

Research Focus: Formation of Peak-ring and Multi-ring Basins

2012 R. W. K. Potter*, G. S. Collins, W. S. Kiefer, P. J. McGovern, and **D. A. Kring**, "Constraining the size of the South Pole-Aitken Basin impact," *Icarus* 220, pp. 730–743.

2012 R. W. K. Potter*, **D. A. Kring**, G. S. Collins, W. S. Kiefer, and P. J. McGovern, "Estimating transient crater size using the crustal annular bulge: Insights from numerical modeling of lunar basin-scale impacts," *Geophysical Research Letters* 39, L18203, 5 p., doi:10.1029/2012GL052981.

2013 A. L. Nahm*, T. Öhman*, and **D.A. Kring**, "Normal faulting origin for the Cordillera and Outer Rook Rings of Orientale Basin, the Moon," *Journal of Geophysical Research: Planets* 118, 1–16, doi: 10.1002/jgre.20045.

2013 R.W.K. Potter*, **D.A. Kring**, G.S. Collins, W.S. Kiefer, and P.J. McGovern, "Numerical modeling of the formation and structure of the Orientale impact basin," *Journal of Geophysical Research: Planets* 118, pp. 963–979, doi:10.1002/jgre.20080.

2013 R. W. K. Potter*, **D. A. Kring**, and G. S. Collins, "Quantifying the attenuation of structural uplift beneath large lunar craters," *Geophysical Research Letters* 40, pp. 5615–5620.

2015 R. W. K. Potter*, **D. A. Kring**, and G. S. Collins, "Scaling of basin-sized impacts and the influence of target temperature," in *Large Meteorite Impacts and Planetary Evolution V*, G. R. Osinski and D. A. Kring (eds.), Special Paper 518, pages 99–113, Geological Society of America, Boulder.

2016 **D. A. Kring**, G. Y. Kramer*, G. S. Collins, R. W. K. Potter*, and M. Chandnani**, "[Peak-ring structure and kinematics from a multi-disciplinary study of the Schrödinger impact basin](#)," *Nature Communications* 7, 13161, 10 p., doi: 10.1038/ncomms13161.

2016 J. Morgan, S. Gulick, T. Bralower, E. Chenot, G. Christeson, P. Claeys, C. Cockell, G. S. Collins, M. J. L. Coolen, L. Ferrière, C. Gebhardt, K. Goto, H. Jones, **D. A. Kring**, E. Le Ber, J. Lofi, X. Long, C. Lowery, C. Mellett, R. Ocampo-Torres, G. R. Osinski, L. Perez-Cruz, A. Pickersgill, M. Pöschau, A. Rae, C. Rasmussen, M. Rebolledo-Vieyra, U. Riller, H. Sato, D. R. Schmitt, J. Smit, S. Tikoo, N. Tomioka, J. Urrutia-Fucugauchi, M. Whalen, A. Wittmann, K. Yamaguchi, and W. Zylberman, "The formation of peak rings in large impact craters," *Science* 354 (6314), 878–882 [doi: 10.1126/science/aah6561].

2017 **D. A. Kring**, P. Claeys, S. P. S. Gullick, J. V. Morgan, G. S. Collins, and the IODP-ICDP Expedition 364 Science Party, "Chicxulub and the exploration of large peak-ring impact craters through scientific drilling," *GSA Today* 27(10), pp. 4–8. Invited paper.

2018 U. Riller, M. H. Poelchau, A. S.P. Rae, F. Schulte, H. J. Melosh, G. S. Collins, R. A.F. Grieve, J. V. Morgan, S. P. S. Gulick, J. Lofi, N. McCall, **D. A. Kring**, and the IODP-ICDP Expedition 364 Science Party, "Rock fluidization during peak-ring formation of large impact craters," *Nature* 562, pp. 511–518.

*Post-doc in Kring's lab

**Undergraduate student in Kring's lab