



XIV Congresso Nazionale di Scienze Planetarie

Bormio, 04 - 09 Febbraio 2018

Sala Congressi della Banca Popolare di Sondrio
Via Roma, 131

PROGRAMMA DOMENICA - 4 Febbraio

18:00 - 19:00	Registrazione presso l'hotel Baita dei Pini in via Peccedi, 15
19.00 - 20.00	Aperitivo di benvenuto presso l'hotel Baita dei Pini

LUNEDI' - 5 Febbraio (mattina)

8:30 - 09:30	Registrazione
9:30 - 09:40	P. Cerroni, M. Di Martino Benvenuto e comunicazioni introduttive

Sessione 1 Atmosfere Planetarie Chairman: A. Cellino	
09:40 - 10:00	Talk 1 Adriani A. (Invited) Observations of the Jupiter atmosphere in the IR by JUNO mission
10:00 - 10:20	Talk 2 Mura A. (Invited) Juno/JIRAM observations of Jupiter aurora: main ovals, footprints and associated tails.
10:20 - 10:50	Pausa caffè
10:50 - 11:05	Talk 3 Dinelli B.M. JIRAM Observations of Jupiter's Auroral Regions in the 3-4 μm spectral range
11:05 - 11:20	Talk 4 Migliorini A. H ₃ ⁺ in the Jovian atmosphere, observed at limb with Juno/Jiram
11:20 - 11:35	Talk 5 Sindoni G. Struttura Atmosferica dei Vortici di Giove come ricavata dai dati di Juno/JIRAM

11:35 - 11:50	Talk 6 Ferri F. EDL science from Huygens HASI at Titan to Schiaparelli at Mars and towards the future.
11:50 - 12:10	Talk 7 Piccioni G. (invited) Correlation of clouds top altimetry and thermal brightness in the Venus' polar region
12:10 - 12:25	Talk 8 Oliva F. Mars dust and H ₂ O ice clouds properties by means of MEx/OMEGA data analysis
12:25 - 12:40	Talk 9 Esposito F. Monitoring the atmospheric dust on Mars: the MicroMED sensor

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LUNEDI' - 5 Febbraio
(pomeriggio)

**Sessione 2: Analisi di superfici planetarie:
metodi e processi evolutivi**
Chairman: L. Marinangeli

14:30 - 14:50	Talk 1 Massironi M. (Invited) Towards integrated geological maps of planetary surface: the H2020 PLANetary MAPping project
14:50- 15:05	Talk 2 Galluzzi V. High-resolution geological mapping of hollow fields on Mercury
15:05 - 15:20	Talk 3 Zambon F. Variazioni di colori sulla superficie di Mercurio: risultati dalla camera MDIS a bordo della sonda MESSENGER in supporto alla futura missione BepiColombo
15:20 - 15:35	Talk 4 Cremonese G. The CaSSIS instrument and the new the high resolution DTM of the Mars surface
15:35 - 15:50	Talk 5 Pajola M. Analysis of ExoMars/CaSSIS images of the Mars satellite Phobos
15:50 - 16:05	Talk 6 Alemanno G. Martian fluvial systems: global mapping and spectroscopic analyses
16:05 - 16:20	Talk 7 Di Achille G. Hydrological and climatic significance of Martian deltas
16:20 - 16:50	Pausa caffè Chairman: M. Massironi
16:50 - 17:05	Talk 8 Pozzobon R. Morphometric characterization, automatic mapping and fractal clustering of putative mud volcanoes in Arabia Terra craters (Mars)
17:05 - 17:20	Talk 9 Marinangeli L. Formation of clays and related sedimentary processes in Margaritifer Chaos, Mars
17:20 - 17:35	Talk 10 Franzese G. Proprietà elettriche dell'atmosfera durante gli eventi di sollevamento di polvere terrestre e marziana
17:35 - 17:50	Talk 11 Popa C. Formation of orecretes: a window towards ancient Mars and similarities to the present Earth
17:50 - 18:05	Talk 12 Mura A. Galilean Moons observed in the IR by Juno/JIRAM imager/spectrometer.
18:05 - 18:20	Talk 13 Tosi F. La missione JUICE e la futura esplorazione dei satelliti galileiani ghiacciati: Complementarità e sinergie nel telerilevamento visibile e vicino infrarosso
18:20 - 18:35	Talk 14 Lucchetti A. Surface analysis of icy satellites surface
18:35 - 18:50	Talk 15 Rossi C.M. Global map of the grooves of Ganymede

