

Brief Biographical Sketch

Ryan S. Elliott

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Ryan S. Elliott received his B.S. in Engineering Mechanics from Michigan State University, East Lansing. He received a M.S.E. in Aerospace Engineering, a M.S. in Mathematics, and a Ph.D. in Aerospace Engineering and Scientific Computing, all from The University of Michigan, Ann Arbor. In 2004 he was a Research Fellow at The University of Michigan. Elliott was appointed, as an Assistant Professor, in January 2005 to the faculty of the Aerospace Engineering and Mechanics Department at The University of Minnesota, Minneapolis and in 2011 he was promoted to Associate Professor with tenure. Prof. Elliott has been an Associate Fellow of the Minnesota Supercomputing Institute since 2009. In 2010 he held the position of Visiting Researcher at the Laboratoire de Mécanique des Solides (LMS) of The École Polytechnique, Palaiseau, France. In 2012 Elliott was appointed as the first *KIM Editor* for the Knowledgebase of Interatomic Models (KIM) (<http://openKIM.org>).

Dr. Elliott's research interests are in the areas of stability and non-uniqueness in nonlinear systems, active materials and shape memory alloys, and the accuracy or "transferability" of interatomic force laws for atomistic simulations. He also has significant interest in the general areas of scientific computing and software engineering. He applies all of these interests to study the detailed post-bifurcation behavior of periodic architected materials (such as honeycombs), as well as the detailed atomic scale behavior of martensitic phase transformations, and defects in crystalline solids. Elliott is co-author (with E.B. Tadmor and R.E. Miller) of the book *Continuum Mechanics and Thermodynamics: From Fundamental Concepts to Governing Equations*, Cambridge University Press, 2011. He has received numerous awards, including: the *Tau Beta Pi Matthews Fellowship* (1998), the *U.S. D.O.E. Computational Science Graduate Fellowship* (2000), the *Ivor K. McIvor Award in Applied Mechanics*, the *Frederick A. Howes Scholar in Computational Science* award (2005), a *National Science Foundation CAREER grant* (2007), a *University of Minnesota McKnight Land-Grant Professorship* (2009), the *Russell J. Penrose Faculty Fellowship* (2012), and the *Thomas J.R. Hughes Young Investigator* award (2014). Elliott's research has been presented at numerous national and international conferences.