

Tuesday, May 19, 2015
IF YOU CAN'T BE FIRST, BE SECONDARY
 12:45 p.m. E200 Auditorium

Chairs: **Stuart Robbins**
Clark Chapman

- 12:45 p.m. Bierhaus E. B. *
[*The Effect of Secondary Craters on Surface Ages Derived from Impact Craters*](#) [#9057]
 Impact-crater based chronologies are a powerful means to derive surface ages, though we are still in the early stages of understanding the creation and distribution of secondary craters, which affect the accuracy of model crater production functions.
- 1:25 p.m. Singer K. N. * McKinnon W. B. Jolliff B. L. Plescia J. B.
[*Icy Satellite and Lunar Ejecta from Mapping of Secondary Craters: Implications for Sesquinary Forming Fragments*](#) [#9034]
 We find an unexpected scale-dependent trend in ejecta fragment size-velocity distributions and empirically estimate the maximum ejecta fragment sizes reaching escape velocity.
- 1:50 p.m. Ostrach L. R. * Singer K. N. Petro N. E. Robinson M. S.
[*Detecting Non-Obvious Secondary Craters on the Moon*](#) [#9028]
 Probable non-obvious secondaries in the lunar mare are identified from maps of measured crater densities. This technique enables an improved quantitative assessment of the secondary population, and therefore more accurate ages, on the Moon.
- 2:15 p.m. Zanetti M. * Stadermann A. C. Jolliff B. L. Hiesinger H. van der Bogert C. H.
[*Making the Case for Auto-Secondary Cratering: Evidence from Young Lunar Ejecta Blankets*](#) [#9041]
 Continuous ejecta blankets should be completely resurfaced by ejecta emplacement, but our crater density measurements and observed ghost craters in impact melt suggest that craters form on ejecta after emplacement but before the arrival of melt.
- 2:40 p.m. Boyce J. M. * Mouginis-Mark P. J.
[*Anomalous Areas of High Crater Density on the Rim of the Martian Crater Tooting*](#) [#9005]
 Small areas confined to the rim of Tooting Crater may be formed from fallback of very high-ejection angle ejecta. If this is the case and Tooting is typical, then such ejecta would not affect most crater density age measurements on craters.
- 3:05 p.m. BREAK
- 3:15 p.m. Williams J.-P. * Pathare A. V.
[*Challenges Using Small Craters for Dating Planetary Surfaces*](#) [#9051]
 Small craters are used to discriminate young surface ages, however various processes preferentially alter the smaller diameter crater populations, making small craters more challenging to use for age-dating.
- 3:40 p.m. Schenk P. * Hoogenboom T. Johnson K.
[*Secondaries and Self-Secondaries on Icy and Small Rocky Bodies*](#) [#9046]
 We examine the variability of simple and complex crater morphologies on low-gravity bodies of ice and rock composition.
- 4:05 p.m. DISCUSSION