18:50 - 19:05

**Talk 16 Teng Hu The Chinese roadmap for the space
exploration of the solar system**

MARTEDI' 6 Febbraio

(mattina)

Sessione 3 La Planetologia in Laboratorio Chairman: F. Esposito	
08:30 - 08:45	Talk 1 Carli C. Glassy igneous material with variable oxidation states: Reflectance and Raman spectral analysis
08:45 - 09:00	Talk 2 Popa C. Formation of ocretes on Mars: a window towards ancient Mars and similarities to the present Earth
09:00 - 09:15	Talk 3 Ferrari M. Reflectance spectroscopy of ammoniated phyllosilicates
09:15 - 09:30	Talk 4 De Angelis S. Design, development and test of an environmental P-T cell for IR spectroscopy measurements
09:30 - 9:45	Talk 5 D'Elia M. Laboratory study of kinetics and thermochemistry of carbonate decomposition under conditions relevant to planetology and astrobiology
09:45 - 10:00	Talk 6 Cosciotti B. Caratterizzazione dielettrica di solfati idrati binari e ternari come supporto alle indagini radar di RIME e REASON nelle croste ghiacciate dei satelliti Galileiani
10:00 - 10:30	Pausa caffè Chairman: G. Piccioni
10:30 - 10:45	Talk 7 Morana M. Diamonds in the Almahata Sitta meteorite
10:45 - 11:00	Talk 8 Murri M. XRD structure characterization of impact diamonds from Popigai crater
11:00 - 11:15	Talk 9 Ferri F. Lab planetology at CISAS: experience and opportunities
11:15 - 11:30	Talk 10 Stefani S. Study and laboratory measurements of Collisional Induced Absorption (CIA) bands of atmospheric gases
11:30 - 11:45	Talk 11 Pace E. Studio della spettroscopia di emissione in esperimenti di simulazione del passaggio di meteoriti in atmosfera.
11:45 - 12:00	Talk 12 Brucato J.R. Laboratory reflectance measurements in support of OSIRIS-REx spectroscopic data analysis
12:00 - 12:15	Talk 13 Saladino R. Silica metal-oxide microdroplets catalyze comprehensive prebiotic chemistry
12:15 - 12:30	Talk 14 Billi D. Extremophiles under space and planetary simulations and the search for life beyond Earth
12:30 - 12:45	Talk 15 Poggiali G. Ultraviolet photoprocessing of glycine and other amino acids adsorbed on various space relevant minerals

