

# XX CONGRESSO NAZIONALE DI SCIENZE PLANETARIE



## PROGRAMMA

# Scientific Organising Committee

Giuseppe Mitri	Università D'Annunzio (Chair)
Elisa Maria Alessi	IMATI - CNR
Francesca Altieri	IAPS - INAF
Beatrice Baschetti	OaPd - INAF
Lorenzo Biasiotti	OaTs - INAF
Maria Teresa Brunetti	IRPI - CNR
Veronica Camplone	SSDC-INAF/OAR
Fabrizio Capaccioni	IAPS - INAF
Agnese Caramanico	Università di Urbino
Alessia Cassaro	ASI
Nicole Costa	Università di Padova
Barbara De Toffoli	Università di Padova
Mario Di Martino	OaTo-INAF
Federica Duras	IAPS-INAF
Davide Grassi	IAPS-INAF
Mafalda Ianiri	Università D'Annunzio
Simone Ieva	OAR-INAF
Sebastian Lauro	Università Roma III
Andrea Longobardo	IAPS-INAF
Matteo Massironi	Università di Padova
Maria Teresa Muscari Tomajoli	Università Parthenope
Giovanni Poggiali	OAA - INAF
Giovanni Pratesi	Università di Firenze
Edoardo Mormile Santero	Università D'Annunzio
Gianni Strazzulla	OaCt - INAF
Federico Tosi	IAPS-INAF

# Local Organising Committee

Giuseppe Mitri	Università D'Annunzio (Chair)
Camilla Cioria	Università D'Annunzio
Gianluca Chiarolanza	Università D'Annunzio
Mafalda Ianiri	Università D'Annunzio
Artem Lebedev	Università D'Annunzio
Edoardo Mormile Santero	Università D'Annunzio
Davide Sulcanese	Università D'Annunzio

# Lunedì 3 Febbraio 2025

## Aurum - Sala D'Annunzio

09:30	11:30	Mattinata dedicata alle Scuole	
12:00	14:00	Iscrizione e Accoglienza, affissione posters, Informazioni Logistiche, Apertura Congresso	
<b>Sessione - Focus F8 A New Era of Venus Exploration: Unlocking the Secrets of Earth's Twin and Upcoming Missions</b>			
	<b>Chair</b>	<b>Davide Sulcanese / Barbara De Toffoli</b>	
14:00	14:12	Evidence of active volcanism on Venus derived from Magellan radar observations	Davide Sulcanese
14:12	14:24	Temporal variability of zonal winds in Venus mesosphere using VIRTIS/Vex temperature maps.	Arianna Piccialli
14:24	14:36	Inferring Venus Interior Structure based on Present and Expected Geophysical Constraints	Anna Maria Gargiulo
14:36	14:48	Mechanical and Rheological Subsurface Structure of Venusian Coronae	Barbara de Toffoli
14:48	15:00	<b>Discussione</b>	
<b>Sessione - Experimental Planetology I</b>			
	<b>Chair</b>	<b>Giuseppe Piccioni</b>	
15:00	15:12	New experimental measurements of the Collision Induced Absorptions of H <sub>2</sub> -H <sub>2</sub> and H <sub>2</sub> -He in the 3600-5500 cm <sup>-1</sup> spectral range from 120 to 500 K	Francesca Vitali
15:12	15:24	Spectral changes induced in complex organic matter by thermal annealing	Riccardo Giovanni Urso
15:24	15:36	IR Reflectance measurements and quantitative analysis of ammonium abundance in two-component mixtures	Eliana La Francesca
15:36	15:48	Experimental Microgravity Campaign for Investigating Contact Dynamics in Asteroid-related Scenarios	Alessia Cremasco
15:48	16:00	<b>Discussione</b>	
16:00	16:30	<b>Coffee Break</b>	
16:30	17:00	L'INAF e le Scienze Planetarie Discussione con il Presidente dell'INAF Prof. Roberto Ragazzoni e il Direttore Scientifico Dott.ssa Isabella Pagano	
<b>Sessione - Astrobiology and Astrochemistry I</b>			
	<b>Chair</b>	<b>Luca Tonietti</b>	
17:00	17:12	Understanding Mars through terrestrial analog sites: a case study from solforata di Pomezia (central Italy)	Enrico Bruschini
17:12	17:24	Geomicrobiology investigation of moonmilk speleothems at mt. Cucco (Perugia, Italy) cave	Alessia Cassaro
17:24	17:36	The reaction of atomic oxygen with thiophene and implication for the chemistry of Mars, asteroids and meteorites	Marco Parriani
17:36	17:48	Investigating Antarctic cryptoendolithic communities as putative "Martian analogue life-forms"	Carmen Del Franco
17:48	18:00	<b>Discussione</b>	
<b>Sessione - Focus F16 Technologies for the search of life in the Universe: Innovations, Challenges, future opportunities - PART I</b>			
	<b>Chair</b>	<b>Maria Teresa Muscari Tomajoli</b>	
18:00	18:12	Micronaut: Sphingomonas desiccabilis for Space Mining and Sustainable Space Development	Luca Tonietti
18:12	18:24	Unveiling Photo-Oxidative Phenomena in PAHs under Mars-Like Conditions Using LC-LEI-HRMS	Tommaso Grazioso
18:24	18:30	<b>Discussione</b>	
	<b>18:30</b>	<b>End of Day 1</b>	

