

Curriculum Vitae: Steffen A. Bass

Name: Steffen Ashraf Bass
Address: Department of Physics
Duke University
Durham, NC 27708-0305, USA
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Date of birth: 05/17/68 in Frankfurt am Main, Germany
Nationality: German (US legal permanent resident)

Education:

- M.S. (Diplom): Physics, 1993,
J.W. Goethe Universität Frankfurt (Germany), “mit Auszeichnung”
- Ph.D. (Dr. phil. nat.): Theoretical Physics, 1997:
Eigenschaften heisser, dichter Kernmaterie in mikroskopischen Transportmodellen
J.W. Goethe Universität Frankfurt (Germany), “summa cum laude”

Professional Experience:

- 2008 - present Associate Professor (with tenure), Duke University
- 2000 - 2007 Assistant Professor (tenure track), Duke University
- 2000 - 2005 RIKEN BNL Research Center Fellow
- 1999 - 2000 Visiting Assistant Professor, Michigan State University
- 1998 - 99 Feodor Lynen Fellow and Research Associate at Duke University
- 1995 - 97 Research Assistant, J.W. Goethe Universität Frankfurt
- 1993 - 95 Research Assistant,
Gesellschaft für Schwerionenforschung (GSI), Darmstadt

Graduate and postdoctoral advisors:

W. Greiner	J.W. Goethe Universität Frankfurt, Germany	graduate advisor
H. Stöcker	J.W. Goethe Universität Frankfurt, Germany	graduate advisor
B. Müller	Duke University	postdoctoral advisor
W. Bauer	Michigan State University	postdoctoral advisor

Publications and Presentations:

- over 100 published refereed articles and 160 oral presentations (see *list of publications and presentations* for details)
- publications have (according to SPIRES) over 4300 citations
(average per paper: 37, h-index: 33, TOPCITE250+: 3, TOPCITE100+: 5, TOPCITE50+: 13)

Awards:

- 1993: W.E.-Heraeus-Award, W.E.-Heraeus Foundation, Germany
- 1997: Feodor-Lynen Fellow, A.v.Humboldt Foundation, Germany
- 2003: Outstanding Junior Investigator Award, US Dept. of Energy

Membership in professional organizations:

- Deutsche Physikalische Gesellschaft (DPG)
- American Physical Society (APS)
- American Association for the Advancement of Science (AAAS)

Professional services:

- referee for *Physical Review C, D, and Letters*
- referee for *Physics Letters B*
- referee for *Nuclear Physics A*
- referee for *Journal of Physics G*
- evaluator for proposals by the US Dept. of Energy and the National Science Foundation
- member, NSF Nuclear Theory Proposal Review Panel 2007
- chair, NSF Nuclear Theory Proposal Review Panel 2008
- member, Editorial Board of *Journal of Physics G: Nuclear and Particle Physics* (IOP) 12/2008 – 12/2010
- member, APS/DNP Program Committee 2010–2011

Conferences organized:

- member of the organizing committee:
7th International Conference on Strange Quarks in Matter
March 12-17, 2003, Atlantic Beach, NC, USA
- member of the organizing committee:
RIKEN-BNL workshop on Collective Flow and QGP Properties
November 17-19, Brookhaven National Laboratory, Upton, NY, USA
- co-organizer:
Mini-workshop on Quark Recombination
Institute for Nuclear Theory, University of Washington, Seattle, WA, USA
- co-organizer:
Hot Quarks 2004
July 18-24, 2004, Taos Valley, NM, USA

- co-convener:
Heavy-Ion Physics session at DPF 2004, the fall meeting of the Division of Particle Physics of the American Physical Society, August 27-31, 2004, Riverside, CA.
- session organizer:
Invited Nuclear Physics Session at the South-Eastern Section of the APS (SESAPS) fall meeting 2004, November 11-13, Oak Ridge, TN.
- co-organizer:
RIKEN-BNL workshop on Strongly Coupled Plasmas: Electromagnetic, Nuclear and Atomic
December 16-17, Brookhaven National Laboratory, Upton, NY, USA
- co-organizer:
Hot Quarks 2006
May 15-20, 2006, Villasimius, Sardinia, Italy.
- co-convener:
Heavy-Ion Physics sessions at the 9th Conference on the Intersections of Particle and Nuclear Physics (CIPANP 2006), May 30 - June 3, 2006, Rio Mar, Puerto Rico.
- co-organizer:
Hot Quarks 2008
August 18-23, 2008, Estes Park, Colorado.
- co-convener (Hot & Dense QCD working group):
Workshop on Forefront Questions in Nuclear Science and the Role of High Performance Computing, January 26-28, 2009, Washington DC, USA
- member, local organizing committee:
21st International Conference on Ultrarelativistic Nucleus-Nucleus Collisions (Quark Matter 2009)
March 30 - April 4, 2009, Knoxville, TN, USA
- co-organizer:
Workshop on Nearly Perfect Fluids: from the Quark-Gluon Plasma to Ultra-Cold Atoms
April 6 - April 9, 2009, Durham, NC, USA

