Science Organizing Committee

Luca Porcelli (Co-Chair)
Alice Stephant (Co-Chair)
Mahesh Anand
Ana Cernok
Francesca Esposito
Evelyn Fueri
Harald Heisinger
Alice Lucchetti
Matteo Massironi
Nicole Schmitz
Joshua Snape
Romain Tartese

ELS Oversight Committee

Mahesh Anand
Greg Schmidt
Kristina Gibbs
Ralf Jaumann
Patrick Pinet
Simone Pirrotta
Wim van Westrenen

ELS provisional program (subject to changes)

Notes

1. Each oral presentation is allocated a maximum of 12 minutes (including Q&As). Chairs will give a 2-minute warning at the end of 8 minutes. If the talk is not finished by 10 minutes, Chairs may remotely 'mute' the microphone of the speaker to allow time for any questions.
2. Each poster presenter has been allocated a maximum of 2 minutes and 30 seconds for introducing their poster through a lightning talk. The Chairs will give a warning at the end of 2 minutes so that the presenter can wrap up their talk in the next 30 seconds.
3. Each presenter is strongly encouraged to test their presentation with the SSERVI IT team ahead of the meeting (please contact Ricky.Guest@NASA.gov). Regardless, any time lost because of glitches, arising as a result of any action on part of the presenters will be taken out of their allocated time slot.
4. All presenters are strongly encouraged to prepare their presentation in PDF format, which might help in keeping the file size manageable, especially for online presentation.
5. All posters have to be e-mailed to the SSERVI IT team ahead of the ELS together with their accompanying lightning talks (two files per poster presenter).
6. If a session runs long, the break following the session will be shortened so that the next session begins on time.

Tuesday 12th May 2020

Central European Time (Paris, Rome, Berlin)	Presenter(s)	Title
17.45	Mahesh Anand and Luca Porcelli	WELCOME
Session 1: Future missions and Lunar exploration program Chair: Greg Schmidt		
18.00	Steve Clarke	NASA'S lunar discovery and exploration program
18.12	Lutz Richter	Lunar surface access service (LSAS) – Update on the first OHB-IAI commercial lunar lander mission
18.24	Robert Kelso	The Real Reasons We Explore Space and the Moon – We are today's Cathedral Builders
18.36	Francesco Sauro	Training astronauts for scientific exploration on planetary surfaces
18.48	Break – 12 min	
Session 2: Remote sensing – landing sites and mapping Chair: Wajiha Iqbal		
19.00	Elena Pettinelli	Comparison between shallow subsurface stratigraphy at CE-3 and CE-4 landing sites using high frequency Lunar Penetrating Radar data
19.12	Claudia Pöhler	A New Map of the South Pole-Aitken Basin including the South Pole
19.24	Sascha Mikolajewski	Moscoviense Basin: Potential Landing Site for Future Lunar Missions
19.36	Gloria Tognon	Exploring the lunar far side at Tsiolkovskiy crater
19.48	Gerald Patterson	Mini-RF S- and X-Band Bistatic Observations of the Moon
20.00	Emily Law	NASA MOON TREK applications in lunar exploration and science
20.12	Carle Pieters	Composition of Terrain at the Lunar South Pole
20.24	Break – 12 min	
Session 3: Remote sensing – Cratering and age dating Chair: Harald Hiesinger		
20.36	Harald Hiesinger	A fresh look at an old function: The lunar chronology
20.48	Maurizio Pajola	Surface density and size-frequency distribution of boulders in Linné crater's ejecta (Mare Serenitatis – Moon)
21.00	Wajiha Iqbal	New Geological Maps and Crater Size-Frequency Distribution Measurements of the Apollo 15 Landing site
21.12	Prasun Mahanti	Absence of ejecta rockiness in Copernican craters and implications to inferred model ages from rock-abundance
21.24	Jaclyn Clark	Unraveling the Mystery of Vallis Schröteri

