

**Wednesday, September 23, 2015**  
**PEAK-RING AND MULTIRING CRATERS**  
**1:45 p.m. Pathology and Anatomy Lecture Hall**

**Chair: Uwe Reimold**

- 13:45 Melosh H. J. \*  
[\*Peak Ring Craters and Multiring Basins\*](#) [#1003]  
 Understanding of the mechanics of peak-ring crater and basin formation has expanded greatly due to the high precision data on lunar gravity from GRAIL. Peak rings coincide with the edges of underlying mantle uplifts on the Moon.
- 14:15 Collins G. S. \* Baker D. M. H. Head J. W. Potter R. W. K.  
[\*Bridging the Gap Between Observations and Numerical Models of Peak-Ring Basin Formation\*](#) [#1019]  
 Narrowing the gap / Models and observations / Solve peak-ring puzzle?
- 14:30 Gibson R. L. \*  
[\*What is the Vredefort Dome Teaching us About the Search for Other Eroded Large Impact Structures?\*](#) [#1045]  
 Using the well-exposed Vredefort Dome as an example, this presentation provides an overview of the challenges for the identification of deeply eroded large impact structures, particularly relating to the effects of impact-induced thermal metamorphism.
- 14:45 Potter R. W. K. \* Head J. W.  
[\*Numerically Modeling Mercurian Impacts: The Formation of Caloris Basin and the Origin of Its Low-Reflectance Material\*](#) [#1098]  
 Numerical modeling suggests the Caloris-forming impact did not penetrate into Mercury's core and that its low-reflectance material could be molten mantle material.
- 15:00 Dence M. R. \*  
[\*Critical Observations that Constrain Hypervelocity Impact Models\*](#) [#1041]  
 Canadian craters in crystalline rocks include simple, central peak and peak-ring forms; hyperbolic transient craters involve tensile fragmentation modulated by gravity and depth-diameter relationships different from craters in sedimentary strata.
- 15:15 DISCUSSION
- 15:30 *Coffee Break*