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Vickie E. Lynch is a research staff member of the Modeling and Simulation Group in the Computational Science and Engineering Division, Oak Ridge National Laboratory. She works with the Scientific Computing group at the Center for Computational Science as primary liaison for two plasma physics projects on the Jaguar parallel computer and is a TeraGrid staff member supporting the Neutron Science TeraGrid Gateway with parallel neutron science simulations and data analysis. Research interests include numerical calculations of fusion energy turbulence and transport, numerical methods for solving PDEs with fractional derivatives, analysis of experimental data, tracer particles in 3-D parallel turbulence calculations, pictures of quasi-coherent resistive ballooning structures, and calculations of the dynamics of blackouts in electric power systems. She is an author or coauthor of over 100 refereed publications.

Ms. Lynch received a BS in Mathematics from Union University in Jackson, Tennessee in 1977 where she received the Physics Medal. In 1979 she received an MS in Applied Mathematics from the University of Tennessee and won the student paper award for the southeast section of SIAM for the presentation of her thesis, “A Comparison of Several Methods for Solving Second-Order Damped Systems of Ordinary Differential Equations.” Since 1979 she has worked with the Plasma Theory Section of the Fusion Energy Division doing numerical calculations of turbulence and transport problems using the supercomputers at both NERSC and ORNL. She was a member of the ATF stellarator design team in the 1980s and involved in the design, evaluation, and optimization of many stellarator configurations. Since 1985 she has been involved with parallel fusion calculations on most of the major parallel computers from the Intel iPSC-1 to the present Cray XT4. She presented papers at Supercomputing ’92, ’93 and ’97 and posters at numerous other Supercomputing conferences. She has been the mentor of many student interns. In 1985 she received a Martin Marietta Energy Systems Technical Achievement Award. Martin Marietta Energy Systems Joint Publication Awards were awarded in 1985, 1987, and 1990. The Association of Women in Science gave her their Technical Achievement Award in 1988.