# Martedì 4 Febbraio 2025

## Aurum - Sala D'Annunzio

### Sessioni Mattutine

<b>Sessione - Focus F1 The subsurface of planetary bodies: sounding radar investigations and supporting laboratory activities</b>			
	<b>Chair</b>	<b>Barbara Cosciotti /Sebastian Lauro</b>	
09:00	09:12	Use and misuse of dielectric properties in the interpretation of orbiting radar sounder data on Mars	Elena Pettinelli
09:12	09:24	Detection of Subsurface Layer Instances on Radargrams from Mars through Hyper-Spectral Image Construction	Ruth-Emily Pierau / Benedetta Ferrari
09:24	09:36	First radar evidence of large-scale englacial folding in the south polar layered deposits (Ultimi Scopuli, Mars) unveiled by MARIS	Luca Guallini
09:36	09:48	Microwave tomography enhanced lunar penetrating radar	Ilaria Catapano
09:48	10:00	<b>Discussione</b>	
10:00	10:30	Coffee Break	
<b>Sessione - Focus F4 Surface geomorphological processes: risks and resources for future missions to Mars</b>			
	<b>Chair</b>	<b>Andrea Ermini</b>	
10:30	10:42	Martian lava tubes: origin, significance and challenges towards future exploration	Riccardo Pozzobon
10:42	10:54	Mounds of the Hypanis fan system, Mars: sedimentary Vs. magmatic volcanism	Agnese Caramanico
10:54	11:06	Aeolian landforms in the ExoMars landing site	Simone Silvestro
11:06	11:18	Characterisation and probabilistic stability analysis of the West-facing landslide in Iani	Andrea Ermini
11:18	11:30	<b>Discussione</b>	
11:30	12:00	Saluti istituzionali, saranno presenti: Avv. Carlo Masci Sindaco della città di Pescara, Prof. Liborio Stuppa Rettore Università D'Annunzio Prof. Sergio Montelpare Direttore del Dipartimento INGEO	
<b>Sessione - Focus F16 Technologies for the search of life in the Universe: Innovations, Challenges, future opportunities - PART II</b>			
	<b>Chair</b>	<b>Maria Teresa Muscari Tomajoli</b>	
12:00	12:12	Growth recovery of metabolically active cyanobacteria after long-term exposure to simulated lunar ionising radiation	Beatrice Boccia
12:12	12:24	Tests on the microfluidic network breadboard of the VENOM instrument	Giacomo Colombatti
12:24	12:30	<b>Discussione</b>	
12:30	13:45	Pranzo presso AURUM	

