2026 PLANETARY SCIENCE TECHNOLOGY VIRTUAL WORKSHOP

NASA PLANETARY EXPLORATION SCIENCE TECHNOLOGY OFFICE

DAY ONE | TUESDAY, DECEMBER 1, 2026

WELCOME · 10:00 am – 10:10 am	
Erica Montbach NASA Planetary Exploration Science Technology Office	*Welcome and opening remarks*
KEYNOTES · 10:10 am – 11:25 am	
Lindsay Hays NASA Planetary Science Division	*Director, Planetary Science Division, Science Mission Directorate*
Q&A	
Carolyn Mercer NASA Science Mission Directorate	*Chief Technologist, Science Mission Directorate*
Q&A	
Erica Montbach NASA Planetary Exploration Science Technology Office	*Mars Exploration Program Technology Development, Science Mission Directorate*
Q&A	
COMPOSITION & SPECTROSCOPY · 11:25 am – 12:45 pm	
David Blake Adjunct Professor / University of Hawai'i / Hawai'i Institute of Geophysics and Planetology	*In-Situ X-ray Instrumentation for Mineral Identification and Elemental Imaging*
Kurt Retherford Southwest Research Institute	*Lunar Raman Deep Ultraviolet Visible Spectrograph (DUVIS) Concept*
Julie Brisset University of Central Florida	*Mid-IR absorption made easy: detection of minerals and organics in-situ*
Roger Wiens Purdue University	*New Evolving LIBS Capabilities for Ultralight Instruments for Geochemical and Icy Regolith Characterizations*
Rebecca Schindhelm BAE Systems	*A Selective High-Resolution Metamaterial Filter for Infrared Spectroscopy*
Ryan Blasé Southwest Research Institute	*Automated Lander Planetary Analog Composition Analyzer (ALPACA)*
Q&A	
POSTER SESSION & LUNCH · 12:45 pm – 1:30 pm	
Room 1 · Stone & Neveu	Bill Stone (Stone Aerospace, Inc.), Marc Neveu (NASA Goddard Space Flight Center)
Room 2 · Renno & Ono	Nilton O. Renno (University of Michigan), Hiro Ono (Georgia Institute of Technology)
SAMPLING · 1:30 pm – 2:30 pm	
Kate Craft JHU Applied Physics Lab	*Search-for-Life Instrumentation Study*
Anna Butterworth UC Berkeley	*Enceladus Plume Capture*
Kathryn Bywaters Honeybee Robotics	*Instrumentation for In-Situ Surface and Subsurface Lunar Science*
Tony Ricco NASA Ames Research Center	*Aqueous and Organic-Based Sample Processing Systems: Enabling Search-for-Life and Habitability Assessments*
Q&A	
BREAK · 2:30 pm – 2:40 pm	
MOBILITY & AUTONOMY · 2:40 pm – 4:00 pm	
Ryan Watkins Jet Propulsion Laboratory	*GenAI for Spacecraft Design and Development: A PESTO Study*
Hari Nayar Jet Propulsion Laboratory / California Institute of Technology	*ERNEST Autonomous Mobility with Reinforcement Learning*
Nisar Ahmed Dept. Aerospace Engineering Sciences / University of Colorado Boulder	*Active Inference Meets Formal Methods: Exploration with High-latency, Low-bandwidth Communication*
Yashwanth Kumar Nakka Georgia Institute of Technology	*Collaborative Autonomy for Planetary Exploration*
Justin Lawrence Honeybee Robotics / Blue Origin	*Commercial Rovers for Planetary Science: From CLPS Lunar Missions to Mars*
Gecheng Zha CoFlow Jet Aerospace, Inc,	*Mars Aerial and Ground Global Intelligent Explorer (MAGGIE)*
Q&A	
BREAK · 4:00 pm – 4:10 pm	
MAPPING · 4:10 pm – 5:20 pm	
Daniel Cremons NASA Goddard Space Flight Center	*Demonstration of a Tunable Infrared Spectroscopic Imaging Lidar (TINSIL) for 4D Volatile Mapping at Kilometer Ranges*
Anup Katake Jet Propulsion Laboratory	*ELSA — Exploration Lidar Sensor Assembly*
Sean Gulick University of Texas at Austin	*Radar Mapping on the Moon: Adding the Third Dimension to Lunar Prospecting*
Erwan Mazarico NASA Goddard Space Flight Center	*Swath-Mapping Lidar for Lunar Exploration and Science (SMiLES)*
Paul Lucey University of Hawaii	*SpIRRL: Spectroscopic Infrared Reflectance LIDAR*
Q&A	
CLOSE OF DAY ONE · 5:20 pm – 5:30 pm	

All times are Eastern. Questions to HQ-PESTO@mail.nasa.gov.

