

Tuesday, September 14, 2010
and
Wednesday, September 15, 2010
POSTER SESSION
6:00 p.m. Columbia Ballroom II

*How Can Data from Lunar Missions Be Used
to Develop Future Concepts for Lunar and Solar System Exploration?*

Cooper J. F. King J. H. Papitashvili N. E. Hills H. K. Lipatov A. S.
[Lunar Surface Origins Exploration \(LUNASOX\): Virtual Observatory Facility for Solar Wind Plasma Interactions with the Moon](#) [#3059]

Head J. W.
[Lunar Orientale Basin: Integrated Lunar and Planetary Exploration](#) [#3045]

Li R. Wang W. He S. Hwangbo J. W. Chen Y. Tang P. Meng X. Choung Y. Lawver J.
Thomas P. Robinson M. Rosiek M. LROC Team
[Precision Photogrammetric Modeling of LROC NAC Cameras and Topographic Products](#) [#3038]

Mattson S. Archinal B. Beyer R. Edmundson K. Gaskell B. Haase I. Howington-Kraus E. Li R.
Mastrodemos N. McEwen A. Moratto Z. Oberst J. Ojha L. Ortiz A. Robinson M. Rosiek M.
Scholten F. Tran T. LROC Team
[High Resolution Topography from LROC-NAC Geometric Stereo Images](#) [#3066]

Miura Yas.
[Expected Storages of Nano-Diamonds and/or Diamonds in the Lunar Rocks](#) [#3013]

Sarantos M. Killen R. M. Glenar D. Stubbs T. J.
[Prospects for the Detectability of Lunar Exospheric Refractories by LADEE Ultraviolet-Visible Measurements](#) [#3060]

Zhou G. Mardon A. A.
[Lunar Exploration Factors for Consideration](#) [#3010]

Zhou G. Mardon A. A.
[Structural Mechanics in Lunar Design and Construction](#) [#3002]

*What are the Recent Breakthroughs in Lunar Science?
How Do They Influence Future Lunar and Solar System Robotic Missions?*

Litvak M. L. Mitrofanov I. G. Sanin A. B. Tretyakov V. I. Kozyrev A. S. Malakhov A. V. Mokrousov M. I.
Vostrukhin A. A. Golovin D. V. Varenikov A. B. Shvecov V. N. Boynton W. V. Harshman K. Sagdeev R. Z.
Milikh G. Chin G. McClanahan T. Trombka J. Starr R. Evans L. Shevchenko V. V.
[Verifying the LEND/LRO Capabilities in Flight and on the Ground](#) [#3042]

Miller R. S. Gubarev M. V. Lawrence D. J. Ramsey B. D. Souza A.
[Hydrogen at the Lunar Poles: Search Strategies and Tradeoffs for a Surface-based Neutron Spectrometer](#) [#3048]

Nandikotkur G. Usikov D. Milikh G. M. Sagdeev R. Z. Mitrofanov I. M. Golovin D. V. Kozyrev A. S.
Litvak M. L. Malakhov A. V. Mokrousov M. I. Sanin A. B. Tretyakov V. I. Varenikov A. B.
Vostrukhin A. A. Chin G. Garvin J. McClanahan T. Trombka J. Evans L. Starr R. Boynton W.
Harshman K. Finch M. J. Droege G. Shevchenko V. V. Timoshenko G. N. Shvetsov V. N. Tomilina T. M.
[Probing the Hydrogen Content Distribution on Lunar South Pole at the Highest Spatial Resolution Using LEND Data](#) [#3050]

Nefian A. V. Moratto Z. Beyer R. Broxton M. Kim T. Fong T.
[Digital Terrain, Image and Albedo Mosaics from Apollo Metric Camera Imagery](#) [#3071]

Sridhar J.
[Earth Based Communication Systems and Emerging Technologies for Sustainable Lunar and Solar System Robotic Exploration](#) [#3023]

Stubbs T. J. Farrell W. M. Collier M. R. Glenar D. A. Richard D. T. Jackson T. L. Killen R. M. Sarantos M. Delory G. T. Halekas J. S. Vondrak R. R.
[Acquiring "Ground Truth" About the Dynamic Lunar Environment: Implications for Science and Exploration](#) [#3063]

***What are the Main Technology Developments Needed
to Enable a Sustainable Lunar and Solar System Exploration Program?***

Bahrami P. Elnimeiri M.
[Habitat Architectural Design System \(HADS\), Proposed Module for Lunar Habitat](#) [#3020]

Clark P. E. Curtis S. A. Rilee M. L.
[Extreme Mobility: Next Generation TET Rovers for the Lunar Surface](#) [#3009]

