

## BERNDT O. MUELLER

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Nationality: U.S.A.

### EDUCATION

Goethe Universität, Frankfurt	1972	Diplom in Theoretical Physics
Goethe Universität, Frankfurt	1973	Dr. phil. nat. in Theoretical Physics

### PROFESSIONAL EXPERIENCE

1999 – 2004 Dean of the Natural Sciences, Duke University  
1997 – 1999 Physics Department Chair, Duke University  
1996 – J. B. Duke Professor of Physics, Duke University  
1990 – 1996 Professor of Physics, Duke University  
1976 – 1989 Associate Professor (C3), Goethe Universität, Frankfurt  
1974 – 1975 Research Associate, University of Washington  
1974 Postdoctoral Fellow, Yale University  
1972 – 1974 Research Assistant, Goethe Universität, Frankfurt

### AWARDS

2007 Jesse Beams Award, American Physical Society (SE Section)  
1998 Senior U.S. Scientist Award, A. v. Humboldt Foundation  
1994 Fellow, American Association for the Advancement of Science  
1994 Fellow, American Physical Society  
1975 Röntgen Prize, Universität Giessen, Germany

### MEMBERSHIPS

American Physical Society  
American Association for the Advancement of Science

### VISITING APPOINTMENTS

2006 Yukawa Institute of Theoretical Physics, Kyoto University  
1987 University of Arizona  
1985 Institute for Nuclear Study, University of Tokyo  
1984 University of Cape Town  
1980 California Institute of Technology  
1980 Vanderbilt University

## PROFESSIONAL ACTIVITIES (SINCE 1990)

- 2011 Vice-Chair, APS Division of Nuclear Physics
- 2010 – Publications Oversight Committee, American Physical Society
- 2010 Norman Hackerman Advanced Research Program Review Committee (chair)
- 2009 External Review Committee, George Washington University Department of Physics
- 2008 – Editorial Board, Progress of Particle and Nuclear Physics
- 2008 RHIC Science & Technology Review (DOE)
- 2008 Jesse Beams Award Committee (American Physical Society, SE Section)
- 2008 External Review Committee, Purdue University Department of Physics
- 2008 NSF Grant Review Panel, Nuclear Physics
- 2007 – 2008 Bonner Prize Committee (American Physical Society)
- 2007 NSAC Long Range Plan Working Group (DOE/NSF)
- 2007 Co-chair, DNP Town Meeting on Phases of QCD Matter
- 2006 External Review Committee, Stony Brook Univ. Physics Department
- 2005 NSAC Subcommittee on Long Range Plan Implementation
- 2004 MIT Laboratory of Nuclear Science Program Review (DOE)
- 2004 DOE Low Energy Nuclear Reactions Review Panel
- 2004 – Scientific Council, GSI, Darmstadt, Germany
- 2004 Helmholtz Research Centers Review, Hadrons and Nuclei
- 2003 – 2008 Dean’s Advisory Committee, Laboratory for Nuclear Science, MIT
- 2003 NSAC Subcommittee on Nuclear Theory (Chair)
- 2002 APS Division of Nuclear Physics, Nominations Committee (Chair)
- 2002 AGS/RHIC Thesis Award Selection Committee
- 2002 DOE LHC Heavy Ion Physics Review Panel
- 2002 External Review Committee, Univ. North Carolina Physics Department
- 2001 NSAC Long Range Plan Working Group
- 2001 MIT Laboratory of Nuclear Science Program Review (DOE)
- 2000 RHIC Facility Program Review (DOE)
- 2000 Yale University Nuclear Theory Review (DOE)
- 2000 – 2004 Duke University – Oak Ridge National Laboratory Liaison
- 1998 – 2004 AGS/RHIC Program Advisory Committee, Brookhaven National Laboratory
- 1998 – 2003 Physics Division Review Committee, Los Alamos National Laboratory
- 1998 – 2001 Editorial Board, Physical Review C
- 1998 – 2000 Physics Division Review Committee, Oak Ridge National Laboratory
- 1998 External Review Committee, Indiana Univ. Physics Dept.
- 1997 – 2001 Editorial Board, Annual Reviews of Nuclear and Particle Science
- 1996 – 1998 APS Division of Nuclear Physics, Executive Committee
- 1995 – 1998 National Advisory Committee, Institute for Nuclear Theory, Seattle  
(Chair 1997 – 98)
- 1995 Writing Group Chair, Long Range Plan for Nuclear Science
- 1992 – 1995 NSF/DOE Nuclear Science Advisory Committee (NSAC)
- 1992 – 1996 Physics Department Visiting Committee, Brookhaven National Laboratory
- 1992 – 1994 Divisional Associate Editor, Physical Review Letters
- 1993 Director, VIth Annual National Summer School in Nuclear Physics

