

MEREDITH L. GREER

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EDUCATION

Vanderbilt University, Nashville, Tennessee. M.S., Ph.D., Mathematics
University of Delaware, Newark, Delaware. B.A., *cum laude*, Mathematics

PROFESSIONAL EXPERIENCE

Professor of Mathematics, Bates College, 2020-present, Lewiston, Maine
Associate Professor of Mathematics, Bates College, 2008-2020, Lewiston, Maine
Assistant Professor of Mathematics, Bates College, 2002-2008, Lewiston, Maine
Ph.D. student and Teaching Assistant, Vanderbilt University, 1997-2002, Nashville, Tennessee
Summer Hire, The Aerospace Corporation, 2000, Colorado Springs, Colorado
Instructor of English as a Second Language, Yale Academy of Language Education, 1995-1996, Taegu, South Korea

LEADERSHIP ROLES

BIO-SIGMAA Chair-Elect, Mathematics Association of America, beginning in 2023
SMB Mathematical Epidemiology Subgroup Co-Chair, Society for Mathematical Biology, 2023-2024, to be Chair in 2024-2025
Division Chair, Natural Sciences and Mathematics, Bates College, elected to 2023-2027 term
Program Chair, Digital and Computational Studies, Bates College, 2019-2021
Division Chair, Natural Sciences and Mathematics, Bates College, 2016-2017
Department Chair, Mathematics, Bates College, 2011-2015

PUBLICATIONS

(Italics denote authors who contributed to publications as undergraduates.)

Predicting the effects of climate change on freshwater cyanobacterial blooms requires consideration of the complete cyanobacterial life cycle (2020) Kathryn L. Cottingham, Kathleen C. Weathers, Holly A. Ewing, Meredith L. Greer, Cayelan C. Carey. Journal of Plankton Research vol. 43(1), pp. 10-19. <https://doi.org/10.1093/plankt/fbaa059> .

Reviews: 500 Examples and Problems of Applied Differential Equations (2020) Meredith L. Greer. The American Mathematical Monthly vol. 127(7), 668-671, <https://doi.org/10.1080/00029890.2020.1764825> .

“New” cyanobacterial blooms are not new: two centuries of lake production are related to ice cover and land use (2020) Holly A. Ewing, Kathleen C. Weathers, Kathryn L. Cottingham, Peter R. Leavitt, Meredith L. Greer, Cayelan C. Carey, Bethel G. Steele, *Alyeska U. Fiorillo*, and John P. Sowles. Ecosphere vol. 11(6). <https://doi.org/10.1002/ecs2.3170>.

Paying Our Dues: The Role of Professional Societies in the Evolution of Mathematical Biology Education (2020) Meredith L. Greer, Olcay Akman, Timothy D. Comar, Daniel Hrozencik, Jonathan E. Rubin. Bulletin of Mathematical Biology vol. 82. <https://doi.org/10.1007/s11538-020-00728-9> .

Emergence of oscillations in a simple epidemic model with demographic data (2020) Meredith L. Greer, Raj Saha, *Alex Gogliettino*, *Chailin Yu*, *Kyle Zollo-Venecek*. Royal Society Open Science vol. 7. <https://doi.org/10.1098/rsos.191187> .

Engaging Crisis: Immersive, interdisciplinary learning in mathematics and rhetoric (2019) Meredith L. Greer and Stephanie Kelley-Romano. Journal of Humanistic Mathematics vol. 9(2). <https://scholarship.claremont.edu/jhm/vol9/iss2/4> .

Interdisciplinarity and inclusivity: natural partners in supporting students (2019) Meredith L. Greer. PRIMUS (Problems, Resources, and Issues in Mathematics Undergraduate Studies). DOI: 10.1080/10511970.2018.1488782 .

Functions and their derivatives in SIR models (2018) Meredith L. Greer. SIMIODE: A Systemic Initiative for Modeling Investigations & Opportunities with Differential Equations. Online publication: "6-007-S-FunctionsAndDerivativesInSIRModels," <https://www.simiode.org/resources/4884> .

Mathematical epidemiology goes to college (2018) Meredith L. Greer, *Ella Livesay*. Math Horizons vol. 25, pp. 8-11.

Modeling Pitch Trajectories in Fastpitch Softball (2015) *Jean M. Clark*, Meredith L. Greer, Mark D. Semon. Sports Engineering vol. 18, pp. 157-164.

Cyanobacteria as biological drivers of lake nitrogen and phosphorus cycling (2015) Kathryn L. Cottingham, Holly A. Ewing, Meredith L. Greer, Cayelan C. Carey, and Kathleen C. Weathers. Ecosphere vol. 6, pp. 1-19.

