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-Secondaires 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