

Robert L. Sanders

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Robert Sanders is a senior engineer in the Modeling and Simulation Group in the Computational Sciences and Engineering Division at Oak Ridge National Laboratory. Mr. Sanders has responsibility in two separate areas. The first is as the lead architect for the Nuclear FACility (NFAC) model within the Defense Threat Reduction Agency Code (DTRA) – HPAC. NFAC, which was written based on the Nuclear Regulatory Commission's (NRC's) program RASCAL, determines the offsite dose consequences for various types of incidents at nuclear power stations, research reactors, and other facilities handling radioactive materials. Secondly, Mr. Sanders is one of the pioneers at ORNL in the research of the application of Serious Games to real world modeling. Presently, Mr. Sanders is heading an initiative to simulate a radiological environment typically of a research reactor found in an urban environment for deployment to local first responders.

In research, Mr. Sanders has worked on a variety of computational problems including modeling radiological material transport to the environment, radiation transport using both Monte Carlo and buildup factor techniques, as well as calculation of nuclear decay and daughter product generation. He authors/coauthors 20 reports and papers in the open literature and is an experienced Java, FORTRAN, Visual Basic, TCL/TK, and C++ programmer. He has a B.S. in Nuclear Engineering with a minor in Mathematics from the University of Tennessee at Knoxville and a M.S. in Nuclear Engineering also from the University of Tennessee.