Teaching experience:

- MST: *Math Science Technology: Physics summer course*, August 2000, Michigan State University
- PHY181: *Intermediate Mechanics*, Spring 2001-03 and 2007-09 Duke University
- PHY203: *Statistical Mechanics*, Spring 2004-06, Duke University

- PHY053R *General Physics I* (recitation sections), Fall 2006-08, Duke University
- PHY062R *General Physics II for Engineers* (recitation sections), Fall 2009, Duke University

Administrative services:

- elected member (1996 – 1998) of the joint university committee #5 (Ständiger Ausschuss V) of the J.W. Goethe University, Frankfurt. This committee advises the university president. Regulated by state law, it makes the final decisions on computing and telecommunication acquisitions and policy for the entire university and oversees the computing department.
- appointed member of the Duke Physics Department graduate student admissions committee (2002 – 2004)
- appointed member of the Duke Physics Department colloquium committee (2003 – 2006)
- appointed chair of the Duke Physics Department Computing Committee (PCC) which also serves as departmental computing liaison to the college of Arts & Sciences (2003 – 2008)
- appointed member of the Duke Physics Department Graduate Qualifier Committee (Spring 2005 and 2006 – present)
- appointed member/chair of the Duke University DAAD scholarship selection committee (member 2005–2008, chair 2008–present)
- Webmaster / appointed chair of the Duke Physics Department Website Committee (member 2007 – 2008, chair 2008 – present)
- elected member, Academic Council of Duke University (2009–2010)
- appointed member, Faculty Hearing Committee (2010–2012)

Funding:

S.A. Bass is the Principal Investigator on all grants unless otherwise noted.

- *Quantum Chromodynamics and Nuclear Physics at Extreme Energy Density*: US Department of Energy Nuclear Theory Grant, Grant-# DE-FG02-96ER40945, B. Müller (PI), R. Springer (Co-PI), S. Chandrasekharan (Co-PI), S.A. Bass (Co-PI) and T. Mehen (Co-PI), Nov. 15th 2001 – Nov. 14th 2004, award amount: \$1,125,000
- *7th International Conference on Strangeness in Quark Matter*: National Science Foundation, Conference support for postdocs and graduate students at SQM 2003, Grant-# NSF-PHY-03-11859, March 15th 2003 – March 14th 2004, award amount: \$5,000

- *Modeling and Analysis of Ultra-Relativistic Heavy-Ion Collisions:*
US Department of Energy Outstanding Junior Investigator Award, Grant-# DE-FG02-03ER41239, June 1st 2003 – March 14th 2008, award amount: \$370,000
- *Parton Chemistry in Ultra-Relativistic Heavy-Ion Collisions:*
Duke University Arts & Sciences Committee on Faculty Research Annual Research Grant July 1st 2003 – June 30th 2004, award amount: \$4,739
- *Probing the QCD Equation of State and Hadronization at RHIC:*
National Science Foundation, International Program for Collaborative Research (East Asia Pacific Program), Grant-# NSF-INT-03-35392, S.A. Bass (PI) and B. Müller (Co-PI), December 15th 2003 – November 30th 2006, award amount: \$56,160
- *Hot Quarks 2004 - a Workshop on the Physics of Ultrarelativistic Nucleus-Nucleus Collisions for Young Scientists:*
National Science Foundation, Conference support for postdocs and graduate students at Hot Quarks 2004, Grant-# NSF-PHY-04-27469, April 13th 2004 – April 1st 2005, award amount: \$5,000
- *Nuclear Physics at High Energy Density:*
US Department of Energy Nuclear Theory Grant, Grant-# DE-FG02-05ER41367-A, B. Müller (PI) and S.A. Bass (Co-PI), March 15th 2005 – March 14th 2011, award amount: \$1,652,000
- *Hot Quarks 2008 - a Workshop on the Physics of Ultrarelativistic Nucleus-Nucleus Collisions for Young Scientists:*
National Science Foundation, Conference support for postdocs and graduate students at Hot Quarks 2008, Grant-# NSF-PHY-08-12874, May 1st 2008 – April 30th 2009, award amount: \$5,000
- *Nearly Perfect Fluids: from the Quark-Gluon Plasma to Ultra-Cold Atoms:*
National Science Foundation, Conference support for postdocs and graduate students, Grant-# NSF-PHY-09-24761, May 1st 2009 – April 30th 2010, award amount: \$5,000
- *From Models and Data to Knowledge and Understanding:*
National Science Foundation, Cyber Discovery and Innovation (CDI) Award, Grant-# NSF-PHY-09-41373, Scott E. Pratt (PI), Brian W. O'Shea (Co-PI), Daniel W. Dougherty (Co-PI), Shiyuan Zhong (Co-PI) and Steffen A. Bass (Co-PI), September 1st 2009 – August 31st 2013, award amount: \$1,800,000