Clark P. E. Gendreau K. Arzoumanian Z. MacAdam A. Bleacher J.
[A Portable Tool for In Situ Sample Screening and Site Characterization on the Moon](#) [#3008]

Clark P. E. Millar P. S. Brigham W. D. Yeh P. S. Feng S. Beaman B. Chalmers R. Johnson M. A.
[Small Cold Temperature Instrument Packages for Planetary Surfaces](#) [#3006]

Crosby K. M. Bakkum A. Finnvik S. Fritz I. Frye B. Grove C. Hartstern K. Kreppel S. Schultz K. Braun J. P.
[Slosh Dynamics in the Orion Downstream Propellant Tank](#) [#3021]

Paul A.-L. Toghranegar S. Amalfitano C. Sarafan A. Giongo A. Triplett E. Lee P. Berinstain A. Ferl R. J.
[Planetary Analogs as Models for Biologically Relevant Extraterrestrial Exploration](#) [#3044]

Zacny K. Kumar N. Mumm E. Hedlund M. Shasho J. Pierides A. Morgan P.
[Testing Heat Flow Probe in Lunar Analog Site on Mauna Kea, HI](#) [#3015]

Zelenyi L. M.
[Russian Investigations of the Moon by Robotic Space Missions: Goals and Perspectives](#) [#3043]

Zhou G. Mardon A. A.
[Lunar Concrete Preliminary Feasibility Analysis](#) [#3004]

Zhou G. Mardon A. A.
[Structural Stability and Sulfur Based Lunar Concrete Components for Lava Tube Suitability](#) [#3001]

***How Can the Moon be Used as a Target for Solar System Exploration,
Science, Commerce, Education, and Technology Development?***

Arvidson R. Foing B. H. Blamont J. E. Plescia J. Cohen B. GLUC-ICEUM1 Participants
[*Beijing Lunar Declaration 2010: B\) Technology and Resources; Infrastructures and Human Aspects; Moon, Space and Society*](#) [#3051]

Currie D. Zacny K.
[*Pneumatic Drilling for the Lunar Laser Ranging Reflectometer Array*](#) [#3029]

Jolliff B. L. Wiseman S. Lauber C. Lawrence S. J. Robinson M. Beyer R. Gaddis L. R. LROC Team
[*Imaging Constellation Regions of Interest with the Lunar Reconnaissance Orbiter Cameras*](#) [#3076]

Miller R. S. Bonamente M. Gregory D. A. Ebbets D. Freelove R. Harwit A. Lawrence D. J.
O'Brien S. Paciesas W. S. Young C. A.
[*Ex Luna, Scientia — The Lunar Occultation Observer \(LOCO\) Nuclear Astrophysics Mission Concept*](#) [#3039]

Miura Yas.
[*Anomalous Ca-rich Plagioclase Compositions with Impact Carbon in the Apollo Lunar Samples*](#) [#3027]

Miura Yas.
[*Estimated Sources of Spherule-chained Textures with Carbon in the Lunar Breccias*](#) [#3005]

Pestak C. J.
[*Designing a Participatory Space Exploration Program to Achieve Exploration Goals and Support National Educational Objectives*](#) [#3022]

Pettinari A. Saturni A. Rossettini L. L.
[*Development of a Simulation Tool for the Propulsion Subsystem of ESMO Lunar Mission*](#) [#3003]

Roberts J. H. Lorenz R. D.
[*Geophysical Tiltmeter for Measuring Tidal Distortion of the Moon*](#) [#3058]

Zhou G. Mardon A. A.
[*Lunar Oxygen Production Through Hydrogen Reduction at High Temperatures*](#) [#3012]

Miscellaneous

Crotts A.
[*Several Searches for Short-Term Changes in the Lunar Surface*](#) [#3081]

Osinski G. R. Antonenko I. Barfoot T. Ghafoor N. Jolliff B. L. Sylvester P.
[*An Analogue Mission in Support of MoonRise and Other Sample Return Missions to the South Pole–Aitken Basin*](#) [#3047]

Petro N. Bleacher L. Santiago D.
[*Toward a Sustainable and Inspired Lunar Science Community: Developing the Next Generations of Lunar Scientists and Engineers*](#) [#3074]

Teodoro L. F. A. Elphic R. C. Sigler M. Eke V. R.
[*Realistic Models of Ice Distribution on the Lunar Sub-Surface*](#) [#3080]

Zhou G. Mardon A. A.
[*Gold Plating for Lunar Solar Protection and Temperature Control*](#) [#3019]