Thursday, March 23, 2017
POSTER SESSION II: LUNAR IMPACT CRATERING
6:00 p.m. Town Center Exhibit Area

Zellner N. E. B. Nguyen P. Q. Vesa O. Cook R. D. Blachut S. T. et al. POSTER LOCATION #441
*Only Specific Lunar Impact Glasses Record Episodic Events on the Moon* [#2619]
If the shape, size, and composition of lunar impact glasses meet certain criteria, $^{40}$Ar/$^{39}$Ar ages can be used to constrain the timing of impact events.

Robbins S. J. POSTER LOCATION #442
*A Global Lunar Crater Database, Complete for Craters $\geq$1 km, II* [#1631]
How many craters / On the Moon? Let me count them / One... two... three... four... five...

Povilaitis R. Z. Robinson M. S. van der Bogert C. H. Hiesinger H. Meyer H. et al. POSTER LOCATION #443
*Regional Resurfacing, Secondary Crater Populations, and Crater Saturation Equilibrium on the Moon* [#2408]
Comparison of 5–20 km vs. >20 km lunar craters to expose areas exhibiting anomalous crater distributions and saturation equilibrium.

Chappelow J. E. POSTER LOCATION #444
*A New Model for Fresh Simple Crater Shapes from the Lunar Maria* [#1695]
A new algebraic shape model for pristine simple craters, derived from shadowfront measurements, is presented. This shape is neither parabolic nor Linne-like.

Plescia J. B. POSTER LOCATION #445
*Lunar Impact Melts and Other Things That Flow on the Moon* [#2218]
Lunar impact melts have yield strengths of $10^3$–$10^4$ Pa, similar to basalt. Variations are unrelated to diameter but may reflect variations in target melting.

Sharpton V. L. Lalor E. Mouginis-Mark P. J. POSTER LOCATION #446
*Rim Characteristics in Fresh Lunar Craters Indicate Directional Variations in Excavation Flow* [#2186]
Before collapse a crater grows / Yet, from topography, we propose / The final rim clearly shows / How excavation asymmetrically flows.

Jögi P. M. Paige D. A. POSTER LOCATION #447
*Ray Patterns of Impact Ejecta on the Moon, e.g. of the Tycho Crater, Used to Determine Ballistic Parameters* [#2790]
Image analysis and Keplerian orbit analysis of LROC images generates families of ballistic parameters used to understand impact and ejecta mechanisms.

Atwood-Stone C. McElwaine J. N. Richardson J. E. Bray V. J. McEwen A. S. POSTER LOCATION #448
*Crater Concentric Ridges: Remnants of Kelvin-Helmholtz Instabilities in Ejecta Flows?* [#1753]
We use Discrete Element Modeling to study CCR formation. Models suggest formation results from Kelvin-Helmholtz instabilities between ejecta flow and regolith.

Kreslavsky M. A. POSTER LOCATION #449
*Sesquinary Craters on the Moon Can Form Clusters* [#1869]
Sesquinaries on the Moon are negligible on average; however, sesquinaries from young large craters can form observable clusters — I show some candidates.

Mahanti P. Robinson M. S. Craddock R. A. POSTER LOCATION #450
*Simulated Crater Degradation Based on Chebyshev Coefficients* [#2264]
Chebyshev coefficients obtained from standardized representation of crater elevation profiles are utilized for tracking diffusion based degradation over time.
Mahanti P., Robinson M. S., Thompson T. J., van der Bogert C. H. POSTER LOCATION #451
Small Crater Degradation at the Apollo Landing Sites – Characterizing Differences in Degradation Rates [2089]
Degradation of small craters (40 m–80 m) identified at flat areas at the Apollo landing sites is characterized to understand effects of target conditions.

De Hon R. A. POSTER LOCATION #452
A Two-Basin Model for Mare Tranquillitatis [2769]
Mare Tranquillitatis lacks the structure and gravity signature of a typical multi-ringed basin. Its configuration is best described as two overlapping basins.

Sun S., Di K., Yue Z., Ping J. POSTER LOCATION #453
Morphological Study of Impact Basins of Terrestrial Planets Based on Spherical Harmonic Analysis [1772]
Localized spherical harmonic analysis of impact basins on the Moon, Mars, Mercury, Earth, and Venus are conducted.

Stooke P. J. POSTER LOCATION #454
Spacecraft Impacts on the Moon: Chang’E 1, Apollo LM Ascent Stages [1031]
LRO images allow the identification of three new impact craters, Apollo 12 and 14 LM ascent stages and Chang’e 1. The latter is not present in an Apollo 16 image.

Thacker N. A., Tar P. D., Bugiolacchi R. POSTER LOCATION #455
False Negative Crater Correction via Capture-Recapture [1424]
Crater counting is subject to uncertainties due to human subjectivity. We show how the problem of false-negative crater identification can be mitigated against.