# Martedì 4 Febbraio 2025

## Aurum - Sala D'Annunzio

### Sessioni Pomeridiane

<b>Sessione - Focus F7 Mars Sample Return (MSR)</b>			
	<b>Chair</b>	<b>Francesca Altieri</b>	
13:45	13:57	Overview of the astrobiological potential of the rocks collected by the NASA Mars2020 Perseverance rover on Mars	Teresa Fornaro
13:57	14:09	Mars Sample Return (MSR) Sample Receiving Project (SRP) Measurement Definition Team (MDT-1): overview and status	Marco Ferrari
14:09	14:15	<b>Discussione</b>	
<b>Sessione - Experimental Planetology II (Mars)</b>			
	<b>Chair</b>	<b>Maria Cristina De Sanctis</b>	
14:15	14:27	Are sulfates a safe harbor for organics on Mars? investigating the photoprotective role of hydrated magnesium sulfate under martian-like uv irradiation.	Andrew Alberini
14:27	14:39	VIS-NIR spectroscopy study of acid-weathered volcanic rocks in the laboratory with relevance for Mars	Simone De Angelis
14:39	14:51	InfraRed spectroscopy of Phobos and Deimos analogs in support of JAXA MMX mission and MIRS observations: influence of grain size and composition.	Giovanni Poggiali
14:51	15:03	VNIR Spectroscopy of lab-made Martian Analogues: dependance on composition, glass/crystal ratio, acquisition geometry.	Alessandro Pisello
15:03	15:15	Spectroscopic characterization of Exomars Mission Reference Samples: Advancing mineralogical and biosignature detection	Sole Biancalani
15:15	15:30	<b>Discussione</b>	
15:30	16:00	<b>Coffee Break</b>	
<b>Sessione - Planets and Satellites I (Mars)</b>			
	<b>Chair</b>	<b>Gabriele Franzese</b>	
16:00	16:12	Martian dust characterization: reanalysis of TGO/NOMAD UVIS and LNO channels' nadir data.	Fabrizio Oliva
16:12	16:24	Towards the application of s-FORUM radiative transfer code to the Martian atmosphere	Lorenzo Buriola
16:24	16:30	<b>Discussione</b>	
<b>Sessione - Astrobiology and Astrochemistry II</b>			
	<b>Chair</b>	<b>Nadia Balucani</b>	
16:30	16:42	Alternative Life in Planetary conditions: The Prebiotic Chemistry point of view	Raffaele Saladino
17:12	16:54	Abiotic phosphorylation of Guanosine: an important step towards the origin of terrestrial and extraterrestrial life	Giovanna Costanzo
17:24	17:06	Theoretical modelling of the adsorption of sulphur-bearing species onto olivine nanoclusters	Jessica Perrero
17:36	17:18	Synthesis of RNA peptide chimeras: synergic role of meteorites and gamma-ray in three component prebiotic chemistry.	Bruno Mattia Bizzarri
17:48	17:30	Enabling future astrobiology experiments using desert cyanobacteria as a model system	Daniela Billi
18:00	17:42	The diversity of cyanobacterial light acclimations: a key to understanding the possibility of oxygenic photosynthesis on M-dwarf exoplanets	Mariano Battistuzzi
17:42	18:00	<b>Discussione</b>	
<b>Sessione - ASI Prospettive</b>			
18:00	18:15	Attività in corso e prospettive a breve termine	Raffaele Mugnuolo
18:15	18:45	<b>Discussione</b>	
	18:45	<b>End of Day 2</b>	
	20:00	<b>Cena Sociale Ristorante Marechiaro - Lungomare Giacomo Matteotti 70</b>	

# Mercoledì 5 Febbraio 2025

## Aurum - Sala D'Annunzio

### Sessioni Mattutine

<b>Sessione - Small Bodies I</b>			
	<b>Chair</b>	<b>Albino Carbognani</b>	
09:00	09:12	Statistical Analysis of Cometary Ices: Inheritance or Chemical Reset?	Manuela Lippi
09:12	09:24	A Decade of Cometary Spectroscopy from the Asiago 1.22m Galileo Telescope	Alessandra Mura
09:24	09:36	High Resolution Spectroscopy of Comet C/2023 A3 (Tsuchinshan-ATLAS): insight into Sodium, Potassium and Lithium abundances	Giovanni Munaretto
09:36	09:45	<b>Discussione</b>	
<b>Sessione - Focus F13 Dynamics of meteor showers</b>			
	<b>Chair</b>	<b>Elisa Maria Alessi</b>	
09:45	09:57	Planetary encounters and meteoroid stream lifetimes	Giovanni Valsecchi
09:57	10:09	<i>Ab initio</i> strewn field for small asteroids impacts	Albino Carbognani
10:09	10:21	Density Variation in Meteor Streams: Insights from Perseid, Alpha Capricornid, and Orionid Observations	Maximilian Vovk
10:21	10:30	<b>Discussione</b>	
10:30	11:00	Coffee Break	
<b>Sessione - Meteors, Meteorites and Interplanetary Dust</b>			
	<b>Chair</b>	<b>Marco Ferrari</b>	
11:00	11:12	Micro FT-IR characterization of Cavezzo and Matera meteorite	Cristian Carli
11:12	11:24	Coesite in Australasian Microtektites	Luigi Folco
11:24	11:36	Glass of possible impact origin from Pica (Chile)	Gabriele Giuli
11:36	11:45	<b>Discussione</b>	
<b>Sessione - Focus F14 From labs to planets: the synergy between laboratory and remote sensing to explore the Solar System</b>			
	<b>Chair</b>	<b>Giovanni Poggiali</b>	
11:45	11:57	Investigation of achondrite meteorites, analogs of stony asteroids, in support to the ESA/HERA mission	Alessandra Migliorini
11:57	12:09	Petrographic and mineralogical characterization of asteroid (162173) Ryugu: the possible new reference material for the solar system element abundance.	Roberto Borriello
12:09	12:21	Raman analysis of cometary and TNOs refractory organic material analogues affected by energetic processing	Massimo Germanà
12:21	12:30	<b>Discussione</b>	
12:30	14:00	Pranzo	

