

POSTER SESSION #1 - July 8 @ 13:25 pm PT

SSERVI Number	Name	Title
Astrophysics & Heliophysics		
NESF2020-001	Richard Mebane *	Studying the Universe's First Stars with Lunar Radio Telescopes
NESF2020-002	Richard Bradley	A Patch Antenna Concept for the Lunar-Orbiting DAPPER Spacecraft
NESF2020-003	Adam Trapp *	Optimizing Lunar Radio Telescopes: Reliable Extrapolations of the First Generations of Galaxies
NESF2020-004	Neil Bassett *	Devising Robustness Tests for Lunar-based Global 21-cm Experiments
Planetary Analog Studies for Science, Ops, Tech and Exploration		
NESF2020-005	Ernest Bell*	Correlating Magnetic Anomalies and Geomorphology of Terrestrial Lava Tubes as an Analog for Lunar Prospecting
NESF2020-006	Stephen Scheidt	Integration of Low Altitude Aerial Systems Data into Field Operations for Planetary Analog Surface Exploration
NESF2020-007	Foivos Karakostas	Investigation of Seismic and Infrasound Waves, Generated by an Airburst Near Qaanaaq, Greenland
NESF2020-060	Michaela Musilova	HI-SEAS Lunar Simulations: Plans and Progress
Instrument development concepts for in orbit and on the surface exploration of airless planetary bodies		
NESF2020-008	Alexander Hegedus	Imaging Magnetospheric Transient Emissions with a Lunar Nearside Radio Array
NESF2020-009	Xu Wang	Development of Electrostatic Dust Analyzer (EDA) for Characterizing Dust Transport on Lunar Regolith
NESF2020-010	Ernesto Palomba	Vista Instrument for Organics and Volatiles Characterization of Asteroids Regolith and Cometary Dust by Using TGA Technique
NESF2020-011	Jeffrey Gillis-Davis	Moon Dust Particulate Matter Analyzer
NESF2020-012	Kevin Walsh	Instrumented Impactors and Probing Bed Depth with Impact Penetrometry
Lunar Exploration & Destination Drivers		
NESF2020-013	Ramin Lolachi	Optical Monitoring of the Dust Environment at Lunar Surface Exploration Sites
NESF2020-014	Ryan Wall	Science Leveraged by a Human Lunar Presence
NESF2020-015	Sal Oriti	Dynamic Radioisotope Power Systems Development Status and Path to Flight
NESF2020-016	Aaron Curtis	Orthophoto Mosaic, Elevation Mosaic, and Hazard Analysis Package for a Potential Lacus Mortis Landing Site Produced as Part of Moon Trek
NESF2020-017	Angela Stickle	Don't Judge the Moon by its Cover: Getting Below The Surface With Mini-RF
NESF2020-018	Stephen Robinson	Helmet-mounted Radiation Attenuation for Astronaut Brains
ISRU		
NESF2020-019	Ashley Clendenen *	Concentrated Solar Driven In-Situ Resource Utilization on the Moon
NESF2020-020	Jennifer Heldmann	Overview of NASA's SSERVI RESOURCE (Resource Exploration and Science of OUR Cosmic Environment) Project
Robotics		
NESF2020-021	Michael Walker *	Mixed Reality Interfaces for the Moon and Beyond: Advancing Surface Telerobotic Interfaces in the NASA Artemis Program
NESF2020-022	Mason Bell *	Implementing an Augmented Reality User Interface for Future Lunar Telerobotic Assembly Experiments.
Origin and evolution of the solar system as encoded in the Moon, asteroids, Phobos, and Deimos		
NESF2020-023	Jan Deca	Simulating the Reiner Gamma Swirl and Magnetic Anomaly: The Impact of the Solar Wind Alpha Population
NESF2020-024	Anthony Lagain	Missions Need Maps: Towards a Global Age for Mars and the Moon at Ultimate Resolution
Geology/Geophysics/Geodynamics		
NESF2020-025	Sajad Jazayeri	Detection of Lava Tubes Using Ground Penetrating Radar
NESF2020-026	Jordan Young *	Convolutional Neural Network Models for Ordinary Chondrite Petrologic Type Classification
NESF2020-027	Jacob Richardson	Magnetic Surveys to Probe the Lunar Subsurface

