

Daily programme for poster area Level 1

Poster area Level 1 | Mon, 19 Sep 2022

TP1 | Mercury Science and Exploration

Convener: Jack Wright | Co-conveners: Joe Zender, Johannes Benkhoff, Go Murakami, Lina Hadid, Noah Jäggi, Beatriz Sanchez-Cano, Willi Exner, Joana S. Oliveira, Alice Lucchetti, Anna Milillo, Valeria Mangano

Attendance time: 18:45–20:15

The BepiColombo Mission to Mercury

- L1.1 EPSC2022-98
BepiColombo's Monitoring Camera: Overview of Planetary Swing-bys
Joe Zender and Johannes Benkhoff
- L1.2 EPSC2022-543
BepiColombo First Mercury Fly-by: first taste of the mission results on investigation of the environment around the planet
Anna Milillo and the BERM, MAG-MGF, MPPE, PWI, SERENA and SIXS teams
- L1.3 EPSC2022-79
Effects of spacecraft outgassing and charging observed by BepiColombo at Mercury
Markus Fränz, Dominique Delcourt, Lina Hadid, Yoshifumi Saito, Bruno Katra, Harald Krueger, Norbert Krupp, Nicolas Andre, and Ali Varsani
- L1.4 EPSC2022-865
Energetic Neutral Atom imaging at Mercury by MPPE/ENA on Mio: Instrument status and preliminary results from the initial operations
Manabu Shimoyama, Yoshifumi Futaana, Martin Wieser, Stas Barabash, and Kazushi Asamura
- L1.5 EPSC2022-339
Measuring Mercury Exosphere with the Mass Spectrometer Strofio
Stefano Livi, Frederic Allegrini, Jared Schroeder, and George Ho
- L1.6 EPSC2022-368
Increasing the Signal-to-Noise Ratio of a Mass Spectrometer Using a Velocity Filter
Jared Schroeder, Stefano Livi, Frederic Allegrini, and Peter Wurz

Mercury's Planetary Environment

- L1.7 EPSC2022-890
Micro-meteoroids impact vaporization (MMIV) as source for Ca and CaO exosphere along Mercury's orbit
Martina Moroni, Milillo Anna, Mura Alessandro, André Nicolas, Plainaki Christina, Mangano Valeria, Massetti Stefano, Orsini Stefano, Aronica Alessandro, De Angelis Elisabetta, Rispoli Rosanna, Sordini Roberto, Kazakov Adrian, and Del Moro Dario

Mercury's Interior

- L1.8 EPSC2022-934
The core flow induced by Mercury's libration: density stratification and magnetic fields
Fleur Seuren, Jérémy Requier, Santiago Andrés Triana, and Tim Van Hoolst
- L1.9 EPSC2022-996
Parametrizing the thermal evolution of a convective mantle that becomes conductive
Jurrien Knibbe, Yue Zhao, Attilio Rivoldini, and Tim Van Hoolst
- L1.10 EPSC2022-432
Mineralogical model of the mantle of Mercury
Camilla Cioria and Giuseppe Mitri

Mercury's Surface

- L1.11 EPSC2022-624
Definition of scientific targets of interest for BepiColombo in the eastern Eminescu (H9) quadrangle
Gloria Tognon and Matteo Massironi
- L1.12 EPSC2022-595
Classification of Mercury's Impact Basins, Based on Topography- and Gravity Signatures in MESSENGER Data
Claudia Camila Szczech, Jürgen Oberst, and Frank Preusker
- L1.13 EPSC2022-1026
Updating the Mercury Mean Spectra using 4.7 millions MASCs Spectra
Sebastien Besse, Claudio Munoz, Thomas Cornet, Alain Doressoundiram, Oceane Barraud, Emma Caminiti, Mireia Leon-Dasi, and Noam Izenberg
- L1.14 EPSC2022-889
Mercury's surface automated surface mapping via unsupervised classification of MESSENGER multi-instrument data.
Mario D'Amore, Jörn Helbert, Giulia Alemanno, and Alessandro Maturilli
- L1.15 EPSC2022-876
Synthetic Analogs for Surface Regions on Mercury: A Mid-Infrared Study for the BepiColombo Mission
Andreas Morlok, Christian Renggli, Bernard Charlier, Olivier Namur, Stephan Klemme, Maximilian Reitze, Iris Weber, Aleksandra N. Stojic, Karin Bauch, Nico Schmedemann, Jan-Hendrik Pasckert, Harald Hiesinger, and Jörn Helbert
- L1.16 EPSC2022-202
Thermal modelling of Mercury's surface for the MERTIS instrument
Olivier Groussin, Kay Wohlfarth, Pierre Vernazza, Harald Hiesinger, and Joern Helbert
- L1.17 EPSC2022-191
DETECTION OF ICY SPECIES IN MERCURY'S PSRs: SPECTRAL SIMULATIONS FOR SIMBIO-SYS/VIHI ON BEPI COLOMBO
Gianrico Filacchione, Andrea Raponi, Mauro Ciarniello, Fabrizio Capaccioni, Alessandro Frigeri, Anna Galiano, Maria Cristina De Sanctis, Michelangelo Formisano, Valentina Galluzzi, and Gabriele Cremonese

TP2 | Paving the way to the decade of Venus

Convener: Anne Grete Straume-Lindner | Co-conveners: Gabriella Gilli, Moa Persson

Attendance time: 18:45–20:15

- L1.18 EPSC2022-76
Laboratory experiments to constrain the identity of Venus's unknown UV absorber
Joanna Egan, Alexander James, John Plane, Benjamin Murray, and Wuhu Feng
- L1.19 EPSC2022-198
Abiotic chemical routes towards the phosphine synthesis in the atmosphere of Venus
Martin Ferus, Giuseppe Cassone, Paul Rimmer, Franz Saija, Klaudia Mráziková, Antonín Knížek, and Svatopluk Civiš
- L1.20 EPSC2022-399
Modeling the eruption of magma within impact craters in the Highlands of Venus
Alexandra Le Contellec, Chloé Michaut, Francesco Maccaferri, and Virginie Pinel
- L1.21 EPSC2022-501
The abundance of H₂SO₄ and SO₂ in the Venus atmosphere derived from radio occultation measurements and observed radio scintillations
Janusz Oschlisniok, Martin Pätzold, Silvia Tellmann, Bernd Häusler, and Michael Bird
- L1.22 EPSC2022-566
Detection of the gravity signature of Venus' thermal tides with the EnVision radio-science experiment
Pascal Rosenblatt, Jean-Charles Marty, Gabriel Tobie, Caroline Dumoulin, and Sébastien Lebonnois
- L1.23 EPSC2022-621
The importance of Grain-Size Evolution for the tectonic regime divergence of Venus and Earth
Antonio Manjón-Cabeza Córdoba and Tobias Rolf

- L1.24 EPSC2022-941
Could Acidithiobacillus ferrooxidans be analogs of microorganisms potentially inhabiting Venus clouds?
Aleksandra Stryjska, Grzegorz Słowik, and Paweł Dąbrowski
- L1.25 EPSC2022-713
Identifying the growing modes of Venus' atmosphere using Bred Vectors
Jianyu Liang, **Norihiko Sugimoto**, and Takemasa Miyoshi
- L1.26 EPSC2022-899
Consolidating the radiative transfer code to analyze VenSpec-H measurements
Séverine Robert, Paul Simon, Justin Erwin, Filip Vanhellefont, Emmanuel Marcq, Bruno Bézard, Jörn Helbert, and Ann Carine Vandaele
- L1.27 EPSC2022-1113
VenSpec-H: Introduction to Instrument and Consortium
Justin Erwin, Severine Robert, Ian Thomas, Eddy Neefs, Roderick De Cock, Emmanuel Marcq, Joern Helbert, and Ann Carine Vandaele
- L1.28 EPSC2022-414
Ground-based HDO and SO2 thermal mapping on Venus between 2012 and 2022: : An update
Therese Encrenaz, Thomas Greathouse, Rohini Giles, Thomas Widemann, Bruno Bézard, and Thierry Fouchet

TP3 | Forward to the Moon: The Science of Exploration

Convener: Gregory Schmidt | Co-conveners: Mahesh Anand, Kristina Gibbs, Brian Day

Attendance time: 18:45–20:15

- L1.29 EPSC2022-243
Dielectric measurements of lunar soil analogues at different compactions within the Melody project.
Chloe Helene Martella, Barbara Cosciotti, Sebastian Emanuel Lauro, Elisabetta Mattei, Federico Tosi, and Elena Pettinelli
- L1.30 EPSC2022-291
A statistical study of the Moon's magnetotail plasma environment
Lucas Liuzzo, Andrew Poppe, and Jasper Halekas
- L1.31 EPSC2022-348
3D reconstruction of lunar rock samples collected at North Massif Station 6 during the Apollo 17 mission
Stéphane Le Mouélic, Louis Macquet, Harrison Schmitt, Nicolas Mangold, Gwénaél Caravaca, Benoît Seignovert, and Erwan Le Menn
- L1.32 EPSC2022-604 | **MI**
Are pit craters habitable? Geological analysis and description of their structural potential as lunar bases.
Gabriel López-Martínez and Laura M. Parro
- L1.33 EPSC2022-725
Characteristics of Lunar Photoelectrons and Backscattered Electrons
Shaosui Xu, Andrew Poppe, Paul Szabo, Yuki Harada, Jasper Halekas, and Phil Chamberlin
- L1.34 EPSC2022-856
LEAP - Legged Exploration of the Aristarchus Plateau
Patrick Bambach, Valentin Bickel, Hendrik Kolvenbach, Giorgio Valsecchi, Harald Steininger, Nicholas Eaton, Harald Hiesinger, and Manish Patel
- L1.35 EPSC2022-923
Geomorphologic mapping of the Valentine Domes in the Moon, intrusive domes, and their mineral resource potential
Javier Eduardo Suarez Valencia and Angelo Pio Rossi
- L1.36 EPSC2022-966
EXPLORE Lunar Scientific Data Applications: L-Explo and L-Hex
Giacomo Nodjoumi, Javier E. S. Valencia, Carlos Brandt, Nick L. J. Cox, and Angelo P. Rossi

- L1.37 EPSC2022-985
A Dynamic Model for the Lunar Ejecta Dust Cloud
Maximilian Sommer, Yanwei Li, Ralf Srama, Peter Strub, Jianqun Yang, and Xingji Li
- L1.38 EPSC2022-992
The Negative Ions at the Lunar Surface (NILS): first dedicated negative ion instrument on the Chang'E-6 mission to the Moon.
Romain Canu-Blot, Martin Wieser, and Stas Barabash
- L1.39 EPSC2022-1189
X-Ray Computed Tomography of Apollo Drive Tube 73001 as Part of the Apollo Next Generation Sample Analysis Program
Ryan Zeigler, Scott Eckley, Dave Edey, Richard Ketcham, Romy Hanna, Juliane Gross, Francis McCubbin, Charles Shearer, and The ANGSA Science Team