Spatial and temporal variability in recruitment of the cyanobacterium *Gloeotrichia echinulata* in an oligotrophic lake (2014) Cayelan C. Carey, Kathleen C. Weathers, Holly A. Ewing, Meredith L. Greer, Kathryn L. Cottingham. Freshwater Science vol. 33 no. 2, pp. 577-592.

Collaborative understanding of cyanobacteria in lake ecosystems (2013) Meredith L. Greer, Holly A. Ewing, Kathryn L. Cottingham, Kathleen C. Weathers. College Mathematics Journal vol. 44 no. 5, pp. 376-385.

Planning for the Long Term (2013) Meredith L. Greer. Appears in the MAA Notes volume Undergraduate Mathematics for the Life Sciences: Models, Processes, and Directions, eds. Glenn Ledder, Jenna P. Carpenter, and Timothy D. Comar.

Senior Seminar: Across a Department and Across the Years (2013) Meredith L. Greer and Chip Ross. PRIMUS (Problems, Resources, and Issues in Mathematics Undergraduate Studies), vol. 23, pp. 347-358.

Students in Differential Equations and Epidemiology model a campus outbreak of pH1N1 (2012) Meredith L. Greer and Karen A. Palin. Journal of Microbiology & Biology Education vol. 13, pp. 183-185

The Effect of Mixing Events on the Dynamics of pH1N1 Outbreaks at Small Residential Colleges (2012) Meredith L. Greer and Karen A. Palin. Journal of American College Health vol. 60, no. 6, pp. 485-489.

New Expectations for the Training of Medical Students (2009) Meredith L. Greer. FOCUS vol. 29, no. 5, p. 20.

New Expectations for the Training of Medical Students: An Undergraduate Preparation Perspective (2009) Meredith L. Greer. SMB Newsletter vol. 22, no. 3, pp. 8-9.

Blogs Hit Classroom: Students Start Reading (2008) Meredith L. Greer and *Benjamin Reed*. PRIMUS (Problems, Resources, and Issues in Mathematics Undergraduate Studies) vol. 18, no. 2, pp. 139-148.

Effects of General Incidence and Polymer Joining on Nucleated Polymerization in a Model of Prion Proliferation (2007) Meredith L. Greer, Pauline van den Driessche, Lin Wang, and Glenn F. Webb. SIAM Journal on Applied Mathematics vol. 68, pp. 154-170.

A Mathematical Analysis of the Dynamics of Prion Proliferation (2006) Meredith L. Greer, Glenn F. Webb, and Laurent Pujou-Menjouet. Journal of Theoretical Biology vol. 242, pp. 598-606.

Plague or Prediction? (2006) Meredith L. Greer. FOCUS vol. 26, no. 2, pp. 4-5.

Determining If Two Solid Ellipsoids Intersect (2003) Salvatore Alfano and Meredith L. Greer. Journal of Guidance, Control, and Dynamics, vol. 26, no. 1, pp. 106-110.

Determining If Two Ellipsoids Share the Same Volume (2002) Salvatore Alfano and Meredith L. Greer. Advances of the Astronautical Sciences, vol. 109, pp. 771-783.

INVITED PRESENTATIONS

Studying Change. Keynote speaker at Math Outreach Day at Auburn Middle School, Auburn, Maine, May 19, 2023

An Undergraduate Text in Mathematical Epidemiology. Shanks Workshop, Vanderbilt University, March 17-19, 2023, Nashville, Tennessee

DEs: Differential Equations, Data/Epidemics. Joint Mathematics Meetings, January 4-7, 2023, Boston, Massachusetts

Paying Our Dues: The Role of Professional Societies in the Evolution of Mathematical Biology Education. Society for Mathematical Biology Annual Meeting: Minisymposium on Highlights of the Special Issue of BMB on Mathematical Biology Education, June 14, 2021, held virtually

A Time to Play, A Space for Action: Mathematical Biology as an Undergraduate Program. St. Olaf College (talk presented virtually), April 8, 2021

Coronavirus Panel. March 10, 2020, Lewiston, Maine

Oscillation in Mathematical Epidemiology. Plenary Lecture at International Symposium on Biomathematics and Ecology Education and Research (BEER), October 5, 2019, LaCrosse, Wisconsin.

Math Fundamentals: One Model at a Time. Society for Mathematical Biology Annual Meeting: Education Mini-Symposium, July 25, 2019, Montreal, Canada.

