

PROGRAM 4th OUTER-PLANET MOON MAGNETOSPHERE WORKSHOP

March 31- April 4, 2025, University of Cologne, Germany

	Id	Title	Primary authors	type	length	category
Monday						
	13:30	Welcome	Saur			
	14:00	247 Moon-Magnetosphere Interactions: A Tutorial Review	Fran Bagenal	Tutorial	30	moon plasma
	14:30	222 The length of the Io footprint: Spectral characterization using Juno-UVS	Vincent Hue	Oral	15	moon farfield
	14:45	223 Monitoring of Jupiter's magnetosphere with the moon-induced aurora during the Juno ϵ	Alessandro Moirano	Oral	15	moon farfield
	15:00	202 Juno's observations of the vertical and temporal H3+ structure at the auroral footprint of	Alessandro Mura	Oral	15	moon farfield
Coffee Break						
	15:45	229 Moon-magnetosphere coupling at Jupiter: insights from JADE-E observations	Jonas RABIA	Oral	15	moon farfield
	16:00	237 The Electrodynamic Interaction Between Io and Jupiter: Insights from Juno Observations	Stavros Kotsiaros	Oral	15	moon farfield
	16:15	Summary of session and discussion of open-questions: Moon-farfield		Discussion	30	moon farfield
	16:45	206 A new view of the Galilean satellites from Juno's close flybys	Jamey Szalay	Tutorial	30	moon plasma
	17:15	217 Juno's exploration of Jupiter's inner moons, radiation belts and rings	Scott Bolton	Oral	15	moon plasma
Tuesday						
	09:00	251 The atmospheres of Jupiter's icy satellites	Philippa Molyneux	Tutorial	30	moon
	09:30	238 Constraining the atmosphere of Europa using the Space Telescope Imaging Spectrograph	Michael Velez	Oral	15	moon
	09:45	246 Solving the Heat Equation for Europa: Surface Temperature and Heat Flux Modeling	Anne-Cathrine Dott	Oral	15	moon
	10:00	236 Ionospheres of icy moons	Marina Galand	Tutorial	30	moon plasma
	10:30	192 Ion-neutral chemistry at Ganymede	Arnaud Beth	Oral	15	moon plasma
Coffee Break						
	11:15	204 A Tutorial on Numerical Simulations of Moon-Magnetosphere Interactions	Xianzhe Jia	Tutorial	30	moon plasma
	11:45	194 Modeling Ganymede's Magnetic Field and Surface Charging Processes	Betty Pei-Chun Tsai	Oral	15	moon plasma
	12:00	199 Simulations of energetic ion dropouts during the Juno flyby of Europa	Hans Huybrighs	Oral	15	moon plasma
	12:15	Summary of session and discussion of open-questions: Moon-local 1		Discussion	15	moon plasma
Lunch						
Posters from 14:00-17:00 / Coffee 15:00						
Wednesday						
	09:00	242 Modelling Earth's magnetic field from space - separation of the various source contributi	Nils Olsen	Tutorial	30	induction/Earth
	09:30	203 Motionally induced magnetic fields in Earth's oceans	Jakub Velimský	Invited	20	induction/earth
	09:50	209 New global conductivity model of the Earth's mantle constrained by the joint inversion c	Alexander Grayver	Oral	15	induction/earth
	10:05	224 The inversion of ocean-induced magnetic signals to determine transport and heat	Aaron Hornschild	Invited	20	induction/earth
	10:25	250 Investigating the interior of Ganymede, Callisto and Europa with JUICE	Gabriel Tobie	Oral	20	moon interior overview
Coffee Break						
	11:15	200 Overview of Magnetic Induction in the Solar System's Icy Moons	Steven Vance	Oral	30	induction
	11:45	234 Induction and Motional Induction in the Satellite Oceans	Robert Tyler	Oral	15	induction
	12:00	214 Magnetic field induced by convective flow in Ganymede's subsurface ocean	Libor Šachl	Oral	15	induction
Lunch until 14:00 followed by an excursion						
18:30 Conference Dinner						
Thursday						
	09:00	254 Quantitative Constraints on Europa's Subsurface Ocean using Electromagnetic Induction	Jason Winkentern	Oral	15	induction
	09:15	213 Would magnetic induction effects allow detecting salinity gradients or zonal flows in Eur	Johannes Wicht	Oral	15	induction
	09:30	212 Driving zonal flows in Europa's ocean by magnetic induction	Ilse de Langen	Oral	15	induction
	09:45	201 Stronger Evidence of a Subsurface Ocean within Callisto from a Multifrequency Investigat	Corey Cochran; Steve Vance	Oral	15	induction
	10:00	244 Induction studies at Io based on observations of its aurora	Lorenz Roth	Invited	20	induction
	10:15	253 Can Europa's subsurface ocean be detected by its atmospheric glow?	Stephan Schlegel	Oral	15	induction
	10:30	Summary of session and discussion of open questions: Induction		Discussion	30	induction
Coffee Break						