## UNIVERSITY SERVICE (SINCE 2000)

2011 – Academic Council  
2010 – Academic Priorities Committee  
2008 – Director, Center for Theoretical and Mathematical Sciences  
2008 – Authorship Dispute Resolution Board (chair)  
2008 – Oak Ridge National Laboratory – Duke Liaison  
2007 – 2008 Dean of Engineering Search Committee  
2007 Distinguished Professor Selection Committee  
2006 – 2009 University Committee on Research Planning and Policy  
2005 – 2007 Academic Council  
2005 – 2006 Steering Committee, Center for Computational Science, Engineering and Medicine  
2005 – 2006 Strategic Planning Committee on Research  
2002 – 2003 Steering Committee, President’s Women’s Initiative  
2001 – 2004 French Science Center Program Advisory Committee  
2000 – 2004 Oak Ridge National Laboratory – Duke Liaison  
2000 – 2003 Genomics Steering Committee  
1999 – 2000 University Strategic Plan Steering Committee  
1997 – 1999 Principal Investigator, Duke Medical Free Electron Laser Center  
1997 – 1999 Arts & Sciences Dean’s Advisory Committee  
1997 Review Committee for the Dean of Engineering  
1995 – 1996 Executive Committee, Arts and Sciences Council

## CONFERENCE ORGANIZATION (SINCE 2003)

2010 *Program 10-2a: Quantifying the Properties of Hot QCD Matter*  
Institute for Nuclear Theory, Seattle, 24 May – 16 June 2010  
*The first Heavy Ion Collisions at the LHC*  
CERN Theory Institute, Geneva, Switzerland, 16 August – 10 September 2010  
2009 *Workshop on Nearly Perfect Fluids*  
Sigma Xi, Research Triangle Park, NC, 6 – 8 April 2009  
*21<sup>st</sup> International Conference on Quark Matter*  
Knoxville, TN, 30 March – 4 April 2009  
2008 *Program on New Frontiers in QCD*  
Yukawa Institute of Theoretical Physics, Kyoto (Japan), 28 January – 21 March 2008  
2006 *Ninth Workshop on Non-Perturbative Quantum Chromodynamics*  
Paris (France), 4 – 8 June 2006  
2004 *Eighth Workshop on Non-Perturbative Quantum Chromodynamics*  
Paris (France), 7 – 11 June 2004  
2003 *Seventh Int. Conference on Strangeness in Quark Matter*  
Atlantic Beach, NC, 12 – 17 March 2003  
2003 *Seventh Workshop on Quantum Chromodynamics*  
Villefranche (France), 6 – 10 January 2003

## Ph.D. THESES SUPERVISED (AT DUKE UNIV.)

- 2009 R. Bryon Neufeld  
*The Response of Hot QCD Matter to Hard Probes*
- 1998 Chaoran Hu  
*Classical Lattice Gauge Fields with Hard Thermal Loops*
- 1996 Michael T. Strickland  
*Dynamical Mass Generation and Confinement at Finite Temperature*
- 1994 Chengqian Gong  
*Hamiltonian Dynamics and Chaotic Behavior of Yang-Mills Fields on a Lattice*
- 1993 Jochen Rau  
*The Apparent Irreversibility of Particle Creation: A Study of Time Scales  
and of the Mechanisms Responsible for Entropy Production in Quantum Field Theory*

## MOST CITED PUBLICATIONS

1. R. J. Fries, B. Müller, C. Nonaka and S. A. Bass, “Hadron production in heavy ion collisions: Fragmentation and recombination from a dense parton phase,” *Phys. Rev. C* **68**, 044902 (2003) [arXiv:nucl-th/0306027].
2. R. J. Fries, B. Müller, C. Nonaka and S. A. Bass, “Hadronization in heavy ion collisions: Recombination and fragmentation of partons,” *Phys. Rev. Lett.* **90**, 202303 (2003) [arXiv:nucl-th/0301087].
3. M. Asakawa, U. W. Heinz and B. Müller, “Fluctuation probes of quark deconfinement,” *Phys. Rev. Lett.* **85**, 2072 (2000) [arXiv:hep-ph/0003169].
4. S. G. Matinyan and B. Müller, “A model of charmonium absorption by light mesons,” *Phys. Rev. C* **58**, 2994 (1998) [arXiv:nucl-th/9806027].
5. J. W. Harris and B. Müller, “The search for the quark-gluon plasma,” *Ann. Rev. Nucl. Part. Sci.* **46**, 71 (1996) [arXiv:hep-ph/9602235].
6. T. S. Biro, E. van Doorn, B. Müller, M. H. Thoma and X. N. Wang, “Parton equilibration in relativistic heavy ion collisions,” *Phys. Rev. C* **48**, 1275 (1993) [arXiv:nucl-th/9303004].
7. K. Geiger and B. Müller, “Dynamics of parton cascades in highly relativistic nuclear collisions,” *Nucl. Phys. B* **369**, 600 (1992).
8. G. Plunien, B. Müller and W. Greiner, “The Casimir Effect,” *Phys. Rept.* **134** (1986) 87.
9. P. Koch, B. Müller and J. Rafelski, “Strangeness In Relativistic Heavy Ion Collisions,” *Phys. Rept.* **142**, 167 (1986).
10. J. Rafelski and B. Müller, “Strangeness production in the quark-gluon plasma,” *Phys. Rev. Lett.* **48**, 1066 (1982) [Erratum-ibid. **56**, 2334 (1986)].

## CITATIONS

- More than 9,000 citations ,  $h$ -Index: 48 (Web of Science)