

CURRICULUM VITAE
ELIZABETH F. MCCORMACK

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EDUCATION B.A. Physics, Wellesley College, 1983
Ph.D. Physics, Yale University, 1989

EXPERIENCE Argonne National Laboratory 1989-1995
Postdoctoral Appointee, 1989-1990
Alexander Hollaender Postdoctoral Fellow, 1990-1991
Assistant Physicist, 1991-1995
Bryn Mawr College 1995-present
Assistant Professor of Physics 1995-2001
Associate Professor of Physics 2001-2005
Department Chair 2002-2005
Professor of Physics 2005-
Chair of the General Faculty 2006-2008
Director of the Center for Science in Society 2006-2008
Dean of Graduate Studies 2008-
Fulbright Senior Research Scholar and Visiting Professor, University
of Paris XI (Orsay, France) 1998
ERCOFTAC Guest Scientist, Paul Scherrer Institute (Switzerland)
1999
Curriculum Consultant, Effat College (Jeddah, Saudi Arabia) 2001
Law Consultant, Montgomery McCracken Walker and Rhoads LLP,
Philadelphia, PA 2003
Fellow of the American Council on Education 2005-2006

PROFESSIONAL INTERESTS

Atomic, Molecular, and Optical Physics

Laser-based studies of atomic and molecular excited-state structure and decay dynamics, including Rydberg state dynamics, photoionization, autoionization, predissociation, and photodissociation. Nonlinear optical techniques, including multiphoton excitation and detection, and resonant, four-wave mixing in the frequency and time domains.

Applications of Laser Trapping

Experimental and theoretical investigations of using laser traps to create reflective particle arrays for use in space environments.

Institutional Development and Leadership

Stewardship in higher education, including pursuing and managing change, strategic planning, fostering organizations and networks that learn, shared governance, formal and informal leadership development. Promoting the societal value of a liberal arts education, including topics in the education of women and the adoption of effective learning environments.

HONORS AND AWARDS

New York State Regents Scholarship, 1979
John Charles Duncan Prize in Astronomy, Wellesley College, 1982
Phi Beta Kappa, 1983
Alexander Hollaender Distinguished Postdoctoral Fellowship, 1990-1991
Faculty Early Career Development (CAREER) Award
National Science Foundation, 1996-2001
The Rosalyn R. Schwartz Lectureship, Bryn Mawr College, 1996-1999
Fulbright Senior Research Scholar Fellowship, (France) 1998-1999
Andrew W. Mellon New Directions Teacher-Scholar Fellowship, 2002
NASA Institute for Advanced Concepts Fellowship, 2002, 2005
American Council on Education Fellowship, 2005-2006
Fellow of the American Physical Society, elected 2005
Bryn Mawr College McPherson Prize for Faculty, 2007

GRANTS

Structure And Dynamics of Long-Range Molecular States
The National Science Foundation, \$225K, 2008-2011.
Investigation of the Feasibility of Laser Trapped Mirrors in Space, Phase II
NASA Institute for Advanced Concepts, \$400K, 2005-2007
Project Kaleidoscope-What Works: Investing in Faculty Leaders to Meet 21st Century Challenges in Undergraduate Science, Technology, Engineering, and Mathematics Education
The National Science Foundation, \$1.3M, 2004-2007.
Structure And Dynamics in Highly Excited Molecular States
The National Science Foundation, \$261K, 2002-2005.
Investigation of the Feasibility of Laser Trapped Mirrors in Space, Phase I
NASA Institute for Advanced Concepts, \$65K, 2002.
Laser-Trapped Mirrors in Space: New Directions in Research and Teaching
Andrew W. Mellon Foundation, \$5K, 2002
Synchrotron Studies of the Acetylene Molecule
Bryn Mawr College, Faculty Research Grant, \$7.5K 1998
Excited State Dynamics Probed by Two-Color Laser-Induced Grating Spectroscopy
CAREER Award, The National Science Foundation, \$260K, 1996-2002.