# Mercoledì 5 Febbraio 2025

## Aurum - Sala D'Annunzio

### Sessioni Pomeridiane

<b>Sessione - Small Bodies II</b>			
	<b>Chair</b>	<b>Davide Perna</b>	
14:00	14:12	Unexpected abundance of potentially differentiated asteroids from Gaia	Marco Delbo
14:12	14:24	Spectral and Photometric characterization of (98943) Torifune and 1998 KY26, targets of Hayabusa2#	Jules Bourdelle de Micas
14:24	14:36	Ryugi visible and near infrared photometry	Andrea Longobardo
14:36	14:48	NEOVST: A mini 4-SDSS-colors Survey of newly-discovered Near-Earth Objects through the VLT Survey Telescope	Pedro Hasselmann
14:48	15:00	<b>Discussione</b>	
<b>Sessione - Small Bodies III + Focus F12 Past, Present and Future of Planetary Defense</b>			
	<b>Chair</b>	<b>Simone Ieva</b>	
15:00	15:12	Lithologies of Dimorphos and Potential Implication for its Parent Body	Filippo Tusberti
15:12	15:24	Lessons learned from the dust dynamics simulations using LICIA-CUBE observations in preparation for the HERA mission science	Stavro Ivanoski
15:24	15:36	Effects of sesquinary low-velocity impacts on the Didymos-Dimorphos binary asteroids	Krzysztof Langner
15:36	15:48	The ESA RAMSES mission concept: A rendezvous with the asteroid Apophis during its close encounter with Earth in 2029	Monica Lazzarin
15:48	16:00	<b>Discussione</b>	
16:00	16:30	<b>Coffee Break</b>	
16:30	19:00	<b>Poster Session</b>	
<b>18:00</b>	<b>19:30</b>	<b>AperiPoster</b>	

# Giovedì 6 Febbraio 2025

## Aurum - Sala D'Annunzio

### Sessioni Mattutine

<b>Sessione - Focus F9 Luna e Terra viste da JUICE: Risultati preliminari del flyby</b>			
	<b>Chair</b>	<b>Federico Tosi</b>	
09:00	09:12	MAJIS observations during the Lunar-Earth gravity assist flyby of JUICE	Giuseppe Piccioni
09:12	09:24	Observations of Earth-Moon system by JANUS, the VIS-NIR multispectral camera onboard the ESA-JUICE mission.	Pasquale Palumbo
09:24	09:36	Preliminary analysis of 3GM High Accuracy Accelerometer data from JUICE LEGA operations	Umberto De Filippis
09:36	09:45	<b>Discussione</b>	
<b>Sessione - Focus F11 Waiting for BepiColombo: New perspective of the surface, interior and geochemical environment of Mercury</b>			
	<b>Chair</b>	<b>Camilla Cioria</b>	
09:45	09:57	Mineralogy of the mantle in reduced exoplanets: implications for Mercury	Camilla Cioria
09:57	10:09	Recent activity on Mercury's surface spectrally detected with MDIS data	Anna Galiano
10:09	10:21	Geological evolution of the Praxiteles basin on Mercury	Valentina Galluzzi
10:21	10:30	<b>Discussione</b>	
10:30	11:00	Coffee Break	
<b>Sessione - New instruments and Technologies</b>			
	<b>Chair</b>	<b>Giuseppe Sindoni</b>	
11:00	11:12	Hydrogen clathrate hydrates as energy storage media for planetary installations: a preliminary investigation	Pietro di Profio
11:12	11:24	MIST-A: the MWIR Imaging Spectrometer for Target-Asteroids onboard the Emirates Mission to the Asteroid belt	Mauro Ciarniello
11:24	11:36	EMM Project: Development of the "LD GRIDS" detection system for measuring the charge and velocity of levitating Lunar dust.	Carmen Porto
11:36	11:48	The status of the ESA's ARIEL space mission	Emanuele Pace
11:48	12:00	<b>Discussione</b>	
<b>Sessione - Focus F10 Planetary Space Weather</b>			
	<b>Chair</b>	<b>Stavro Ivanoski</b>	
12:00	12:12	The environments within the jovian magnetosphere: current knowledge and challenges from a planetary space weather perspective	Christina Plainaki
12:12	12:24	The impact of extreme space weather events on Earth's atmosphere and climate	Lorenzo Biasiotti
12:24	12:30	<b>Discussione</b>	
12:30	14:00	Pranzo	



