

## Papenbrock Elected an APS Fellow

December 17, 2014

**Professor Thomas Papenbrock** (<http://web.utk.edu/~tpapenbr/default.html>) has another December accolade with his election as a Fellow of the American Physical Society. A nuclear theorist, he was cited for his “innovative theoretical approaches to the nuclear many-body problem and other finite quantum systems.” Fellows are recognized by their peers based on exceptional contributions to physics through research, applications, leadership, service, or education. Papenbrock’s election brings the number of APS fellows on the physics faculty to 12.

Papenbrock’s research involves developing mathematical and computational tools for the description of atomic nuclei, particularly the rare and exotic isotopes that exist for only fractions of a second. This kind of insight opens the door to a deeper understanding of the strong nuclear force and of heavy elements abundant in the universe. One of the long-term goals of his research is a model-independent description of atomic nuclei, with controlled theoretical errors and predictive power. The theoretical approach toward this goal is based on effective theories for the nuclear interaction and on powerful computational methods for the solution of the nuclear many-body problem.

Papenbrock earned a Ph.D. at the University of Heidelberg in 1996. He joined the physics faculty at UT in 2004.