

**David J. Dean**

Physics Division  
Oak Ridge National Laboratory  
Bldg. 6025 MS 6369  
P.O. Box 2008  
Oak Ridge, TN 37831-6369 USA

e-mail: deandj@ornl.gov  
phone : (865) 576-5229  
Cell : (865) 403-2013  
Sec: (865) 574-4772

**Education and Post-doctoral training**

Post Doctoral Fellow in Physics, 1992 – 1995, California Institute of Technology  
Ph.D.: 1991, M.S.: 1989, Vanderbilt University, Department of Physics, Nashville, TN  
B.S.: 1985, University of Tennessee, at Chattanooga, Chattanooga, TN

**Positions**

- 2011 – Present, Director, Physics Division and ORNL Isotope Program
- 2009 – 2011, Senior Advisor to the Under Secretary of Science, U.S. Department of Energy
- 2007 – 2009, Director, Office of Institutional Planning, ORNL
- 2004 – 2009, Distinguished R&D Staff, 2002 – 2004 Senior R&D Staff, 1997 – 2002 R&D Staff, 1995 – 1997, Wigner Fellow, Physics Division, Oak Ridge National Laboratory, Oak Ridge, TN
- 2003 – 2009 Nuclear Theory Group Leader, 2001 – 2003 Nuclear Theory Task Leader, Physics Division, Oak Ridge National Laboratory, Oak Ridge, TN

**Publications, specializations and Professional Societies**

- 191 publications including 105 refereed journal articles
- 175 talks at international workshops/conferences
- Main Fields: theoretical nuclear physics, quantum many-body problems, computational physics
- Fellow of the American Physical Society (2004)
- Fellow of the Institute of Physics (London) (2011)

**National Boards, Committees, and Professional Societies**

1. 2016-2019, Vice-Chair, Chair Elect, Chair, and Past-Chair of the Division of Nuclear Physics, American Physical Society
  - a. 2016, Chair, APS nominating committee
2. 2015 – present, Jefferson Laboratory Program Advisory Committee
3. 2015 – present, Facility for Rare Isotope Beams (FRIB) Scientific Advisory Committee, Chair
4. 2015 – present, GRETA Scientific Advisory Committee
5. 2012 – present, FRIB-Theory Alliance Steering Committee
6. 2011 – present, Majorana Demonstrator Scientific Advisory Committee
7. 2009 – 2014, National Superconducting Cyclotron Laboratory (NSCL) Program Advisory Committee
8. 2008 – 2014, Division Associate Editor for Nuclear Physics, Physical Review Letters
9. 2006 – 2011, Associate Director, Japan-U.S. Theory Institute for Physics with Exotic Nuclei (JUSTIPEN, in Tokyo)

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10. 2010, Co-chair, Fast Track Action Committee on Computational Modeling and simulation, Committee on Technology, National Science and Technology Council, Office of Science and Technology Policy
11. 1999 – 2008, National Energy Research Scientific Computing Center (NERSC) Users Group Executive Committee, Chair, 2005 – 2008
12. 2005 – 2008, LBNL NERSC Policy board
13. American Physical Society, Division of Nuclear Physics
  - a. 2013 – 2014, Bonner Prize Committee
  - b. 2006 – 2007, Nominating Committee
  - c. 2000 – 2003, Program Committee
  - d. 2004 – 2008, National Nuclear Physics Summer School Steering Committee, Vice Chair 2005, Chair 2006, Past Chair 2007
14. DOE/NSF Nuclear Science Advisory Committee
  - a. 2015, Long Range Plan Writing Group
  - b. 2012, Office of Nuclear Physics Committee of Visitors
  - c. 2007, Long Range Plan Writing Group
  - d. 2006 – 2007, FRIB Task force
  - e. 2003 – 2007, Member of NSAC
15. 2006, Member of the DOE Advanced Scientific Computing Advisory Committee (ASCAC) subcommittee on Facilities Performance Measures
16. 2002 – 2004, Member of the RIA Theory Working Group Steering Committee

**Awards and Adjunct Positions**

1. 2004 – 2010, Visiting Professor, University of Oslo, Centre of Mathematics for Applications
2. 2005 – 2015, Adjunct Professor, University of Tennessee, Department of Physics and Astronomy
3. 2008 and 2000, ORNL Research Accomplishment Award
4. 1997, Presidential Early Career Award for Scientists and Engineers
5. 1997, Department of Energy Young Scientist Award
6. 1995 – 1997, Wigner Fellow, Oak Ridge National Laboratory
7. 1987 – 1989, Graduate Fellowship: Oak Ridge Associated Universities Fellowship
8. 1983 – 1985, Undergraduate Fellowship: University of Chattanooga Foundation Fellowship

**Panel and Review Memberships**

1. 2014 – 2016, University of British Columbia Innovation Funds Internal Review Committee
2. 2015, DOE Review of the ANL ATLAS Scientific Program
3. 2015, NSF Math and Physical Sciences Open Data Workshop Advisory Board
4. 2015, DOE HEP/ASCR SciDAC Review
5. 2014, DOE/HEP CD-1 Review of the Lattice QCD IT project
6. 2013 – present, University of Chicago, Argonne National Laboratory Physical Science and Engineering Directorate Review Committee
7. 2013, DOE Review of the Texas A&M Cyclotron Institute Research Program
8. 2013, NSF Physics Frontier Center Proposal Panel Review
9. 2009, NSF PIRE Proposal Panel Review
10. 2009, CD-1 Review of Lattice QCD Computing project
11. 2008, DOE Mid-Range Laboratory Computing Panel, sponsored by SC/ASCR
12. 2008, NSF CDI Review Panel, Washington
13. 2007, NSF Nuclear Theory Proposal Review Panel
14. 2005, NSF Nuclear Theory Proposal Review Panel
15. 2004, Hafnium project review, Sandia National Laboratory
16. 2002, NSF Nuclear Physics site review committee for Florida State University