TP6 | Martian dust and clouds: from lab to space

Convener: Olga Muñoz | Co-conveners: Jonathan Merrison, Gerhard Wurm, Ann Carine Vandaele, Hannakaisa Lindqvist, Michael Wolff

Attendance time: 18:45–20:15

- L1.40 EPSC2022-66
Experimental scattering matrices of Martian dust analogues for radiative modelling and remote sensing applications.
Juan Carlos Gomez Martin, Julia Martikainen, Zuri Gray, Marco Peiteado, Teresa Jardiel, and Olga Muñoz
- L1.41 EPSC2022-576
RoadMap to understand the role of dust in the atmosphere of Mars
Ann Carine Vandaele, Jon Merrison, Gerhard Wurm, Olga Munoz, Teresa Jardiel, Hannakaisa Lindqvist, Mike Wolff, Lori Neary, Yannick Willame, Arianna Piccialli, Loïc Trompet, Zachary Flimon, Andebo Abesha, Tim Becker, Julia Martikainen, Juan Carlos Gomez-Martin, and Marco Peiteado
- L1.42 EPSC2022-617
Mars atmospheric water ice climatology as retrieved by MRO/CRISM: 5 years of observations
Alain Khayat, Michael Smith, Michael Wolff, Scott Guzewich, Emily Mason, and Samuel Atwood
- L1.43 EPSC2022-640
Attempting to use dust analogue from lab to study Martian atmosphere
zachary flimon, justin erwin, Ann Carine vandaele, lori Neary, arianna piccialli, loic trompet, yannick willame, filip Vanhellemont, sophie bauduin, Michael wolff, olga Munoz, julia Martikainen, Juan Carlos Gomez Martin, and Fernando Moreno
- L1.44 EPSC2022-862
Particulate atmospheric endmembers retrieval from ExoMars Thermal Infrared (TIRVIM) spectral data
Giulia Alemanno, Mario D'Amore, Alessandro Maturilli, Jörn Helbert, Gabriele Arnold, Oleg Korablev, Nikolay Ignatiev, Alexey Grigoriev, Alexey Shakun, and Alexander Trokhimovskiy
- L1.45 EPSC2022-868
Preliminary results of nadir retrievals from NOMAD/UVIS using new dust properties from lab measurements
Yannick Willame, Ann Carinne Vandaele, Justin Erwin, Micheal Wolff, Arianna Piccialli, Lori Neary, Zachary Flimon, Filip Vanhellemont, Frank Daerden, Olga Muñoz, Julia Martikainen, Cédric Depiesse, Jon Mason, Ian Thomas, Bojan Ristic, Manish Patel, Giancarlo Bellucci, and José Juan Lopez Moreno
- L1.46 EPSC2022-946
Evaluation of the capability of ExoMars-TGO NOMAD infrared nadir channel for water ice clouds detection on Mars
Luca Ruiz Lozano, Özgür Karatekin, Véronique Dehant, Giancarlo Bellucci, Fabrizio Oliva, Emiliano D'Aversa, Francesca Altieri, Filippo Giacomo Carrozzo, Yannick Willame, Ian Thomas, Frank Daerden, Bojan Ristic, Manish Patel, José Juan López Moreno, and Ann Carine Vandaele
- L1.47 EPSC2022-1242
Global troposphere-to-msosphre modelling of martian CO2 ice clouds
Anni Määttänen, Christophe Mathé, Joachim Audouard, Constantino Listowski, **Ehouarn Millour**, Francois Forget, Francisco González-Galindo, Lola Falletti, Deborah Bardet, Lucas Teinturier, Margaux Vals, Aymeric Spiga, and Franck Montmessin

- L1.48 EPSC2022-637
Improvements to dust and aerosols in GEM-Mars GCM simulations: Results from the RoadMap project
Lori Neary and Frank Daerden and the The RoadMap Team
- Radiative Properties**
- L1.49 EPSC2022-65
Martian Soil under Tension: Visualizing Thermal Creep Gas Flow by Diffusive Wave Spectroscopy
Gerhard Wurm, Tetyana Bila, Jens Teiser, and Jonathan Kollmer
- L1.50 EPSC2022-456
Cloud tracking and dynamics of Martian mesospheric clouds in twilight as seen by MEX/VMC
Jorge Hernández-Bernal, Agustín Sánchez Lavega, Teresa del Río Gaztelurrutia, Ricardo Hueso Alonso, and Alejandro Cardesín Moineo

TP12 | Planetary Seismology and Geophysics

Convener: Philippe Lognonné | Co-conveners: Melanie Drilleau, Foivos Karakostas, Mark Panning, Simon C. Stähler, Mark Wieczorek

Attendance time: 18:45–20:15

- L1.51 EPSC2022-1039
Lunar Science and Exploration activities in the framework of the Lunar Gravitation-Wave Antenna (LGWA) collaboration
Alessandro Frigeri, Marco Olivieri, and Jan Harms and the WG2 (Lunar Science and Exploration) of the Lunar Gravitational-Wave Antenna (LGWA) collaboration
- L1.52 EPSC2022-375
A re-analysis of the lithospheric flexure on Mars
Bart Root and Weilun Qin
- L1.53 EPSC2022-366
InSight for seismically detectability and seismically triggered avalanches on Mars
Antoine Lucas, Lucas Bourdon, Anne Mangeney, Grégory Sainton, Mamadou Adama Bah, Taichi Tawamura, Philippe Lognonné, Sébastien Rodriguez, Liliya Posiolova, Ingrid Daubar, and Mike malin
- L1.54 EPSC2022-859
Lateral variations of the Martian crustal thickness from the InSight data set
Melanie Drilleau, Henri Samuel, Raphael F. Garcia, Mark Wieczorek, Attilio Rivoldini, Clément Perrin, Chloé Michaut, Philippe Lognonné, and William B. Banerdt
- L1.55 EPSC2022-831
Martian regolith structures revealed by broadband-frequency events
Jing Shi, Philippe Lognonné, Kawamura Taichi, Plasman Matthieu, and Zongbo Xu
- L1.56 EPSC2022-816
Site Effect Study based on Magnitude 4~5 InSight Marsquakes
Wanbo Xiao, Philippe Lognonné, Taichi Kawamura, Zongbo Xu, Sebastián Carrasco, and Brigitte Knapmeyer-Endrun
- L1.57 EPSC2022-797
Non Gaussian transient waveform detections in the martian continuous signal
Arthur Cuvier, Éric Beucler, Mickaël Bonnin, and Raphaël Garcia
- L1.58 EPSC2022-846
Reprocessing Apollo seismic data
Xiang Zhang, Philippe Lognonné, Taichi Kawamura, Henri Samuel, Zongbo Xu, Grégory Sainton, Marouchka Froment, and Keisuke Onodera

TP13 | Planetary Dynamics: Shape, Gravity, Orbit, Tides, and Rotation from Observations and Models

Convener: Alexander Stark | Co-conveners: Agnes Fienga, Hauke Hussmann

Attendance time: 18:45–20:15

- L1.59 EPSC2022-392 | **MI**
Update of seasonal gravity field and k2 love number of Mars from MGS, Mars Odyssey and MRO radio science
 maeva levesque, pascal rosenblatt, **jean-charles marty**, and caroline dumoulin
- L1.60 EPSC2022-911
Relativistic variations in Mars rotation
 Rose-Marie Baland, Aurélien Hees, **Marie Yseboodt**, Adrien Bourgoin, and Sébastien Le Maistre
- L1.61 EPSC2022-1021
Mars rotational elements: how to explain the long period terms in the IAU standard?
Marie Yseboodt, Rose-Marie Baland, and Sébastien Le Maistre
- L1.62 EPSC2022-850
An Angular Momentum Approach to the study of the Cassini States of large triaxial icy satellites in synchronous rotation
Alexis Coyette, Rose-Marie Baland, and Van Hoolst Tim
- L1.63 EPSC2022-152
Tides in the Jovian System
Robert Jacobson and Ryan Park
- L1.64 EPSC2022-653
Contribution of simultaneous PRIDE observations of JUICE and Clipper spacecraft to the Galilean satellites' ephemerides
Marie (M.) Fayolle, Dominic (D.) Dirkx, Giuseppe (G.) Cimo, Leonid (L.I.) Gurvits, Valery (V.) Lainey, Guifré (G) Molera Calvés, Vidhya (V.) Pallichadath, Bert (L.L.A.) Vermeersen, and Pieter (P.N.A.M.) Visser
- L1.65 EPSC2022-1102
The two parameterisations of the Andrade rheological model in planetary science: a comparative study
Michaela Walterova, Frank W. Wagner, Ana-Catalina Plesa, and Doris Breuer
- L1.66 EPSC2022-1118
A parametric level-set approach to the global gravity inversion of small bodies
Alfonso Caldiero, Sébastien Le Maistre, and Véronique Dehant

TP15 | Astrobiology

Convener: Felipe Gómez | Co-conveners: Nuria Rodríguez-González, Sohan Jheeta, Frank Trixler, Rosanna del Gaudio

Attendance time: 18:45–20:15

- L1.67 EPSC2022-57
On the cost-efficiency of cyanobacterium-based, biological ISRU on Mars
Cyprien Verseux and Tiago Ramalho
- L1.68 EPSC2022-118
Modeling the origin of Río Tinto
Isabel Herreros, Cristina Escudero, David Gómez-Ortiz, Nuria Rodríguez, Aitor Martínez, Alejandro Suárez-Gordo, David Fernández-Remolar, Felipe Gómez, and Ricardo Amils
- L1.69 EPSC2022-121
Exploration of Methodologies to Investigate Bacterial Survival in Planetary Impacts
Reece Wilkinson, Penelope Wozniakiewicz, and Gary Robinson
- L1.70 EPSC2022-181 | **MI**
The Search for Extant Life on Mars as a Focusing Scientific Goal for Future Human Exploration Missions
Carol Stoker

