

Wednesday, September 23, 2015
VIRTUAL FIELD TRIP OF NUMERICAL MODELS
9:00 a.m. Geology Department

This unconventional session is devoted to giving “non-modelers” a more detailed understanding of the strengths and weaknesses of numerical models and their scientific interpretation.

COMPLEX CRATERS
11:00 a.m. Pathology and Anatomy Lecture Hall

Chair: Ross Potter

- 11:00 Rae A. S. P. * Morgan J. V. Collins G. S. Osinski G. R. Grieve R. A. F.
[*Complex Crater Formation: Insights from Combining Observational Constraints with Numerical Models of the West Clearwater Impact Structure*](#) [#1031]
 Shock distribution patterns and other geological observations can provide valuable constraints on the target rheology during crater collapse; consistent rheologies can be produced with the acoustic fluidisation model.
- 11:15 Tornabene L. L. * Osinski G. R. Barlow N. G. Bray V. J. Caudill C. M. D’Aoust B. Ding N. Hopkins R. Nuhn A. M. Mayne A. McEwen A. S.
[*Meter- to Decameter-Scale Characteristics of Central Uplifts Revealed by the Mars Reconnaissance Orbiter*](#) [#1043]
 Ongoing orbital observations of Mars continue to reveal the morphologic, spectral and structural complexity and diversity of crater central uplifts.
- 11:30 Kenkmann T. * Afifi A. M. Stewart S. A. Poelchau M. H. Cook D. J. Neville A. S.
[*Saqqa Impact Structure: A Buried 34 km Crater in Saudi Arabia*](#) [#1015]
 We present evidence for an impact origin of a circular structure with an apparent diameter of 34 km, centered at 29°35’N, 38°42’E, which is partially buried under ~400 m of Cretaceous-Paleogene strata in the Nafud basin in NW Saudi Arabia.
- 11:45 Barlow N. G. * Maine A. Ferguson S.
[*Central Pit Craters Across the Solar System*](#) [#1104]
 Central pit craters are seen on several bodies in the solar system, including those with volatile-rich and volatile-poor crusts. This study is comparing central pit characteristics across solar system bodies in order to constrain formation models.
- 12:00 DISCUSSION