Tuesday, March 20, 2018 **[T324]**
POSTER SESSION I: LUNAR CHRONOLOGY AND CRATERING
6:00 p.m. Town Center Exhibit Area

Ipatov S. I. ***POSTER LOCATION #304***
Formation and Growth of Embryos of the Earth and the Moon **[#1602]**
The embryos of the Earth and the Moon could form as a result of contraction of the same parental rarefied condensation.

Perera V. Jackson A. P. Elkins-Tanton L. T. Asphaug E. ***POSTER LOCATION #305***
Effect of Re-Impacting Debris on the Solidification of the Lunar Magma Ocean **[#2558]**
Our thermal modeling shows that re-impacting debris from the Moon-forming impact may have either expedited or prolonged solidification of the Lunar Magma Ocean.

Torcivia M. A. Neal C. R. ***POSTER LOCATION #306***
Investigating the Ages and Formation of the Lunar Crust **[#1368]**
Comparing calculated equilibrium liquids of a group of FANs to their respective Sm-Nd ages and LMO models. What they reveal about the earliest lunar crust.

Keane J. T. Johnson B. C. Matsuyama I. Siegler M. A. ***POSTER LOCATION #307***
The Tumbling Moon: Rotational Dynamics in the Aftermath of Impact Basin Formation **[#1205]**
We couple hydrocode simulations, Apollo/LRO/GRAIL data, and classical mechanics to look at how the Moon spins in the aftermath of giant impacts. It gets crazy.

Zhu M.-H. Wünnemann K. Morbidelli A. Artemieva N. ***POSTER LOCATION #308***
South Pole-Aitken Basin May Contribute Insignificantly to the Late Accretion of the Moon **[#1955]**
Large impactor, low impact angle, forms the South Pole-Aitken Basin, but have less contribution for the late accretion of the Moon.

Moriarty D. P. III Pieters C. M. Petro N. E. Head J. W. ***POSTER LOCATION #309***
The Four Compositional Zones of the South Pole — Aitken Basin and Implications for Basin Evolution **[#1594]**
M^3 reveals four distinct zones across SPA, including a Mg-pyroxene-dominated interior and a central resurfaced zone exhibiting intermediate pyroxene composition.

Cheng C. Chen J. P. ***POSTER LOCATION #310***
A New Insight into Multi-Ring Structure of the Moscoviense Basin **[#2258]**
Analyzed the characteristics of deep structures from a insight of the tilt derivative (TDR) and revealed the multi-ring feature of the Moscoviense Basin.

Arivazhagan S. Karthi A. ***POSTER LOCATION #311***
Chronological Based Crater Counting Analysis (CSFD) of Mare Crisium Basin Using Chandrayaan-1 TMC and LROC-WAC **[#1062]**
The study involves crater based chronological studies of the Mare Crisium Basin by using Chandrayaan-1 Terrian mapping camera and LROC-WAC data.

Stickle A. M. Patterson G. W. Cahill J. T. S. Prem P. ***POSTER LOCATION #312***
Mini-RF Bistatic Observations of Copernican Crater Ejecta **[#1585]**
Mini-RF observations of Copernican Crater ejecta blankets show a variety of responses in CPR as a function of bistatic angle that may vary with crater age.

Watkins R. N. Mistick K. Jolliff B. L. Lawrence S. J. ***POSTER LOCATION #313***
Boulder Distributions Around Young Lunar Impact Craters: Case Study of South Ray Crater **[#1146]**
Rock populations / Around young lunar craters / A powerful tool.

Cahill J. T. S. Patterson G. W. Turner F. S. Morgan G. A.
Stickle A. M. et al. ***POSTER LOCATION #314***
Detection and Characterization of Present Day Lunar Impact Craters with Mini-RF/Goldstone X-Band Bistatic Observations **[#2693]**
We targeted multiple new craters recently discovered on the lunar surface and collected Mini-RF/Goldstone bistatic X-band radar observations of them for study.

Rojas C. Mahanti P. Robinson M. S. ***POSTER LOCATION #315***
Slope — Geologic Age Relationships in Complex Lunar Craters **[#2399]**
Using slope values, TRI, and model ages of large complex craters, we investigate how slope is an important measure for classifying age of complex craters.

Nypaver C. Thomson B. J. Burr D. Fassett C. Neish C. et al. ***POSTER LOCATION #316***
Radar Properties of Impact Ejecta on the Lunar Maria: A Model for Degradation and Age **[#2560]**
Craters on the moon. Let's look at them in radar. Do they disappear?

Rubanenko L. Venkatraman J. Paige D. A. ***POSTER LOCATION #317***
The Depth of Simple Craters and the Permanent Shadows They Cast: Evidence for Ice on Mercury but Not on the Moon **[#2778]**
If simple craters / Are shallower near the poles / Could that be water?

Curran N. M. Bower D. M. Frasl B. Cohen B. A. ***POSTER LOCATION #318***
Age Distribution of Lunar Impact-Melt Rocks in Apollo Drive-Tube 68001/2 **[#2732]**
We are conducting an extensive age and compositional study of impact-melt grains in Apollo drive-tube 68001/2 to understand the bombardment history of the Moon.

Borisov D. Hiesinger H. Scherer E. E. Haber T. Iqbal W. et al. ***POSTER LOCATION #319***
An Interdisciplinary Re-Investigation of the Apollo 14 Landing Site — Pb-Pb Chronology of the Impact Melt Rock 14310 and New Crater Size-Frequency Distribution Measurements **[#1933]**
We date the impact melt rock 14310 with Pb-Pb chronology and correlate our results to fresh CSFD measurements of the Apollo 14 landing site.

Spudis P. D. ***POSTER LOCATION #320***
A Comparison of Some Lunar Basin Impact Melt Compositions **[#1089]**
Basin floors (impact melt sheets) on the Moon have varied compositions, from feldspathic to mafic. Systematic study may explain the differences.

Ji J. Z. Head J. W. III Wilson L. Pieters C. M. Cassanelli J. et al. ***POSTER LOCATION #321***
Impact Basin Melt Seas: Morphologic/Morphometric Evidence of Geometry and Cooling Behavior from the Lunar Orientale Basin Maunder Formation **[#2520]**
Confirming an impact melt origin for the Maunder Formation and provide initial quantitative data on the cooling history of the Orientale melt sheet.

Runyon K. D. Denevi B. W. Jozwiak L. M. Cohen B. A.
Moriarty D. et al. ***POSTER LOCATION #322***
Characterization of Impact Melt Facies in Mare Crisium **[#1536]**
We morphologically and photometrically characterize putative impact melt kipukas embayed in Mare Crisium that could help constrain bombardment history.

Gallinger C. L. Ghent R. R. ***POSTER LOCATION #323***
Preliminary Analysis of Lunar Impact Melt Thermal Signatures **[#2910]**
We present Diviner nighttime temperature data on impact melt ponds of several large lunar craters, and outline an analysis of their thermophysical properties.