17. Referee, Physical Review Letters, Physical Review C, Physics Letters B, Nuclear Physics A, Reviews of Modern Physics, Physics Today, Reports on Progress in Physics, European Physical Journal

### **Conference and Workshop Organization**

1. July 2016, Nuclear Structure 2016, international advisory committee, Knoxville
2. April 2016, Looking beyond CMOS Technology for Future HPC, Organizing Committee, Hanover, Maryland
3. August 2015, Beyond Exascale: Qubits for Quantum Computing workshop, ORNL
4. September 2014, Materials Opportunities for Quantum Computing Workshop, LANL
5. September 2014, Smoky Mountains Computational and Engineering Conference, Gatlinburg, TN, <http://computing.ornl.gov/workshops/exascale14/agenda/>
6. September 2014, Fundamental Symmetries, Neutrinos, Neutrons and related Nuclear Astrophysics Long Range Plan Town Meeting, local organizing committee, Chicago, <http://fsnutown.phy.ornl.gov/fsnuweb/index.html>
7. June 2014, International Conference on Nuclear Theory in the Supercomputing Era – 2014, Scientific Advisory Committee
8. May 2013, International Conference on Nuclear Theory in the Supercomputing Era – 2013, Scientific Advisory Committee
9. December 2012, Symposium on Physics, Energy, Computing, and Cities, New York, <http://www.phy.ornl.gov/specc2012/>
10. October 2012, Fundamental Symmetries and Neutrinos Working Group providing input to the 2012 NSAC LRP Implementation Subcommittee, Chicago, <http://www.phy.ornl.gov/funsym>
11. June 2012, Horizons of Innovative Theories, Experiments, and Supercomputing in Nuclear Physics, Scientific Advisory Committee, Baton Rouge, LA
12. March 2011, Moderator for Supercomputing for Science and Competitiveness, American Chemical Society, Congressional Briefing
13. October 2010, DOE Simulations Summit, Washington, DC <http://science.energy.gov/ascr/community-resources/workshops-and-conferences/doe-simulations-summit/>
14. July 2010, Computational Materials Science and Chemistry: Accelerating Discovery and Innovation through Simulation-Based Engineering and Science, <http://science.energy.gov/bes/community-resources/reports/>
15. June 2009, Scientific Discovery through Advanced Computing Conference, San Diego, Program Committee
16. January 2009, Forefront Questions in Nuclear Science and the Role of High Performance Computing, Washington DC, co-chair, <http://extremecomputing.labworks.org/nuclearphysics/index.stm>
17. June – July 2008, Institute for Nuclear Theory Program: Atomic, Chemical, and Nuclear Developments in Coupled Cluster Methods, with R. Bartlett and W. Johnson \
18. October 2007, International Workshop on Electron Drivers for Radioactive Ion Beams, Organizing Committee
19. January 2007, Organizing committee for the Nuclear Astrophysics/Physics of Nuclei Long Range, Plan Town Meeting
20. July 2006, Local Organizing committee, Nuclear Structure 2006, ORNL
21. October 2006, Co-organizer APS-DNP Meeting, Nashville
22. September – December 2004, Institute of Nuclear Theory Program: Realistic Effective Interactions in Nuclei, Co-organizer (with Bruce Barrett, James Vary, and Morten Hjorth-Jensen)
23. September 2004, ENAM04, Pine Mountain, GA, Local Organizing Committee
24. June 2003, 15<sup>th</sup> National Nuclear Physics Summer School, Knoxville, Organizer (with Jeff Blackmon)

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25. March 2002, Advanced Computational Methods for Solving the Nuclear Many-Body Problem, Organizer (with E. Ormand), Institute for Nuclear Theory (Seattle) workshop
26. September 2001, International Workshop on Advances in the Shell Model, Coordinator, Trento  
March 2001, ISOL'01, Local Organizing Committee, Oak Ridge, TN
27. June 1999, International Workshop on Advances in Shell-Model Studies in Nuclei Far from Stability, Coordinator, Trento
28. August 1998, Nuclear Structure 1998, Local Organizing Committee, Gatlinburg, TN
29. June 1998, International Workshop on Condensed Matter Theories XXII, Local organizing committee, Nashville, TN

**Classes Taught at the University of Tennessee**

1. Physics 643 (graduate, 8 grad, 1 undergrad)  
Subject: Computational Quantum Many-Body Problems  
Spring, 2002
2. Physics 573 (graduate)  
Subject: Computational Physics  
Spring, 2003 (6 grad), 2005 (6 grad)

**Students and Postdocs**

1. *Bogdan Mihaila*, 1998 – 1999  
ORNL/UT postdoc (now at NSF)
2. *Bryan Barmore*, 1998 – 2000  
UT/ORNL postdoc, joint with Witek Nazarewicz, now with NASA
3. *Andrius Juodagalvis*, August 2000 – 2004  
ORNL/UT post-doc, now a professor in Lithuania
4. *Cem Ozen*, 1999 – 2005  
University of Tennessee graduate student, now a professor in Turkey
6. *Gergana Stoitcheva*, 2002 – 2006  
UT/ORNL post-doc, now at Deloitte
7. *Gaute Hagen*, 2005 – 2008  
ORNL/UT post-doc, now R&D staff at ORNL