

John Wagner

John C. Wagner is the Nuclear Science and Technology Division Technical Integrator for Nuclear Modeling, Design, and Safety at Oak Ridge National Laboratory (ORNL). He received a B.S in nuclear engineering from the University of Missouri-Rolla in 1992 and M.S. and Ph.D. degrees from the Pennsylvania State University in 1994 and 1997, respectively. His Ph.D. dissertation research focused on the development of a new code, A3MCNP, for automated variance reduction of Monte Carlo shielding calculations based on 3-D discrete ordinates adjoint functions. His M.S. thesis research involved detailed Monte Carlo and discrete ordinates analyses for reactor pressure vessel neutron fluence. Following graduate school, Dr. Wagner spent 2 years with Holtec International performing criticality safety analyses and licensing activities for spent fuel storage pools and storage and transportation casks. Wagner joined ORNL in 1999 and has since been involved in a variety of research and analysis activities, including burnup credit and criticality safety for spent fuel storage, transport, and disposal, radiation shielding code development, development and application of automated variance reduction methods, and spent fuel characterization. In 2003-2009, he served as leader of the Radiation Transport and Criticality group, where he coordinated the efforts of 21 technical staff members. In 2009, Dr. Wagner was named technical integrator for Nuclear Modeling, Design, and Safety at ORNL where he provides technical leadership and oversight of the following R&D areas at ORNL: nuclear analysis methods and applications related to reactor physics, radiation transport, criticality safety, and thermal hydraulics; nuclear data measurement and evaluation; advanced reactor systems, controls and sensor technology; reactor and facility safety; materials irradiation experiment design and operation; and the Radiation Safety Information Computational Center. Dr. Wagner's research interests and expertise are primarily in the areas of Monte Carlo and variance reduction methods and burnup credit criticality safety.