

## **Brief Biographical Sketch**

### **Professor Thomas Shield:**

Thomas W. Shield is currently a Professor in the Department of Aerospace Engineering and Mechanics at the University of Minnesota (U of M). He obtained his B.S. in Engineering Mechanics with University Honors from the University of Illinois at Urbana-Champaign (UIUC) in 1983 and both his M.S. and Ph.D. in Mechanical Engineering from the University of California at Berkeley in 1984 and 1988, respectively. His thesis work with adviser Prof. D. B. Bogy considered elastic contact on layered materials. He then worked with Prof. K. Kim at UIUC and Brown University to develop microscopic moiré methods to measure the plastic strain fields near notches in single crystals.

Dr. Shield continued this work after joining the U of M in 1990 as an assistant professor. He was promoted to associate professor in 1996 and full professor in 2004. His honors and awards include the U of M McKnight Land-Grant Professorship, 1992-94; National Science Foundation (NSF) National Young Investigator Award, 1992-97; The Berkeley Graduate Fellowship, 1983 and 1988; and The NSF Graduate Fellowship, 1984-87. His current research primarily involves experiments on the mechanics of materials with more than 30 publications on single crystal plasticity and fracture, shape-memory behavior and most recently ferromagnetic shape-memory (FSM) materials.

Dr. Shield's experimental facilities include a Magneto-Mechanical Testing Machine he constructed for testing FSM materials. He currently serves as the Director of Undergraduate Studies for the Bachelors of Aerospace Engineering and Mechanics program and as an associate editor for the ASME Journal of Applied Mechanics.