consequence of planet formation Hilke Schlichting (UCLA, USA)
10:10 – 10:40 (20+10)	The influence of electromagnetic induction heating on the atmospheric evolution of exoplanets Kristina Kislyakova (University of Vienna, AU)
10:40 – 11:10	Coffee (30 min)
11:10 – 11:40 (20+10)	Habitability and atmospheric signatures of rocky extrasolar planets around cool stars Mareike Godolt (Zentrum für Astronomie und Astrophysik, TU Berlin, DE)
11:40 – 12:10 (20+10)	The evolution of highly irradiated exoplanet atmospheres James Owen (Imperial College London, UK)
12:10 – 12:40 (20+10)	Brown Dwarfs as cloud and molecular formation laboratories France Allard (Centre de Recherche Astrophysique de Lyon, FR)
13:00 – 14:00	Lunch (1h)
	Session 4: Planets II (atmospheric composition, radiative transfer) <i>Chair: Ludmila Carone</i>
14:00 – 14:40 (30+10)	Review talk: The chemical faces of super-hot Jupiters Christiane Helling (Centre for Exoplanet Science, University of St Andrews, UK)
14:40 – 15:10 (20+10)	Radiation hydrodynamics in exoplanet atmospheres Antonio Garcia-Munoz (Zentrum für Astronomie und Astrophysik, TU Berlin, DE)
15:10 – 15:40 (20+10)	A spectral survey of the ultra-hot Jupiter KELT-9b Daniel Kitzmann (Universität Bern, CH)
15:40 – 16:10	Coffee (30 min)
16:10 – 16:40 (20+10)	3D effects in the atmospheres of exoplanets Nathan Mayne (University of Exeter, UK)
16:40 – 17:10 (20+10)	Spectroscopy of exo-giant planets: diagnoses & origins Jonathan Lunine (Cornell University, USA)
17:10 – 17:40 (20+10)	Thermo-compositional diabatic convection in the atmospheres of brown dwarfs and in Earth's atmosphere and oceans Pascal Tremblin (CEA Saclay, FR)
17:40 – 18:10 (20+10)	The diversity of C/O elemental ratios in planet-forming disks Dmitry Semenov (MPIA Heidelberg, DE)
18:10 – 18:40 (20+10)	The impact of transport processes on planet composition Richard Booth (Institute of Astronomy, University of Cambridge, UK)
19:00 – 20:00	Dinner (1h)
20:00 – 20:30	Jonathan Lunine (Cornell University, USA)
20:30 – 21:00	Round table



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Thursday, 27 June 2019



Time	Activity
8:00 – 9:00	Breakfast (60 min)
	Session 4: Planets II (atmospheric composition, radiative transfer) <i>Chair: Nathan Mayne</i>
9:00 – 9:30 (20+10)	Out-of-equilibrium chemistry in planetary atmospheres Karan Molaverdikhani (MPIA Heidelberg, DE)
9:30 – 10:00 (20+10)	Deep wind jets in hot Jupiters Ludmila Carone (MPIA Heidelberg, DE)
10:00 – 10:30	Coffee (30 min)
	Session 5: Synergies in star-planet framework <i>Chair: Luca Fossati</i>
10:30 – 11:10 (30+10)	Review talk: Diversity of Super-Earth interiors Caroline Dorn (University of Zürich, CH)
11:10 – 11:50 (30+10)	Review talk: What does the chemical composition tell about the early evolution of solar-like stars and their planetary systems? Bengt Gustafsson (Uppsala University and Nordita, SE; in absentia) / Andreas Korn
11:50 – 12:20 (20+10)	Stellar surface inhomogeneities and transiting planet observations Jeff Valenti (STScI, Baltimore, USA)
12:20 – 12:50 (20+10)	Are eMSTOs in open clusters caused by accretion? Richard Hoppe (MPIA Heidelberg, DE)
13:00 – 14:00	Lunch (1h)
	Social Event: Panorama-restaurant Wallberg (http://www.wallberg-restaurant.de/)
14:00 – 15:30	1h walk (or 5 min car ride) + 30 min gondola ride to the restaurant Wallberg
15:30 – 17:00	Panorama-restaurant Wallberg
17:00 – 18:30	30 min gondola ride + 1h walk (or 5 min car ride) back to Ringberg
19:00 – 20:00	Dinner (1h)
20:00 – 20:30	Jeff Linsky (University of Colorado, USA)
20:30 – 21:00	Round table



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 Friday, 28 June 2019



Time	Activity
8:00 – 9:00	Breakfast (60 min)
	Session 5: Synergies in star-planet framework <i>Chair: Caroline Dorn</i>
9:00 – 9:30 (20+10)	Linking host star abundances to planet formation Bertram Bitsch (MPIA Heidelberg, DE)
9:30 – 10:00 (20+10)	Exoplanet transit spectroscopy at high resolution and in X-rays Peter Wheatley (University of Warwick, UK)
10:00 – 10:30	Coffee (30 min)
10:30 – 11:00 (20+10)	ESPRESSO and its first science results Nuno Santos (Instituto de Astrofísica e Ciências do Espaço (IA)/U. Porto, PT)
11:00 – 11:30 (20+10)	A cautionary tale for atmospheric detection: the case of WASP-19b Nestor Espinoza (MPIA Heidelberg, DE)
11:30 – 12:45	Discussion and Conclusions, led by Maria Bergemann
13:00 – 14:00	Lunch boxes (to go) / Lunch (1h)
	Departure



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POSTERS

Name	Affiliation	Poster title
Patrick Barth	<i>MPIA Heidelberg, DE</i>	Desiccation and oxygen build-up during early evolution of the TRAPPIST-1 planets
Jhon Yana Galarza	<i>Universidade de Sao Paulo, BR</i>	The effect of stellar activity on the stellar parameters of the young solar twin HIP 36515
Óscar Carrión González	<i>Technische Universität Berlin, DE</i>	Direct imaging of cold exoplanets. A theory framework for atmospheric characterization
Aishwarya Iyer	<i>Arizona State University, USA</i>	Project on M dwarfs
Marija Jankovic	<i>Imperial College London, UK</i>	Formation of close-in super-Earths in an MRI-accreting inner disc
Jessica Khaimova	<i>University of Göttingen, DE</i>	Studying Exoplanet Atmospheres Using CARMENES Data
Sebastian Kohl	<i>Hamburger Sternwarte, DE</i>	Hot Jupiters: no shock instead of bow shock
Tom Louden	<i>University of Warwick, UK</i>	An equatorial jet and polar flow on WASP-49b
Sudeshna Boro Saikia	<i>University of Vienna, AU</i>	Space weather of the young Sun