**Thursday, March 22, 2018** **[R551]**
**LUNAR VOLCANISM I**
**1:30 p.m. Waterway Ballroom 1**

**Chairs:** **Debra Needham**
**Benjamin Greenhagen**

1:30 p.m. Cronberger K. A. * Neal C. R.
*Origin(s) and Evolution of KREEP Basalts* **[#1305]**
KREEPy basalts have / Multi-partial melting steps / This is a haiku.

1:45 p.m. Allen C. C. * Greenhagen B. T. Lucey P. G. Hiesinger H. Paige D. A.
*Lunar Mare Basalt Evolution Over 1.5 Billion Years* **[#1307]**
Imbrium flows older than 3.2 Ga may have come from a common source while younger flows may have multiple sources. Source composition evolved little over 1.5 Ga.

2:00 p.m. Du J. * Fa W. Wieczorek M. A. Xie M. Zhu M.-H.
*New Estimation of Lunar Mare Basalt Thickness Based on Partially Buried Craters* **[#1865]**
The thickness and eruption rate of mare basalts and topographic diffusivity were estimated from partially buried craters and a topographic degradation model.

2:15 p.m. Morgan G. A. * Campbell B. A. Patterson G. W. Cahill J. T. S. Neish C. D.
*Multi-Wavelength Bistatic Investigation of Compositional Variations Across Mare Imbrium Using Mini-RF* **[#1897]**
Using Morgan et al. [2016] to identify regions with relatively uniform Ti content, we will establish whether individual units exhibit unique bistatic signatures.

2:30 p.m. Jawin E. R. * Head J. W.
*Assessing the Volcanic History of the Prinz-Harbinger Region Using Radar and Spectroscopy* **[#1237]**
The Prinz-Harbinger region experienced several episodes of both effusive and explosive volcanic activity, generating rilles, pyroclastics, and buried lava flows.

2:45 p.m. Ling Z. C. * Jolliff B. L. Liu C. Q. Bi X. Y. Liu L. et al.
*Composition, Mineralogy, and Chronology of Mare Basalts in Von Kármán Crater: A Candidate Landing Site of Chang'e-4* **[#1939]**
We report spectroscopic, compositional, and chronological studies of the mare basalt units in Von Kármán Crater to recognize the science potential for Chang'e-4.

3:00 p.m. Greenhagen B. T. * Cahill J. T. S. Glotch T. D. Jolliff B. L. Lawrence S. J. et al.
*A Wolf in Sheep's Clothing: Possible Volcanic Origin of Wolf Crater* **[#2240]**
We investigate the geomorphology and composition of Wolf Crater, which has a composition similar to highly evolved, non-mare volcanics, and discuss its origin.

3:15 p.m. Qiao L. * Head J. W. Wilson L. Ling Z.
*Lunar Irregular Mare Patch (IMP) Sub-Types: Linking Their Origin Through Hybrid Relationships Displayed at Cauchy 5 Small Shield Volcano* **[#1390]**
Relationships at Cauchy 5 small shield volcano summit and flanks provide a hybrid example of the genetic link between the large pit crater and small mare IMPs.

3:30 p.m. Kaku T. * Haruyama J. Miyake W. Kumamoto A. Ishiyama K. et al.
*Existence of a Lunar Lava Tube at West of Rima Mairan Suggested by SELENE LRS* **[#1830]**
Existence of A Lava Tube at South of Rima Sharp and West of Rima Mairan on the Moon, suggested from SELENE Lunar Radar Sounder (LRS) Data.

3:45 p.m. Bhiravarasu S. S. * Taylor P. A. Rivera-Valentín E. G. Virkki A. K. Patterson G. W. et al.
*Bistatic Radar Observations of a Sample of Lunar Pyroclastic Deposits* **[#2496]**
We present recent bistatic radar observations of some lunar pyroclastic deposits.

4:00 p.m. Saal A. E. * Chaussidon M. Gurenko A. A. Rutherford M. J.
*Boron and Lithium Contents and Isotopic Composition of the Lunar Volcanic Glasses* **[#2575]**
New *in-situ* B and Li contents and isotopes in lunar glasses, implications for the composition lunar mantle, magma degassing, formation of surface correlated elements.

4:15 p.m. Zhang F. * Wöhler C. Head J. W. Bugiolacchi R. Wilson L. et al.
*Ring-Moat Dome Structures (RMDSs) in the Lunar Maria: Further Statistical and Morphological Characterization* **[#1374]**
Statistical and morphological characterization of ring-moat dome structures recently defined in the lunar maria using NAC-based high-resolution DEMs.

4:30 p.m. Wilson L. * Head J. W.
*Lunar Basaltic Volcanic Eruptions: Gas Release Patterns and Variations in Lava Vesicularity: 2. Fissures, Mare Flows, and Ring Moat Dome Structure (RMDS) Morphology* **[#1326]**
We show how high volume flux explosive lunar eruptions from fissure vents can form mare lava flows supporting both IMPs and ring moat dome structures (RMDSs).