

Wednesday, October 21, 2015
POSTER SESSION
5:00 p.m. Education Gallery

Farrell W. M. Killen R. M. Delory G. T. Bleacher L. V. SSERVI DREAM2 Team
[DREAM2 at 2 Years](#) [#2038]

Summary of the SSERVI DREAM2 team results that apply to resource prospecting and dynamics at the Moon and other airless bodies.

Clark P. E. Himwich Z. M. Natarajan A. M. Vo H. N.
[Science Payloads and Advanced Concepts for Exploration \(SPACE\) Tool](#) [#2010]

We have developed an online CubeSat design tool, geared towards deep space exploration based on a specific mission requirement. With the development of this tool, we hope to move towards a standardization of the CubeSat paradigm.

Estrada J. J.
[The ELASCA Project: A Proposed Lunar Analog Construction Simulation](#) [#2030]

Presentation of the ELASCA Project: A lunar analog construction simulation designed to test, research, and develop strategies for overcoming the logistical challenges of building on the Moon.

Mardon C. Mardon A. A. Fawcett B. G.
[The Use of Side-Looking Airborne Radar in the Discovery of Meteorites in the Antarctic](#) [#2024]

An examination of the various historical uses of radar in locating Antarctic meteorites and suggestions about potential future uses.

Gaddis L. R. Hare T. Lawrence S. Stopar J. Skinner J. Hagerty J.
[A New Era of Exploration of Lunar Alphonsus Crater](#) [#2056]

This is a summary of new remote sensing data that supports in-situ exploration of pyroclastic deposits in Alphonsus crater.

Nagihara S. Nakamura Y. Taylor P. T. Williams D. R.
[Restoration of 1975 Apollo Heat Flow Experiment Thermocouple Data from the Original ALSEP Archival Tapes](#) [#2019]

Data from the only in-situ measurements of lunar heat flow were not fully processed at the conclusion of the Apollo program. This study attempts to restore the previously unprocessed portion of the data from the original ALSEP archival data tapes.

Dunlop. D. Holder. K.
[An Evolved International Lunar Decade Global Exploration Roadmap](#) [#2016]

An Evolved Global Exploration Roadmap (GER) reflecting a proposed International Lunar Decade is presented by an NSS chapter to address many of the omissions and new prospective commercial mission developments since the 2013 edition of the ISECG GER.

Neumann G. A. LRO and GRAIL Teams
[The Size of Lunar Impact Basins Determined by Gravity and Topography Data](#) [#2071]

The identification and scale of lunar basins is reassessed in the light of the topography and gravity from the Lunar Reconnaissance Orbiter and GRAIL missions.

Peplowski P. N. Beck A. W. Lawrence D. J.
[Distribution of Plagioclase-Rich Materials in the Lunar Highlands as Inferred from Lunar Prospector Thermal Neutron Measurements](#) [#2054]

We calibrate Lunar Prospector neutron data in terms of bulk composition, and infer the distribution of plagioclase in the feldspathic highlands terrane. Results are consistent with locations of PAN, and support complex crustal formation processes.

Stopar J. D. Robinson M. S. Denevi B. W. Lawrence S. J.

[LROC NAC Photometry: Preliminary Results and Relative Reflectance of Small Impact Melt Deposits](#) [#2063]

LROC NAC photometry suggests that the low-reflectance deposits (often interpreted as impact melt) at many small, fresh craters may simply be low in reflectance relative the continuous ejecta and are similar in reflectance to more distal materials.

Zimmerman M. I. Farrell W. M. Poppe A. R.

[Micromagnetosphere Formation on the Moon](#) [#2049]

Kinetic simulations of the solar wind's interaction with lunar crustal magnetic fields reveal formation of micromagnetospheres where ions are deflected by strong electric fields. Future missions should measure magnetic field structure at the ground.

Wilson J. K. Schwadron N. Spence H. E. Jordan A. P. Looper M. D. Townsend L. W.

[Shallow Lunar Hydrogen and Forward-Scattered Albedo Protons](#) [#2064]

The CRaTER instrument on LRO has tentatively identified a thin layer of hydrogen in the lunar regolith, and is conducting a separate series of tests to verify the discovery.

Eppler D. B.

[Yet Another Lunar Surface Geologic Exploration Architecture Concept \(what, again?\): A Senior Field Geologist's View](#) [#2028]

Lunar geological exploration should be founded on key elements that form an integrated operational concept, including mission class, crew makeup and training, surface mobility assets, and field tools and IT assets.

Eubanks T. M. Maccone C. Radley C. F.

[Lunar Farside Radio Astronomy Base Facilitated by Lunar Elevator](#) [#2014]

Dr. JD-Wörner, DG of ESA intends to align ESA to develop a "Moon Village" on the far side for radio astronomy and other purposes. This would encourage new infrastructure reducing transport costs. A lunar lift greatly facilitates this vision.

Gulick S. P. S. Morgan J. V.

[IODP-ICDP Expedition 364: Drilling the K-Pg Impact Structure](#) [#2084]

Scientific drilling of the Chicxulub impact structure is scheduled for April 2016. A 1500-m hole (Chicx-03A) will be drilled offshore that will penetrate the crater's peak ring.