## **Uncertainty in Acoustical Modeling**

Acoustics Today, Vol. 19, Iss. 2, pgs. 28-35

## Sheri L. Martinelli

slm77@psu.edu



The Pennsylvania State University PO Box 30, Mail Stop 9800L State College, Pennsylvania 16804, USA

**Sheri L. Martinelli** is head of the Simulation Software Department of the Applied Research Laboratory, Pennsylvania State University, State College.

Previously, she was a scientist at the Naval Undersea Warfare Center, Newport, Rhode Island. Her research emphasizes modeling and simulation algorithm development for applications in underwater acoustics. She has a MS in applied mathematics from Rensselaer Polytechnic Institute, Troy, New York, and a PhD in applied mathematics from Brown University, Providence, Rhode Island.



D. Keith Wilson d.keith.wilson@usace.army.mil

United States Army Engineer Research and Development Center 72 Lyme Road Hanover, New Hampshire 03755, USA

**D. Keith Wilson** is a research physical scientist in the United States Army Engineer Research and Development Center, Hanover, New Hampshire. He received a PhD in acoustics from the Pennsylvania State University, State College, in 1992 and was a research fellow at the Woods Hole Oceanographic Institution, Woods Hole, Massachusetts. His research spans many topics related to wave propagation, turbulence, remote sensing, statistics, and simulation. He is a fellow of the Acoustical Society of America (ASA) and a Lindsay Award recipient, associate editor of *The Journal of the Acoustical Society of America*, and chair of the ASA Technical Committee on Computational Acoustics.



Andrew S. Wixom

axw274@psu.edu

The Pennsylvania State University PO Box 30, Mail Stop 3220 State College, Pennsylvania 16804, USA

Andrew S. Wixom is an assistant research professor in the Structural Acoustics Department of the Applied Research Laboratory, Pennsylvania

State University, State College. He received his doctorate in mechanical engineering from Boston University, Boston, Massachusetts, in 2016. His research includes many aspects of

computational acoustics as it relates to vibrations and coupled structural-acoustic simulations, with particular attention on accelerating finite and boundary element computations, uncertainty quantification, and design optimization.



Chris L. Pettit pettitcl@usna.edu

Aerospace Engineering Department United States Naval Academy 590 Halloway Road, Mail Stop 11-B Annapolis, Maryland 21402, USA

**Chris L. Pettit** is a professor and Aerospace Engineering Department Chair at the United States Naval Academy (USNA), Annapolis, Maryland, and an adjunct research professor in the Department of Civil and Environmental Engineering, Carleton University, Ottawa, Ontario, Canada. His primary teaching responsibilities are in engineering mechanics, aerospace structural mechanics and materials, and fluid mechanics and aerodynamics. Prior to joining the USNA faculty, he was a senior research aerospace engineer in the Air Vehicles Directorate, United States Air Force Research Laboratory. His research interests include uncertainty quantification, sensitivity analysis, reduced-order modeling and machine learning, model selection, and optimization in nonlinear dynamics and outdoor sound propagation.