

Mathematics and Statistics at Sandia National Laboratories: A Perspective from an Engineering Scientist

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Abstract

Sandia National Laboratories is a federally funded research and development center that develops and applies science, technology, and engineering solutions for pressing national security challenges. Mathematics at all levels of rigor underpins every aspect of the work we do, and Sandians with academic degrees in applied mathematics impact a wide range of areas such as alternative energy, space systems, microsystems, computational multiphysics, and neural computing. In this seminar, I will introduce Sandia and how mathematicians and statisticians contribute to its missions, and describe how Sandia's extensive collaborative environment enriches their careers. In particular, I will expound on my personal exciting, multi-disciplinary experience at Sandia exemplified by challenging problems in smart deployable structures and design optimization. Finally, I will describe Sandia career opportunities and advise on how applied mathematicians and statisticians should approach a non-academic career search.

Biography

Jordan E. Massad received the B.S. degree in physics and mathematics from Worcester Polytechnic Institute, and the M.S. and Ph.D. degrees in applied mathematics from North Carolina State University. He is presently a Principal Member of Technical Staff at Sandia National Laboratories, Albuquerque. Prior to Sandia, he worked with the Mathematics and Computing Technology division at The Boeing Company. His current research interests include uncertainty-enabled design, thermal stress mitigation in meso and microsystems, and smart materials.