

Thursday, October 22, 2015
A DYNAMIC MOON II
1:30 p.m. USRA Conference Center

Chairs: Paul Hayne
 Ryan Clegg-Watkins

- 1:30 p.m. Livengood T. A. * Williams D. R.
[*Is the Moon Really a Surface-Bounded Exosphere?*](#) [#2070]
 It is commonly accepted that the lunar surface environment is a surface-bounded exosphere, nearly pure vacuum. Empirical support for this claim is remarkably scant and recent measurements disagree.
- 1:45 p.m. Sarantos M. * Killen R. McLain J.
[*Carbon-Bearing Volatiles: Surface Abundance Estimates from Exospheric Content Considerations*](#) [#2048]
 This work investigates how the deposition of carbon-bearing volatiles through the exosphere is affected by topography and lunar soil type.
- 2:00 p.m. Chi P. J. * Wei H. Y. Farrell W. M. Halekas J. S.
[*Selenogenic Ion Cyclotron Waves: ARTEMIS Observations and Implications for the Lunar Exosphere*](#) [#2047]
 The ARTEMIS spacecraft near the Moon have detected narrowband ion cyclotron waves during the lunar passes through the Earth's magnetotail. The observations suggest a possible connection to the ions escaping from the lunar exosphere.
- 2:15 p.m. Schwadron N. A. * Wilson J. K. Looper M. D. Jordan A. Spence H. E. Blake J. B. Case A. W. Iwata Y. Kasper J. C. Farrell W. M. Lawrence D. J. Livadiotis G. Mazur J. Petro N. Pieters C. Smith S. Townsend L. W. Zeitlin C.
[*Possible Albedo Proton Signature of Hydrated Lunar Surface Layer*](#) [#2044]
 We discuss here the implications of recent LRO/CRaTER observations of the proton albedo suggesting sensitivity to a thin (1–10 cm) hydrous layer near the surface.
- 2:30 p.m. Spence H. E. * Schwadron N. A. Wilson J. K. Jordan A. P. Winslow R. Joyce C. Looper M. D. Case A. W. Petro N. E. Robinson M. S. Stubbs T. J. Zeitlin C. Blake J. B. Kasper J. C. Mazur J. E. Smith S. S. Townsend L. W.
[*Particle Radiation Environments and Their Effects at Planetary Surfaces: Lessons Learned at the Moon by LRO/CRaTER and Extension to Other Planetary Objects*](#) [#2031]
 We examine the energetic particle ionizing radiation environments and their effects at airless planetary surfaces throughout the solar system.