# Giovedì 6 Febbraio 2025

## Aurum - Sala D'Annunzio

### Sessioni Pomeridiane

<b>Sessione - Outreach, Teaching and Communication</b>			
	<b>Chair</b>	<b>Federica Duras</b>	
14:00	14:12	Exploration of the Moon between communication and science	Biagio Ambrosio
14:12	14:24	The Imaging and Cartographic Archive at IAPS/INAF, a Treasure of Media and Maps from the First Steps of Planetary Exploration	Alessandro Frigeri
14:24	14:30	<b>Discussione</b>	
<b>Sessione - Focus F5 Planetary Cryospheres: Ice in the Solar System</b>			
	<b>Chair</b>	<b>Silvia Bertoli</b>	
14:30	14:42	Multispectral analysis of water-ice in a fresh crater ejecta on Mars using HIRISE data	Andrea Apuzzo
14:42	14:54	Revealing Mars' climate history and interior viscosity through polar cap investigations	Antonio Genova
14:54	15:06	Water-ice interaction generated by ocean convection in the icy moons of Jupiter.	Silvia Pagnoscin
15:06	15:18	International Mars Cce Mapper Mission: search for ices to pave the road for future human Mars exploration.	Marilena Amoroso
15:18	15:30	<b>Discussione</b>	
15:30	16:00	<b>Coffee Break</b>	
<b>Sessione Planets and Satellites II</b>			
	<b>Chair</b>	<b>Enrico Flamini</b>	
16:00	16:12	Dynamical recrystallization within Europa's ice shell: Implications for solid-state convection	Giuseppe Mitri
16:12	16:24	Modeling volatiles emission through smoothed particle hydrodynamics: Enceladus' plumes	Matteo Teodori
16:24	16:36	Observations of Loki Patera by Juno during close flybys.	Alessandro Mura
16:36	16:48	Magnetic anomalies likely produced by hydrothermal or magmatic processes post Borealis basin formation	Claudio Orlanducci
16:48	17:00	Towards the retrieval of CH <sub>4</sub> at Jupiter's mid- and equatorial latitudes with Juno/JIRAM spectra	Chiara Castagnoli
17:00	17:15	<b>Discussione</b>	
17:30	19:00	<b>Assemblea Plenaria SISP-AC</b>	

# Venerdì 7 Febbraio 2025

## Aurum - Sala D'Annunzio

<b>Sessione - Focus F2 Advancing Spectral and Hyperspectral Data Analysis for Planetary Exploration</b>			
	<b>Chair</b>	<b>Anna Galiano</b>	
09:00	09:12	Hyperspectral data to understand our planet and the others: the case of solfatara crater (southern Italy)	Maria Pedone / Paola Manzari
09:12	09:24	Low-temperature hyperspectral imaging acquisition of icy slabs with martian simulants.	Nicole Costa
09:24	09:36	Surface composition of Ganymede in the Antum crater region: spectral unmixing tests in preparation of the JUICE mission	Federico Colaiuta
09:36	09:48	Project PANCO: updates on the open-source suite for alignment and pansharpener of multi and hyperspectral images.	Adriano Tullo
09:48	10:00	<b>Discussione</b>	
<b>Sessione - F3 Gravity and rotational dynamics: an integral approach for planetary interior characterisation</b>			
	<b>Chair</b>	<b>Edoardo Santero Mormile</b>	
10:00	10:12	Signal Processing of Spherical Data. Application to the Study of Gravimetric Data	Antonio Cicone
10:12	10:24	Constraining Europa's interior structure by using gravity measurements in a Bayesian framework	Martina Ciambellini
10:24	10:30	<b>Discussione</b>	
10:30	11:00	<b>Coffee Break</b>	
<b>Sessione - Focus F6 Advancements in Cartography and the Importance of Standard establishment in data management</b>			
	<b>Chair</b>	<b>Gianluca Chiarolanza</b>	
11:00	11:12	Explorative maps generation through unsupervised learning	Natalia Amanda Vergara
11:12	11:24	The current status of three-dimensional reconstruction of TGO-CASSIS stereo products using the INAF 3DPD pipeline	Cristina Re
11:24	11:36	An Integrated and Multidisciplinary Approach to Landing Site Selection Using MATISSE	Giacomo Nodjoumi
11:36	11:45	<b>Discussione</b>	
<b>Sessione Planets and Satellites III</b>			
	<b>Chair</b>	<b>Gabriele Cremonese</b>	
11:45	11:57	Machine learning clustering techniques applied to Juno/Jiram data	Francesco Biagiotti
11:57	12:09	The thermal impact of the self-heating effect on airless bodies: the case of Mercury's north polar craters.	Pamela Cambianica
12:09	12:21	Automatic CRISM mapping and spectral parameter generation using undercomplete autoencoders	Marco Baroni
12:21	12:30	<b>Discussione</b>	
12:30	13:00	<b>Premiazioni (Migliori Poster e Migliore Presentazione)</b>	
	13:00	<b>Chiusura Congresso</b>	