MARTEDI' 6 Febbraio **(pomeriggio)**

	Sessione 3 Astrobiologia/Sample Return Chairman: J.R. Brucato
14:30 - 14:45	Talk 1 Pajola M. Selecting the sampling site on asteroid 101955 Benu, target of the OSIRIS-Rex mission
14:45 - 15:00	Talk 2 Palomba E. Jaxa strategy of small body exploration and sample return
15:00 - 15:15	Talk 3 Meneghin A. A EUROPEAN SAMPLE CURATION FACILITY STUDY FOR SAMPLE RETURN MISSION: THE EURO-CARES PROJECT
15:15 - 15:30	Talk 4 Longobardo A. Basic requirements for packaging and transporting returned extraterrestrial samples from landing site to curation facility
15:30 - 15:45	Talk 5 Dirri F. Piezoelectric Crystal Microbalance sensors for in-situ measurements in planetary environments and in-space contamination monitoring
15:45 - 16:00	Talk 6 Sauro The ESA PANGAEA geologic training for astronauts and PANGAEA-eXtension testing analogue
16:00 - 16:15	Talk 7 Claudi R. SUPER EARTHS, M-STARS AND PHOTOSYNTHETIC BACTERIA
16:15 - 16:45	Pausa caffè
	Sessione 4 Ground Segment e infrastrutture Chairman: G. Cremonese
16:45 - 17:00	Talk 1 Flamini E. A big step forward for the Italian participation to Planetary Missions with the SDSA
17:00 - 17:15	Talk 2 Antonelli L.A. The Space Science Data Center of ASI: a research infrastructure for the space science scientific communities.
17:15 - 17:30	Talk 3 Zinzi A. MATISSE 2.0: new ideas to support planetary sciences
17:30 - 17:45	Talk 4 Smareglia R. L'importanza di una e-infrastruttura INAF: GAPS lesson Learner
17:45 - 19:15	DISCUSSIONE GENERALE (CHAIRMEN: F. CAPACCIONI, F. ESPOSITO, E. FLAMINI) : ORGANIZZAZIONE E PROSPETTIVE PER LE SCIENZE PLANETARIE IN ITALIA

MERCOLEDI' 7 Febbraio (mattina)

Sessione 5 Corpi Minori Chairman: E. Dotto	
08:30 - 08:45	Talk 1 Dell'Oro A. Towards the Gaia Data Release 2: what about asteroid astrometry?
08:45 - 09:00	Talk 2 Paolicchi P. Age of asteroid families with the YORP-eye method: new results
09:00 - 09:15	Talk 3 Rossi A. Effects of collisions on the YORP-Yarkowski evolution of asteroid families
09:15 - 09:30	Talk 4 Milani A. Cratering families: recognition and collisional interpretation
09:30 - 09:45	Talk 5 Valsecchi G. Direct-retrograde orbit flips at planetary close encounters
09:45 - 10:00	Talk 6 Cellino A. Polarimetria di asteroidi: risultati recenti e prospettive per il futuro
10:00-10:30	Pausa caffè
Sessione 5 Corpi Minori Chairman: P. Paolicchi	
10:30 - 10:45	Talk 7 Capaccioni F. The evolution of the surface composition of the 67P/Churyumov-Gerasimenko from August 2014 through September 2016
10:45 - 11:00	Talk 8 Raponi A. Constraining the water ice content of 67P average surface
11:00 - 11:15	Talk 9 Cambianica P. Modello di frammentazione della cometa 67P/Churyumov-Gerasimenko
11:15 - 11:30	Talk 10 Pajola Boulders in the Solar System
11:30 - 11:45	Talk 11 Zambon F. Identificazione di unità omogenee sulla superficie di Cerere tramite la classificazione dei dati di VIR.
11:45 - 12:00	Talk 12 Galiano A. Indagine mineralogica della sottosuperficie di Cerere mediante analisi spettrale dell'unità geologica "crater central peak material (ccp)"
12:00 - 12:15	Talk 13 Carrozzo G. DISTRIBUTION OF CARBONATES ON CERES
12:15 - 12:30	Talk 14 Rognini E. Analisi termica della superficie di Cerere

MERCOLEDI' 7 Febbraio (pomeriggio)

