

Monday, March 21, 2016
MOON FROM NEAR AND FAR:
RESULTS FROM RECENT LUNAR MISSIONS
2:30 p.m. Waterway Ballroom 1

[M151]

Chairs: Kurt Retherford
 William Farrell

- 2:30 p.m. Zuber M. T. * Smith D. E. Goossens S. J. Neumann G. A. Lemoine F. G. et al.
[*Exploring the Depth Distribution of Lunar Crustal Mass Anomalies Using GRAIL Gravity and LOLA Topography*](#) [#2105]
 Gravity and topography are combined to infer structure within the lunar crust from the high degree component of the Bouguer gravity field.
- 2:45 p.m. Ding M. * Soderblom J. M. Zuber M. T. Bierson C. J. Nimmo F. et al.
[*Target Porosity Controls Crater Residual Bouguer Anomaly in the Lunar Highlands*](#) [#1359]
 We spatially map crater RBA, and find that the large-scale spatial variations in crater RBA can be explained by variations in regional porosity.
- 3:00 p.m. Smith D. E. * Zuber M. T. Neumann G. A. Goossens S. J. Mazarico E. et al.
[*The Lunar South Polar Crust*](#) [#2374]
 The relationship of Bouguer gravity of the polar crust to crustal thickness; major impact features and the geological environment is investigated.
- 3:15 p.m. Xie L. * Zhang X. Zheng Y. Guo D.
[*The Effect of Backscattered Solar Wind Protons on the Current Measurement of the Lunar Dust Experiment*](#) [#1106]
 We find the current measured by the Lunar Dust Experiment (LDEX) is mainly caused by backscattered solar wind protons and the backscattering depends on both the SW parameters and SZA.
- 3:30 p.m. Colaprete A. * Wooden D. Cook A. Shirley M. Sarantos M.
[*Observations of Titanium, Aluminum, and Magnesium in the Lunar Exosphere by LADEE UVS*](#) [#2635]
 Presented here are preliminary observations of lunar exosphere aluminum, titanium, and magnesium acquired during limb “noon” time LADEE UVS observations.
- 3:45 p.m. Grava C. * Retherford K. D. Hurley D. M. Feldman P. D. Gladstone G. R. et al.
[*LRO-LAMP Observations of the Lunar Exospheric Helium Coordinated with LADEE and ARTEMIS: Analysis of Off-Nadir Pitches*](#) [#2472]
 We discuss the detection of lunar exospheric helium with LRO/LAMP. We present latitudinal dependence of column density and constrain endogenic source rate of He.
- 4:00 p.m. Ling Z. C. * Jolliff B. L. Zhang J. Li B. Sun L. Z. et al.
[*Differentiation of Basaltic Lava at Chang'e-3 Landing Site*](#) [#2545]
 The in situ detection by Yutu rover discovers a new type of basaltic rock and suggests that the young lava has experienced chemical differentiation event.

- 4:15 p.m. Fa W. *
[*Ejecta Properties of Zi Wei Crater as Revealed by Chang'E-3 Lunar Penetrating Radar*](#) [#1185]
Ejecta properties of the Zi Wei crater over which China's Chang'E-3 spacecraft landed were investigated using the Lunar Penetrating Radar data.
- 4:30 p.m. Wang Z. C. * Wu Y. Z. Zheng Y. C. Blewett D. T. Cloutis E. A. et al.
[*Use of Radiative-Transfer Modeling to Estimate Nanophase Iron Abundance at the Chang'e-3 Site*](#) [#1404]
We have carried out radiative-transfer modeling of the spectra with the goals of quantifying the abundance of SMFe and estimate the soil age at the CE-3 site.