Tuesday, March 18, 2014

SPECIAL SESSION: LUNAR DUST AND EXOSPHERE
FEATURING THE FIRST RESULTS FROM LADEE
8:30 a.m. Waterway Ballroom 1

Chairs: Richard Elphic
Andrew Poppe

*The Lunar Atmosphere and Dust Environment Explorer (LADEE): Initial Science Results [2677]
LADEE is making measurements of the tenuous lunar exosphere and the dust cloud from meteoroid impacts.

8:45 a.m. Glenar D. A. * Stubbs T. J. Elphic R.
LADEE Search for a Dust Exosphere: A Historical Perspective [2640]
The LADEE search for a dust exosphere is discussed in the context of recent dust upper-limit measurements.

9:00 a.m. Horanyi M. * Gagnard S. Gathright D. Gruen E. James D. et al.
The Dust Environment of the Moon as Seen by the Lunar Dust Experiment (LDEX) [1303]
The Lunar Dust Experiment (LDEX) onboard the LADEE mission continues to make observations in lunar orbit since its cover was deployed on 10/16/2013.

9:15 a.m. Kempf S. * Grün E. Horanyi M. James D. Lankton M. et al.
Observations of the Lunar Dust Exosphere with LDEX [1389]
This talk will report about first insights into the properties of the lunar dust exosphere based on a preliminary analysis of the LDEX data.

9:30 a.m. Stubbs T. J. * Glenar D. A. Wang Y. Hermalyn B. Sarantos M. et al.
The Impact of Meteoroid Streams on the Lunar Atmosphere and Dust Environment During the LADEE Mission [2705]
We describe the 18 annual meteoroid streams predicted to encounter the Moon during the LADEE mission, and discuss the implications for the lunar environment.

9:45 a.m. Halekas J. S. * Poppe A. R. Delory G. T. Elphic R. C. Angelopoulos V. et al.
ARTEMIS Observations and Data-Based Modeling in Support of LADEE [1548]
Plasma processes influence the lunar exosphere and its structure and variability. We utilize ARTEMIS data and data-based modeling to provide inputs for LADEE.

10:00 a.m. Szalay J. R. * Horanyi M. Poppe A. R. Halekas J. S.
LDEX Observations and Correlations with ARTEMIS Measurements [1500]
This presentation will focus on the correlations between LDEX and ARTEMIS data.

Model-Data Comparisons of LADEE/LDEX Observations of Low-Energy Lunar Dayside Ions [1393]
We model the response of the LADEE/LDEX instrument to low-energy lunar dayside ions and discuss implications for the lunar exo- and ionosphere.

10:30 a.m. Benna M. * Mahaffy P. R. Hodges R. R.
Early Results from Exospheric Observations by the Neutral Mass Spectrometer (NMS) [1535]
We present early observations of He, Ar, and Ne observations from the LADEE NMS orbit.
*Overview of the LADEE Ultraviolet-Visible Spectrometer: Design, Operations, and Initial Results [#2566]*
This talk will overview the design, performance, and initial results of the LADEE UVS instrument.

11:00 a.m.  Hermalyn B. * Colaprete A. Elphic R. C. Landis D. Karcz J. et al.  
*Impact Lofted Ejecta Contribution to the Lunar Exosphere: Experiments and Results from the LADEE Ultraviolet Visible Spectrometer [#2518]*
This study presents preliminary results of lunar limb observations from the UVS on LADEE toward understanding the impact contribution to the dust exosphere.

11:15 a.m.  Wooden D. H. * Cook A. M. Colaprete A. Shirley M. H. Vargo K. E. et al.  
*LADEE UVS Observation of Solar Occultation by Exospheric Dust Above the Lunar Limb [#2123]*
LADEE UVS solar occultation measurements (40–0 km altitudes) reveal spectral signatures of forward scattering and absorption by dust in the lunar exosphere.

11:30 a.m.  Hurley D. M. * Benna M. Mahaffy P. R. Elphic R. C. Colaprete A. et al.  
*Upper Limits on the Propagation of Constituents of the Chang‘e-3 Exhaust Plume from LADEE Observations [#2160]*
Examining the LADEE observations during the day of the Chang‘e-3 landing for the presence of the rocket exhaust plume and comparing to model simulations.