- L1.71 EPSC2022-206
Investigation of the physiological response of cold-adapted microorganisms to extreme environmental stress factors.
Tommaso Zaccaria, Petra Rettberg, Kristina Beblo-Vranesevic, Marien De Jonge, and Mihai Netea
- L1.72 EPSC2022-299
From molecular simplicity to the emergent complexity of earliest life: investigating key features and the role of physicochemical periodic stress on Earth and on Earth-like planets.
Rosanna del Gaudio
- L1.73 EPSC2022-386
From experimental evolution to climate simulations: the projects of the newly created Center for Life in Universe
Emeline Bolmont, David Ehrenreich, Jérôme Kasparian, Bastiaan Ibelings, Daniel McGinnis, Nicolas Winssinger, Luca Caricchi, Sébastien Castellort, and Andreas Mueller
- L1.74 EPSC2022-500
Proposal of a preliminary Planetary Protection protocol for the development of future Mars missions at the University of Vigo.
Alejandro Ramírez Ramos, Ana Ulla Miguel, Alejandro Cardesin-Moinelo, Carmen Sieiro Vázquez, Andoni Moral Inza, Stefano Chiussi, Alicia Berrocal Bravo, Fernando Aguado Agelet, Alejandro Camanzo Mariño, and Carlos Briones Llorente
- L1.75 EPSC2022-565
The photochemical evolution of meteoritic polycyclic aromatic hydrocarbons in clay environments on prebiotic Earth and Mars
Nina Kopacz, Maria Angela Corazzi, Giovanni Poggiali, Eloi Camprubi-Casas, **Ayla von Essen**, Teresa Fornaro, John Brucato, and Inge Loes ten Kate
- L1.76 EPSC2022-544
Abiotic clathrate synthesis from CO₂-clathrate under ocean world conditions
Ana de Dios Cubillas, Victoria Muñoz Iglesias, and Olga Prieto Ballesteros
- L1.77 EPSC2022-567
Photo-processing and thermal desorption of astrophysical ice mixtures on olivine grains: TPD and mass spectra analyses
Maria Angela Corazzi, Valeria Lino, Paola Manini, and John Robert Brucato
- L1.78 EPSC2022-744
Influence of Mars-relevant gamma radiation doses and perchlorate concentration on biomolecules in a ~1,000-year-old Antarctic microbial mat.
María Ángeles Lezcano, Laura Sánchez-García, Daniel Carrizo, Miguel Ángel Fernández-Martínez, Miriam García-Villadangos, Mercedes Moreno-Paz, Antonio Quesada, and Víctor Parro
- L1.79 EPSC2022-832
The Effect of the Solid Phase Adopted by Astrophysical Ices on their Radiation Chemistry and Physics: Implications for the Synthesis of Prebiotic Molecules
Duncan Mifsud, Perry Hailey, Péter Herczku, Zoltán Juhász, Sándor Kovács, Béla Sulik, Rahul Kumar Kushwaha, Richard Rácz, Sándor Biri, Sergio Ioppolo, Zuzana Kaňuchová, Béla Paripás, Robert McCullough, and Nigel Mason
- L1.80 EPSC2022-1133
Simulating the Thermodynamic Landscape of Hydrogen Cyanide-Derived Polymers
Siddhant Sharma, Hilda Sandström, Fernando Izquierdo-Ruiz, Rana Doğan, and Martin Rahm
- L1.81 EPSC2022-1139
Potential long-term habitable conditions on planets with primordial H-He atmospheres.
Marit Mol Lous, Ravit Helled, and Christoph Mordasini
- L1.82 EPSC2022-1153
Exploring the Prebiotic Chemistry of Europa
Allie Corrigan, Bianca Cavazzin, Duncan Van Mifsud, Perry Hailey, and Nigel Mason
- L1.83 EPSC2022-1266
Photochemical stability and protective effect against oxidation and UV degradation of HCN polymers: an XPS study on pyrite surfaces
Cristina Pérez, Marta Ruiz-Bermejo, Santos Gálvez, and Eva Mateo-Martí

TP17 | Planetary field analogues for Space Research

Convener: Barbara Cavalazzi | Co-conveners: Fulvio Franchi, Felipe Gómez, Fernando Gomez, Jonathan Merrison, Keld R. Rasmussen, Miruts Hagos, Viggó Þór Marteinnsson, Yang Liu, Gareth Davies

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- L1.84 EPSC2022-122
Activities at a European Planetary Simulation Facility
Jonathan Merrison, Jens Jacob Iversen, Keld Rasmussen, and Andebo Waza
- L1.85 EPSC2022-276
Testing rheological models on Central Andean volcanic geofoms as analogues for Mars
Belen Muñoz, Jessica Flahaut, Patricia Larrea, Mary Ford, Osvaldo González-Maurel, and Benigno Godoy
- L1.86 EPSC2022-332
A model for the reddish patches seen on Triton, Pluto and Charon
Per Nørnberg and Svend Knak Jensen and the Mars Team, Aarhus University
- L1.87 EPSC2022-343
Untangling rock-inhabiting microorganisms and their biosignatures from the Mars-like area of Puna Plateau, Argentinian Andes
Lorenzo Aureli and Claudia Coleine
- L1.88 EPSC2022-611
Introducing the First Greek Martian and Lunar Simulants
Hector-Andreas Stavrakakis, Dimitra Argyrou, and Elias Chatzitheodoridis
- L1.89 EPSC2022-819
Relative humidity laboratory measurements in Martian atmospheric conditions
Iina Jaakonaho, Maria Hieta, Maria Genzer, Jouni Polkko, Andreas Lorek, Stephen Garland, Jean-Pierre de Vera, and Ari-Matti Harri
- L1.90 EPSC2022-874
Unravelling icy Planetary Surfaces: Insights on their tectonic DEformation from field Survey - UPSIDES
Costanza Rossi, Paola Cianfarra, Alice Lucchetti, Riccardo Pozzobon, Luca Penasa, Giovanni Munaretto, and Maurizio Pajola
- L1.91 EPSC2022-974
Spectral investigation of volcanic alteration deposits on Vulcano island /Italy as planetary analog for acid alteration conditions on Mars
Katrin Stephan, Klaus Gwinner, Susanne Schröder, Rammelkamp Kristin, Mickael Baque, Peter Grindrod, Alessandro Pisello, Frank Sohl, Laurenz Thomsen, and Vikram Unnithan
- L1.92 EPSC2022-1043
Western Sahara salt plains as a potential novel Mars analogue
Velislava Ilieva, Ben Stephens, Tim Goodall, Gian Ori, Daniel Read, Victoria Pearson, Karen Olsson-Francis, and Michael Macey
- L1.93 EPSC2022-1090
Towards prospecting ore deposits on Mars: remote sensing of the planetary field analogue in the Rio Tinto mining area, Spain
Marta Ciążela, Jakub Ciążela, Bartosz Pieterek, Francesca Mancini, Dariusz Marciniak, and Felipe Gomez
- L1.94 EPSC2022-1119
Towards prospecting ore deposits on Mars: geological mapping of the planetary field analog in the Rio Tinto mining area, Spain
Jakub Ciążela, Dariusz Marciniak, Marta Ciążela, Felipe Gomez, and Bartosz Pieterek
- L1.95 EPSC2022-1151
Vulcano (Italy) lava fields as Mars and Venus analogs: field and laboratory characterization
Mickael Baqué, Giulia Alemanno, Solmaz Adeli, Enrica Bonato, Mario D'Amore, Stephen Garland, Klaus Gwinner, Charlotte Herrmann, Jörn Helbert, Patrick Irmisch, Alessandro Maturilli, Alessandro Pisello, Frank Sohl, Katrin Stephan, Laurenz Thomson, and Vikram Unnithan

- L1.96 EPSC2022-84
From dust devils to lipid biomarkers: a planetary perspective of the Makgadikgadi Pans, Central Botswana
Fulvio Franchi and Lesedi Lebogang
- L1.97 EPSC2022-292
Terrestrial impact sites for field training of Astronauts and future "Field Planetary Geologists"
Philippe Lambert
- L1.98 EPSC2022-1109
Vulcano Summer School 2022: Overview of the field-based terrestrial, marine and planetary analogue studies campaign
Vikram Unnithan and the VulcanoTeam2022
- L1.99 EPSC2022-1247
Overview of AMADEE-20 Mars Analog Mission and Insights from AMADEE-24
Seda Özdemir, Gernot Grömer, and Sophie Gruber

OPS1 | Ice Giant System Science and Exploration

Convener: Thibault Cavalié | Co-conveners: David H. Atkinson, Olivier Mousis, Alena Probst, Sushil K. Atreya, Mark Hofstadter, Leigh Fletcher, Nadine Nettelmann

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- L1.100 EPSC2022-1209
On the possibility of phase separation in the H-He-H₂O system in the Ice Giants
Marina Cano, Nadine Nettelmann, and Nicola Tosi
- L1.101 EPSC2022-33
Observations and thermochemical modeling of gas and ice giant planets
Thibault Cavalié, Jonathan Lunine, Olivier Mousis, and Olivia Venot
- L1.102 EPSC2022-168
Uranus and Neptune's stratospheric water abundance and external flux from Herschel-HIFI
Nicholas Teanby, Patrick Irwin, Conor Nixon, Martin Cordiner, and Lucy Wright
- L1.103 EPSC2022-771
Radio Observations of Uranus: Implications for the Structure and Dynamics of the Deep Troposphere
Mark Hofstadter, Bryan Butler, Alexander Akins, Mark Gurwell, and James Friedson
- L1.104 EPSC2022-758
Uranus Upper-Atmospheric Temperatures From Stellar Occultations
William Saunders, Michael Person, Paul Withers, and Richard French
- L1.105 EPSC2022-87
Variability in the Uranian atmosphere: Uranus' north polar hood
Arjuna James, Patrick Irwin, Jack Dobinson, Mike Wong, Amy Simon, Erich Karkoschka, Martin Tomasko, and Lawrence Sromovsky
- L1.106 EPSC2022-594
Uranus and Neptune in the Mid-Infrared: Recent Findings from VLT-VISIR and Future Opportunities with JWST-MIRI
Michael T Roman, Leigh N. Fletcher, Glenn S. Orton, Naomi Rowe-Gurney, Julianne Moses, Thomas K. Greathouse, Patrick G. J. Irwin, Yasumasa Kasaba, Takuya Fujiyoshi, Heidi B. Hammel, Imke de Pater, Arrate Antunano, James Sinclair, Henrik Melin, and Deborah Bardet
- L1.107 EPSC2022-1258
H₃⁺ Ion Doppler Velocities in the Upper Atmosphere of Uranus
Emma Thomas, Tom S. Stallard, Henrik Melin, Ruoyan Wang, and Mohammed N. Chowdhury
- L1.108 EPSC2022-139
A photochemical model of Triton's atmosphere with an uncertainty propagation study
Benjamin Benne, Michel Dobrijevic, Thibault Cavalié, Jean-Christophe Loison, and Kevin Hickson

- L1.109 EPSC2022-572
Reference Science Payload for an Uranus Entry Probe
Olivier Mouis and David H. Atkinson and the Ice Giants team
- L1.110 EPSC2022-262
VIPRE: A Tool for Designing and Optimizing Science Return of Planetary Entry Probes
Alex Davis, Damon Landau, David Atkinson, Mark Hofstadter, Michael Fedell, and Ryan Stonebreaker
- L1.111 EPSC2022-207
Ice Giant Missions as Gravitational Wave Detectors
Deniz Soyuer, Lorenz Zwick, Daniel D'Orazio, and Prasenjit Saha
- L1.112 EPSC2022-226
Prospects for a local detection of dark matter with future missions to Uranus and Neptune
Lorenz Zwick, **Deniz Soyuer**, and Jozef Bucko

OPS2 | Exploration of Titan

Conveners: Alice Le Gall, Anezina Solomonidou | Co-conveners: Ralph Lorenz, Conor Nixon, Marco Mastrogiuseppe, Sandrine Vinatier

