XX CONGRESSO NAZIONALE DI SCIENZE PLANETARIE
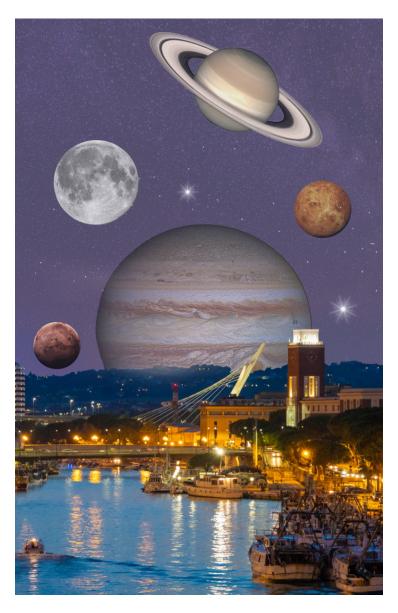
3-7 Febbraio 2025
Complesso Aurum – Pescara

PROGRAMMA POSTERS

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Edoardo Mormile Santero	Università D'Annunzio
Davide Sulcanese	Università D'Annunzio

Astrobiologia e Astrochimica

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 enviroment 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
0	Sulfur chemistry in Comets	Nadia	Balucani
11	Interaction between vegetation and snowball phases in the late proterozoic Earth	Erica	Bisesi

Terza Missione

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 Cognitio 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

Meteore, Meteoriti e Polvere interplanetaria

21	Mineralogical characterization of the fusion crust of the Cavezzo L5 anomalous chondrite and first find of Ni2S 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	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

Pianeti e Sistemi Planetari extrasolari

36	Analysis of Martian south polar steep scarps based on CTX and MOLA	Mayssa	El Yazidi
37	Advancing exoplanetary research and education at the Osservatorio Polifunzionale del Chianti	Emanuele	Pace

Piccoli Corpi

38	Spectral and geological analysis of water ice in Oxo crater, Ceres: implications for ice origin and crater evolution.	Bianca	Ranieri
39	(Tsuchinshan-Atlas). Insights into CN production and molecular upper limits.	Pamela	Cambianica
40	above?	Simone	Ieva
41	Visible spectroscopic survey of near earth objects/potentially hazardous asteroids.	monica	lazzarin
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 Atiras	Paola	Manzari
47	The ANIME CubeSat mission: Phase A study results	Davide	Perna
48	Observing the 2029 flyby of Apophis with LUMIO	Guglielmo	Gomiero

Planetologia Sperimentale e di Laboratorio

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 mesasurements 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 $(NH_4)2HPO_4$ and $(NH_4)HSO_4$ 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	

Sviluppo di Strumentazione e Software Tools

60	QUASAR, a python-based open-source project for spectral and hyperspectral data analysis: from lab applications to JUICE-MAJIS data processing and analysis.	Stefano	Rubino	
61	QUASAR, a python-based open-source project for spectral and hyperspectral data analysis: from lab applications to JUICE-MAJIS data processing and analysis.	Stefano	Rubino	
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) iniziative	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	

Planets and Satellites (Mars)

70	Geological investigation of mounds across diverse topographic and tectonic settings in Terra Sirenum (Mars)	Elettra	Mariani
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
78	Identification of hydrated minerals and age estimation of the impact craters located at Oxia Planum on Mars	Maria Catalina	Torres
79	Volcano-Tectonic Evolution of Tharsis Tholus volcano (Mars) by Morphostructure Analysis	Camilla	Gentili
80	Topographic influence on atmosphere over Tharsis	Paulina	Wolkenberg
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
83	Numerical modelling and geomorphological studies on martian landslides found in noachian highlands	Agnese	Caramanico
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

Planets and Satellites (Mercury)

88	Spectral and morphological analysis of Glinka crater, Mercury	Mafalda	Ianiri
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

Planets and Satellites (Earth's Moon)

92	Surface scattering simulation for lunar radar sounder (LRS) using high-resolution DEM generated by generative adversarial network	Hitoshi	Nozawa
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
97	Characterization and feasibility of lunar landing sites: the Ingenii Basin case	Gloria	Tognon

Planets and Satellites (Outer Solar System)

98	Thermal evolution of Uranus' icy satellites: implications for mineral assemblages of the deep interior	Artem	Lebedev
99	Enforcing Multiple Constraints on the Interior Structure of Ganymede: a Machine Learning Approach	Giulio	Macrì
100	Modelling of Io's internal structure based on JIRAM instrument data in support of NASA/Juno mission	Matteo	Paris
101	Simulations of Uranus Spectra at Visible and Near-Infrared Wavelengths Using ARS	Davide	Grassi
102	Tidal Love numbers for the moons of Uranus	Anastasia	Consorzi
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

Planets and Satellites

108	JUICE-Prisma joint observations of the Earth: an opportunity to connect two communities	Angelo	Zinzi
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 SSDC 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
116	Planetary Interior Modelling By Synthetic Gravity Data Generation	Edoardo	Santero Mormile
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 ananlyze CRISM spectral data	Marco	Baroni