PROFESSIONAL SOCIETIES

American Physical Society,
Division of Atomic, Molecular and Optical Physics
Division of Laser Science
Sigma Xi

Association for Women in Science
American Association of Physics Teachers
Faculty 21 Member of Project Kaleidoscope

PROFESSIONAL ACTIVITIES

Bryn Mawr College

Dean of Graduate Studies 2008-
Chair of the General Faculty 2006-2008
Director of the Center for Science in Society, 2006-2008

Standing Committee Service:

Task Force on Balancing Mission and Resources 2006-2008
Committee on Academic Priorities 2003-2006
Graduate Council 2002-2003
Committee on Nominations 2000-2003
Committee on Laboratories 1995-1997, 1999-2002
Athletic Representative to the NCCA 1999-
Faculty Salaries and Benefits Committee 1999-2002
Committee on Academic Computing 1997-1998
Parent's Day Committee 1997-1998
1902 Lecture Fund Committee 1997
Committee on Undergraduate Awards and Fellowships 1996-1997
Committee on the Coordination of the Sciences 1996-1997
Undergraduate Council 1995-1997

Ad Hoc Committee Service:

Chair, Dean of Graduate School of Social Work and Social Research Search
Committee, 2008-2009
Presidential Search Committee, 2006-2007
Mellon Tri-College Forum Steering Committee, 2002-2006
Special Committee to Review Tenure Case, 2001
Ad Hoc Committee on Academic Computing, 1999
Middle States Review: Committee on Governance, 1997
Transition Committee on Governance, 1996-1997

National Organizations

Chair, Project Kaleidoscope Board of Advisors, 2010-
Member, Board of Trustees, Research Corporation for Science Advancement, 2009-
Member, Advisory Board Research Corporation for Science Advancement, 2004-2009
Councilor, Physics Division of the Council on Undergraduate Research, 2008-
2011
Member, Thesis Prize Committee, Division of Atomic, Molecular, and Optical
Physics of the American Physical Society, 2008-2010
Member, Executive Committee, Division of Atomic, Molecular, and Optical
Physics of the American Physical Society, 2007-2010
Vice-Chair, Project Kaleidoscope Board of Directors, 2006-2008
Member, Fellowship Committee, Division of Laser Science of the American
Physical Society, 2005, 2008
Consultant to the Scientific Equipment Program at the Sherman Fairchild
Foundation, 2006-

Member, Committee on Education, American Physical Society, 2004-2007
Member, National Task Force on Undergraduate Physics, American Physical Society, American Institute of Physics and the American Association of Physics Teachers, 2003-2007
Member, Distinguished Traveling Lecturer Committee, Division of Laser Science of the American Physical Society, 2002-
Member, Division of Laser Science Nominating Committee, American Physical Society, 2003
Member, Organizing Committee for Project Kaleidoscope 2003 Regional Assembly, "Ensuring the Success of Under-Represented Groups in Science, Technology, Engineering and Mathematics Learning Environments", Rowan University, October, 2003
Member, Program Committee, Division of Atomic, Molecular, and Optical Physics of the American Physical Society, 1999-2002
Member, Cluster II Planning Committee, Project Kaleidoscope 2002 Summer Institute, "Building Undergraduate Physics Programs for the 21st Century", Williamsburg Virginia, June 2002
Member, Organizing Committee for Project Kaleidoscope Philadelphia Regional Network Workshop, "Enhancing Connections: The K-16 Community and Integrating Science in the Curriculum", Bryn Mawr College, March, 2002
Director, HHMI Summer Institute, Science as Exploration: Developing Inquiry Based Methods, Bryn Mawr College, July 2001
Member, Steering Committee for the Industrial Physics Forum: Academia-Industrial Outreach Workshop, 2000
Treasurer, Bryn Mawr Chapter of Sigma Xi, The Scientific Research Society, 2001
President, Bryn Mawr Chapter of Sigma Xi, The Scientific Research Society, 1997-2001
Member, Selection Committee, Robert E. Davies Student Travel Award, Association for Women in Science-Philadelphia Chapter, March 1996
Member, Local Organizing Committee, Twenty-Third Meeting of the American Physical Society Division of Atomic, Molecular, and Optical Physics, 1992
Member, Organizing Committee for the "Science Careers in Search of Women" Conference, Argonne National Laboratory, 18 May 1990

National Meetings

Session Chair, "Motivating Students to Pursue Careers in Science, Technology, Engineering and Mathematics Fields", Project Kaleidoscope 2003 Regional Assembly, Oberlin, OH, September 2003
Session Chair, "Strengthening Undergraduate Physics at Universities," Annual Meeting of the American Physical Society Division of Atomic, Molecular, and Optical Physics, Boulder, CO, May 2003
Session Chair, "Davisson-Germer Prize Symposium and Nanoscale and Biological AMO Physics," Twenty-Fourth Annual Meeting of the American Physical Society Division of Atomic, Molecular, and Optical Physics, Williamsburg, VA, May 2002.