Attendance time: 18:45–20:15

- L1.113 EPSC2022-683
Interpreting Cassini CIRS Data with a Photochemical Model using Improved ab initio Reaction Rate Coefficients
Shiblee Ratan Barua and Paul Romani
- L1.114 EPSC2022-449
Detection of sediment transport in Kraken Mare with a radiative transfert model using an aerosol vertical profile and optical properties adapted to Titan North pole
Maélie Coutelier, Pascal Rannou, Daniel Cordier, and Benoît Seignovert
- L1.115 EPSC2022-419
Numerical simulations of cryolava flows at the surface of Titan
Bastien Bodin and Daniel Cordier
- L1.116 EPSC2022-410
The distribution of methane in Titan's atmosphere during northern spring from Cassini/CIRS observations
Mathilde Houelle, Sandrine Vinatier, Bruno Bézard, and Emmanuel Lellouch
- L1.117 EPSC2022-463
Stratospheric HCN and Evolution of a Mixing Barrier in Titan's Equatorial Region from Low-Resolution Cassini/CIRS Spectra
Lucy Wright, Nicholas A. Teanby, Patrick G. J. Irwin, Conor A. Nixon, and Dann M. Mitchell
- L1.118 EPSC2022-807
Insights from Cassini distant radiometry observations of Titan's surface
Robin Sultana, Alice Le Gall, Léa Bonnefoy, and Bryan Butler
- L1.119 EPSC2022-45
Habitability of Hydrocarbon Worlds: Titan and Beyond
Rosaly Lopes, Michael Malaska, Vance Steven, Robert Hodyss, D'Arcy Meyer-Dombard, and Sarah Fagents and the Titan NAI Team
- L1.120 EPSC2022-435
Optical Constants of Titan's haze analogs particles from 3 to 10 μm
Zoé Perrin, Thomas Drant, Enrique Garcia Caurel, Audrey Chatain, Olivier Guaitella, Bernard Schmitt, Ludovic Vettier, and Nathalie Carrasco
- L1.121 EPSC2022-710
Study of volatile compounds in the atmosphere of Titan
Koyena Das, Thomas Gautier, Joseph Serigano, Cyril Szopa, Sarah M. Hörst, Maélie Coutelier, Sandrine Vinatier, and Melissa G. Trainer

OPS3 | Icy ocean worlds: Past and future explorations

Convener: Alice Lucchetti | Co-conveners: Gabriel Tobie, Carly Howett, Frank Postberg, Federico Tosi

Attendance time: 18:45–20:15

- L1.122 EPSC2022-884
An unusual fate for Ganymede's silicate crust?
Gael Choblet, Nicolas Récalde, Mathilde Kervazo, and Antoine Bezos
- L1.123 EPSC2022-423
Ganymede paterae: a priority target for JUICE
Anezina Solomonidou, Michael Malaska, Katrin Stephan, Krista Soderlund, Martin Valenti, Alice Lucchetti, Klara Kalousova, and Rosaly Lopes
- L1.124 EPSC2022-815
Structural evolution of Galileo Regio, dark terrain of Ganymede.
Costanza Rossi, Alice Lucchetti, Matteo Massironi, Riccardo Pozzobon, Luca Penasa, Giovanni Munaretto, and Maurizio Pajola
- L1.125 EPSC2022-1016
Stratigraphic relationships of different terrain units on Ganymede and possible implications towards their evolution
Namitha Rose Baby, Katrin Stephan, Roland Wagner, Thomas Kenkmann, Geoffrey Collins, Ernst Hauber, and Ralf Jaumann
- L1.126 EPSC2022-215
Nippur Sulcus from 2D to 3D: A Multidisciplinary approach in preparation for JUICE
Federico Tosi, Gianrico Filacchione, Valentina Galluzzi, Alice Lucchetti, Roberto Orosei, Francesca Zambon, Gabriele Cremonese, Pasquale Palumbo, and Giuseppe Piccioni
- L1.127 EPSC2022-497
Revisiting the Jovian moons' surfaces in the infrared using the Galileo/NIMS database
Thomas Cornet, Guillaume Cruz-Mermy, François Andrieu, Frédéric Schmidt, Ines Belgacem, and Nicolas Altobelli
- L1.128 EPSC2022-914
Geomorphology and topography of Méneç Fossae and Thrace Macula on Europa: Insights on formation processes
Pietro Matteoni, Alicia Neesemann, Jürgen Schmidt, Jon Hillier, and Frank Postberg
- L1.129 EPSC2022-476
First results of super-resolution mapping of Enceladus' surface, based on new navigation and photometric correction function
Christos Ntinos, Sebastien Rodriguez, Nicolas Altobelli, Stephane Le Mouelic, Rozenn Robidel, Benoit Seignovert, Gabriel Tobie, Thomas Cornet, and Claire Vallat
- L1.130 EPSC2022-1170
Calculation of Europa relevant solutions salinity using RLS-like data. A next step for Mars payload.
Fernando Rull, Jose Antonio Manrique, Marco Veneranda, Yaiza Merino, and Guillermo Lopez
- L1.131 EPSC2022-438
Dielectric properties of CO₂ clathrate hydrates for the exploration of the jovian icy moons
Oscar Ercilla Herrero, Javier Sanchez-Benitez, Victoria Muñoz-Iglesias, and Olga Prieto-Ballesteros
- L1.132 EPSC2022-393
Physico-chemical evolution of the H₂O-CO₂-Na₂CO₃-NH₃-CH₃OH system at low temperatures and high pressures. Implications for icy ocean worlds.
Victoria Munoz-Iglesias, **Ana de Dios-Cubillas**, and Olga Prieto-Ballesteros
- L1.133 EPSC2022-1231
Experimentally probing the origin of Enceladus' plume: bubble-bursting and aerosol formation at the liquid/vapour interface
Mark Fox-Powell, David Slade, Dominic Siggs, and Karen Olsson-Francis
- L1.134 EPSC2022-968
A new approach to modeling the tidal dissipation in subsurface oceans of icy moons of Jupiter and Saturn
Burak Aygün and Ondřej Čadek

- L1.135 EPSC2022-1042
Thermal-orbital evolution of a librating Enceladus
Mikael Beuthe, Attilio Rivoldini, Rose-Marie Baland, and Tim Van Hoolst
- L1.136 EPSC2022-1088
"NEXT (iN situ EXploration of planeTary objects): EUROPA", a challenge to identify the best Raman technique to explore the surface of Jupiter's moon Europa for future missions.
Jesús Zafra, Oscar Ercilla, Ruy Sanz, Marina Benito, José Antonio Rodríguez Prieto, Juan Cabrero, Andoni Moral, Olga Prieto Ballesteros, and Alberto Estrada
- L1.137 EPSC2022-598
The Europa Imaging System (EIS): High-Resolution, 3-D Insight into Europa's Geology, Ice Shell, and Potential for Current Activity
Elizabeth Turtle and **Alfred McEwen** and the EIS Team
- L1.138 EPSC2022-429
In-situ Investigations of the Europa Clipper Mission
Haje Korth, Robert Pappalardo, Bonnie Buratti, Sascha Kempf, Margaret Kivelson, James Burch, and Joseph Westlake
- L1.139 EPSC2022-768
Is Europa Active and Suitable for Life? - How Europa Clipper and its Habitability Assessment Board (HAB) are working to synthesize observations to characterize Europa and its potential activity.
Kate Craft, Robert Pappalardo, Steven Vance, William McKinnon, Haje Korth, Bonnie Buratti, Ingrid Daubar, Samuel Howell, Rachel Klima, Erin Leonard, Alexandra Matiella Novak, and Cynthia Phillips
- L1.140 EPSC2022-755
Efficient Science Return at Europa: Advance Operations and Science Planning for the Europa Lander Mission
Shawn Brooks, Kevin Hand, Krys Blackwood, Carrie Bridge, So Young Kim-Castet, Sharon Laubach, Cynthia Phillips, Jo Eliza Pitesky, Glenn Reeves, and Grace Tan-Wong
- L1.141 EPSC2022-342
Planetary Radio Interferometry and Doppler Experiment (PRIDE) with the JUICE mission as a case study
Vidhya Pallichadath, Giuseppe Cimò, **Dominic Dirkx**, Marie Fayolle Chambe, Leonid I. Gurvits, Valery Lainey, Guifré Molera Calvés, Noor Masdiana Md Said, and Bert Vermeersen
- L1.142 EPSC2022-329
Moonraker - an Enceladus Multiple Flyby Mission Submitted to the ESA 2021 M-class Call
Olivier Mosis, Alexis Bouquet, Yves Langevin, Nicolas André, Georges Durry, Paul Hartogh, Jörn Helbert, Luciano Iess, Sascha Kempf, Adam Masters, Frank Postberg, Jean-Baptiste Renard, Pierre Vernazza, Audrey Vorburger, and Peter Wurz and the Moonraker team
- L1.143 EPSC2022-1228
Science Goals and Implementation for the Astrobiology eXploration at Enceladus (AXE) New Frontiers Mission Concept Study
Kenneth Seaton and the AXE Planetary Summer School Team
- L1.144 EPSC2022-39
Exploring moon Triton
Juan Sanmartin and Jesus Pelaez

Poster area Level 1 | Thu, 22 Sep 2022

TP4 | Mars Surface and Interior

Convener: Ernst Hauber | Co-conveners: Solmaz Adeli, Ana-Catalina Plesa, Maurizio Pajola, Rickbir Bahia, Lisanne Braat

Chairpersons: Ernst Hauber, Solmaz Adeli, Ana-Catalina Plesa

Attendance time: 18:45–20:15

- L1.1 EPSC2022-12
Spectral Survey on Clay-rich Outcrops in Northern Xanthe Terra, Reference Sites for Oxia Planum
Jérémy Brossier, Francesca Altieri, Maria Cristina De Sanctis, Alessandro Frigeri, Marco Ferrari, Andrea Apuzzo, and Nicole Costa
- L1.2 EPSC2022-213
MarsSI: Martian surface data processing service
Matthieu Volat and Cathy Quantin-Nataf
- L1.3 EPSC2022-222
Clay and sulfate-bearing terrains in Northern Meridiani Planum, Mars: constraining the characteristics of Mars' early climate at the Noachian-Hesperian boundary
Beatrice Baschetti, Matteo Massironi, Cristian Carli, Francesca Altieri, and Alessandro Frigeri
- L1.4 EPSC2022-223
The Chronology between the Development of the Tharsis Rise and Martian Valley Networks – A Discordance Analysis Perspective.
Rickbir Bahia
- L1.5 EPSC2022-336
The Prow outcrop: an “open catalog” of multiscale 3D fluvial sedimentary structures in the lower sulfate unit of Gale crater (Mars)
Gwénaél Caravaca, Stéphane Le Mouélic, Sanjeev Gupta, Nicolas Mangold, William Rapin, Juergen Schieber, Laetitia Le Deit, Olivier Gasnault, and Nina L. Lanza
- L1.6 EPSC2022-268
Martian Paleolake Outlet Canyons - Evidence for Controls on Valley Network Formation and a Waning Water Cycle