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DAY TWO | WEDNESDAY, DECEMBER 2, 2026

WELCOME · 10:00 am – 10:10 am	
Michael Lienhard NASA Planetary Exploration Science Technology Office	*Welcome and opening remarks*
KEYNOTES · 10:10 am – 11:25 am	
Audrey Morris Eckart NASA Human Spaceflight Mission Directorate	*Moon Base: Strategic Investments to Close Architecture Gaps*
Q&A	
Maxwell Briggs NASA Innovation Program Office	*RTMD Innovation Program Office Overview*
Q&A	
Brad Bailey NASA Exploration Science Strategy Integration Office	*Exploration Science Strategy and Integration Office, Science Mission Directorate*
Q&A	
COMPOSITION & SPECTROSCOPY · 11:25 am – 12:45 pm	
Goutam Chattopadhyay NASA Jet Propulsion Laboratory, California Institute of Technology	*Ultra-Compact Terahertz Instruments for Planetary Observations*
Jorge Núñez Johns Hopkins University Applied Physics Laboratory	*The Advanced Multispectral Infrared Microimager (AMIM): A new tool for future in situ exploration of the Moon and Beyond at the Microscale*
Mauricio Ayllon Unzueta Lawrence Berkeley National Laboratory	*An In-situ Nuclear Spectrometer with 3D Resolution*
Craig Hardgrove Arizona State University	*Compact Gamma-Ray and Neutron Spectrometers: From Lunar Flight to Field Prospecting*
David Blewett JHU Applied Physics Lab	*Mahina Multispectral Imager: Snapshot Camera for the Moon and Beyond*
Patrick Gasda Los Alamos National Laboratory	*Luminescence spectroscopy on the Moon and Mars*
Q&A	
POSTER SESSION & LUNCH · 12:45 pm – 1:30 pm	
Room 1 · Peretz, Hunter & Spiers	Eliad Peretz (NASA), Gary Hunter (NASA Glenn Research Center), Elizabeth Spiers (UT Austin - Institute for Geophysics)
GEOPHYSICS · 1:30 pm – 2:30 pm	
Hannes Kraus Jet Propulsion Laboratory	*Magnetometer Science and Instrument R&D at JPL*
Justin Atchison Johns Hopkins Univ. Applied Physics Laboratory	*OpGrav - Precise Small Body Mass Measurements during High-Speed Flybys*
Daniella DellaGiustina University of Arizona	*The Seismometer to Investigate Interior Asteroid Structure (SIIAS)*
Romy Hanna University of Texas at Austin	*X-ray Computed-Tomography Imager for Targeted Exploration in 3D (XCITE3D)*
Q&A	
BREAK · 2:30 pm – 2:40 pm	
ENTRY, DESCENT & LANDING (EDL) · 2:40 pm – 3:40 pm	
Aaron Brandis NASA Ames Research Center	*Entry and Descent Model and Technology Development for Science Missions*
Michael Wright NASA Ames Research Center	*SMD Relevant EDL Technology Investments in the RTMD/LAND portfolio*
Ethiraj Venkatapathy NASA Ames Research Center	*Entry System Technologies*
Soumyo Dutta NASA Langley Research Center	*Global Reference Atmospheric Model (GRAM)*
Q&A	
ATMOSPHERES & VOLATILES · 3:40 pm – 4:35 pm	
Jason Kriesel OKSI	*Lunar Capillary Absorption Spectrometer (LuCAS) demonstrating sensitive volatile abundance and isotope analysis*
Scot Rafkin Southwest Research Institute	*The Saturn Composition Tunable Laser Spectrometer (SCTLS) Concept*
James B Abshire University of Maryland and NASA Goddard	*Mini-MARLI, a small lidar for measuring atmospheric wind and aerosol profiles from Mars Orbit*
Joel F. Campbell NASA Langley Research Center	*Two micron differential absorption lidar for pressure measurement on Mars*
Q&A	
BREAK · 4:35 pm – 4:45 pm	
POWER · 4:45 pm – 5:45 pm	
Jaymon Birch NASA Radioisotope Power Systems	*Radioisotope Power Systems (RPS) for Planetary Exploration: Current Capabilities and Future Developments*
Gilly Elor Stone Aerospace	*Power over Fiber to Enable a Lunar Underground eXplorer (LUX)*
Dean Bergman Honeybee Robotics, a Blue Origin Company	*Development of a 10 kW Power Tower system for Moon Base*
Scott Schaire NASA Goddard Space Flight Center	*Heliophysics Technologies Accelerating NASA's Moon Base and Planetary Exploration*
Q&A	
CLOSE AND PROGRAM OFFICER DISCUSSION · 5:45 pm – 5:55 pm	

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POSTER SESSION | BREAKOUT ROOMS

DAY ONE · TUESDAY, DECEMBER 1, 2026

ROOM 1 · STONE & NEVEU	
Bill Stone Stone Aerospace, Inc.	*TVAC-Radiation Tests on Survival of Microbes in Europan and Enceladan Ices*
Marc Neveu NASA Goddard Space Flight Center	*Planetary Ice Plume Simulator Development*

ROOM 2 · RENNO & ONO	
Nilton O. Renno University of Michigan	*Using passive electromagnetic signals to detect sub millimeters orbital debris and micro meteoroids*
Hiro Ono Georgia Institute of Technology	*AI-driven Adaptive Planetary Mobility for the Moon, Mars, and Beyond*

DAY TWO · WEDNESDAY, DECEMBER 2, 2026

ROOM 1 · PERETZ, HUNTER & SPIERS	
Eliad Peretz NASA	*ZODIAC-Technology Development in Support of Capturing Celestial Dust and Meteorites*
Gary Hunter NASA Glenn Research Center	*A Lunar Instrument Package for Surface Radiation Mapping and Active ISRU Prospecting*
Elizabeth Spiers UT Austin - Institute for Geophysics	*Accessing the Alien Abyss: Charting a Course for Europa & Enceladus Ocean Exploration*