Thursday, March 22, 2018 **[R608]**
POSTER SESSION II: IMPACTS V: PLANETARY IMPACT CRATERING
6:00 p.m. Town Center Exhibit Area

Daniels J. W. Neish C. D. ***POSTER LOCATION #138***
Impact Melt Emplacement on Mercury **[#1380]**
This study of exterior melt-bearing complex mercurian craters, compared to prior work on the Moon and Venus, suggests surface gravity controls melt emplacement.

Kinczyk M. J. Barnouin O. S. Ernst C. M. Byrne P. K. ***POSTER LOCATION #139***
A Tale of Two Craters: Using Geological Mapping to Assess the Role of Impact Melt in the Formation of Hokusai Crater, Mercury **[#2916]**
A pair of craters / So different from each other / Because of the melt?

Ciceri F. Hildebrand A. R. ***POSTER LOCATION #140***
Peripheral Peak Rings on Mercury and Implications for Near Surface Geology and Analysis of Crater Populations **[#2384]**
Peripheral peak rings are well developed in complex craters on Mercury; they are not randomly distributed correlating with indicators of near-surface volatiles.

Weitz N. Neish C. ***POSTER LOCATION #141***
Landscape Evolution of Terrestrial Impact Craters: Constraining Erosion Rates and Processes **[#2307]**
We use a landscape evolution model and a pristine crater geometry from Venus to simulate the geomorphologic evolution of large terrestrial impact structures.

Xie M. Xiao Z. Xu A. ***POSTER LOCATION #142***
Modeling the Growth of Regolith on the Moon: Implication for the Evolution of Crater and Impactor Populations **[#1992]**
We find that regolith thickness is almost unchanged from 3.8 to 3.3 Ga, and this is caused by the migration of giant planets and transient atmosphere.

Osinski G. R. Silber E. A. Clayton J. Grieve R. A. F. Hansen K. et al. ***POSTER LOCATION #143***
Lunar Transitional Impact Craters: Insight into the Effect of Target Lithology on the Impact Cratering Process **[#1734]**
We suggest that layering in mare targets is the major driver for the different morphology and morphometry of mare versus highland craters.

Robbins S. J. ***POSTER LOCATION #144***
A Global Lunar Crater Database, Complete for Craters ≥1 km, III: Reassessing the Lunar Crater Production Function, and Lessons Learned Applied to the Global Mars Crater Database **[#2443]**
Craters everywhere / On the Moon, and Mars, let's look / At populations.

Chappelow J. E. ***POSTER LOCATION #145***
Detecting Primary Craters Among Clusters of Secondaries **[#2542]**
We have tried for decades to sort secondary craters from primaries. But what about sorting primaries from clusters of secondaries? (Twilight Zone music . . .)

Morse Z. R. Osinski G. R. Tornabene L. L. ***POSTER LOCATION #146***
Morphologic Mapping and Analysis of Tsiolkovsky Crater Ejecta **[#2196]**
New mapping reveals / Ejecta distribution / Around Tsiolkovsky.

Orgel C. Michael G. Fassett C. I. van der Bogert C. H. Riedel C. et al. ***POSTER LOCATION #147***
The Lunar Basin Sequence Based on Absolute Model Ages Derived via Buffered Non-Sparseness Correction: Implications for Impactor Population(s) **[#1395]**
The BNSC technique makes a significant difference in accounting for crater densities on highly cratered surfaces.

Guo D. Liu J. Head J. W. Kreslavsky M. A. ***POSTER LOCATION #148***
Orientale Secondary Craters: Insights into Orientale Impact Parameters and the Largest Secondary Crater Size of the South Pole-Aitken Basin Event **[#1866]**
The impact angle and direction and the largest secondary crater of South Pole-Aitken Basin are estimated based on the Orientale secondary craters.

Karimi S. Lewis K. W. ***POSTER LOCATION #149***
Why Do Mascon Basins Occur on the Moon? **[#2543]**
This comparative crater relaxation study aims to find a response to the following question — "Why does the lunar crust host the majority of mascon basins?"

Bernardoni E. A. * Horanyi M. Szalay J. R. ***POSTER LOCATION #150***
Characterizing Lunar Dust Impact Plumes **[#2984]**
Estimate the average total meteoroid flux at 1 AU using a three-dimensional multi-plume ejecta model fitted to LDEX data.

Bowling T. J. Marchi S. ***POSTER LOCATION #151***
Revisiting the Origin and Evolution of Habitable Environments in Post-Impact Hydrothermal Systems Beneath Martian Craters **[#2654]**
We holistically model the formation of evolution of martian post-impact hydrothermal systems in order to quantify the distribution of habitable environments.

Rader L. X. Thomson B. J. Fassett C. I. Beyer R. A. Dyar M. D. ***POSTER LOCATION #152***
Mapping Stratigraphic Layers of Exposed Impact Craters on the Edge of Valles Marineris **[#2723]**
A study establishing the foundational workflow needed to analyze cut crater locations that occur on the edge of Valles Marineris.