# SESSIONE POSTER

<b>Astrobiologia e Astrochimica</b>			
1	Hyperspectral VNIR imaging of Microbialites from lake Bagno dell'acqua, Pantelleria, Italy	Enrico	Bruschini
2	The Trieste ExoClimate Toolkit (ExCiT) a new Python+Numba framework for exoclimate Energy-Balance models	Michele	Maris
3	Microbial abundance across a salinity and mineralogical transect in the Ntwetwe pan of Botswana: implications for the search for life on Mars	Fulvio	Franchi
4	Survival and adaptations of the brine shrimp Artemia Salina under simulated Mars conditions	Maria Teresa	Muscari Tomajoli
5	The Pantelleria Bagno dell'acqua lake: a new Mars-like environment as a reactor for prebiotic chemistry - the 2024 campaign	Giovanna	Costanzo
6	Laboratory analog experiments to support detections of organics on Mars by deep UV Raman spectroscopy	Francesco	Renzi
7	Infrared characterization and stability studies under UV radiation of L-Histidine in nontronite to assist Mars missions in biosignature detection.	ilaria	bergamo
8	Investigation into the origins of biomolecular homochirality in early Earth/Mars environment	Mitri	Giuseppe
9	Microorganisms under simulated icy moon environments: MICRO ICY project, a step forward to solar system exploration	Claudia	Pacelli
10	Sulfur chemistry in Comets	Nadia	Balucani
11	Interaction between vegetation and snowball phases in the late proterozoic Earth	Erica	Bisesi
<b>Terza Missione</b>			
12	ESCAPE MOON: how to explain meteor streams dynamics to kids	Elisa Maria	Alessi
13	The geology of Solar System worlds and beyond: a planetary geology dissemination project for secondary schools.	Paola	Cianfarra
14	PETRAS summer school and research campaign: the island of Vulcano as analog for planetary exploration	Alessandro	Pisello
15	The meteorite hall in the new "la Specola" exhibition of the mineralogical collection of the Natural History Museum of the University of Florence	Vanni	Moggi Cecchi
16	Si Nomina Nescis, Perit et Cognitione Rerum. The Cataloging of Extraterrestrial Materials In Italy: State of the Art and Future Perspectives	Annarita	Franza
17	The planetary science wiki EDIT-A-THON	Arianna	Piccialli
18	Europlanet and Italian planetary community participation	Stavro	Ivanovski
19	The Chianti Topics International Focus Workshop	Emanuele	Pace
20	The "Earth Moon Mars" project: development of the Earth-Mars network	Ugo	Cortesi

<b>Meteorite, Meteoriti e Polvere interplanetaria</b>			
21	Mineralogical characterization of the fusion crust of the Cavezzo L5 anomalous chondrite and first find of Ni <sub>2</sub> S sulphide.	Marianglona	Rondinelli
22	Graphite geothermometer for hypervelocity impacts	Oliver	Christ
23	Spectral Characterization of Lunar meteorite NWA 8687 and NWA 14188	Leda Alice	Galetti
24	Pine River and Mount Morris: two meteorites to study a unique parental body.	Cristian	Carli
25	Redox conditions from XAS spectroscopy on Brachinites and Brachinite-like ungrouped achondrites.	Valeria	De Santis
26	A record of aqueous alteration in the type 3 CO chondrite, ALHA77307: insights from phyllosilicate replacement of chondrule glass.	Yelena	Caddeo
27	Creating meteorite fusion crusts in laboratory: mineralogical characterization of the Tamdakht (H5) fusion crust produced during a plasmatron heating experiment	Gabriele	Giuli
28	Non-destructive analyses of GRO 95517 antarctic meteorite	Giovanni	Fanelli
29	Non-destructive techniques for the analyses of sensitive extraterrestrial materials: the case of Tarda meteorite.	Giovanni	Fanelli
30	Microchemical and mineralogical characterization of lunar meteorites aimed at the production and testing of lunar regolith simulants	Valeria	De Santis
31	First find of coexisting Wadsleyite and Ringwoodite in the Alfianello L6 ordinary chondrite	Valeria	De Santis
32	Brachinite Northwest Africa 12573: another metachondrite affine to 'CX' chondrite?	Tiberio	Cuppone
33	Machine Learning for Meteoroid Lunar Impact Classification: A Study for the LUMIO Mission	Nishani	Vijayakumaran
34	The Antarctic meteorite collection of the Museo Nazionale dell'Antartide	Alfonso	Fiorelli
35	New insights into (Al,Cu)-bearing micrometeorites from mt. Gariglione (Italy)	Giovanna	Agrosi
<b>Pianeti e Sistemi Planetari extrasolari</b>			
36	Analysis of Martian south polar steep scarps based on CTX and MOLA datasets	Mayssa	El Yazidi
37	Advancing exoplanetary research and education at the Osservatorio Polifunzionale del Chianti	Emanuele	Pace