 Sharon Diamant, **Rickbir Bahia**, Yamila Miguel, and Elliot Sefton-Nash
- L1.7 EPSC2022-356
Isolated effects of gravity on sediment fluxes and delta morphology
Lisanne Braat and Michael P. Lamb
- L1.8 EPSC2022-518
Jarosite formation from olivine and rasvumite in Martian meteorite MIL 090030
Juan Manuel Madariaga, Leire Coloma, Julene Aramendia, Jennifer Huidobro, Iratxe Poblacion, Cristina Garcia-Florentino, Kepa Castro, and Gorka Arana
- L1.9 EPSC2022-545
Ancient Alluvial Plains at Oxia Planum, Mars
Joel Davis, Matthew Balme, Peter Fawdon, Peter Grindrod, Elena Favaro, and Steven Banham
- L1.10 EPSC2022-628
Analyses of dendritic ridges within Antoniadi crater, Mars, from CaSSIS and HiRISE data
Nicolas Mangold, Anthony Guimpier, Livio Tornabene, Susan Conway, Alex Noblet, Peter Fawdon, Ernst Hauber, Antoine Pommerol, and Nicolas Thomas
- L1.11 EPSC2022-736
Mars uplifted massifs: unique and extensive samples of ancient crust.
Michael Phillips, Christina Viviano, Jeffrey Moersch, A. Deanne Rogers, and Frank Seelos

- L1.12 EPSC2022-549
Reconstruction of Northwestern Terra Cimmeria Watersheds
Vojtěch Cuřín and Yannis Markonis
- L1.13 EPSC2022-963
Episodic aqueous conditions punctuated dominantly aeolian deposition within the layered sulphate-bearing unit, Gale crater (Mars)
Sanjeev Gupta, Lauren Edgar, R Aileen Yingst, Alexander Bryk, Gwenael Caravaca, William Dietrich, John Grotzinger, David Rubin, William Rapin, Steven Banham, Amelie Roberts, Stephane Le Mouélic, Rebecca Williams, Juergen Schieber, Nicolas Mangold, Tex Kubacki, Olivier Gasnault, Roger Wiens, Abigail Fraeman, and Ashwin Vasavada
- L1.14 EPSC2022-748
Fluidisation of Aeolian Sandstone in Gale crater: evidence for water post-dating exhumation of Mount Sharp
Steven Banham, Amelie Roberts, **Sanjeev Gupta**, William Dietrich, Alex Bryk, David Rubin, and Ashwin Vasavada
- L1.15 EPSC2022-1045
Martian crustal dichotomy formation and its effect on volcanisms: mantle convection models
Kar Wai Cheng, Antoine Rozel, Harry Ballantyne, Martin Jutzi, Gregor Golabek, and Paul Tackley
- L1.16 EPSC2022-839
Numerical modeling of subsurface temperatures of Oxia Planum, landing site of ExoMars mission
Michelangelo Formisano, Maria Cristina De Sanctis, Costanzo Federico, Gianfranco Magni, Francesca Altieri, Eleonora Ammannito, Simone De Angelis, Marco Ferrari, and Alessandro Frigeri
- L1.17 EPSC2022-1218
Interior Dynamics and Thermal Evolution of Mars – a Geodynamic Perspective
Ana-Catalina Plesa, Mark Wieczorek, Martin Knapmeyer, Attilio Rivoldini, Michaela Walterova, and Doris Breuer
- L1.18 EPSC2022-1128
Morphometry of an hexagonal pit crater in Pavonis Mons, Mars
Giacomo Nodjoumi, Riccardo Pozzobon, Francesco Sauro, and Angelo Pio Rossi
- L1.19 EPSC2022-1255
Preparation of ExoMars mission. Preliminary study for 3D and stereo science operations by using CLUPI flight model representative: Toward a morphometrical analysis
Axel Bouquety, Laurent Jorda, Gabriela Ligeza, Lucile Fayon, Robin Narbey, Tom Josset, Tomaso Bontognali, Nikolaus Kuhn, and Jean-Luc Josset
- L1.20 EPSC2022-165
Importance of spectral acquisition of a Martian analogue with DAVIS breadboard
Nicole Costa, **Marco Ferrari**, Alessandro Frigeri, Maria Cristina De Sanctis, Simone De Angelis, Alfonso Valerio Ragazzo, Francesca Altieri, Eleonora Ammannito, Andrea Apuzzo, Lorenzo Rossi, and Michelangelo Formisano
- L1.21 EPSC2022-467
Reflectance spectroscopy and optical microscopy laboratory analyses of terrestrial feldspathic rocks as analogs to Mars
Marie Barthez, Jessica Flahaut, Martin Guitreau, Raphaël Pik, and Gen Ito
- L1.22 EPSC2022-587
Application of a P-T dependent partition coefficient model to a 1D thermal evolution code of Mars
Julia Marleen Schmidt and Lena Noack
- L1.23 EPSC2022-425
Relationship between the density/type of thermal-contraction polygons and the geology of the substrate at the Martian mid-latitudes.
Meven Philippe, Susan J. Conway, Richard J. Soare, and Lauren E. Mc Keown

TP5 | Mars Science and Exploration

Convener: Alejandro Cardesin-Moinelo | Co-conveners: Lucie Riu, Eleni Bohaceck, Elliot Sefton-Nash, Colin Wilson, Csilla Orgel

Attendance time: 18:45–20:15

Overviews

- L1.24 EPSC2022-1080
Getting the Most Out of Mars Express
Patrick Martin, Dmitri Titov, Colin Wilson, James Godfrey, Alejandro Cardesin-Moinelo, Rick Blake, Thomas Dressler, Luke Lucas, Andy Johnstone, Michael Mueller, Simon Wood, Pilar Esquej, Donald Merritt, Mar Sierra, Julia Marin-Yaseli de la Parra, David Heather, Emmanuel Grotheer, Michel Breitfellner, and Carlos Muniz-Solaz
- L1.25 EPSC2022-752
Mars Express Science Ground Segment operations overview
Julia Marín-Yaseli de la Parra, Alejandro Cardesin-Moinelo, Donald Merritt, Mar Sierra Burgos, Pilar Esquej, Emmanuel Grotheer, Michel Breitfellner, Carlos Muñiz, Alfredo Escalante, Patrick Martin, Dima Titov, and Colin Wilson
- Mars Moons**
- L1.26 EPSC2022-784
Improving the Polyethylene Terephthalate (PET) performances, for the RAX Verification Target for MMX mission
Andoni G. Moral, Julio Mora, Olga Prieto-Ballesteros, Mayte Fernández Sanpedro, Guillermo López-Reyes, Oscar Ercilla, J. Aurelio Sanz Arranz, Alejandro Herrera, Carlos Pérez, Fernando Rull, Ute Böttger, Yuichiro Cho, Susanne Schöder, and Heinz-Wilhelm Hübers
- Mars Surface and Subsurface**
- L1.27 EPSC2022-601
Coregistering Mars Reconnaissance Orbiter Context Camera Images to Mars Express High Resolution Stereo Camera Global Datasets
Sebastian H. G. Walter, Alicia Neesemann, Klaus Gwinner, Greg G. Michael, Ralf Jaumann, and Frank Postberg
- L1.28 EPSC2022-939
New MEX-HRSC radiometrically calibrated data released in the ESA's Planetary Science Archive
Emmanuel Grotheer, Michel Breitfellner, James Godfrey, Dave Heather, Patrick Martin, Dmitri Titov, Colin Wilson, Alejandro Cardesin-Moinelo, Pilar Esquej, Julia Marin-Yaseli, Donald Merritt, Mar Sierra, Daniela Coia, Tanya Lim, Christophe Arviset, Mark Bentley, Guido De Marchi, Bruno Merin, Ruben Docasal, and Fernando Felix-Redondo and the PSA Archive engineering team
- L1.29 EPSC2022-956
Electromagnetic and geochemical characterization of volcanic rock samples in the framework of radar exploration of terrestrial planets
Alessandro Brin, Giulia Salari, Sebastian Emanuel Lauro, Barbara Cosciotti, Elisabetta Mattei, and Elena Pettinelli
- L1.30 EPSC2022-394
Detection of different biosignatures in the NWA 10628, NWA 1950 and DAG735 Martian meteorites by Raman spectroscopy
Gorka Arana, Iratxe Población, Julene Aramendia, Jennifer Huidrobro, Cristina García-Florentino, Leire Coloma, Imanol Torre-Fdez, Kepa Castro, and Juan Manuel Madariaga
- L1.31 EPSC2022-1046
Can Raman spectroscopy determine the presence of ionic compounds? The use of water molecules as a indirect identification parameter
Julene Aramendia, Iratxe Poblacion, Jennifer Huidobro, Leire Coloma, Cristina Garcia-Florentino, Gorka Arana, Kepa Castro, and Juan Manuel Madariaga
- L1.32 EPSC2022-1012
Roadmap to instrument Operation readiness. Lessons learned from the RLS Instrument on board the ExoMars Rover
Laura Seoane, Andoni Moral, Carlos Pérez, Jesús Zafra, Sergio Ibarria, Guillermo López-Reyes, David Gutiérrez, María García-Alonso, Enrique Sentana, Fernando Rull, and Olga Prieto-Ballesteros
- L1.33 EPSC2022-1008
Analytical capabilities of the MOMA GC-MS instrument of the Exomars mission assessed from the analysis of a variety of samples with the Engineering Test Units (ETU)
Clara Azémard, Fabien Stalport, Desmond Kaplan, Ryan Danell, Cyril Szopa, Arnaud Buch, Naïla Chaouche, Caroline Freissinet, Friso van Amerom, Noël Grand, Pascal Zapf, François Raulin, Melissa Guzman, Teresa Fornaro, Xiang Li, Andrej Grubisic, Sandra Siljeström, Hervé Cottin, William B. Brinckerhoff, and Fred Goesmann

