Program HP4

Invited talks

	October 4 - Wednesday	
	13:30	Welcoming
	Session 1: Exoplanets	
1	13:40	What do we know about exoplanets? ***Ansgar Reiners, Universitat Goettingen***
2	14:20	Love-number determinations for exoplanets from transit light curves ***Szilard Csizmadia, DLR***
3	14:40	How does the B1-B2 phase transition of ferropericlase (Mg,Fe)O affect the light curve of a transiting super-Earth-type planet? ***Frank Sohl, DLR***
4	15:00	Interior structure models and fluid Love numbers of exoplanets in the super-Earth regime ***Clemens Kellermann, Rostock***
5	15:20	Geochemical cycling of greenhouse gases between interior and atmosphere ***Frank Wagner, ETH***
	15:40	**Coffee & Posters**
	Session 2: Experiments I	
6	16:10	High-pressure x ray diffraction measurements over picosecond timescales on the Stanford ***Raymond S. Smith, LLNL***
7	16:50	Perspectives for dynamic and static high pressure research at the High Energy Density science instrument at European XFEL ***Karen Appel, E XFEL***
8	17:10	Dynamic compression experiments with the new High Energy Density Science (HED) instrument at the European XFEL ***Markus Schoelmerich, E XFEL***
	17:30	**Poster Session (with beer and wine)**

	October 5 - Thursday

	Session 2: Experiments I (continued)	
9	9:00	High pressure and high temperature phase diagram of ammonia monohydrate ***Sandra Ninet*, *IMPMC Paris***
	Session 3: Interiors of Terrestrial Planets	
10	9:40	Geodesy constraints on the interior structure of terrestrial planets ***Attilio Rivoldini, OMA Brüssel***
11	10:20	The thermal evolution of Mercury's Fe-Si core ***Jurrien Knibbe, VU Uni. Amst.***
	10:40	**Coffee & Posters**
12	11:10	Thermal evolution and core stratification of Mercury ***Marie-Helene Deproost, ROB***
13	11:30	Basin-specific constraints on the thermal evolution of the terrestrial planets ***Sebastiano Padovan, DLR***
14	11:50	Vibrational and thermodynamic properties of materials at high pressure and high temperature from ab-initio molecular dynamics ***Johann Bouchet, CEA***
15	12:30	Tidal response of the ice-ocean system on Enceladus ***Hugo Hellard, DLR***
	12:50	**Lunch Break**
	Session 3: Interiors of Terrestrial Planets (continued)	
16	13:50	Supercritical silicate melts during and in the aftermath of the Giant Impact ***Razvan Caracas, ENS Lyon***
17	14:30	Top-Down and Bottom-Up Freezing in a Fe-FeS Lunar Core ***Tina Rueckriemen, DLR***
18	14:50	Light element diffusion in liquid Fe for P-T conditions of the Earth's interior ***Gerd Steinle Neumann, BGI***
19	15:10	Electrical resistivity of liquid iron with high concentration of light element impurities ***Fabian Waegle, BGI***
	15:30	**Coffee & Posters**
	Session 4: Experiments II	
20	16:00	Crystal structure of MgO along the shock Hugoniot ***June K. Wicks, Johns Hopkins U***

21	16:40	Stability of the rhombohedral phase in vanadium and ambient temperature compression curve ***Zsolt Jenei, LLNL***
22	17:00	Hydrocarbons at Extreme Conditions ***Nicholas Hartley, HZDR***
	17:20	**End of session**
	19:00	**Conference dinner at Restaurant Kuckuck**

	October 6 - Friday	
	Session 4: Experiments II (continued)	
23	9:00	Optical measurements of the electronic and transport properties of molecular, oxide and metal systems at deep planetary interior conditions. ***R. Stewart McWilliams, U Edinburgh***
24	9:40	Formation of Metastable Phases of Silicon and Germanium ***Jodie Bradby, ANU Canberra***
	10:20	**Coffee & Posters**
	Session 5: Interiors of Gas Planets	
25	10:50	Jupiter and Uranus in light of current mission (planning) ***Nadine Nettelman, Rostock***
26	11:30	Explaining Juno's magnetic field observations ***Johannes Wicht, MPS***
27	11:50	Electrical and thermal conductivity of partially ionized water plasmas ***Martin French, Rostock***
28	12:10	Thermal and optical properties of dense helium ***Martin Preisig, Rostock***
29	12:30	Insights into the Earth's core through geomagnetic data assimilation ***Sabrina Sanchez, MPS***
	12:50	**End of workshop**

Poster session **Wednesday October 4, 17:00, and during coffee breaks**	
30	Fast x-ray diffraction of (MgFe)O across the spin transition under ***Alba San Jose Mendez, BGI/DESY***
31	Resolving Dynamic Properties of Warm Dense Matter ***Katja Rohatsch, HZDR***
32	Structural and thermal models of rocky planets and solid exoplanets ***Frank Sohl, DLR***
33	A stably stratified layer in Saturn's interior ***Wieland Dietrich, MPS***
34	Towards a new tool for modelling giant planets ***Ludwig Scheibe, Rostock***
35	Estimating the depth of the dynamo in Jupiter ***Lucia Duarte, CEMPS***
36	Modelling young Hot Jupiters as a window to formation processes ***Anna Julia Poser, Rostock***