**Tuesday, March 20, 2018 [T204]**
**IMPROVING UNDERSTANDING OF LUNAR CHRONOLOGY: THE KEY TO TIME**
**8:30 a.m. Waterway Ballroom 6**

**Chairs:** **Rebecca Ghent**
**Amy Fagan**

8:30 a.m. van der Bogert C. H. * Hiesinger H. Spudis P. Runyon K. D. Denevi B. W.
*The Age of the Crisium Impact Basin* **[#1028]**
CSFD measurements of megablock exposures and proposed remnant impact melt kipukas suggest that Crisium Basin formed ≥3.94 Ga and ≤4.07 Ga ago.

8:45 a.m. Huang Y.-H. * Minton D. A. Zellner N. E. B. Hirabayashi M. Richardson J. E. et al.
*No Change in the Lunar Impact Flux from Modeling Impact Glass Spherule Ages* **[#2677]**
By modeling the evolution of lunar impact glass spherules, we suggest that a depth-dependent sampling bias can explain an excess of young spherule ages.

9:00 a.m. Iqbal W. * Hiesinger H. van der Bogert C. H.
*Reinvestigating the Crater-Size Frequency Distribution of the Apollo 12 Landing Site* **[#1002]**
The Apollo 12 landing site was mapped with the recent lunar data to measure CSFDs for the calibration of the lunar cratering chronology.

9:15 a.m. Taylor S. E. * Powell T. M. Williams J.-P. Paige D. A.
*Longitudinal Distribution of Lunar Craters* **[#2852]**
The degree to which lunar highland craters favor the leading side may depend on diameter. Large cold spots stray from this trend due to differential fading.

9:30 a.m. Ghent R. R. * Costello E. S. Udovicic C. J. T. Mazrouei S. Bottke W. F.
*Lunar Chronology Through Remote Sensing: Understanding the Population of Young Craters on the Moon* **[#1720]**
We analyze the population of young lunar craters larger than 5 km as detected by Diviner rock abundance and Kaguya OMAT values, relative to the NEOs.

9:45 a.m. Watkins R. N. * Jolliff B. L. Fogerty C. Mistick K. Singer K. N. et al.
*Boulder Distributions Around Young, Small Lunar Impact Craters* **[#1201]**
Craters make boulders / Those boulders make regolith / The circle of life?

10:00 a.m. Haber J. T. * Hayne P. O. Elder C. M.
*Rock Abundance and Surface Ages in the Lunar Maria* **[#2463]**
We investigated the rate of rock breakdown and regolith formation on the Moon, using rock abundance data from the Diviner Lunar Radiometer.

10:15 a.m. Fassett C. I. * Minton D. A. Thomson B. J. Hirabayashi M. Watters W. A.
*Re-Analysis of Observations of Crater Degradation on the Lunar Maria Accounting for Anomalous Diffusion* **[#1502]**
Recent work implies diffusive degradation of lunar craters must be scale-dependent. Existing data on lunar crater topography is reanalyzed given this finding.

10:30 a.m. Minton D. A. * Fassett C. I. Hirabayashi M. Howl B. A. Richardson J. E.
*Topographic Degradation by Impact Cratering on Airless Bodies is Dominated by Diffusive Erosion from Distal Ejecta* **[#2377]**
Gentle lunar seas / Far away the ground is struck / Craters melt away.

10:45 a.m. Vanderliek D. M. * Becker H. Rocholl A.
*In Situ U-Pb Dating of Lunar Breccia 15455: Impact Resetting and Growth of Zircons at 4.2 Ga* **[#1931]**
We present new in-situ U-Pb zircon age data for lunar impactite 15455, suggesting impact-related zircon growth and complete resetting at 4.2 Ga.

11:00 a.m. Fagan A. L. * Gross J. Ramsey S. Turrin B.
*Northwest Africa 8632 — Recording Young Lunar Volcanism* **[#2584]**
Northwest Africa 8632 is one of the youngest lunar basalts (first age est. of 2772 ± 41 Ma and 2877 ± 34 Ma) and has olivine phenocrysts with oscillatory P-zoning.

11:15 a.m. Sio C. K. * Borg L. E.
*Sm-Nd Isotopic Systematics of Ferroan Anorthosite (FAN) 62237: Evidence for Co-Magmatism of FANs at 4.36 Ga* **[#2710]**
We present chronological evidence that FANs 62237, 60025, and 60016 were produced in the same magmatic event at 4.36 Ga.

11:30 a.m. Borg L. E. * Gaffney A. M. Wimpenny J. B.
*Isotopic Systematics of Mafic and Felsic Lunar Cumulates* **[#2398]**
Mare basalt sources and ferroan anorthosite rocks have identical $^{146}$Sm-$^{142}$Nd isotope systematics suggesting derivation from same source at same time.