- L1.34 EPSC2022-1234
A multipurpose thermal vacuum chamber for planetary research compatible with stand-off laser spectroscopies
César Álvarez-Llamas, Pablo Purohit, Javier Moros, Patricia Lucena, José-Miguel Vadillo, and Javier Laserna
- Mars Atmosphere**
- L1.35 EPSC2022-136
Coordination of Mars Express and Trace Gas Orbiter joint observations of the Martian atmosphere in 2021-2022
Alejandro Cardesin-Moinelo, Bernhard Geiger, Gaetan Lacombe, Bojan Ristic, Paulina Wolkenberg, Hakan Svedhem, Colin Wilson, Dmitri Titov, Patrick Martin, Carlos Muñiz, Julia Marin-Yaseli, Donald Merritt, Mar Sierra, Pilar Esquej, and Mike Ashman
- L1.36 EPSC2022-853
Mapping of Martian CO from NOMAD solar occultation measurements for MY35 and 36
Ashimananda Modak, Miguel-Angel Lopez-Valverde, Adrian Brines, Aurelien Stolzenbach, Bernd Funke, Francisco Gonzalez-Galindo, Jose-Juan Lopez-Moreno, Shohe Aoki, Geronimo Villanueva, Giuliano Liuzzi, Giancarlo Bellucci, Nao Yoshida, Justin Erwin, Loic Trompet, Ian Thomas, Frank Daerden, Bojan Ristic, Manish Patel, Ann Carine Vandaele, and Franck Montmessin
- L1.37 EPSC2022-753
CO distributions retrieved from TGO NOMAD SO using multiple orders
Nao Yoshida, Shohei Aoki, Ann Carine Vandaele, Hiromu Nakagawa, Ian Thomas, Justin Erwin, Frank Daerden, Loïc Trompet, Isao Murata, Naoki Terada, Lori Neary, Miguel Lopez-Valverde, Ashimananda Modak, Geronimo Villanueva, Giuliano Liuzzi, Yasumasa Kasaba, Manish Patel, Bojan Ristic, Giancarlo Bellucci, and José Juan López-Moreno
- L1.38 EPSC2022-701
Characterization of the Martian mesosphere with NOMAD/TGO observations and a Global Climate Model
Francisco González-Galindo, Miguel Ángel López-Valverde, Adrián Brines, Ashimananda Modak, Aurélien Stolzenbach, Bernd Funke, José Juan López-Moreno, Francois Forget, Ehouarn Millour, Franck Lefèvre, Margaux Vals, Franck Montmessin, Manish Patel, Giancarlo Bellucci, and Ann-Carine Vandaele
- L1.39 EPSC2022-1013
Mesospheric and thermospheric carbon dioxide and temperature profiles from NOMAD-SO onboard TGO.
Loïc Trompet, **Ann Carine Vandaele**, Ian Thomas, Shohei Aoki, Frank Daerden, Justin Erwin, Zachary Flimon, Lori Neary, Arnaud Mahieux, Séverine Robert, Geronimo Villanueva, Giuliano Liuzzi, Miguel Angel Lopez-Valverde, Adrian Brines, Giancarlo Bellucci, José Juan Lopez-Moreno, and Manish Patel
- L1.40 EPSC2022-561
Minimum Noise Fraction analysis of ExoMars/TGO-NOMAD LNO channel nadir data: SNR enhancement and application
Fabrizio Oliva, Emiliano D'Aversa, Giancarlo Bellucci, Filippo Giacomo Carrozzo, Luca Ruiz Lozano, Ozgur Karatekin, Frank Daerden, Ian Thomas, Bojan Ristic, Manish Patel, Jose-Juan Lopez-Moreno, Ann Carine Vandaele, and Giuseppe Sindoni
- L1.41 EPSC2022-823
Observations and ongoing calibration of the infrared channels of NOMAD on ExoMars Trace Gas Orbiter
Ian Thomas, Loic Trompet, Justin Erwin, Shohei Aoki, Ann Carine Vandaele, Frank Daerden, Bojan Ristic, Yannick Willame, Severine Robert, Arianna Piccialli, Zachary Flimon, Lori Neary, Sebastien Viscardy, Manish Patel, Giancarlo Bellucci, and Jose Juan Lopez-Moreno
- L1.42 EPSC2022-638
Influence the composition of Martian surface on visibility the spectral features of atmospheric trace gases in the Mid-infrared spectra - the results of numerical simulations
Maria Blecka
- L1.43 EPSC2022-973
Ultraviolet dayglow emissions and ratios in the Mars atmosphere
Lauriane Soret, Jean-Claude Gérard, Leonardos Gkouvelis, Nicholas Schneider, Sonal Jain, Benoit Hubert, Ann-Carine Vandaele, and Nomad Uvis team
- L1.44 EPSC2022-764
Vertical plasma drifts in magnetically controlled ionosphere of Mars
Tariq Majeed, Hessa AlSuwaidi, and Stephen Bougher

- L1.45 EPSC2022-642
Upper limits on volcanic gases in the Martian atmosphere from the ACS MIR instrument
Ashwin Braude, Franck Montmessin, Kevin Olsen, Alexander Trokhimovskiy, Oleg Korablev, Franck Lefèvre, Anna Fedorova, Juan Alday, Lucio Baggio, Abdanour Irbah, Gaetan Lacombe, François Forget, Ehouarn Millour, Colin Wilson, Andrey Patrakeevev, and Alexey Shakun
- L1.46 EPSC2022-412
High Level Datasets for ASPERA-3 IMA on Mars Express
Mats Holmström, Robin Ramstad, Yoshifumi Futaana, Moa Persson, Hans Nilsson, and Stas Barabash

TP7 | Atmospheres and Exospheres of Terrestrial Bodies

Convener: Anni Määttänen | Co-conveners: Francisco González-Galindo, Dmitriy Titov

Attendance time: 18:45–20:15

- L1.47 EPSC2022-745
Upper limits of PH3 in the Venus atmosphere from mm spectra observed with the IRAM-30m telescope
Raphael Moreno, Emmanuel Lellouch, Carsten Kramer, Gabriel Paubert, and Miguel Sanchez
- L1.48 EPSC2022-387
Delving deeper into Venus' South Polar Vortex's dynamics with VIRTIS-VEx observations
Itziar Garate-Lopez, Pablo Rodriguez-Ovalle, and Paula Fernandez-Urrutia
- L1.49 EPSC2022-398
The circulation at the nightside lower clouds of Venus with high-precision winds
Javier Peralta, Antonio Galeote, Yeon Joo Lee, Mark Bullock, Eliot Young, Pedro Machado, Daniela Espadinha, and Roberto Baena
- L1.50 EPSC2022-156
Spectroscopic studies of Venusian atmosphere by BepiColombo's MERTIS instrument during the two Venus flybys
Gabriele Arnold, Rainer Haus, Joern Helbert, Mario D'Amore, Alessandro Maturilli, and Harald Hiesinger
- L1.51 EPSC2022-663
Wind conditions in the Martian planetary boundary layer
Mark Paton, Ari-Matti Harri, and Hannu Savijärvi
- L1.52 EPSC2022-236
Differential Ablation of meteoric metals in the LMD-Mars-Metals and NCAR WACCM-Metals models
Wuhu Feng, John Plane, Francisco González-Galindo, Daniel Marsh, Martyn Chipperfield, Juan Diego Carrillo-Sánchez, Diego Janches, Jean-Yves Chaufray, Francois Forget, Ehouarn Millour, Matteo Crismani, Robert Tyo, Nicholas Schneider, and Mehdi Benna
- L1.53 EPSC2022-171
How good are recent satellite based sensors and models for monitoring of air quality in Africa
Gizaw Mengistu Tsidu

TP11 | Structural Geology and Deformational Histories of Terrestrial Bodies

Convener: Gene Schmidt | Co-convener: Trishit Ruj

Attendance time: 18:45–20:15

Mars Surficial Mapping and Structural Analyses

- L1.54 EPSC2022-167
Compositional and subsurface analysis of an outcrop close to Olympia Planum on Mars
Nicole Costa, **Matteo Massironi**, Luca Penasa, Jacopo Nava, Riccardo Pozzobon, and Sabrina Ferrari
- L1.55 EPSC2022-350
Automatic Fracture Tracing by Image Processing on Oxia Planum, Mars
Andrea Apuzzo, **Alessandro Frigeri**, Francesco Salvini, Jeremy Brossier, Maria Cristina De Sanctis, Nicole Costa, and Gene Walter Schmidt

L1.56 EPSC2022-706

Tectonic evolution identified by regional and local structures within Danielson crater, Arabia Terra: Testifying to the waning of pseudo plate tectonics on Mars?Gene Schmidt, Adriano Trullo, **Francesco Salvini**, and Andrea Apuzzo

TP14 | Impact Processes in the Solar System

Convener: Robert Luther | Co-conveners: Elena Martellato, Isabel Herreros, Jens Ormö, Francisco Javier Rodriguez Tovar, Christopher Hamann, Chrysa Avdellidou

Attendance time: 18:45–20:15

L1.57 EPSC2022-801

Laboratory simulation of space weathering of nano-aggregates of polycyclic aromatic hydrocarbons dispersed in the water environment**Marcello Campione** and Mara Murri

L1.58 EPSC2022-1193

Dual Laser Method for Experimentally Weathering Planetary Regoliths**Jeffrey Gillis-Davis**L1.59 EPSC2022-439 | **MI****Impact contamination on Bennu: an experimental investigation.****Chrysa Avdellidou**, Vassi Spathis, Jack Finch, and Luke Alesbrook

L1.60 EPSC2022-851

Impact generated modification of the mineralogy at Oxia Planum**Amy Dugdale**, Nisha Ramkissoon, Peter Fawdon, Manish Patel, and Victoria Pearson

L1.61 EPSC2022-532

How reliable are lunar phosphate and zircon as geochronometers?**Fiona Thiessen**, Steven Goderis, and James Carpenter

L1.62 EPSC2022-106

Composition of large asteroids collided with the Earth**Gerhard Schmidt**

L1.63 EPSC2022-718

Analysis of the evolution of particles ejected from Lunar Distant Retrograde Orbits**Priscilla Maria Pires dos Santos**, Othon Cabo Winter, and Andre Amarante LuizL1.64 EPSC2022-1261 | **MI****NASA MESSENGER mission: a tool to study Mercury beyond its operative life****Elena Martellato**, Robert Luther, Vania Da Deppo, Johannes Benkhoff, Chiara Casini, Alessandra Slemer, Pasquale Palumbo, Alessandra Rotundi, and Gabriele Cremonese

L1.65 EPSC2022-1208

Simulating the Seismic Signal from Impacts on Asteroids**Robert Luther** and Kai Wünnemann

L1.66 EPSC2022-1064

Hypervelocity impact simulation on asteroids with MPM framework**Xiaoran Yan**, Yan Liu, Yun Zhang, Patrick Michel, and Junfeng LiL1.67 EPSC2022-648 | **MI****Lunar impact flashes: observations in the framework of the ESA CARMEN project and development of new monitoring systems****José M. Madiedo**, José L. Ortiz, and Nicolás MoralesL1.68 EPSC2022-1077 | **MI****J-Band Measurements for All-Hours Lunar Impact Flash Observations****Daniel Sheward**, Marco Delbo, Chrysa Avdellidou, Anthony Cook, and Philippe Lognonne

- L1.69 EPSC2022-41
Magnitude of marine impacts: Size segregation patterns as an observational assessment.
Isabel Herreros and Jens Ormö
- L1.70 EPSC2022-217 | **MI**
A probable impact structure in Betic Cordillera, Almeria, SE Spain
Juan Antonio Sánchez Garrido, Jens Olof Ormö, Carl Alwmark, Sanna Alwmark, Gabriel Zachen, Robert Lilljequist, and Sebastián Tomás Sánchez Gómez
- L1.71 EPSC2022-828
Refinement of the Lunar Production Function - The CSFD-Slope of Small Crater Diameters on Ejecta Blankets
Astrid Oetting, Harald Hiesinger, and Carolyn van der Bogert

