Friday, March 23, 2018 **[F701]**
LUNAR GEOPHYSICS: GRAVITY, TECTONICS, AND MAGNETISM ALL SWIRLED TOGETHER
8:30 a.m. Waterway Ballroom 1

Chairs: **Carolyn van der Bogert**
Sonia Tikoo

8:30 a.m. Clark J. D. * van der Bogert C. H. Hiesinger H.
Exploring the Seismic Record Around Lunar Lobate Scarps **[#2692]**
We dissect crater size-frequency distributions measurements for supplementary information about the formation and evolution of lunar lobate scarps.

8:45 a.m. Valantinas A. * Schultz P. H.
Neotectonics on the Lunar Nearside **[#2385]**
A global study of lunar wrinkle ridges which exhibit high boulder abundances and youthful morphologies has revealed an Active Nearside Tectonic System (ANTS).

9:00 a.m. Onodera K. * Kawamura T. Ishihara Y. Maeda T. Tanaka S.
Evaluation of the Effect of Surface and Moho Topographies on Lunar Seismic Wave Propagation **[#1692]**
We performed 2D simulation of seismic wave propagation to evaluate how much surface and Moho topographies affect the determination of lunar crustal structure.

9:15 a.m. Goossens S. * Sabaka T. Fernández Mora A. Heijkoop E.
A High-Resolution Global Map of Lunar Gravity from Patched Local Solutions Using GRAIL Data **[#2477]**
We present a high-resolution global map of lunar gravity patched from local solutions; it delineates features better and improves correlations with topography.

9:30 a.m. Andrews-Hanna J. C. *
Ring Faults and Ring Dikes Around Lunar Basins **[#2909]**
GRAIL gravity data reveals new details of the structures of lunar basins. Ring faults cross the crust-mantle interface, and dikes commonly intrude into the faults.

9:45 a.m. Courville S. W. * James P. B. Kramer G. Y.
Shallow Subsurface Investigations of Schrodinger Basin's Peak Ring Using Grail Gravity Field **[#1567]**
We present density values for the Moon's Schrodinger Basin peak ring. We determine density from gravity forward models and suggest the ring is anorthositic.

10:00 a.m. Deutsch A. N. * Neumann G. A. Head J. W.
GRAIL-Identified Gravity Anomalies in Procellarum: Insight into Subsurface Impact and Volcanic Structures on the Moon **[#1521]**
We constrain the subsurface structures that may contribute to four positive Bouguer gravity anomalies using GRAIL gravity data and geologic analyses.

10:15 a.m. Wieczorek M. A. * Laneuville M. Taylor G. J.
The Great Magnetic Low of the Moon **[#1432]**
The Procellarum KREEP Terrane was so hot that it escaped being magnetized when the core dynamo field was strongest.

10:30 a.m. Laneuville M. * Taylor J. Wieczorek M.
Lunar Radioactive Heat Source Distribution and Magnetic Field Generation **[#1722]**
We model lunar evolution based on new constraints on heat source distribution and discuss implications on remanent crustal magnetic field and sample dating.

10:45 a.m. Kamenikova T. * Kletetschka G.
Identification of Magnetic Noise on Lunar Rocks (Case for 15445.277 Lunar Rock) **[#1389]**
We were able to identify with magnetic data that lunar rock 15445.277 contains magnetic noise and did not record any magnetic field during its formation.

11:00 a.m. Cahill J. T. S. * Wirth A. A. Hendrix A. R. Retherford K. D. Denevi B. W. et al.
Scrutinizing the Presence of LAMP Identified Plausible Lunar Swirls Relative to Magnetic Sources **[#2964]**
Here we map out lunar swirls with LAMP, LROC WAC, and LP data and scrutinize lunar swirls relative to recently modeled depth to magnetic sources.

11:15 a.m. Kelley M. R. * Garrick-Bethell I. Goossens S. J.
Evidence for Thermal Demagnetization of the Moon's Reiner Gamma Magnetic Anomaly **[#2415]**
We present evidence for the thermal demagnetization of the Reiner Gamma magnetic source body by the Marius Hills volcanic complex.

11:30 a.m. Tikoo S. M. * Hemingway D. J.
Intrusives and Lava Tubes: Potential Lunar Swirl Source Bodies? **[#2587]**
We discuss the potential for mafic dikes and lava tubes to be good candidates for the magnetic source bodies associated with lunar swirls.