Tuesday, March 21, 2017 **[T255]**
GIVING SHAPE TO IMPACT CRATERS
1:30 p.m. Montgomery Ballroom

Chairs: **Henry Melosh**
John Spray

1:30 p.m. Johnson B. C. * Andrews-Hanna J. C. Collins G. S. Freed A. M. Melosh H. J. et al.
Multiring Basin Formation: Controls on Ring Location and Spacing **[#1536]**
We simulate the formation of multiring basins finding that ring location and spacing are sensitive to impactor size, thermal gradient, and crustal thickness.

1:45 p.m. Morse Z. R. * Osinski G. R. Tornebene L. L.
New Morphologic Map and Analysis of Orientale Basin Ejecta **[#2299]**
Young lunar basin / Ejecta spread far and wide / New map reveals all.

2:00 p.m. Guo D. * Liu J. Head J W.
Spatial Distribution and Geometrics of Orientale Secondary Crater **[#2560]**
1301 Orientale secondary crater are spatially analyzed. Sixty secondaries are geometrically investigated from 512 profiles of each crater.

2:15 p.m. Wiggins S. E. * Johnson B. C. Silber E. A. Bowling T. J. Melosh H. J.
Impact Fragmentation and Development of the Lunar Megaregolith **[#1295]**
We estimate the extent of fragmentation and fragment sizes produced by lunar impacts as a first step toward understanding the production of lunar megaregolith.

2:30 p.m. Prieur N. C. * Wünnemann K. Werner S. C.
Crater Scaling Results for Rim-to-Rim Crater Diameter - Influence of Angle of Friction, Cohesion and Porosity on Simple Craters **[#1944]**
Crater scaling results for rim-to-rim crater diameter are presented for planetary targets with various angles of frictions, cohesions, and porosities.

2:45 p.m. Silber E. A. * Osinski G. R. Johnson B. C. Grieve R. A. F.
Numerical Modelling of the Effect of Impactor Size and Velocity on Morphological Diversity of Simple-to-Complex Lunar Craters **[#1027]**
We use numerical modeling to investigate the effects of impact velocity and acoustic fluidization on lunar craters in the simple-to-complex regime.

3:00 p.m. Melosh H. J. * Johnson B. C. Bowling T. J.
Impact Spall and Fragmentation by Near-Surface Stress Wave Interactions **[#2051]**
Lightly shocked, high-speed impact ejecta originates from close to the surface and close to the impact point. We describe a new model for fragmentation.

3:15 p.m. Kurosawa K. * Okamoto T. Genda H.
Hydrocode Modeling of the Material Ejection by Spallation **[#1855]**
The launch of high-speed lightly-shocked ejecta was investigated. We found that the ejection velocity can exceed the upper limit in the shock physics.

3:30 p.m. Luther R. * Artemieva N. A. Collins G. S. Wünnemann K.
Impact Ejecta Mechanics: Influence of Target Properties and Atmospheric Interaction on Ejecta **[#1942]**
Ejection characteristics depend on target properties (strength, porosity). Final ejecta deposition changes due to the existence of an atmosphere — if present.

3:45 p.m. Harwell M. L. * Melosh H. J.
Effect of an Atmosphere on the Expansion and Settlement of an Impact Ejecta Plume **[#2896]**
Atmosphere effects / Ejecta plume expansion / Through interactions.

4:00 p.m. Quintana S. N. * Schultz P. H.
Model Results for Impact-Winds on Mars **[#1123]**
A suite of CTH models provides new evidence to support the study of impact vapor-driven winds on Mars by testing both target and impactor properties.

4:15 p.m. Gisler G. R. * Heberling T. Plesko C. S. Weaver R. P.
Three-Dimensional Simulations of Oblique Asteroid Impacts into Water **[#1187]**
New three-dimensional simulations of small asteroid impacts at oblique angles into deep water show spectacular near-field effects, but not dangerous tsunamis.

4:30 p.m. Okamoto T. * Nakamura A. M.
Scaling of Impact-Generated Cavity-Size for Highly Porous Targets and Its Application to Cometary Surfaces **[#1817]**
New scaling relations for targets with porosities larger than ~30% were obtained and the results were applied for estimating crater dimensions on a comet.