Sessione 5 Corpi Minori Chairman: F. Capaccioni	
15:15 - 15:30	Talk 15 La Forgia F. Emissioni di gas nella chioma interna della cometa 67P/Churyumov-Gerasimenko osservate da OSIRIS/Rosetta
15:30 - 15:45	Talk 16 Tosi F, Effetti termici diurni e stagionali e proprietà termofisiche del nucleo della cometa 67P/Churyumov-Gerasimenko.
15:45 - 16:00	Talk 17 Rinaldi G. The dust environment of 67P/Churyumov-Gerasimenko
16:00 - 16:15	Talk 18 Longobardo A. Detection of cometary activity during 67P/Churyumov-Gerasimenko pre-perihelion by means of GIADA-VIRTIS data fusion
16:15 - 16:30	Talk 19 Ivanovski S. Non-spherical dust dynamics in the 67P/Churyumov - Gerasimenko coma constrained by GIADA and ROSINA data
16:30 - 17:00	Pausa caffè
Sessione 5 Corpi Minori Chairman: G. Valsecchi	
17:00 - 17:15	Talk 20 Ieva S. Basaltic material - a tale of two (or more) parent bodies?
17:15 - 17:30	Talk 21 Mazzotta- Epifani E. Peculiar comet-like activity in different regions of the Solar System
17:30 - 17:45	Talk 22 Perozzi E. NEO, Space Debris and the Space Situational Awareness
17:45 - 18:00	Talk 23 Perna D. Compositional properties of the "small" near-Earth asteroids: results from the NEOShield-2 project
18:00 - 18:15	Talk 24 Dotto E. Characterization of suitable targets for space missions
18:15 - 18:30	Talk 23 Buzzoni A. Close encounters across Loiano
18:30 - 18:45	Talk 24 Bianchi G. BIRALES - the Italian bi-static radar for LEO survey
18:45 - 19:00	Talk 25 Di Cecco A. On the characterization of national sites for NEO and space debris surveys

GIOVEDI' - 8 Febbraio
(mattina)

Sessione 5 Esopianeti Chairman: F. Marzari	
08:30 - 08:50	Talk 1 Claudi R. (Invited) New Worlds: diversity, occurrence and architecture
08:50 - 09:05	Talk 2 Benatti S. The diversity of exoplanetary system architectures
09:05 - 09:20	Talk 3 Mesa D. SPHERE/ Shine: Main results of the first three years of the survey
09:20 - 09:35	Talk 4 Carleo I. Radial velocities from NIR Spectroscopy
09:35 - 09:55	Talk 5 Nascimbeni V. (Invited) Observation of Exoplanetary Atmospheres
09:55 - 10:10	Talk 6 Alei E. & R. Claudi The Chapman Ozone cycle applied to exoplanets around non Sun-like stars
10:10 - 10:25	Talk 7 Maris M. Artechs: the Trieste exoclimates Archive
10:25 - 10:50	Pausa caffè
Sessione 5 Esopianeti Chairman: R. Claudi	
10:50 - 11:10	Talk 8 Marzari F. (Invited) Formation and Evolution of Planets
11:10 - 11:30	Talk 9 Rigliaco E. (Invited) Analysis of protoplanetary disks from an observational point of view
11:30 - 11:45	Talk 10 Pinto D. L. An SPH approach to investigate Protoplanetary Disks in multi-star environments.
11:45 - 12:00	Talk 11 Cattolico S. Dynamical Evolution of extrasolar protoplanetary disks
12:00 - 12:15	Talk 12 Ivanoski S. L. Non-spherical dust dynamics in the protoplanetary disks: I. Simulations in Epstein regime of secondly generated dust during formation of giant planets in circumstellar Disks
12:15 - 12:30	Talk 13 Marzari F. & G. D'Angelo Dust evolution in protoplanetary disks with a pair of planets in a 2:1 resonance

GIOVEDI' - 8 Febbraio
(pomeriggio)

Sessione 5 Esopianeti Chairman: E. Rigliaco	
15:30- 15:45	Talk 14 D'Orazi V. Hunting for Exoplanets: Shark at LBT
15:45 - 16:00	Talk 15 Pace E. Ariel: il telescopio spaziale per lo studio delle atmosfere dei pianeti extrasolari
16:00 - 16:15	Talk 16 Borsato L. La missione CHEOPS
16:15 - 16:30	Talk 17 Granata V. La Missione PLATO
16:30 -17:00	Pausa caffè
17:00 - 17:15	Talk 18 D'Orazi V. Hunting for Exoplanets: Shark at LBT
17:15 - 17:30	Talk 19 Molinaro M. Interoperabilità dei dati degli esopianeti: le serie temporali
17:30 - 17:45	Talk 20 Zinzi A. ExoplAn3T, the new webtool dedicated to the exoplanetary systems visualization and analysis.
17:45 - 18:45	Discussione Poster

