



Katrina M. Groth

PSAM12 Speaker Bio

Risk and reliability analysis department Sandia National Laboratories

Short Statement: Katrina Groth is the first author for two papers at PSAM12.

BIOGRAPHY

Dr. Katrina M. Groth is a Senior Member of Technical Staff in the Risk and Reliability Analysis department of Sandia National Laboratories. She received her Ph.D. in Reliability Engineering in 2009 from the University of Maryland. She also holds an M.S. in Reliability Engineering and a B.S. in Engineering (Nuclear option) from the University of Maryland. Dr. Groth has 10 years of experience building quantitative causal models to support risk-informed decision making in complex engineered systems.

Since coming to Sandia in 2010, she has worked on safety and risk assessment in multiple areas, including nuclear power plants, hydrogen fuel cells, and natural gas. She is currently the PI for a DOE project to create a methodology and toolkit for analyzing risks associated with hydrogen infrastructure for transportation and stationary power applications. Dr. Groth is also researching the use of Bayesian Networks for use in nuclear power plant severe accident management.

In her graduate work, Dr. Groth used a combination of human performance data and expert models to develop a Bayesian Network model to assess human error probability based on specific aspects of the scenario context. She was also PI for a research effort to use emerging sources of human performance data to Bayesian update existing expert-based Human Reliability Analysis methods.