Tuesday, March 18, 2014 **[T618]**
POSTER SESSION: LUNAR IMPACTS
6:00 p.m. Town Center Exhibit Area

Minton D. A. Richardson J. E. Fassett C. I. ***POSTER LOCATION #231***
Re-Examining the Main Asteroid Belt as the Primary Source of Ancient Lunar Craters **[#2660]**
We test the hypothesis that the lunar highland craters were primarily created by main-belt asteroids and find a poor match due to the number of large basins.

Schultz P. H. Crawford D. A. ***POSTER LOCATION #232***
Lunar Impact Basin Impactor Sizes **[#1961]**
Projectile sizes responsible for lunar impact basins are determined from first-contact features and compared with a CTH hydrocode model of Moscoviense Basin.

Watkins C. E. Hayne P. O. Bandfield J. L. ***POSTER LOCATION #233***
Ballistic Cascading as a Formation Mechanism for Lunar Cold Spot Craters: Constraints on the Impact Process from Diviner Thermal Measurements **[#2310]**
Diviner identified a class of craters surrounded by cold regions. We developed a power law for the density profile of the area and tested models of formation.

Fassett C. I. Combellick J. R. ***POSTER LOCATION #234***
The Rate of Crater Degradation and Topographic Evolution on the Moon: Results from the Maria and Initial Comparisons with the Highlands **[#1429]**
Craters on the Moon / Slowly become shallower / Eroding with time.

Ramos M. D. Barlow N. G. ***POSTER LOCATION #235***
Impact Crater Morphology of the Moon: Eastern Nearside (45°S-45°N, 0°-90°E) **[#1126]**
This project characterizes lunar impact crater morphology on the eastern nearside through use of new Lunar Reconnaissance Orbiter imagery and GIS analysis.

Nuno R. G. Mahanti P. Boyd A. K. Robinson M. S. ***POSTER LOCATION #236***
Automated Classification of Copernican and Eratosthenian Craters Utilizing LROC WAC Normalized Reflectance **[#1751]**
An automated method of separating Copernican and Eratosthenian crater populations using LROC WAC normalized reflectance map.

Williams J.-P. Paige D. A. Plescia J. B. Pathare A. V. Robinson M. S. ***POSTER LOCATION #237***
Crater Size-Frequency Distributions on the Ejecta of Giordano Bruno **[#2882]**
Images from LROC and data from the Diviner Lunar Radiometer Experiment reveal the heterogeneous nature of the ejecta of Giordano Bruno.

McBride M. J. Frey H. V. ***POSTER LOCATION #238***
Improving Techniques for Determination of Lunar Basin Crater Retention Ages **[#2150]**
Different approaches were taken to determine the crater retention ages of 89 lunar basins. These were compared to ages of small areas of likely oldest crust.

Shankar B. Osinski G. R. ***POSTER LOCATION #239***
The O'Day and Birkeland Impact Craters as Probes into the Interior of the South Pole-Aitken Basin **[#2552]**
Multispectral study of two complex impact craters within the South Pole-Aitken (SPA) Basin. Potential of revealing more information about the SPA melt sheet.

Madden J. H. Neish C. D. Carter L. M. Hawke B. R. Giguere T. A. ***POSTER LOCATION #240***
The Discovery of New Impact Melts Using Mini-RF on LRO **[#1271]**
Using LRO data, we surveyed the Moon looking for new impact melt flows. We present 24 new flows discovered and highlight some new flows of interest.

Dhingra R. D. Dhingra D. Carlson L. ***POSTER LOCATION #241***
Evaluating the Extent of Impact Melt on Central Peaks of Lunar Complex Impact Craters **[#1754]**
Impact melt on central peaks of lunar craters is mapped to assess if it covers a significant peak area, which could affect mineralogical assessment of lunar crust.

Johnson K. E. Kramer G. Y. ***POSTER LOCATION #242***
The Prevalence of Secondary Cratering Through Analysis of Recent Impacts on the Moon **[#2725]**
There's a really fresh 7-km crater with ~1 million secondaries >1 m on the rim of a 40-km crater on the rim of a basin on the edge of the surface of the Moon.

Martin-Wells K. S. Campbell D. B. Campbell B. A. Carter L. M. ***POSTER LOCATION #243***
Debris Flow and Lunar Secondary Cratering **[#2673]**
An examination of the geomorphology of lunar secondary craters with radar circular polarization ratio enhancements provides evidence of debris flows.

Meyer H. M. Denevi B. W. Boyd A. K. Robinson M. S. ***POSTER LOCATION #244***
Lunar Light Plains Near the Orientale and Imbrium Basins: Results and Implications for Other Planetary Bodies **[#2350]**
Insight into the origin of lunar light plains using spatial distribution, crater-size frequency distributions, and morphological relationships.

Martin D. J. P. Spudis P. D. ***POSTER LOCATION #245***
New Geological Map of the Orientale Basin **[#1368]**
A new geological map is presented with descriptions and analyses of units both inside and outside the basin. Properties of impact and melt sheet are discussed.

Morse Z. R. Osinski G. R. Tornabene L. L. ***POSTER LOCATION #246***
Analysis of Orientale Basin Ejecta and Evidence for Multistage Emplacement **[#2360]**
Research and mapping of the ejecta deposits of Orientale Basin with the goal of achieving a better understanding of ejecta emplacement around multiring basins.

Ghent R. R. Carter L. M. Bandfield J. L. Hayne P. O. Paige D. A. ***POSTER LOCATION #247***
Physical Properties of Lunar Impact Ejecta: Constraints from LRO Diviner and Mini-RF Observations **[#2339]**
Here we summarize new insights into the physical properties of lunar impact products and their evolution based on analysis of LRO Diviner and MRF data.

Stickle A. M. Patterson G. W. Bussey D. B. J. Cahill J. T. S. Mini-RF Team ***POSTER LOCATION #248***
Characterization of Mare Ejecta Emplacement Diversity: Insights from Mini-RF **[#2726]**
Using Mini-RF, CPR information from young lunar craters reveals diversity in mare crater ejecta and isolates surface expressions of discrete subsurface layering.

Thompson T. W. Ustinov E. A. ***POSTER LOCATION #249***
Specular Radar Scattering from Buried Crater Ejecta **[#1166]**
Modeling of radar echoes from buried crater ejecta seen in the Apollo core tubes produces results consistent with a special 1960s lunar radar experiment.

Thomson B. J. Bussey D. B. J. Cahill J. T. S. ***POSTER LOCATION #250***
Identifying Variations in Basin Ejecta Thickness Using LRO Mini-RF Data **[#2520]**
The distribution of impact craters with radar-bright halos suggests it is notably nonuniform, suggestive of effects due to basin impact ejecta layers, e.g., SPA.

Patterson G. W. Stickle A. M. Bussey D. B. J. Cahill J. T. S. Mini-RF Team ***POSTER LOCATION #251***
Mini-RF Observations of the Radar Scattering Properties of Young Lunar Crater Ejecta Blankets **[#2720]**
With the Mini-RF instrument onboard LRO, we explore potential contributions to radar scattering properties of ejecta from 24 young lunar craters.