VENERDI' - 9 Febbraio
(mattina)

Sessione 7 Meteore e Meteoriti Chairman: E. Flamini	
09:00 - 09:15	Talk 1 Di Martino M. (WMT) Wide-field Mufara Telescope
09:15 - 09:30	Talk 2 Moggi Cecchi V. THE LUT DESERT 2017 JOINT ITALIAN - IRANIAN EXPEDITION FOR METEORITE RECOVERY.
09:30 - 09:45	Talk 3 Gardiol D. PRISMA: la Prima Rete Italiana per la Sorveglianza di Bolidi
09:45 - 10:00	Talk 4 Knapic C. PRISMA Archive
10:00 - 10:15	Talk 5 Carbognani A. A case study of the 2017 May 30 italian fireball
10:15 - 10:30	Talk 6 Barghini D. Calibrazione Astrometrica delle camere all-sky della rete PRISMA.
10:30 - 10:45	Talk 7 Guaita C. MICROMETEORITI STUDIATI AL SEM
10:45 - 11:00	Talk 8 Cibin L. The status of NEOSTED Project, the first Fly-Eye Telescope Prototype for ESA NEO Wide Survey application
11:00 - 11:15	Talk 9 Porcelli L. Retroriflettori laser per planetologia e fisica fondamentale
11:15 - 11:30	ORGANIZZAZIONE, FUTURI MEETINGS
11:30 - 12:00	PAUSA CAFFÈ
12:00	ADJOURN

Sessione POSTER
(Discussione Giovedì 17:45 - 18:45)

Adriani A., Moriconi M.L., Mura A., Sindoni G., Grassi D., Altieri F., Tosi F., Noschese R., Cicchetti A. Characterization of the gravity waves observed by JIRAM in the Jupiter NEB.

Bacci P., Luca Buzzi, Lorenzo Franco, Gianni Galli, Salvo Pluchino : Attività di ricerca della Sezione Asteroidi UAI

Becks, P. Berardi, R. Bonomi, E. Bryssink, D. Carosati, C. Caselli, D. Castellano, Cecconi, M., M. Facchini, E. Guido, R. Ligustri, G. Milani, C. Perrella, D. Tirelli, Valvasori A., C. Vinante, R. Trabatti Fotometria della cometa C/2017 O1 (ASASSN)

Bellucci G., A. C. Vandaele, J. L. Moreno, M. Patel, F. Altieri, E. D'Aversa, G. Etiopio, A. Geminale, M. Giuranna, O. Lanciano, F. Oliva, G. Sindoni, P. Wolkenberg. The Italian contribution to the NOMAD/TGO experiment.

Carbognani A. The Spin-Barrier Ratio for S and C-type Main Asteroids Belt

Cianfarra, P.; Rossi, C.; Salvini, F. MODELING THE TECTONICS OF THE MARS ICE CAP BY HYBRIC CELLULAR AUTOMATA (HCA) NUMERICAL METHOD.

D'Aversa E. , F. Oliva, G. Sindoni, T.C. Hinse, C. Plainaki, S. Aoki, M.J. Person, R.W. Carlson, and G.S. Orton A stellar occultation by Ganymede.

D'Aversa, E., Oliva, F., Sindoni, G., Altieri, F., Castelli, E., Liberti, G.L., Adriani, A., Piccioni, G., Grassi, D., Gilli, G., Snels, M. Exploiting planetary limb data in space-based multispectral datasets

Di Achille, G. GLOBAL MORPHOMETRIC SURVEY OF MARTIAN DELTAIC DEPOSITS: METHODS AND VALIDATION.

Dirri F. Basic design of sample container for transportation of extraterrestrial samples within a Sample Curation Facility (SCF) and between SCF and laboratories.

Franco L., P. Bacci, G. Baj, G. Casalnuovo, G. Galli, A. Marchini, A. Noschese, A. Valvassor3122 Florence: Analisi delle curve di luce e modello preliminare.

