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Professional preparation:

University of Notre Dame, Notre Dame, Indiana	Physics	B.S.	1994
Tulane University, New Orleans, Louisiana	Physics	M.S.	1996
Tulane University, New Orleans, Louisiana	Physics	Ph.D.	1999
Argonne National Laboratory, Argonne, Illinois	Physics	Postdoctoral Appointment	2000 - 2003

Research summary:

I am interested in developing a full-field and tomographic x-ray research program using the unique capabilities associated with the design of the Hard X-ray Nanoprobe Beamline (http://nano.anl.gov/research/nanoprobe.html). In addition, as an extension of my previous research interests, I will be using the nanoprobe to study nanoscale systems using polarized x-rays and applied electric and magnetic fields. I am also interested in further developing the nanoprobe in order to explore the cutting edge of x-ray imaging.

Recent publications related to the nanoprobe:

D. Shu, J. Maser, B. Lai, S. Vogt, M. Holt, C. Preissner, A. Smolyanitskiy, B. Tieman, R. Winarski, and G. B. Stephenson, *Precision Mechanical Design for a Hard X-ray Nanoprobe Instrument with Active Vibration Control in Nanometer Scale*, Proceedings of the Eighth International Conference on X-ray Microscopy, IPAP Conference Series 7 (2006) 56-58.

D. Shu, J. Maser, M. Holt, B. Lai, S. Vogt, Y. Wang, C. Preissner, Y. Han, B. Tieman, R. Winarski, A. Smolyanitskiy, and G. B. Stephenson, *Design and Test of a Differential Scanning Stage System for a X-ray Nanoprobe Instrument*, SPIE Optomechanics (2005) E1-E13.

D. Shu, J. Maser, B. Lai, S. Vogt, M. Holt, Y. Han, B. Tieman, R. Winarski, A. Smolyanitskiy, and G. B. Stephenson, *Design of a Scanning Stage System for a X-ray Nanoprobe Instrument*, Proceedings of the ASPE Nineteenth Annual Meeting, Volume 34, 68-71.

D. Shu, J. Maser, B. Lai, S. Vogt, M. Holt, C. Preissner, R. Winarski, and G. B. Stephenson, *Optomechanical Structure for a Multifunctional Hard X-ray Nanoprobe Instrument*, Patent Application (ANL-IN-05-064), 2005.