

**Monday, March 17, 2014**  
**SPECIAL SESSION: NEW PERSPECTIVES OF THE MOON:**  
**ENABLING FUTURE LUNAR MISSIONS**  
**8:30 a.m. Waterway Ballroom 1**

[M101]

**Chairs: Prasun Mahanti**  
**Charles Shearer**

- 8:30 a.m. Zuber M. T. \* Smith D. E. Goossens S. J. Asmar S. W. Konopliv A. S. et al.  
[\*A High-Resolution View of the Orientale Basin and Surroundings from the Gravity Recovery and Interior Laboratory \(GRAIL\)\*](#) [#2061]  
 A high-resolution view of the Orientale Basin and surroundings from the Gravity Recovery and Interior Laboratory (GRAIL).
- 8:45 a.m. Warren P. H. \* Dauphas N.  
[\*Revised Estimation of the Bulk Composition of the Moon in Light of GRAIL Results, and Why Heat Flow Should be a Top Priority for Future Lunar Missions\*](#) [#2298]  
 A revised estimation of the bulk-Moon composition, based on new interior-density constraints from GRAIL and recent seismic studies, has a higher-than-Earth FeO.
- 9:00 a.m. Jolliff B. L. \* Petro N. E.  
[\*Recent Mission Observations Provide Scientific Context and Enabling Support for Future Exploration of the Moon's South Pole-Aitken Basin\*](#) [#2357]  
 We take an integrated look at results from recent missions, current knowledge gaps, and implications for future in situ or sample-return exploration.
- 9:15 a.m. Hurwitz D. M. \* Kring D. A.  
[\*Destinations for Sampling Impact Melt Produced by the South Pole — Aitken Basin Impact Event\*](#) [#1398]  
 This paper identifies destinations where SPA impact melt samples can be collected. Analyses of these samples can identify the age of this oldest lunar basin.
- 9:30 a.m. Lawrence S. J. \* Stopar J. D. Speyerer E. J. Robinson M. S. Jolliff B. L.  
[\*Characterizing Locations for Future Lunar Exploration Using Recent Mission Results\*](#) [#2785]  
 We present results from a project to characterize accessibility and science potential of high-priority locations for future lunar precursor missions.
- 9:45 a.m. Mahanti P. \* Robinson M. S. Stelling R.  
[\*How Deep and Steep are Small Lunar Craters? — New Insights from LROC NAC DEMs\*](#) [#1584]  
 New observations of depth-to-diameter ratio and wall slope for globally distributed small (<200 m) lunar impact craters will be presented.
- 10:00 a.m. Robinson M. S. \* Boyd A. K. Denevi B. W. Lawrence S. J. Moser D. E. et al.  
[\*New Crater on the Moon and a Field of Secondaries\*](#) [#2164]  
 A new 18-m-diameter crater was discovered that geographically corresponds with a flash recorded on 17 March 2013 by the NASA Lunar Impact Monitoring Program.
- 10:15 a.m. Lucey P. G. \* Neumann G. A. Paige D. A. Riner M. A. Mazarico E. M. et al.  
[\*Evidence for Water Ice and Temperature Dependent Space Weathering at the Lunar Poles from Lola and Diviner\*](#) [#2325]  
 The darker it gets the brighter it is.

- 10:30 a.m. Retherford K. D. \* Greathouse T. K. Gladstone G. R. Hendrix A. R. Mandt K. E. et al.  
[\*New Perspectives on the Lunar Far-UV Albedo: Implications of LRO Lyman Alpha Mapping Project \(LAMP\) Results for Future Exploration\*](#) [#2372]  
Far ultraviolet albedo maps obtained using the Lunar Reconnaissance Orbiter (LRO) Lyman Alpha Mapping Project (LAMP) uniquely address lunar volatile processes.
- 10:45 a.m. Hayne P. O. \* Retherford K. D. Sefton-Nash E. Paige D. A.  
[\*Temperature and Ultraviolet Albedo Correlations in the Lunar Polar Regions: Implications for Water Frost\*](#) [#1943]  
We compared temperature data from Diviner and UV albedo data from LAMP, in order to constrain the processes controlling the distribution of water on the Moon.
- 11:00 a.m. Zhao J. \* Huang J. Xiao L. Qiao L. Xiao Z. et al.  
[\*Geology of CE-3 Landing Site and Path Planning for Yutu Rover\*](#) [#1864]  
We made the geological map of Chang'e-3 landing area and proposed two paths for the future exploration of Yutu rover.
- 11:15 a.m. Garry W. B. \*  
[\*The Mare Imbrium Flow Field: Regional Geologic Context of the Chang'e 3 Landing Site\*](#) [#2169]  
China's robotic rover landed within the best preserved lava flow field on the Moon. Here, we provide a regional perspective of the flow field and landing site.
- 11:30 a.m. Hiesinger H. \* Ivanov M. Pasckert J. H. Bauch K. van der Bogert C. H.  
[\*Geology of the Lunar Glob Landing Sites in Boguslawsky Crater, Moon\*](#) [#2370]  
We studied the floor of crater Boguslawsky (~95 km in diameter, centered at 72.9°S, 43.26°E), which was selected as the landing site for the Luna-Glob mission.
- 11:45 a.m. BREAK
- 12:00 p.m. Schmitt H. H. \*  
[\*Apollo 17: New Insights from the Synthesis and Integration of Field Notes, Photo-Documentation, and Analytical Data\*](#) [#2732]  
Field and other data related to Apollo 17 gives new insights on ages of eight large basins, lava cooling, orange ash geology, micrometeor flux, regolith, etc.