

Mark G. Alford

Physics Department
Washington University
St. Louis, MO 63130

Date of birth: 3 July 1962
Citizenship: U.S. & U.K.

EDUCATION

Harvard University

1990 Ph.D. in Theoretical Particle Physics.
1988 A.M. in physics.

Oxford University (Exeter College)

1984 B.A. Honours in physics, first class.
1981 Open Scholarship in physics.

EMPLOYMENT

2010 – Full Professor, Washington University, St. Louis.
2012 – 2022 Chair, Physics Department, Washington University, St. Louis.
2007 – 2010 Associate Professor, Washington University, St. Louis.
2003 – 2007 Assistant Professor, Washington University, St. Louis.
2000 – 2002 Lecturer, University of Glasgow.
1998 – 2000 Research Scientist, Massachusetts Institute of Technology.
1995 – 1998 Member, Institute for Advanced Study, Princeton.
1992 – 1995 Research Associate, Laboratory of Nuclear Studies, Cornell University.
1990 – 1992 Postdoctoral Researcher, Institute for Theoretical Physics,
University of California, Santa Barbara.

HONORS AND GRANT AWARDS

2008 – Principal Investigator, “Signatures of color superconductivity in high-density quark matter” (Department of Energy, Nuclear Theory)
2021-23 Co-Investigator “Frameworks: MUSES, Modular Unified Solver of the Equation of State” (National Science Foundation)
2015 Fellow of the American Physical Society.
2010 – 2015 Co-investigator “Neutrinos and Nucleosynthesis in Hot and Dense Matter” (Department of Energy Topical Collaboration)
2008 – 2017 Co-investigator, “Studies in Quantum Field Theory and Astroparticle Physics” (Department of Energy, High Energy Physics)
2006 Invitational Fellowship (Japan Society for the Promotion of Science)
2005 Outstanding Junior Investigator (Department of Energy, Nuclear Theory).

TEACHING

Physics II	2023
Physics of Sustainable Energy	2022-2023
Physics and Society	2009-2021
Computational Methods	2015-2019
Introduction to Quantum Physics I	2003-2005, 2008
Introduction to Quantum Physics II	2004-2006
Introduction to Particle Physics	2003, 2007, 2008, 2011
Quantum Mechanics II (graduate-level)	2010
Quantum Field Theory I (graduate-level)	2007
Quantum Field Theory II (graduate-level)	2008 and 2012

PROFESSIONAL SERVICE (last 10 years)

- Member of the International Scientific Advisory Board for Research at Goethe University Frankfurt (2022–)
- Member, Advisory board of the ASU online theoretical physics colloquium, 2022–2023
- Convenor for section F of “Quark confinement and the hadron spectrum” in 2006, 2008, 2010, 2012, 2014, 2016, 2018, 2020, 2022.
- Advisory/Organizing committee for
 - “Modern Equations of State and Spectroscopy in Neutron Star Matter”, Spain, 2022
 - “Dialog at the Dream Field: Supranuclear Matter”, planned for China, Aug 2020 (postponed).
 - “The Modern Physics of Compact Stars and Relativistic Gravity”, Yerevan, Armenia, Sept 2019.
 - Special Session at European Week of Astronomy and Space Science, Lyon, France, June 2019.
 - “The Radius of Neutron Stars, and All That Jazz”, Montreal, June 2015.
 - “Compact Stars in the QCD Diagram III”, Guarujá, Brazil, Dec 2012.
 - “Nuclear Matter at High Density”, Hirschegg, Austria, 2009.
- Co-organizer, CERN workshop “From quarks to gravitational waves...”, Dec 2016
- Co-organizer of “The phases of dense matter”, one-month workshop at Institute for Nuclear Theory, University of Washington, July-Aug 2016.
- Member, 2016 Dept. of Energy review panel evaluating nuclear theory at all national labs.
- Member, 2015 review panel for Presidential Early Career Awards for Scientists and Engineers.
- Member, 201X NSF Nuclear Physics panel, ranking proposals for funding by NSF.
- Board member, The Helix Center <http://www.thehelixcenter.org>.
- Grant proposal referee for DoE, NSF, PPARC (United Kingdom), NSERC (Canada), FWF (Austria), Israel Science Foundation, Swiss Federal Institute of Technology Research Commission.

- Referee for Physical Review, Physical Review Letters, Journal of Physics, European Journal of Physics, etc.

UNIVERSITY SERVICE

- Founder, interdepartmental “philosophy and science” faculty reading group.
- Member, Faculty/Faculty-Pipeline Working Group (chair: Vice Provost Adrienne Davis), Jan 2017 – May 2017.
- Member, ADVANCE-IT proposal committee (chair: Prof. Katherine Miller), July 2015 - Jan 2016
- iTeach symposium presentation, “Stereotype Threat” with Prof. K. Naegle, 13 Jan 2016
- Member, Advisory Committee on Programs, Apr 2013 – Apr 2014
- Member, Ad Hoc Committee on the Dissertation, Oct 2011 – Mar 2012