Wednesday 13th May 2020 – 1st block

Central European Time (Paris, Rome, Berlin)	Presenter(s)	Title
Session 4: Samples and evolution of the Moon Chair: Ana Cernok and Joshua Snape		
13.00	Edward Baker	Mare Basalt Generation
13.12	Sabrina Schwinger	Constraints on the bulk silicate Moon FEO content from petrological and geophysical models
13.24	Andreas Bechtold	NWA 11962: A new lunar meteorite and its presumed source region/crater in the Procellarum KREEP terrane
13.36	Renaud E. Merle	New constrains on the timing and mantle sources of mafic magmatism from lunar meteorites
13.48	Ana Cernok	Pb-Pb and U-Pb Geochronology of shocked Apollo 17 Mg-suite phosphates
14.00	Joshua Snape	Dating basaltic impact melts from Apollo 14 and 16
14.12	Break – 12 min	
14.24	Alice Stephant	The importance of multi-phase analyses for ascertaining the history of lunar volatiles
14.36	Tara Hayden	Chlorine in brecciated lunar meteorite NWA 12593: Implications for lunar volatile history
14.48	Alexander Verchovsky	Quantitative evolved gas analyses of Apollo lunar samples
15.00	Brant Jones	Synthesis of Water from Intrinsic Solar Wind on the Moon
15.12	Thomas Orlando	Space weathering and volatile formation via simulated micrometeorite impact events
15.24	Samuel Halim	Assessing biomarker survival in terrestrial material impacting the lunar surface
15.36	Ryan Zeigler	Apollo Next Generation Sample Analysis: X-Ray Computed Tomography and Dissection of Sample 73002
15.48	James Mortimer	New measurements of the hydrogen isotopic composition of the bulk Apollo lunar soils
16.00	Break – 12 min	
Poster session 1: Future missions and Lunar exploration program Chair: Simone Pirrotta and Nicole Schmitz		
16.12	*Michelle Lavagna*	*Lunar X-ray and gamma-ray spectroscopy with miniaturized detector on cubesat platform (cancelled)*
16.15	*Matthias Killian*	*Automatic planning of rover traverses (cancelled)*
16.18	Erica Luzzi	Preparing for telerobotic geological exploration: Science Support for ESA's Analog-1 project
16.21	Sarah Boazman	Geological Investigation of the Lunar South Pole: Potential EVA Targets and Implications for Artemis 2024
16.24	Priyanka Das Rajkakati	EMMIHS-III: EUROMOONMARS- International Moonbase Alliance-HI-SEAS simulation campaign
16.27	Sabrina Ferrari	The FLY-Spec instrument working on the Lunar surface
16.30	Robert Kelso	Europe's commercial lunar lander ALINA: Innovations from planetary transportation systems (PTS)
16.33	John Hamilton	Hawai`i - High Fidelity Lunar Analog Field testing sites

Wednesday 13th May 2020 – 2nd block

Central European Time (Paris, Rome, Berlin)	Presenter(s)	Title
Session 5: Future missions and instrumentations **Chair: Simone Pirrotta**		
18.00	Simone Pirrotta	Italian cubesat for Moon and asteroid imaging: ARGOMOON and LICIACUBE
18.12	Francesco Topputo	Current Status of LUMIO: A CubeSat Mission at Earth-Moon L2
18.24	Lorenza Mauro	Testing gravity with Lunar Laser Ranging
18.36	Laura Rubino	Motor Control System of Laser Retroreflectors for the return to the Moon and beyond
18.48	Federico Tosi	MELODY: Moon multisEnsor and LabOratory Data analYsis
19.00	Martin Schuster	The ARCHES Moon-Analogue Demonstration Mission: Towards Teams of Autonomous Robots for Collaborative Scientific Sampling in Lunar Environments
19.12	Roberto Orosei	Perspectives for radar remote sensing of the Moon
19.24	Jack Burns	Exploring the low radio frequency universe from the farside of the Moon
19.36	Break – 24 min	
Session 6: Future missions and instrumentation - volatiles **Chair: Nicole Schmitz**		
20.00	Elliot Sefton-Nash	The ESA PROSPECT payload for LUNA 27: development status
20.12	James Mortimer	Experimentally Exploring Factors Affecting Water Ice Sublimation Rates to Inform Development of ESA's PROSPECT Package
20.24	Tristam Warren	The Oxford 3D thermophysical model with application to the lunar PROSPECT mission
20.36	Christian Gscheidle	Determining lunar regolith water content using permittivity measurements with the lunar volatiles scout
20.48	Simeon Barber	PITMS: an ion trap mass spectrometer for in-situ studies of the lunar water cycleon the NASA ARTEMIS CLPS PEREGRINE lander
21.00	Rachel Klima	Directly Measuring the Distribution of Surface Hydroxyl/Water on the Moon with Lunar Trailblazer
21.12	Fabrizio Dirri	VISTA: low mass and low power budget instrument for volatiles measurement and characterization of lunar dust charging and levitation processes
21.24	Mihaly Horanyi	In orbit exploration of resources in permanently shadowed lunar polar regions