TP18 | Ionospheres of unmagnetized or weakly magnetized bodies

Convener: Beatriz Sanchez-Cano | Co-conveners: Christopher Fowler, Lina Hadid, Valeria Mangano, Niklas Edberg, Francisco González-Galindo

Attendance time: 18:45–20:15

- L1.72 EPSC2022-64
Particle acceleration in the Venus plasma wake
Hector Pérez-de-Tejada and Rickard Lundin
- L1.73 EPSC2022-146
Determining the physical processes that control thermal electron temperature profiles in the Mars ionosphere.
Anna Turner, Christopher Fowler, and Laila Andersson
- L1.74 EPSC2022-233
A MAVEN case study of radial IMF at Mars: impacts on the dayside ionosphere
Christopher Fowler, Gwen Hanley, James McFadden, Jasper Halekas, Steven Schwartz, Christian Mazelle, Michael Chaffin, David Mitchell, Laila Andersson, Jared Espley, Robin Ramstad, Yaxue Dong, and Shannon Curry
- L1.75 EPSC2022-417
Adapting a multi-grid method to a numerical simulation model of the interaction between Venus and the solar wind
Erwan Jariel, **Sae Aizawa**, Ronan Modolo, Ludivine Leclercq, Claire Baskevitch, Nicolas Andre, and Moa Persson
- L1.76 EPSC2022-670
Comparison Between Ionospheric and Surface Level Magnetic Fields at Mars
Matthew Fillingim, Catherine Johnson, Anna Mittelholz, Benoit Langlais, Steve Joy, Peter Chi, Heidi Haviland, Robert Lillis, Jared Espley, Jasper Halekas, Sue Smrekar, and Bruce Banerdt
- L1.77 EPSC2022-857
The variability of the topside ionospheres of Venus and Mars in light of radio science observations
Kerstin Peter, Martin Pätzold, Feng Chu, Robin Ramstad, Ed Thiemann, Markus Fränz, Zachary Girazian, Andy Kopf, Silvia Tellmann, Bernd Häusler, Yoshifumi Futaana, and Mats Holmström
- L1.78 EPSC2022-960
Ionospheric composition of comet 67P near perihelion with multi-instrument Rosetta datasets
Zoe Lewis, Arnaud Beth, Kathrin Altwegg, Anders Eriksson, Marina Galand, Charlotte Götz, Pierre Henri, Kevin Héritier, Laurence O'Rourke, Ingo Richter, Martin Rubin, Peter Stephenson, and Xavier Vallières
- L1.79 EPSC2022-994
BepiColombo as upstream solar wind monitor for Mars' ionosphere
Beatriz Sanchez-Cano, Mark Lester, Simon Joyce, Olivier Witasse, Johannes Benkhoff, Daniel Heyner, Marco Pinto, Richard Moissl, and Rami Vainio
- L1.80 EPSC2022-631
Radial distribution of plasma at comet 67P and implications for cometary flyby missions
Niklas J. T. Edberg, Fredrik Leffe Johansson, Anders I. Eriksson, Erik Vigren, Pierre Henri, and Johan De Keyser
- L1.81 EPSC2022-688
Multi-instrument/Spacecraft observations of Mars upper Atmosphere Electron density
Özgür Karatekin, Ananya Krishnan, Sebastien Verkercke, Gregoire Henry, Beatriz Sánchez-Cano, and Olivier Witasse

- L1.82 EPSC2022-717
Features and Trends Identified in Observations at Mars and Comets
Laila Andersson, Hadi Madanian, Steven Schwartz, and David Andrews
- L1.83 EPSC2022-1040
Radar Blackouts at Mars: Evidence for a low altitude ionisation layer
Mark Lester, Beatriz Sanchez-Cano, Simon Joyce, Dikshita Meggi, Hermann Opgenoorth, Robert Lillis, Olivier Witasse, Roberto Orosei, and Marco Cartacci
- L1.84 EPSC2022-527
Investigating the Global Dust Storm in Mars Year 28 with Mars Express
Catherine Regan, Andrew Coates, Anne Wellbrock, Richard Haythornthwaite, Geraint Jones, Beatriz Sánchez-Cano, Mats Holmström, Rudy Frahm, and Philippe Garnier
- L1.85 EPSC2022-673
Effect of Solar Event on Mars Atmosphere
Ananya Krishnan, Özgür Karatekin, Sebastien Verkercke, Gregoire Henry, and Olivier Witasse
- L1.86 EPSC2022-71
Do we understand well how the Martian magnetosphere is organized?
Eduard Dubinin, Markus Fraenz, and Martin Paetzold
- L1.87 EPSC2022-239
Estimations of Ion Escape from Mars
Mats Holmstrom, Qi Zhang, Xiao-Dong Wang, and Shahab Fatemi
- L1.88 EPSC2022-1047
The source of electrons at a weakly outgassing comet
Peter Stephenson, Kathrin Altwegg, Arnaud Beth, Jim Burch, Christopher Carr, Jan Deca, Anders Eriksson, Marina Galand, Karl-Heinz Glassmeier, Charlotte Goetz, Pierre Henri, Kevin Heritier, Fredrik Johansson, Zoe Lewis, Hans Nilsson, and Martin Rubin
- L1.89 EPSC2022-644
Martian Meteoric Mg+: an intercomparison of MAVEN/IUVS observations with simulations using the LMD Mars GCM
Daniel Marsh, Wuhu Feng, John Plane, Juan Diego Carrillo-Sánchez, Diego Janches, Matteo Crismani, Jean-Yves Chaufray, François Forget, Francisco González-Galindo, and Nicholas Schneider
- L1.90 EPSC2022-552
Locations where the cold thermal pressure balances the magnetic pressure in the Martian ionosphere
Skylar Shaver, Laila Andersson, and Scott Thaller

OPS4 | Jupiter and Giant Planet System Science: New Insights From Juno

Convener: Scott Bolton | Co-conveners: Yamila Miguel, Yasmina M Martos, Corentin Louis, Stavros Kotsiaros, Kimberly Moore

Attendance time: 18:45–20:15

- L1.91 EPSC2022-16
Jupiter's high-latitude northern domains: Dynamics from Earth-based and JunoCam imaging
John Rogers, Gianluigi Adamoli, Candice Hansen, Gerald Eichstädt, Glenn Orton, Thomas Momary, Michel Jacquesson, Robert Bullen, and Hans-Jörg Mettig
- L1.92 EPSC2022-240
Retrieval of CH₄ effective temperature in Jupiter's auroral regions using Juno/JIRAM data
Chiara Castagnoli, Bianca Maria Dinelli, Francesca Altieri, and Alessandra Migliorini and the JIRAM Team
- L1.93 EPSC2022-373 | **MI**
A planetary-scale heat wave in Jupiter's mid-latitude upper atmosphere
James O'Donoghue, Luke Moore, Tanapat Bhakyaipul, Rosie Johnson, Henrik Melin, and Tom Stallard

- L1.94 EPSC2022-505
Magnetosphere-Ionosphere-Thermosphere Coupling study at Jupiter Based on Juno First 30 Orbits and Modeling Tools
Sariah Al Saati, Noé Clément, Coentin Louis, Michel Blanc, Yuxian Wang, Nicolas André, Laurent Lamy, Jean-Claude Gérard, Bertrand Bonfond, Barry Mauk, George Clark, Frédéric Allegrini, Scott Bolton, Randy Gladstone, John Connerney, Stavros Kotsiaros, and William Kurth
- L1.95 EPSC2022-564
Ionospheric temperature variability above Jupiter's Great Red Spot
Luke Moore, Tom Stallard, James O'Donoghue, Henrik Melin, M. Nahid Chowdhury, Rosie Johnson, Marissa Vogt, Carl Schmidt, and Glenn Orton
- L1.96 EPSC2022-632
Comparing atmospheric models of Jupiter, can we reduce the degeneracy of this problem?
Charlotte Alexander and Patrick Irwin
- L1.97 EPSC2022-905
A 2-dimensional model of the Jovian circumplanetary disk
Antoine Schneeberger, Olivier Mousis, Thibault Cavalie, and Jonathan Lunine
- L1.98 EPSC2022-1147
Parameterization of Water-ammonia Hail in Jupiter's Atmosphere
Xinmiao Hu, Peter Read, Vivien Parmentier, and Greg Colyer
- L1.99 EPSC2022-932
Studying the dynamics of Jupiter using a 3D general circulation model constrained by radio occultation measurements
Maria Smirnova, Eli Galanti, and Yohai Kaspi
- L1.100 EPSC2022-1053
Deriving mixing ratios of heavier neutral species in Saturn's ionosphere from light ion measurements
Joshua Dreyer and Erik Vigren
- L1.101 EPSC2022-321
Reflection and Refraction of the L-O Mode 5 kHz Saturn Narrowband Emission by the Magnetosheath
Siyuan Wu, Shengyi Ye, Georg Fischer, Caitriona Jackman, Jian Wang, John Meniotti, Baptiste Cecconi, and Minyi Long

OPS5 | Outer Planet Moons: Environments and Interactions

Convener: Shahab Fatemi | Co-conveners: Audrey Vorburger, Lorenz Roth, Elias Roussos, Krishan Khurana

Attendance time: 18:45–20:15

- L1.102 EPSC2022-931
DSMC Simulations of Io's atmosphere
Lea Klaiber, Nicolas Thomas, Raphael Marschall, and Moses Milazzo
- L1.103 EPSC2022-1
Influence of Europa's Time-Varying Electromagnetic Environment on Magnetospheric Ion Precipitation and Surface Weathering
Peter Addison, Lucas Liuzzo, Hannes Arnold, and Sven Simon
- L1.104 EPSC2022-27
Hybrid simulations of jovian plasma interaction with Ganymede's magnetopause
Shahab Fatemi, Andrew R. Poppe, Audrey Vorburger, Jesper Lindkvist, and Maria Hamrin
- L1.105 EPSC2022-450
Updated Ganymede Mosaic from Juno Perijove 34 Images
Elke Kersten, Anatoly E. Zubarev, Irina E. Nadezhdina, Thomas Roatsch, and Klaus-Dieter Matz
- L1.106 EPSC2022-714
Low-energy Energetic Neutrals Atom imaging of Jovian icy moons by PEP/JNA on JUICE
Manabu Shimoyama, Angèle Pontoni, Stefan Karlson, Kazushi Asamura, Peter Wurz, Martin Wieser, and Stas Barabash

L1.107 EPSC2022-1093
The Calibration results of the Flight model of the Jovian Electron and Ion spectrometer for the Jupiter Icy Moons Explorer and their link to Mercury
Patrick Bambach, Norbert Krupp, Markus Fränz, Elias Roussos, Philipp Heumüller, Henning Fischer, Frank Meyer, and Istvan Szemerey