<b>Piccoli Corpi</b>			
38	Spectral and geological analysis of water ice in Oxo crater, Ceres: implications for ice origin and crater evolution.	Bianca	Ranieri
39	Pre-perihelion observations of the carbon-depleted comet C/2023 a3 (Tsuchinshan-Atlas). Insights into CN production and molecular upper limits.	Pamela	Cambianica
40	The TRANSient NEO population: asteroids, comets... or none of the above?	Simone	Ieva
41	Visible spectroscopic survey of near earth objects/potentially hazardous asteroids.	monica	Iazzarin
42	Visible and near-IR spectroscopic characterization of different dynamical classes of comets.	Fiorangela	La Forgia
43	LICIACube, the first Italian deep space mission: an ASI perspective	Angelo	Zinzi
44	Reconstruction of ejecta distribution of DART spacecraft impact on asteroid Dimorphos	Prasanna Deshapriya	Jasinghege Don
45	Spectral analysis on NAC and WAC images of asteroids (21) Lutetia and (2867) Šteins.	Joel	Beccarelli
46	Asteroids to meteorite match and vice versa: testing a new approach to bridge different measurements on small bodies. Application on reduced meteorites in support of Atras	Paola	Manzari
47	The ANIME CubeSat mission: Phase A study results	Davide	Perna
48	Observing the 2029 flyby of Apophis with LUMIO	Guglielmo	Gomiero
48A	Spectral analysis of potential organic material presence in Yalode crater on Ceres	Samuel	D'Urzo
<b>Planetologia Sperimentale e di Laboratorio</b>			
49	New space-weathering experiments: spectral changes of HEDs and lunar meteorites upon ion-implantation	Stefano	Rubino
50	HyperLab.	Francesco	Carraro
51	Visible-Near Infrared spectral behavior of Mars-analogue clay, sulfate, and basalt mixtures	Beatrice	Baschetti
52	Laboratory infrared measurements on analog materials and meteorites in support of ESA HERA mission observations	Giovanni	Poggiali
53	Laboratory simulation of ion impact and back-scattering on Mercury surface analogues for planetary space weather investigation	Rosanna	Rispoli
54	Low temperature phase transitions in the visible and near-infrared (VNIR) reflectance spectra of (NH <sub>4</sub> ) <sub>2</sub> HPO <sub>4</sub> and (NH <sub>4</sub> )HSO <sub>4</sub> salts	Maximiliano	Fastelli
55	Boundary conditions in which folding can be induced as a primary compensator of shortening along thrust faults on Mercury	Gene Walter	Schmidt
56	MICROMED terrestrial surveys: in situ study of airborne dust and its electrification	Gabriele	Franzese
57	Alteration involving Na-rich fluids and alkaline igneous rocks close to planetary surfaces: possible implications for past climate on Mars	Ciprian	Popa
58	Characterization of the Hexahydrite infrared reflectance spectra at typical Jupiter's icy moons environmental conditions	Francesca	Furnari
59	VNIR and MIR spectroscopy of lab-made silicate glasses as analogues for Mercury	Alessandro	Pisello