NESF2020-028	Bradley Jolliff	Photometric Investigations of Lunar Anorthositic Highlands using LROC NAC Images and Derived Data
NESF2020-081	Gavin Tolometti *	Studying Lunar Lava Flow Emplacement by Quantifying the Surface Roughness of the Holuhraun Lava Flowfield
Geochemistry and Petrology		
NESF2020-029	Mehmet Yesiltas	Chemical Content and Molecular Variations in the Didim (H3-5) Meteorite Revealed by MicroRaman and NanoFTIR Spectroscopy
NESF2020-030	Marina Gemma *	Multi-Dimensional Characterization of Mineral Abundance in Ordinary Chondrite Meteorites
Dust and Regolith		
NESF2020-031	Pedro Montalvo *	Regolith mixing in Permanently Shaded Regions in the Lunar South Pole, Inferring the Distribution of Water Ice
NESF2020-032	Benjamin Farr *	Experiment of Dust Mitigation for Lunar Surface Exploration
NESF2020-033	Noah Hood *	The Effect of Magnetic Fields on Electrostatic Dust Lofting
NESF2020-034	Rhushik Chandrachud *	'LUNAFILT' Mechanism for the Filtration of Lunar Dust
NESF2020-035	Micah Schaible	Electrostatically Charged Dust Grain Interactions with Phospholipid Bi-layers
NESF2020-036	Anthony Carroll *	Laboratory Measurements of Initial Launch Velocities of Electrostatically Lofted Dust Particles on Airless Bodies
NESF2020-037	Ryan Galinkin *	Estimating Surface Porosities of Analog Samples Using Microscopic Imaging Analysis
Volatiles		
NESF2020-038	Caitlin Ahrens *	Focusing on the Water Ice Crystallization from Surface Thermal Flux in Lunar Permanently Shadowed Craters using LRO Diviner
NESF2020-039	Brant Jones	Experimental Determination of Water Binding Energies on Lunar Regolith
NESF2020-040	Chiara Ferrari-Wong*	Infrared Spectra of Lunar Polar Relevant Hydrocarbons and Brines
NESF2020-041	Ariel Deutsch	Assessing the Roughness Properties of Circumpolar Lunar Craters: Implications for the Timing of Water-ice Delivery to the Moon
NESF2020-042	Kristen Luchsinger *	Pushing the Boundaries of Lunar Ice: Vertical Volatile Transport in Seasonally Shadowed Regions
NESF2020-043	Charles Hibbitts	Understanding Water in the Surfaces of Airless Bodies Through Laboratory Measurements of the 3- and 6-micron Absorption Features
Withdrawn	Georgiana Kramer	Improving the Moon Mineralogy Mapper Thermal Model via Validation with HRI-IR
NESF2020-045	Samuel Potter *	Large-scale Thermal Modeling at the Lunar South Pole
NESF2020-046	Abigail Flom *	Hydration Observations of Reiner Gamma Lunar Swirl in Partial Eclipse
NESF2020-047	William Kaden	Single Crystalline Thin-films as Models for Water Evolution from Mineralogically Relevant Protonated AL-O-SI Sites
NESF2020-048	Joseph Lazio Lazio	Enabling Science at the Moon: The Lunar Space Internet
NESF2020-049	Anthony Rasca	Modeling the Lunar Wake Response to a CME Using a Hybrid-PIC Model
NESF2020-050	Quentin Nenon	Asymmetric Ion Bombardment and Weathering of the Martian Moon Phobos
NESF2020-051	David Glenar	Optical Detection of the Lunar Impact-Generated Dust Ejecta Cloud by LRO/LAMP
Withdrawn	Joseph Samaniego *	A Double Hemispherical Probe for the Advancement of In Situ Plasma Measurements
NESF2020-053	Sanlyn Buxner	Lessons Learned From 10 Years of International Observe the Moon Night Evaluation
NESF2020-054	Alexandra Matiella Novak	Resources Science Activation and Public Engagement - Partnership with Howard University