Galluzzi, V.; Guzzetta, L.; Mancinelli, P.; Giacomini, L.; Lewang, A.M.; Malliband,

C.; Mosca, A.; Pegg, D.; Wright, J.; Ferranti, L.; Hiesinger, H.; Massironi, M.; Pauselli, C.; Rothery, D.A.; Palumbo, P. The making of the 1:3M geological map series of Mercury.

Ivanovski S., A. Zinzi, M.T. Capria, M. Giardino, S. Erard, A. Longobardo, S. Fonte, L.A. Antonelli, V. Della Corte, A. Rotundi. MATISSE web-tool functions integration into VESPA-Europlanet 2020 infrastructure: real-time computation and visualization of aerodynamic coefficients for convex objects moving in a rarefied gas field.

Longobardo A., A. Zinzi, M.T. Capria, S. Erard, M. Giardino, S. Ivanovski, S. Fonte, E. Palomba, L.A. Antonelli. 3D visualization of planetary data: the MATISSE tool in the framework of VESPA-Europlanet 2020 activity.

Lucchetti, A., Pajola, M., Galluzzi, V., Giacomini, L., Carli, C., Cremonese, G., Marzo, G.A., Roush, T. Spectral clustering and geomorphological analysis of hollows on Mercury.

Masiero S., Di Martino M., Mogavero G. GAL Hassin - Centro Internazionale per le Scienze Astronomiche Isnello (PA) : La Ricerca

Masiero S., Di Martino M., Mogavero G. GAL Hassin - Centro Internazionale per le Scienze Astronomiche Isnello (PA) : Didattica e Divulgazione.

Micheli Observations campaigns at the ESA NEO Coordination centre.

Pace E. L. Naponiello, D. Trisciani, L. Betti, A. Biagini, R. Stanga, M. Focardi, M. Agostini. Fotometria di transienti e sorgenti variabili all'Osservatorio Polifunzionale del Chianti.

Piergentili F., F. Santoni Attività e strumenti del network di sorveglianza dedicato ai detriti spaziali dell'Università di Roma "La Sapienza".

Raponi A., M.C. De Sanctis, F.G. Carrozzo, M. Ciarniello, J. C. Castillo-Rogez, E. Ammannito, A. Frigeri, A. Longobardo, E. Palomba, F. Tosi, F. Zambon, C.A. Raymond, C.T. Russell. Mineralogy of Occator crater on Ceres.

Rizzi Fotometria di bolidi con la camera PRISMA di Castellana Grotte.

Schettino G., E. M. Alessi, A. Rossi, G. B. Valsecchi Frequency Characterization of Low Earth Orbit Dynamics.

Sindoni G., A. Geminale, F. Oliva, E. D'Aversa, F. Altieri, G. Bellucci, S. Aoki, A.

Mahieux, F. G. Carrozzo, D. Grassi, M. Giuranna. Retrieval dei Profili Verticali del Vapore Acqueo nell'Atmosfera Marziana utilizzando i Dati PFS / MEX.

Sindoni G., F. Tosi, A. Adriani, M. L. Moriconi, E. D'Aversa, D. Grassi, F. Oliva, G. Filacchione, B.M. Dinelli, E. Castelli, P. Cerroni. Analisi e Rimozione dell'Atmosfera di Titano dai dati di Cassini/VIMS-IR usando tecniche basate sul Trasferimento Radiativo (RT).

Taricco Cosmic-ray flux during the early 20th century inferred by the Sinnai H6 ordinary chondrite

Vaz, D.A.; Di Achille, G.; Hynek, B.M.; Nelson, W.; Williams, R.M.E. Global morphometric survey of Martian deltaic deposits: methods and validation.

Vedovato M., G. Adamoli Il progetto Jupos e l'atmosfera di Giove, esempio di collaborazione pro-am.

Vellutini The European Space Surveillance and Tracking (EUSST) Consortium