

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	JS
	14:30	222 The length of the Io footprint: Spectral characterization using Juno-UVS	Vincent Hue	Oral	15	moon farfield	JS
	14:45	223 Monitoring of Jupiter's magnetosphere with the moon-induced aurora during the Juno € Alessandro Moirano		Oral	15	moon farfield	JS
	15:00	202 Juno's observations of the vertical and temporal H3+ structure at the auroral footprint o Alessandro Mura		Oral	15	moon farfield	JS
Coffee Break							
	15:45	229 Moon-magnetosphere coupling at Jupiter: insights from JADE-E observations	Jonas RABIA	Oral	15	moon farfield	JS
	16:00	237 The Electrodynamic Interaction Between Io and Jupiter: Insights from Juno Observations	Stavros Kotsiaros	Oral	15	moon farfield	JS
	16:15	Summary of session and discussion of open-questions: Moon-farfield		Discussion	30	moon farfield	JS
	16:45	206 A new view of the Galilean satellites from Juno's close flybys	Jamey Szalay	Tutorial	30	moon plasma	HH
	17:15	217 Juno's exploration of Jupiter's inner moons, radiation belts and rings	Scott Bolton	Oral	15	moon plasma	HH
Tuesday							
	09:00	251 The atmospheres of Jupiter's icy satellites	Philippa Molyneux	Tutorial	30	moon	MH
	09:30	238 Constraining the atmosphere of Europa using the Space Telescope Imaging Spectrograph	Michael Velez	Oral	15	moon	MH
	09:45	246 Solving the Heat Equation for Europa: Surface Temperature and Heat Flux Modeling	Anne-Cathrine Dott	Oral	15	moon	MH
	10:00	236 Ionospheres of icy moons	Marina Galand	Tutorial	30	moon plasma	MH
	10:30	192 Ion-neutral chemistry at Ganymede	Arnaud Beth	Oral	15	moon plasma	MH
Coffee Break							
	11:15	204 A Tutorial on Numerical Simulations of Moon-Magnetosphere Interactions	Xianzhe Jia	Tutorial	30	moon plasma	MH
	11:45	194 Modeling Ganymede's Magnetic Field and Surface Charging Processes	Betty Pei-Chun Tsai	Oral	15	moon plasma	MH
	12:00	199 Simulations of energetic ion dropouts during the Juno flyby of Europa	Hans Huybrighs	Oral	15	moon plasma	MH
	12:15	Summary of session and discussion of open-questions: Moon-local 1		Discussion	15	moon plasma	JRS/MH
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	JS
	09:30	203 Motionally induced magnetic fields in Earth's oceans	Jakub Velimský	Invited	20	induction/earth	JS
	09:50	209 New global conductivity model of the Earth's mantle constrained by the joint inversion c	Alexander Grayver	Oral	15	induction/earth	JS
	10:05	224 The inversion of ocean-induced magnetic signals to determine transport and heat	Aaron Hornschild	Invited	20	induction/earth	JS
	10:25	250 Investigating the interior of Ganymede, Callisto and Europa with JUICE	Gabriel Tobie	Oral	20	moon interior overview	JS
Coffee Break							
	11:15	200 Overview of Magnetic Induction in the Solar System's Icy Moons	Steven Vance	Tutorial	30	induction	AG
	11:45	234 Induction and Motional Induction in the Satellite Oceans	Robert Tyler	Oral	15	induction	AG
	12:00	214 Magnetic field induced by convective flow in Ganymede's subsurface ocean	Libor Šachl	Oral	15	induction	AG
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	AG
	09:15	213 Would magnetic induction effects allow detecting salinity gradients or zonal flows in Eur	Johannes Wicht	Oral	15	induction	AG
	09:30	212 Driving zonal flows in Europa's ocean by magnetic induction	Ilse de Langen	Oral	15	induction	AG
	09:45	201 Stronger Evidence of a Subsurface Ocean within Callisto from a Multifrequency Investigat	Corey Cochrane; Steve Vance	Oral	15	induction	AG
	10:00	244 Induction studies at Io based on observations of its aurora	Lorenz Roth	Invited	20	induction	AG
	10:15	253 Can Europa's subsurface ocean be detected by its atmospheric glow?	Stephan Schlegel	Oral	15	induction	AG
	10:30	Summary of session and discussion of open questions: Induction		Discussion	30	induction	NO/SV
Coffee Break							
	11:30	193 Analyze Io's atmosphere and environment using HST STIS spectral data	Anatol Große-Schware	Oral	15	moon	FM
	11:45	252 Ion Pick-up around Io in the Galileo Era	Martin Volwerk	Oral	15	moon plasma	FM
	12:00	211 Extended Regions of Energetic Proton Losses around Io: Observations from Five Galileo F	Sebastian Cervantes	Oral	15	moon plasma	FM
	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	FM
Group Foto							
Lunch 12:30							
	14:00	210 Titan's Induced magnetosphere from plasma wave, magnetic field and particle observati	Konstantin Kim	Oral	15	moon plasma	MG
	14:15	219 The neutral water torus of Europa	Quentin Nenon	Oral	15	moon/magnetosphere	MG
	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	MG
	14:45	227 Detection of negative pickup ions from dust orbiting Jupiter	Frederic Allegrini	Oral	15	magnetosphere	MG
	15:00	Summary of session and discussion of open-questions: Moon-local 2 & Magnetosphere		Discussion		Moon/magnetosphere	JS
		Discussion next MMI-Meeting		Discussion			JS
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	JRS
	09:15	245 Characterization of electron beams in Jupiter's middle magnetosphere	June Piasecki	Oral	15	magnetosphere	JRS
	09:30	207 The Hinge Point of Jupiter's Current Sheet and Its Relation to Main Auroral Emissions	Jiuwen Sun	Oral	15	magnetosphere	JRS
	09:45	228 Ion composition and pitch angle variations for interchange injection events in Jupiter's r	Nicolas André; Marie Devinat	Oral	15	magnetosphere	JRS
	10:00	243 Magnetic Field measurements by JUICE	Michele Dougherty	Invited	20	mission	SV
	10:20	191 The Radio & Plasma Wave Investigation (RPWI) for the JUpiter ICy moons Explorer (JUICE	Jan-Erik Wahlund	Oral	15	mission	SV
Coffee Break							
	11:05	232 Spacecraft charging during the JUICE lunar gravity assist	Mika Holmberg	Oral	15	mission	SV
	11:20	195 Europa Clipper Checkpoint Mars	Haje Korth	Oral	15	mission	SV
	11:35	205 New Insights into Magnetospheric Structures and Future Prospects	Zhonghua Yao	Invited	20	mission	SV
	11:55	Enceladus mission	Frederik Johannson		5	mission	SV
	12:00	Discussion: Challenges and Preparation for JUICE/CLIPPER/TELESCOPE observations		Discussion		mission/general	SV/JS
	12:30	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 JE	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	