Friday, March 25, 2016 **[F701]**

THE MOON WHO SOILED THE WHIRLED:
LUNAR PHYSICS AND SURFACE PHENOMENA
8:30 a.m. Waterway Ballroom 1

Chairs: **Georgiana Kramer**
Amanda Hendrix

8:30 a.m. Thomson B. J. * Spudis P. D. Hayne P. O. Cahill J. T. S. Patterson G. W. et al.
Evidence for Possible Low-Density Regolith at the Lunar Poles **[#2426]**
At the lunar poles / Radar CPR is low / Fluffy regolith?

8:45 a.m. Paige D. A. * Siegler M. A.
New Constraints on Lunar Heat Flow Rates from LRO Diviner Lunar Radiometer Experiment Polar Observations **[#2753]**
The heat flow rate near the lunar south pole is much lower than was measured at the Apollo 15 and Apollo 17 landing sites.

9:00 a.m. Hobosyan M. A. * Martirosyan K. S.
Tuning of Lunar Regolith Thermal Insulation Properties Utilizing Reactive Consolidation by Activated Thermites **[#1035]**
We present regolith consolidation using activated thermite method, to produce porous product with low thermal insulation coefficient in 1.9K–400K range.

9:15 a.m. Nayak M. * Garrick-Bethell I. Hemingway D.
Diverse Lunar Paleopoles Inferred from South Pole-Aitken Basin Magnetic Anomalies **[#2506]**
A large diversity in implied paleopole directions of magnetic anomalies in the lunar South Pole-Aitken basin provides constraints on their formation mechanisms.

9:30 a.m. Hood L. L. * Tsunakawa H. Spudis P. D.
Magnetic Anomalies Within the Schrodinger Impact Basin: Orbital Evidence for the Persistence of the Former Core Dynamo into the Imbrian Epoch **[#1303]**
Mapping of Kaguya magnetometer data shows the presence of magnetic anomalies within Schrodinger, implying persistence of the core dynamo into the Imbrian epoch.

9:45 a.m. Oran R. * Shprits Y. Weiss B. P.
Can Impact-Amplified Magnetic Fields be Responsible for Magnetization on the Moon? **[#3057]**
A magnetohydrodynamic investigation of the formation of lunar magnetic anomalies.

10:00 a.m. Oliveira J. S. * Wieczorek M. A.
Testing the Axial Dipole Hypothesis for the Moon by Modeling the Direction of Crustal Magnetization **[#2288]**
The hypothesis that the Moon possessed an axial dipolar magnetic field is tested by modeling the direction of magnetization associated with magnetic anomalies.

10:15 a.m. Wieczorek M. A. *
Depth and Origin of Lunar Magnetic Anomalies from a Localized Magnetic Power Spectrum Analysis **[#2009]**
Magnetic sources are in general located 10-20 km below the surface. An exception includes the South Pole-Aitken basin where sources are close to the surface.

10:30 a.m. Deca J. * Divin A. Wang X. Lembège B. Markidis S. et al.
Solar Wind Interaction with Lunar Magnetic Anomalies: Vertical vs. Horizontal Dipole **[#1065]**
Solar wind interaction with lunar magnetic anomalies: We find the amount of reflected ions to be a tracer for the underlying field structure.

10:45 a.m. Tai Udovicic C. J. * Kramer G. Y. Harnett E. M.
Applications of Solar Wind Particle Impact Simulations at Lunar Magnetic Anomalies to the Study of Lunar Swirls **[#2648]**
Protons clash with field / Lunar swirls track fallen wind / Student traces swirls.

11:00 a.m. Blewett D. T. * Denevi B. W. Klima R. L. Cahill J. T. S.
Near-Ultraviolet and Near-Infrared Characterization of Space Weathering at Lunar Magnetic Anomalies **[#2066]**
Maturity trends defined by NIR continuum slope and near-UV slope differ between lunar swirls/magnetic anomalies and non-magnetic areas.

11:15 a.m. Cahill J. T. S. * Hendrix A. R. Retherford K. D. Denevi B. W. Stickle A. M. et al.
Far-Ultraviolet Mapping of Lunar Swirls and Other Enigmatic Low-Albedo Features **[#2991]**
Here we examine and map enigmatic low-albedo features with LRO LAMP non-polar nighttime far-UV and LROC WAC near-UV data.

11:30 a.m. Kinczyk M. J. * Denevi B. W. Boyd A. K. Clegg-Watkins R. N. Hapke B. W. et al.
Controls on the Photometric Properties of Lunar Swirls in Comparison to Fresh Crater Ejecta **[#2343]**
High-resolution LROC NAC observations of the Firsov swirls and fresh impact craters are compared in order to examine implications for their regolith properties.