



Biography - Prof. Volker E. Oberacker

Education

- Ph.D.: November 1977, Goethe Universität, Institut für Theoretische Physik, Frankfurt am Main, Germany (Thesis Adviser: Prof. Walter Greiner)
- M.S.: February 1974, ('Diplom in Physik'), Goethe Universität, Institut für Theoretische Physik, Frankfurt am Main, Germany (Thesis Adviser: Prof. Werner Scheid)
- B.S.: July 1971, ('Vordiplom in Physik'), Goethe Universität, Fachbereich Physik, Frankfurt am Main, Germany

Employment

- Professor of Physics Emeritus, Vanderbilt University, (August 2016 – present)
- Professor of Physics, Vanderbilt University, (1994 – 2016)
- Associate Professor of Physics, Vanderbilt University, (1985-1994)
- Assistant Professor of Physics, Vanderbilt University, (1980-85)
- Research Scientist, Physics Division, Oak Ridge National Laboratory, (1978-80)
- Visiting Research Associate, Vanderbilt University (Feb. 1978)
- Visiting Research Associate, Yale University, (Feb. 1977)
- Research Assistant, Goethe Universität, Institut für Theoretische Physik, Frankfurt am Main, Germany (1974-78)
- Teaching Assistant, Goethe Universität, Institut für Theoretische Physik, Frankfurt am Main, Germany (1971-74)

Field of Specialization

Theory of low-energy nuclear structure and reactions, computational physics

Honors and Awards

Award for "*The best Ph. D. thesis written at the Goethe University of Frankfurt in 1977*", awarded in 1978 by the Association of Friends and Supporters of the Goethe University in Frankfurt am Main, Germany

DOE Grand Challenge Award, High-Performance Computing and Communications Program, project entitled "The Quantum Structure of Matter", Vanderbilt – Oak Ridge Nat. Lab. - UT Knoxville collaboration, 1992

Award, *Provost's Initiative on Technological Innovation in the Classroom*, "Advanced computer visualization in teaching introductory physics to non-science majors", Vanderbilt University, May 1994

Outstanding Graduate Teaching Award of the College of Arts & Science, Vanderbilt University, December 2005

Ph.D. research projects supervised

I have directed / co-directed the Ph.D. thesis of several graduate students. In the following, I list the topics of their research projects. A brief synopsis of their professional careers is also given.

- **Mohammad W. Katoot, Ph.D. 1986**
Thesis topic: "Microscopic Theory of Heavy-Ion Interaction Potentials"
postdoc at University of Florida, Gainesville
Chairman and CEO, MK Industries, Tucker, Georgia (Dr. Katoot holds 13 patents!)
deceased Aug. 2000 in small plane crash, his widow Karen Katoot established
an undergraduate fellowship in his honor at Vanderbilt
- **Dwight P. Russell, Ph.D. 1986** (co-chair with his adviser, Prof. Pinkston)
Thesis Topic: "Pockets in heavy-ion potentials and nucleon transfer"
postdoc at Vanderbilt (Prof. Tolk's group)
Assoc. Professor, University of Texas at El Paso
currently Assoc. Professor at Baylor University, Waco, Texas
- **Jack C. Wells, Ph.D. 1994**
Thesis topic: "Electromagnetic Lepton-Pair Production with Capture in Relativistic
Heavy-Ion Collisions"
Research Associate, Harvard-Smithsonian Center for Astrophysics;
Wigner Fellow and Staff Member at Oak Ridge National Laboratory (ORNL);
first recipient at ORNL of the "Computing and Computational Sciences Fellow"
award (2004);
Group Leader of the Computational Materials Sciences Group and
Group Leader of the Nanomaterials Theory Institute (2008-2009);
Director of Institutional Planning at ORNL (2009 - present).
- **David Russell Kegley, Ph.D. 1996**
Thesis topic: "Spline techniques for modeling weakly bound nuclear systems",
currently RF Engineering Manager at Teledyne Electronic Manufacturing Services,
Lewisburg, Tenn.
- **Jun Chen, (1998 – 2001)**
Thesis topic: "Hartree-Fock Bogoliubov Calculations with the B-Spline Galerkin method"
did not finish all requirements for Ph.D. degree
currently Computational Analyst at Bloomberg Financial Services, New York City
- **Artur Blazkiewicz, (2001-2005), Ph.D. Dec. 2005**
Thesis topic: "2-D coordinate space Hartree-Fock Bogoliubov calculations for
neutron-rich nuclei in the A~100 mass region"
Software Engineer with Internet Development Company Hitcents.com, Bowling Green, Ky

postdocs of our research group (Professors Oberacker & Umar)

- Dr. Recep Keser (2011-12), Ph.D. Rize University, Turkey
- Dr. Clayton R. Chinn (1994-1996), Ph.D. University of Maryland; currently Senior Scientist at Areté Associates (Arlington, VA)
- Dr. Günter Plunien (1992), Ph.D. Universität Frankfurt, Germany; currently Privatdozent at Technische Universität Dresden, Germany
- Dr. Martin Greiner (1988), Ph.D. Universität Frankfurt, Germany