Session Chair, "The Role of Leadership in Institutional Transformation: Networks", Project Kaleidoscope Faculty for the 21st Century National Assembly, Williamsburg, VA, October 2002

Participant, Project Kaleidoscope 2002 Roundtable on the Future: Assessment in the Service of Student learning, Duke University, Durham, North Carolina, March 2002

Participant, Project Kaleidoscope 2000 Change Agents Roundtable, Washington, D.C. March 2000

Session Chair, "Innovations in Introductory Physics Courses", Project Kaleidoscope's 10th Anniversary: Celebrating and Anticipating a Decade of Reform, Washington, D.C., October 1999.

Session Chair, "New Insights into Excited Molecular States," Annual Meeting of the American Physical Society Division of Atomic, Molecular, and Optical Physics, May 1993.

Departmental and Institutional Reviews

Evaluator, Middle States Commission of Higher Education, St. Lawrence University, February 2008

Member, Committee of Visitors, Division of Physics, the National Science Foundation, January 2006.

Member, Site-Visit Team for a program review of the Center for Ultra-Cold Atom Research at the Massachusetts Institute of Technology in Cambridge, MA for the National Science Foundation, December 2005.

Member, Site-Visit Team for a program review of the Joint Sciences Department of Claremont-McKenna, Scripps, and Pitzer Colleges in Claremont, CA, November 2005.

Member, Site-Visit Team for a program review of the Center for Ultra-Cold Atom Research at the Massachusetts Institute of Technology in Cambridge, MA for the National Science Foundation, April 2004.

Chair, Site-Visit Team for a program review of the Physics Department at Bradley University in Champaign-Urbana, IL, Research Corporation, February 2004.

Member, Site-Visit Team for a Minorities Program review of the Physics Department at the University of Texas, El Paso, El Paso, TX, The National Task Force on Undergraduate Physics, April 2003

Member, Site-Visit Team for a departmental review of the Physics Department at Randolph-Macon Women's College in Lynchburg, VA, March 2003

Member, Keck Foundation and Project Kaleidoscope Consultancy Team to Evaluate Non-majors Science Teaching at the University of St. Thomas, St. Paul, MN, April 2001

Member, Site-Visit Team for review of the Graduate Research Traineeship Program at the University of Huntsville Alabama, National Science Foundation, May 1997

Member, Site-Visit Team for a program review of the Graduate Research Traineeship Program at the University of Nebraska-Lincoln, National Science Foundation, May 1997

Member, Site-Visit Team for program review of Association for Women in Science-Philadelphia Chapter, Mentoring Grant, Temple University, November 1995

Publication Reviews

Reviewer, Journal of Physical Chemistry, June 2009
Reviewer, Journal of Physical Chemistry, May 2008
Co-Editor, Journal of Research Practice, Volume 3(2), January 2008
Reviewer, American Journal of Physics, May 2005
Reviewer, American Journal of Physics, October 2002
Reviewer, McGraw-Hill, *Six Ideas that Shaped Physics: Unit Q*, by T. Moore, August 2002
Reviewer, Journal of the Optical Society of America B, February 2002
Reviewer, Physical Review A, April 2001
Reviewer, Brooks/Cole, *Introduction to Scientific Research*, by E. Frank, November 1999
Reviewer, Journal of the European Optical Society, July 1997
Reviewer, Chemical Physics Letters, March 1997

Proposal Reviews

Reviewer, National Science Foundation, Atomic, Molecular and Optical Physics Program, December 2008
Member, Review Panel, National Science Foundation, Graduate Research Fellowships Program, February 2004
Reviewer, Cottrell College Science Awards, Research Corporation, January 2003
Member, Review Panel, National Science Foundation, Atomic, Molecular and Optical Physics Program, January 2003
Reviewer, National Science Foundation, Instructional Materials Development Program of the Elementary, Secondary and Informal Education Division, November 2001
Reviewer, Petroleum Research Fund, American Chemical Society, March, 2000
Reviewer, National Science Foundation, Atomic, Molecular and Optical Physics Program, November 1999
Reviewer, National Science Foundation, Atomic, Molecular and Optical Physics Program, November 1998
Reviewer, National Science Foundation, Professional Opportunities for Women in Research and Education (POWRE) Program, April 1998
Reviewer, National Science Foundation, Atomic, Molecular and Optical Physics Program, January 1997
Member, Review Panel, National Science Foundation, Academic Research Infrastructure Program, May 1996
Member, Review Panel, National Aeronautics and Space Administration, Ultraviolet, Visible, and Gravitational Astrophysics Research and Analysis Program, 1995

PUBLICATIONS AND PRESENTATIONS

Approximately 30 refereed journal articles, 53 conference presentations, and 56 invited talks.

SUPERVISED RESEARCH

Two Ph.D., 3 M.A. and 22 B.A. research projects.

REFERENCES

Available on request.