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62	Selection criteria of piezoelectric actuators for space deployable optics for remote sensing applications (DORA)	Igor Di Varano
63	Laboratory spectral characterization of the Didymium and Polystyrene filters used in the internal calibration unit of MAJIS	Stefania Stefani
64	In-flight performance monitoring and calibration opportunities of the JANUS multispectral camera onboard ESA-JUICE mission: in-flight campaign and expectations from Lunar-Earth Gravity Assist	Livio Agostini
65	Open-Source Tools for Observation Planning and Uplink Operations: Components of the JANUS System for the JUICE Mission.	Luca Penasa
66	An innovative facility for the simulation of Martian sand/dust phenomena, developed in the framework of the Earth-Moon-Mars (EMM) project	Giuseppe Mongelluzzo
67	A bifocal panoramic camera (PANCAM) acquisition and processing system for the Earth-Moon-Mars (EMM) initiative	Paolo Martini
68	Test of JIRAM EM and FS photodetectors performances for implementation on the MIST-A Instrument	Chiara Cencia
69	Design of a legged drone for vertical descent into lava tubes	Irene Terlizzi
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71	Landslides and mass movements in a connection channel between Aram Chaos and Ares Vallis	Marco Emanuele Discenza
72	Large rock avalanches in the region of Hydraotes Chaos and Tiu Valles: absolute dating and evolutionary model	Marco Emanuele Discenza
73	Application of manual classification and Voronoï tessellation for improving absolute dating of planetary surfaces	Marco Emanuele Discenza
74	Using the “ferrous slope” as a proxy to better characterize the clay-bearing deposits on Mars	Jeremy Brossier
75	Geological map of two adjacent valleys close to Chasma Boreale, Mars.	Nicole Costa
76	Aeolian landforms in the ExoMars landing site	Simone Silvestro
77	Analysis of layered deposits of Arabia Terra, Mars: example from a crater and surrounding plateau nearby Schiaparelli crater	Alessandra Piscopo
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79	Volcano-Tectonic Evolution of Tharsis Tholus volcano (Mars) by Morphostructure Analysis	Camilla Gentili
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81	Azalea project: preliminary results of an african (Ahnet basin, algerian Sahara) analog for a simulated Mars Sample Return mission.	Yelena Caddeo
82	Multi-approaches analysis on martian and terrestrial rock glaciers: paleoclimatic implications and evaluation of permafrost behaviour	Silvia Bertoli
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84	Analysis of three candidate martian Eskers : Implications for possible local wet-based glaciations in Deuteronilus Mensa, Mars	Giovanni Munaretto
85	SPH model for volatile emissions from mars' subsurface triggered by the drill onboard the ESA's Rosalind Franklin rover.	Luca Maggioni
86	Dynamic optimization of the MARSIS raw data acquisition plan with machine learning and mathematical programming	Benedetta Ferrari
87	Geological mapping and analysis of north-west Mount Sharp region (Gale crater, Mars)	Susanna Tonoian

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89	Crustal compositions of Mercury from thermodynamic modelling, laboratory experiments, and spectral analysis: insights from Glinka crater	Camilla	Cioria	
90	New crater catalogues of the Moon and Mercury using multimodal deep learning and extraction of morphometric parameters	Cristina	Re	
91	Fault-crater interactions on Mercury: Displacement patterns and geological implications	Antonio	Sepe	
<b>Planets and Satellites (Earth's Moon)</b>				
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93	Multipoint characterization of the 28th March 2022 solar energetic particle event and its impact on the lunar surface	Mirko	Stumpo	
94	Geologic Evolution and Map of Copernicus Crater Interiors (Moon).	Filippo	Tusberti	
95	A new hybrid geomorphological mapping of the Orientale Basin (Moon)	Yelena	Caddeo	
96	Insights from the ANTHELIA project: a realistic geometry-based study of the Mare Tranquillitatis pit's thermal and volatiles properties.	Pamela	Cambianica	
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101	Simulations of Uranus Spectra at Visible and Near-Infrared Wavelengths Using ARS	Davide	Grassi	
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103	Io hot spot distribution observed by Juno/JIRAM from orbits 41-66	Francesca	Zambon	
104	A Lightweight Web-Based Framework for Hyperspectral Data Processing	Beatrice	Baschetti	
105	The effect of different internal structure models on Ganymede's rotational state	Pasquale	Tartaglia	
106	Morphological and infrared breakdown of Io's paterae characteristics.	Melissa	Mirino	
107	The effects of impurities in Jovian moons icy crusts on radar data	Gabriele	Turchetti	

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109	Advancements in the MATISSE tool for geological analysis of planetary surfaces	Veronica	Camplone
110	Combining global coronal and volcanic datasets to analyze tectono-magmatic trends on Venus	Nicholas John	Montiel
111	Surface charging simulations on the Ariel spacecraft in L2-space plasma relevant environment and GEO early transfer orbit	Marianna	Michelagnoli
112	Integration of a thermophysical modeling in the SSC solar system exploration framework	Edoardo	Rognini
113	Kelvin-Helmholtz and tearing mode instabilities at the magnetopause during space weather events	Stavro L.	Ivanovski
114	Echo Terrae trace: an open-source toolset for subsurface sounding radar integrated analysis	Giacomo	Nodjoumi
115	GRAVHEDRAL: A novel gravity inversion tool to shed light into planets' Interior	Alessandro	Ghirotto
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117	Combined processing of multi-sensor datasets for geophysical investigations	Simone	Andolfo
118	Multi-physics modeling of planetary regolith: to investigate instruments-soil interaction in support of design and operations.	Sabrina	Lanfranco
119	FRESCO, a Python free open source tool to map, select, extract and analyze CRISM spectral data	Marco	Baroni