L1.108 EPSC2022-607
Microwaving Saturn's airless icy moons Mimas, Enceladus, Tethys, Dione, Rhea, Iapetus and Phoebe
Alice Le Gall, Robin Sultana, Léa Bonnefoy, Cédric Leyrat, and Michael A. Janssen

OPS6 | Aerosols and clouds in planetary atmospheres

Convener: Panayotis Lavvas | Co-conveners: Nathalie Carrasco, Anni Määttänen

Attendance time: 18:45–20:15

L1.109 EPSC2022-886
Impact-induced transformation of simple aromatic compounds in planetary atmospheres
Lukáš Petera and Antonín Knížek

L1.110 EPSC2022-354
Saturn atmosphere's winds with VLT/UVES Doppler velocimetry
Pedro Machado, Miguel Silva, Agustin Sánchez-Lavega, José Silva, Daniela Espadinha, Francisco Brasil, and José Ribeiro

L1.111 EPSC2022-765
Microphysical modeling of mixed composition ices in Titan's stratosphere
Erika L. Barth

L1.112 EPSC2022-1199
First Optical Constants from 0.4 to 1.6 μm of Titan Aerosol Analogs Produced in the NASA Ames COSmIC Facility and Their Use in a New Analysis of Cassini VIMS Observations
Ella Sciamma-O'Brien, Ted Roush, Pascal Rannou, and Farid Salama

L1.113 EPSC2022-1143
Modelling Neptune's storms as a proxy for detecting atmospheric variability in directly imaged cold exoplanets
Óscar Carrión-González, Santiago Pérez-Hoyos, Antonio García Muñoz, Ricardo Hueso, Patrick G. J. Irwin, Iñaki Ordóñez-Etxebarria, Agustín Sánchez-Lavega, and Michael H. Wong

MITM5 | Machine Learning in Planetary Sciences

Convener: Ute Amerstorfer | Co-conveners: Sahib Julka, Hannah Ruedisser, Mario D'Amore, Angelo Pio Rossi

Attendance time: 18:45–20:15

L1.114 EPSC2022-47
Automatic Detection and Classification of Boundary Crossings in Spacecraft in situ Data
Hannah Theresa Rüdiger, Andreas Windisch, Ute V. Amerstorfer, David Píša, and Jan Soucek

L1.115 EPSC2022-163
Neural network for determining asteroid composition
David Korda, Antti Penttilä, Arto Klami, and Tomas Kohout

L1.116 EPSC2022-680
Exploring the diversity in pyroclastic deposits and volcanic vents on Mercury with machine learning techniques
Mireia Leon-Dasi, Sébastien Besse, and Alain Doressoundiram

L1.117 EPSC2022-1066
A Deep Marsquake Catalogue
Nikolaj Dahmen, John Clinton, Men-Andrin Meier, Simon Stähler, Doyeon Kim, Alex Stott, and Domencio Giardini

MITM6 | Planetary space weather

Convener: Nicolas André | Co-conveners: Andrea Opitz, Sae Aizawa

Attendance time: 18:45–20:15

L1.118 EPSC2022-327

Morphological reconstruction of a multiple detected coronal mass ejection

Tanja Amerstorfer, Maike Bauer, Christian Möstl, Luke Barnard, Pete Riley, Andreas J. Weiss, and Martin A. Reiss

L1.119 EPSC2022-774

Space science advancements at the University of Tasmania

Noor Masdiana Md Said, Guifré Molera Calvés, Pradyumna Kumamuru, Jasper Edwards, and Giuseppe Cimo'

L1.120 EPSC2022-867

Monitoring Earth Using Radio Wave Phase Imager

Radwan Sharif and Rodney Herring

MITM7 | Small sensors, instruments and payloads for planetary exploration

Conveners: Andrea Longobardo, Fabrizio Dirri, Maria Genzer

Attendance time: 18:45–20:15

L1.121 EPSC2022-662

A novel radiometer for clouds investigations in future Venus aerobot missions

Victor Apestigue, Daniel Toledo, Ignacio Arruego, Margarita Yela, Patrick GJ Irwin, Shubham Kulkarni, Colin F. Wilson, Amanda Brecht, Kevin H. Baines, and James A. Cutts

L1.122 EPSC2022-1001

Optical Calibration procedure and results of the mini-spectrometer from the Solar Irradiance Sensor (SIS) radiometer for the ExoMars'22 mission

Elisa García-Menéndez, Juan José Jiménez Martín, Miguel González-Guerrero, José Ramón De Mingo Martín, Javier Martínez Oter, Israel Martín Beamonte, Saturnino Montalvo Chacón, Joaquín Rivas Abalo, Felipe Serrano Santos, and Ignacio Arruego Rodríguez

L1.123 EPSC2022-1122

Calibration of RDS of Mars 2020 and SIS'22 of Exomars 2022 for Mars exploration

Juan Jose Jiménez Martín, Elisa García-Menéndez, Francisco Javier Álvarez Ríos, Miguel Gonzalez-Guerrero Bartolomé, Víctor Apástigue Palacios, Jose Ramon De Mingo Martin, Javier Martinez Oter, Israel Martín Beamonte, Saturnino Montalvo Chacon, Joaquín Rivas Abalo, Felipe Serrano Santos, Daniel Toledo Carrasco, and ignacio Arruego Rodríguez

L1.124 EPSC2022-788

Blender modeling and simulation testbed for solar system object imaging and camera performance

Antti Penttilä, Mario F. Palos, Antti Näsilä, and Tomas Kohout

L1.125 EPSC2022-1076

Instrumental modeling of Mutual Impedance experiments and validation tests in plasma chamber

Luca Bucciantini, Pierre Henri, Gaëtan Wattieaux, and Francesco Califano

L1.126 EPSC2022-864

Calibration of NEWTON Susceptometer for fast and in-situ determination of the complex magnetic susceptibility.

José Luis Mesa Uña, Marina Díaz Michelena, and Claudio Aroca Hernández-Ros

MITM8 | Synergistic exploitation of small body missions in the 2020s

Conveners: Apostolos Christou, Jamie Gilmour | Co-conveners: Josep Maria Trigo-Rodríguez, Paolo Tanga

Attendance time: 18:45–20:15

L1.127 EPSC2022-523 | **MI**

The ESA Comet Interceptor mission and its payload complement

Anamarija Stankov, Francesco Ratti, Nicola Rando, Michael Kueppers, Carlos Corral Van Damme, Arno Wielders, Kristin Wirth, Virginie Agnolon, and Joel Asquier

MITM9 | Advances in Mass Spectrometry for Spaceflight Applications

Conveners: Laura Selliez, Arnaud Sanderink | Co-conveners: J. Hunter Waite, Ricardo Arevalo, Frank Postberg, Morgan L. Cable, Jean-Pierre Lebreton

Attendance time: 18:45–20:15

L1.128 EPSC2022-1252

OLYMPIA-LILBID: High Resolution Mass Spectrometry for the Calibration of Spaceborne Hypervelocity Ice Grain Detector

Arnaud Sanderink, Fabian Klenner, Jan Zabka, Frank Postberg, Jean-Pierre Lebreton, Illia Zymak, Gaubicher Bertrand, Bernd Abel, Ales Charvat, Barnabé Cherville, Laurent Thirkell, and Christelle Briois

L1.129 EPSC2022-1259

The potential of the LAB-CosmOrbitrap for future space studies in astrobiology

Laura Selliez, Christelle Briois, Nathalie Carrasco, Laurent Thirkell, Bertrand Gaubicher, Jean-Pierre Lebreton, and Fabrice Colin

MITM11 | Tools and Data Analytics for Solar and Planetary Sciences

Conveners: Baptiste Cecconi, Colin Wilson

Attendance time: 18:45–20:15

L1.130 EPSC2022-4

GEM-Mars GCM products and tools available through the VESPA portal.

Loïc Trompet, Frank Daerden, **Lori Neary**, Justin Erwin, Ann Carine Vandaele, and Stéphane Erard

L1.131 EPSC2022-32

An Interactive Virtual Hiking Map for Jezero Crater, the Mars 2020 Perseverance Rover Landing Site

Sebastian Walter, Christoph Gross, Alicia Neesemann, Robert Munteanu, Ralf Jaumann, Frank Postberg, and Jim Bell

L1.132 EPSC2022-294

MAPPs as a multi-mission and multi-body Science Planning and Simulation Tool for ESA solar system missions

Carlos Muñiz Solaz, Alejandro Cardesin-Moinelo, Federico Nespoli, Patrick Martin, Julia Marin-Yaseli de la Parra, Donald Merrit, Mar Sierra, and Pilar Esquej and the ESA Planetary Science Operations Centres

L1.133 EPSC2022-428

The Multi-Temporal Database of Planetary Image Data (MUTED): A Web-Tool to Support Surface Change Analyses on Mars, Moon, and Mercury

Thomas Heyer, Harald Hiesinger, Wajiha Iqbal, and Nico Schmedemann

L1.134 EPSC2022-127

ESA's Planetary Science Archive: present and future

Ruben Docasal, Fernando Felix-Redondo, Joaquim Oliveira, Jose Osinde, Francisco Raga, Jaime Saiz, Ricardo Valles, Bruno Merin, Mark Bentley, Daniela Coia, Emmanuel Grotheer, David Heather, and Tanya Lim

L1.135 EPSC2022-285

Assessing remotely sensed data of the icy bodies with a spectroscopic tool.

Alessandra Cofano, Federico Tosi, and Giuseppe Piccioni

L1.136 EPSC2022-426

JSON Implementation of Time-Frequency Radio Catalogues: TFCat

Baptiste Cecconi, Xavier Bonnin, Alan Loh, Corentin Louis, and Mark Taylor

MITM12 | Planetary Missions, Instrumentations, and mission concepts: new opportunities for planetary exploration

Conveners: Claire Vallat, Davide Perna, Sebastien Besse

Attendance time: 18:45–20:15

L1.137 EPSC2022-525

Froude scaling for rovers on small body surfaces

Cecily Sunday, Naomi Murdoch, Simon Tardivel, and Patrick Michel

L1.138 EPSC2022-1091

Mutual impedance experiments as a diagnostic for magnetized space plasmas

Pietro Dazzi, Pierre Henri, Luca Bucciantini, Federico Lavorenti, Gaetan Wattieaux, and Francesco Califano

L1.139 EPSC2022-1169

LaRa, an X-band coherent transponder ready to fly

Sebastien Le Maistre, Veronique Dehant, Rose-Marie Baland, Mikael Beuthe, Alfonso Caldiero, Valerio Filice, Marta Goli, Marie-Julie Péters, Bertrand Steenput, Attilio Rivoldini, Ertan Ümit, Tim Van Hoolst, and Marie Yseboodt

L1.140 EPSC2022-1236

The Science Planning Process for the JUICE mission

Claire Vallat, Nicolas Altobelli, Rosario Lorente, Claudio Munoz, Olivier Witasse, Thibault Cavalié, Leigh Fletcher, Adam Masters, Ronan Modolo, Thomas Roatsch, Gabriel Tobie, Federico Tosi, and Tim Van Hoolst