* Denotes Student

POSTER SESSION #2 - July 10 @ 7am PT

SSERVI Number	Name	Title
Astrophysics & Heliophysics		
NESF2020-055	Keith Tauscher *	Measuring the 21-cm Global Signal from the Lunar Farside using Polarization and Time-dependence
NESF2020-056	Nivedita Mahesh *	Are Non Co-located Linearly Polarized Antennas Advantageous for FAR SIDE?
NESF2020-057	Cassandra Armstrong *	Apollo Surface Magnetic Field Data: Statistical Variability and Dependence on Solar Wind Conditions
Planetary Analog Studies for Science, Ops, Tech and Exploration		
NESF2020-058	Marcella Yant	Project ESPRESSO: Exploration Roles of Handheld LIBS for Field Geology on Earth and Planetary Surfaces at the Palisades Sill
NESF2020-059	Doyeon Kim	Obtaining Robust Seismic Constraints from Planetary Explorations: The Full Waveform Perspective
NESF2020-061	Alexandra Matiella Novak	Virtual Reality Enabled Exploration of Planetary Surface Analogs - Kings Bowl Volcanic Terrains
Instrument development concepts for in orbit and on the surface exploration of airless planetary bodies		
NESF2020-062	Keith Nowicki	Instrument Design and First Data from the 3d Printed Cruciform Tunable Heterodyne Raman Spectrometer
NESF2020-063	William Goode *	Collecting and Analyzing Surface Material from Permanently Shadowed Regions on the Moon Using an Orbiting Dust Telescope
NESF2020-064	Gerardo Dominguez	Characterizing Lunar Volatiles with Isotopic Precision Using Cavity Ring-down Spectroscopy
NESF2020-065	Mary Beth Wilhelm	ExCALIBR: An Instrument for Uncovering the Origin of the Moon's Organics
Lunar Exploration & Destination Drivers		
NESF2020-066	Michael Barker	Improved LOLA Elevation Maps for South Pole Landing Sites: Error Estimates and Their Impact on Illumination Conditions
NESF2020-067	Thomas Marshall Eubanks	Exploration of the Lunar Plasma Environment Using Long Wave Radio
NESF2020-068	Yuqi Qian *	Geological Characterization of the Young Mare Basalts in Chang'e-5 Mission Landing Region, Northern Oceanus Procellarum
NESF2020-069	Ugur Guven	Utilization of Nuclear Power for Moon Outposts: Nuclear Power Generation Using Helium Cooled Reactors for Lunar Outposts
NESF2020-070	Ziyu Huang *	Dusty Spacesuit Charging/Discharge and Its Effects on Spacesuit Material Property
NESF2020-071	Kevin Cannon	Bringing the Lunar Shadowed Regions to Light with Real Time Rendering in Unreal Engine
ISRU		
NESF2020-072	Joshua Dunham	Project Athena - Mission To Implement Mars ISRU Habitat - Mission Design: Orbits & Propulsion, Earth Communications, Internal Habitat, Architect Point-of-Contact
NESF2020-073	Gavin Tolometti *	Using Temperature Constraints to Identify Potentially Traversable Permanently Shadowed Regions at the Lunar South Pole
Human Research & Performance		
NESF2020-074	Ashley Royce	SPACE-VEST
NESF2020-075	Zach Seibers	Tailoring Polymer Composites for Space Travel: Realizing Electrically Conductive Polymer Composites Through Reinforcement with Chemically Modified Reduced Graphene Oxide
Origin and evolution of the solar system as encoded in the Moon, asteroids, Phobos, and Deimos		
NESF2020-076	Orenthal Tucker	Lifetime of a Transient Atmosphere Produced by Lunar Volcanism
NESF2020-077	Akbar Whizin	The Particle Accretion in Microgravity Free-Float Experiment: Protoplanetary Aggregate Formation
Geology/Geophysics/Geodynamics		
NESF2020-078	Vishnu Viswanathan	Science Opportunities for Lunar Retro-reflectors
NESF2020-079	Aisha Khatib *	Active-Source Seismology Using Astronaut Surface Operations During the Apollo 11 Mission