	11:30	193 Analyze Io's atmosphere and environment using HST STIS spectral data	Anatol Große-Schwane	Oral	15	moon
	11:45	252 Ion Pick-up around Io in the Galileo Era	Martin Volwerk	Oral	15	moon plasma
	12:00	211 Extended Regions of Energetic Proton Losses around Io: Observations from Five Galileo F	Sebastian Cervantes	Oral	15	moon plasma
	12:15	196 How does Io transfer mass to the Io Plasma Torus? Is there a direct link to volcanic erupti	Darrell Strobel	Oral	15	moon
Lunch 12:30						
	14:00	210 Titan's Induced magnetosphere from plasma wave, magnetic field and particle observati	Konstantin Kim	Oral	15	moon plasma
	14:15	219 The neutral water torus of Europa	Quentin Nenon	Oral	15	moon/magnetosphere
	14:30	231 M-shell and Local Time Variability of the Electron and Magnetic Environments at the Orb	Thomas Le Liboux	Oral	15	moon/magnetosphere
	14:45	227 Detection of negative pickup ions from dust orbiting Jupiter	Frederic Allegrini	Oral	15	magnetosphere
	15:00	Summary of session and discussion of open-questions: Moon-local 2 & Magnetosphere		Discussion		Moon/magnetosphere
		Discussion next MMI-Meeting		Discussion		
Splinter meetings around 16:00						
Friday						
	09:00	197 Radial Evolution of Electron Pitch Angle Distributions in the Inner Jovian Magnetospher	Zhi-Yang LIU	Oral	15	magnetosphere
	09:15	245 Characterization of electron beams in Jupiter's middle magnetosphere	June Piasecki	Oral	15	magnetosphere
	09:30	207 The Hinge Point of Jupiter's Current Sheet and Its Relation to Main Auroral Emissions	Jiwen Sun	Oral	15	magnetosphere
	09:45	228 Ion composition and pitch angle variations for interchange injection events in Jupiter's r	Nicolas André; Marie Devinat	Oral	15	magnetosphere
	10:00	243 Magnetic Field measurements by JUICE	Michele Dougherty	Invited	20	mission
	10:20	191 The Radio & Plasma Wave Investigation (RPWI) for the JUPITER ICy moons Explorer (JUICE	Jan-Erik Wahlund	Oral	15	mission
Coffee Break						
	11:05	232 Spacecraft charging during the JUICE lunar gravity assist	Mika Holmberg	Oral	15	mission
	11:20	195 Europa Clipper Checkpoint Mars	Haje Korth	Oral	15	mission
	11:35	205 New Insights into Magnetospheric Structures and Future Prospects	Zhonghua Yao	Invited	20	mission
	11:55	Discussion: Challenges and Preparation for JUICE/CLIPPER/TELESCOPES observations		Discussion		mission/general
	12:25	Formal End of Meeting				
Afternoon Boat Tour						
Poster						
	239	Assessing the Variability of the Magnetic and Plasma Environment Upstream of Ganymed	Alexandre Santos	Poster		moon plasma
	233	Modeling the Neutral and Ionized Environments of Callisto	Thomas Le Liboux	Poster		moon plasma
	230	The Spatiotemporal Structure of Induced Magnetic Fields in Callisto's Plasma Environme	David Strack	Poster		moon plasma
	240	Satellite Microsignatures in Jupiter's Synchrotron Radiation Belts	Elias Roussos	Poster		moon plasma
	241	The impact of mass loading on radial transport in giant planet radiation belt	Yixin Hao	Poster		magnetosphere
	216	Alfvénic perturbations along the Enceladus flux tube and its distant plasma wake: Cassini	Lina Hadid	Poster		moon farfield
	235	Revisiting Galileo PLS Data From the Ganymede G29 Flyby	Steven Heuer	Poster		moon plasma
	225	Investigating the role of energetic electrons in polar CH ₄ emissions on Jupiter through J	Chiara Castagnoli	Poster		magnetosphere
	220	Multi-instrumental investigation of electron populations at the orbit of Enceladus	Aneesah Kamran	Poster		magnetosphere
	221	What is the effect of magnetospheric particle injections on moon-plasma interactions at	Quentin Nenon	Poster		moon plasma
	198	Inductive Response of Enceladus' Ice Shell and Potentially Stratified Ocean	Luke Wivell	Poster		induction
	226	Mathematical Modeling of the Io Plasma Torus: Effects on Galileo Radio Signals	Giuliano Vinci	Poster		magnetosphere
	248	Induction Response of a Heterogeneous Ocean and Inducing Period Variations at Europa	Patrick Rogan	Poster		induction
	249	Constraining Electron-Impact Ionization at Ganymede	Stefan Duling	Poster		moon plasma
	218	Improved Energy Spectrum for Ganymede's Aurora Excitation	Xin Cao	Poster		moon plasma
	215	Oceanic tidal magnetic signals mapped by geomagnetic satellites	Alexander Grayver	Poster		induction/Earth
	208	Stepping on Jupiter: The Io footprint and Jovian ionosphere interaction	Drew Coffin	Poster		moon farfield