Tuesday, March 17, 2015 **[T201]**
SPECIAL SESSION: HOW YOUNG IS YOUNG?
8:30 a.m. Waterway Ballroom 1

Chairs: **Carolyn van der Bogert**
Emerson Speyerer

8:30 a.m. Robbins S. J. *
The Lunar Crater Chronology: History, Current Knowledge, and Holes **[#2629]**
Chronology of/The Moon: How well known is it?/Best ways to constrain?

8:45 a.m. Quantin-Nataf C. * Trey B. Amet Q. Allemand P.
The Lunar Cratering Rate Over the Last 1 GY Inferred from the Age of the Lunar Rayed Craters **[#2692]**
We assess the relative and absolute ages of lunar rayed craters, which allows us to discuss the lunar cratering rate over the last 1 G.y.

9:00 a.m. Mazrouei S. * Ghent R. R. Bottke W. F.
Has the Lunar Impact Flux Rate Changed in the Past Billion Years? **[#2331]**
We investigate the Copernican-era impact flux using a new method for determining crater ages derived from the LRO Diviner rock abundance dataset.

9:15 a.m. McEwen A. * Daubar I. Ivanov B. Oberst J. Malhotra R. et al.
Current Impact Rate on Earth, Moon, and Mars **[#1854]**
Planets are getting whacked, but are the bolides mostly from asteroids or comets? Can new observations help us to date young surfaces?

9:30 a.m. Speyerer E. J. * Robinson M. S. Povilaitis R. Z. Wagner R. V.
Dynamic Moon Revealed with High Resolution Temporal Imaging **[#2325]**
Automated change detection of high resolution NAC images has led to the discovery of 225 new impact craters and nearly 26,000 other surface changes.

9:45 a.m. Neumann G. A. * Glaeser P. A. Hiesinger H. Zuber M. T. Smith D. E.
Copernican-Age Craters and LOLA Decameter-Scale Roughness **[#2218]**
Copernican-aged lunar craters typically exhibit high surface roughness at the decameter and smaller scales of multi-beam laser footprints.

10:00 a.m. Du J. * Fa W.
Dating Radar Dark Halo Craters Based on Postimpact Gardening Process of Crater Ejecta **[#1346]**
We propose a method to determine the absolute age of radar dark halo craters (RDHC) based on the impact gardening process of the crater ejecta.

10:15 a.m. van der Bogert C. H. * Michael G. Kneissl T. Hiesinger H. Pasckert J. H.
Effects of Count Area Size on Absolute Model Ages Derived from Random Crater Size-Frequency Distributions **[#1742]**
We generated random CSFDs for theoretical lunar surfaces with ages 0.1–4 Ga to study count area size effects without interference of real geological processes.

10:30 a.m. Kirchoff M. R. * Marchi S. Wünnemann K.
The Effects of Terrain Properties on Determining Crater Model Ages of Lunar Surfaces **[#2121]**
Using the model production function we show that terrain properties have an important effect on calculating crater model ages when using small craters.

10:45 a.m. Zanetti M. * Stadermann A. Jolliff B. L. van der Bogert C. H. Hiesinger H. et al.
Auto-Secondary Cratering vs. Target Property Effects on Ejecta Blankets of Copernican Craters: What are the Implications for Age Dating Using Small-Diameter Crater Statistics? **[#1209]**
Ghost craters in impact melt ponds and small-diameter crater statistics on melt ponds and ejecta suggest auto-secondary contamination affects crater statistics.

11:00 a.m. Plescia J. B. * Robison M. S.
Lunar Self-Secondary Cratering: Implications for Cratering and Chronology **[#2535]**
Self-secondary craters (secondary craters formed on the primary during cratering) are common on the Moon and have implications for crater-based chronologies.

11:15 a.m. Mahanti P. * Robinson M. S. Stelling R.
How Old are Small Lunar Craters? A Depth-to-Diameter Ratio Based Analyis **[#1615]**
Time-dependent degradation state of small lunar craters is modeled from measurements obtained from LRO Narrow Angle Camera based digital elevation models.

11:30 a.m. Haruyama J. * Kobayashi T. Kumamoto A. Aritomi A. Kimura H. et al.
Young Lunar Mare Deposit at Flamsteed Indicated from Surface Radar Echo and Crater Degradation State **[#1320]**
We propose a unique method to derive relative ages for lunar mare deposits using SELENE (Kaguya) LRS echo data.

11:45 a.m. Hiesinger H. * Simon I. van der Bogert C. H. Robinson M. S. Plescia J. B.
New Crater Size-Frequency Distribution Measurements for Cone Crater at the Apollo 14 Landing Site **[#1834]**
We performed new crater size-frequency distribution measurements for Cone Crater and compared these ages with previous absolute model ages and exposure ages.