NESF2020-080	Faith Vilas	Comparison of EUV Reflectance Spectra from Mercury and the Moon
Geochemistry and Petrology		
NESF2020-082	Cyril Opeil	Linear Thermal Expansion of CM2 Carbonaceous Chondrites
NESF2020-083	Jordan Young *	Probing Aqueous Alteration of Carbonaceous Chondrites via Carbonate Clumped Isotope and Raman Carbon Thermometry
Dust and Regolith		
NESF2020-084	Zach Ulibarri *	On the Genesis and Detectability of Organic Chemistry in Hypervelocity Impact Ice Spectra
NESF2020-085	Alejandro Soto	Development of Novel Instrumentation for Impact Experiments
NESF2020-086	Ian Dowding *	Simulated Space Weathering: Interaction Between Micron Sized SiO Particles on a Reduced Graphene Oxide Polymer Composite Target at High Velocities and Strain Rates
NESF2020-087	Keith Nowicki	Experimental Tradeoffs of Minimalized Laser Tomography for Large and Small Particle Size Parameters using GRAVETAS
NESF2020-088	Melissa Lane	Finalizing the TREX Fine-particle Spectral Library of Minerals (UV-VNIR-MIR in Reflectance, Emission, Raman) and Preparing to Receive Meteorite Samples
NESF2020-089	Katerina Slavicinksa*	Spectral Effects of Carbon-bearing Species during the Space Weathering of Airless Bodies
NESF2020-090	John Keller	Laboratory Analysis of Neutral and Ion Sputtering of Lunar Soils
Volatiles		
NESF2020-091	Elliot Frey *	Graphene-Based Electrical Resistance Device for Neutron Dosimetry
NESF2020-092	Menelaos Sarantos	The Boundary Conditions for Alkali Exospheres Around Mercury and the Moon
NESF2020-093	Micah Schaible	The Role of Photon Stimulated Desorption in the Formation of a Sulfur Exosphere at Mercury
NESF2020-094	Staci Tiedeken	International Observe the Moon Night: An Opportunity for Global Outreach
NESF2020-095	Kirby Runyon	Teaching Analog Lunar Field Geology to Undergraduates
NESF2020-096	Alexandra Matiella Novak	2020 Solar System Exploration Public Engagement Institute
NESF2020-097	Alex Parker	Low-Cost Tactile Interfaces for Non-Visual Exploration of Planetary Datasets
NESF2020-098	Sanlyn Buxner	TREX Public Engagement and Online Efforts to Support Communities Virtually
NESF2020-099	Thomas Burbine	Reflectance Spectra of Rarer Meteorite Types
NESF2020-100	Ryota Nakano *	Mass Shedding Activities of Asteroid (3200) Phaethon Enhanced by Its Rotation
NESF2020-101	Deborah Domingue	The Spectrophotometric Properties of Ryugu's Regolith as Seen at Opposition by the NIRS3 Onboard Hayabusa2
NESF2020-102	Javier Licandro	Visible Spectroscopy of NEAs in the Framework of the ESA-SSA P3NEOI Program
NESF2020-103	Vanessa Lowry *	Linear Unmixing Of Fine Particulate Materials: Implications For Compositional Analyses Of Primitive Asteroids
NESF2020-104	Laura Breitenfeld *	Evaluating CM Chondrite Compositions Using MIR Spectra Of Mineral Mixtures and Multivariate Analysis
NESF2020-105	Jian-Yang Li	Disk-integrated Thermal Properties of Ceres Measured at Millimeter Wavelengths
NESF2020-106	Eleanor Sansom	A Global Fireball Observatory

* Denotes Student