Thursday 14th May 2020 – 1st block

Central European Time (Paris, Rome, Berlin)	Presenter(s)	Title
Session 7: Remote sensing and In Situ Spectroscopy - Geological implications **Chair: Federico Tosi**		
13.00	Jun Huang	Diverse rock types detected in the lunar south pole-Aitken basin by the CHANG'E-4 lunar mission
13.12	Shyama Narendranath	Lunar elemental abundances from X-ray spectroscopy: Chandrayaan-2 Large Area Soft X-ray Spectrometer
13.24	Alessandro Maturilli	MERTIS seeing the Moon in the TIR: results from the first BEPICOLOMBO flyby
13.36	Kerri Donaldson Hanna	Mapping the Composition of the Moon using Thermal Infrared Spectroscopy: Current and Future Observations
13.48	Break – 12 min	
14.00	Marie Henderson	Spectral Diversity of Explosive Volcanic Deposits in Schrödinger Basin with Moon Mineralogy Mapper Data
14.12	Patrick Pinet	Olivine detection and composition determination at the Copernicus and Eratosthenes craters
14.24	Katherine Shirley	Comparison of Simulated Lunar Environment Felsic Rock Emissivity to Gruithuisen Domes
14.36	Benjamin Greenhagen	Simulated Lunar Environment Experiments: Key to Interpretation of LRO Diviner and Future Thermal Infrared Datasets
14.48	Cesare Grava	Lunar Exospheric Helium Thermal Accommodation and Outgassing Rate Constrained From LRO-LAMP Observations of the HeI 58.4 nm Emission Line
15.00	Break – 20 min	
Poster session 2: Remote sensing **Chair: Harald Hiesinger**		
15.20	Lisa Gaddis	Kaguya Terrain Camera: Updated SPICE Kernels and New Processing Capabilities
15.23	Igor Drozdovskiy	Improving In-situ Recognition of Planetary Minerals through Custom Database and Classification Software
15.26	Carolyn van der Bogert	Samples needed for improving the lunar cratering chronology
15.29	Thorsten Gebbing	Crater Size-Frequency Distributions of North Ray and South Ray Craters near the Apollo 16 Landing Site
15.32	Cristian Carli	Proclus crater: a window into lunar Highlands
15.35	Wajiha Iqbal	New Geological Maps of the Apollo Landing sites
15.38	Riccardo Pozzobon	Geologic map. Landing site selection and traverse planning in Copernicus crater

Thursday 14th May 2020 – 2nd block

Central European Time (Paris, Rome, Berlin)	Presenter(s)	Title
Session 8: Lunar simulants **Chair: Alexandre Meurisse**		
18.00	Hannah Sargeant	An evaluation of lunar simulant and meteorite as a proxy for lunar regolith for in situ resource utilization experiments
18.12	Simon Stapperfend	Laser melting of lunar regolith simulant under different gravity conditions using the MOONRISE-Payload
18.24	Michelle Lavagna	NU-LHT-2M lunar simulant characterization and reactivity modelling for resources extraction
18.36	Alexandre Meurisse	Molten salt electrolysis of lunar soil simulants
18.48	Break – 12 min	
Session 9: ISRU **Chair: Mahesh Anand**		
19.00	Carolyn van der Bogert	Selecting landing sites for in situ resource utilization missions
19.12	Kristen Bennett	Lunar pyroclastic deposits as potential resources
19.24	David Kring	Exploring the Consequences of Ballistic Sedimentation on Potential South Polar Ice Deposits on the Moon
19.36	Aidan Cowley	Spaceship EAC activities for novel oxygen production ISRU and purification
19.48	Daniel Andrews	VIPER: Pathfinding in-situ resource utilization
20.00	Sungwoo Lim	A microwave heating demonstrator (MHD) payload concept for lunar construction and volatile extraction
20.12	Isacco Pretto	Lunar ISRU demonstration mission phase-A: Payload for extraction of oxygen from the regolith
20.24	Break – 20 min	
Poster session 3: ISRU and lunar simulants **Chair: Alexandre Meurisse and Mahesh Anand**		
20.44	Hannah Chinnery	Sample containment for in situ analysis on the Moon: testing sealing materials in the presence of dust
20.47	Simeon Barber	i-DRILL: Surface and sub-surface profiling of lunar volatiles and resources by an instrumented drill
20.50	Eóin Tuohy	Investigating surface tension phenomena of molten lunar regolith simulant in vacuum
20.53	David Vogt	VOILA: Laser-Induced Breakdown Spectroscopy (LIBS) for the Detection of Volatiles in the Lunar Polar Region
20.56	Sungwoo Lim	Investigation of micro-textures and strengths of microwave heated samples of lunar simulants JSC-1A under different input powers
20.59	*Thomas Orlando*	*Transport and chemical equilibrium modeling for ISRU applications (cancelled)*
21.02		Conference Ends by 21.30 (14.30)