Dr. Charles F. Weber has over 40 years experience in nuclear chemical engineering and applied mathematics. He received a B.A. (Mathematics, 1975), M.S. (Mathematics, 1979), and Ph.D. (Chemical Engineering, 1998), all from the University of Tennessee. He has expertise in many areas of applied mathematics, including numerical analysis, optimization, scientific programming, statistics, and inverse problems. He has applied these skills in various areas of nuclear chemistry and nuclear chemical engineering, such as inverse heat conduction, modeling and parameter estimation in chemical kinetics and thermodynamics, inverse depletion/decay modeling and generalized modeling of enrichment cascades. In addition, he has contributed to several studies of fallout transport during a hypothetical urban nuclear detonation, focusing on the chemical and physical behavior of fallout particles. Dr. Weber has been the Principal Investigator on a number of projects for NNSA Defense Nuclear Nonproliferation R&D, the Department of Defense, Department of Energy, the Nuclear Regulatory Commission, and the International Atomic Energy Agency.

Selected Publications:

K. Dayman, B. Ade, and C. Weber, *Sparse Bayesian Regression with Integrated Feature Selection for Nuclear Reactor Analysis*, presented at the M&C 2017 International Conference on Mathematics & Computational Methods Applied to Nuclear Science and Engineering, Apr 16-Apr 20, 2017, Jeju, South Korea.

K.B. Bekur, T. Miller, B. Patton, and C. Weber, *Rapid Evaluation of Particle Properties using Inverse SEM Simulations*, presented at the ICRS-13/RPSD-2016, Oct. 3-6, 2016, Paris, France.

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