Discovering Mathematics Through Epidemiological Models. Battles Lecture at Northeast Section Meeting of the Mathematical Association of America, May 31, 2019, Fitchburg, Massachusetts

Functions Applied: Precalculus Concepts Via Scientific Uses. International Symposium on Biomathematics and Ecology Education and Research (BEER), October 6, 2018, Tempe, Arizona

An Undergraduate Course in Mathematical Epidemiology. Society for Mathematical Biology Annual Meeting: Education Mini-Symposium, July 19, 2017, Salt Lake City, Utah

Agent-based Models in Ecology and Epidemiology. Unity College Math Colloquium, March 15, 2016, Unity, Maine

The DEs To Your Heart. University of Maine Math Colloquium, April 15, 2015, Orono, Maine

The DEs To Your Heart. Colby College Math Colloquium, November 24, 2014, Waterville, Maine

Ebola Information Panel. October 28, 2014, Lewiston, Maine

Roller Coaster Math. Plenary Lecture at Northeastern Section of the Mathematical Association of America Fall Meeting, November 22, 2013, Norton, Massachusetts

Collaboration, Cyanobacteria, and Compartmental Modeling. Mathematics Awareness Lecture/MAA Dinner Meeting, October 28, 2013, Boston, Massachusetts

The DEs to Your Undergrad's Heart. Southeastern-Atlantic Regional Conference on Differential Equations, September 22, 2013, Knoxville, Tennessee

Roller Coasters, Infectious Disease, and Mathematics. Alumni College at Bates, June 10, 2012, Lewiston, Maine

Project NEXt Panel on Successful Capstone Projects. Joint Mathematics Meetings, January 4-7, 2012, Boston, Massachusetts

Toward understanding the role of *Gloeotrichia echinulata* in eutrophication of lakes: early modeling results. University of New Brunswick, October 14, 2010, Fredericton, Canada

Can cyanobacterial blooms in nutrient-poor lakes accelerate eutrophication? Perspectives from modeling. Canadian Mathematical Society Summer Meeting, June 6, 2010, Fredericton, Canada

Building Math Models in Biology. Connecticut College, February 19, 2008, New London, Connecticut

Building Math Models in Biology. Colby College, September 17, 2007, Waterville, Maine

Prion Disease Modeling: Interaction of Infectious and Noninfectious Proteins. University of Alberta, April 25, 2006, Edmonton, Canada

Prion Disease Modeling: Interaction of Infectious and Noninfectious Proteins. Harvey Mudd and Pomona Colleges, March 29, 2006, Claremont, California

Protein Population Interactions in Prion Diseases. University of British Columbia, February 8, 2006, Vancouver, Canada

Interaction of Infectious and Noninfectious Proteins in Prion Disease: Models, Simulations, and Steady State Study. Canadian Mathematical Society Annual Meeting, December 11, 2005, Victoria, Canada

Roller Coaster Mathematics. United States Military Academy, October 6, 2005, West Point, New York

Threshold Conditions in a Model of Prion. Disease International Society for Analysis, its Applications and Computation, July 25-30, 2005, Catania, Italy

Saving Satellites. Hobart and William Smith Colleges, April 15, 2005, Geneva, New York

Prion Proliferation: Modeling, Analysis, and Impact. CBB (Colby, Bates, Bowdoin) Mathematics Seminar, November 12, 2004, Bowdoin College

A Mathematical Analysis of Prion Proliferation. American Mathematical Society Southeast Region Fall Meeting, October 15-17, 2004, Nashville, Tennessee

From Periodic Locusts to Mad Cow Disease: Translating Nature Into Mathematics. Connecticut College Majors Seminar, February 17, 2004, New London, Connecticut

Satellites, Ellipsoids, and Eigenvalues. Bates Mathematics Department Seminar, November 6, 2002, Lewiston, Maine

Mad Cows and Hungry Locusts. Vanderbilt University Mathematics Seminar for Undergraduates, March 28, 2001, Nashville, Tennessee

HTML for Beginners. Vanderbilt University Mathematics Department, February 8, 2001, Nashville, Tennessee

CONTRIBUTED PRESENTATIONS

Data Challenges in Epidemic Modeling. MathFest, August 3-6, 2022, Philadelphia, Pennsylvania

Teaching Mathematical Epidemiology in the Time of COVID-19. Joint Mathematics Meetings, January 6-9, 2021, held virtually

Estimating Parameters and Responding to Questions During an Outbreak: Modeling Ebola in Fall 2014. Joint Mathematics Meetings, January 6-9, 2016, Seattle, Washington

A 2016 Calendar of Math in Berlin: Twelve Historical Moments That Influence Us Today. Joint Mathematics Meetings, January 6-9, 2016, Seattle, Washington

Combining Forces: Math and Bio Students Join to Study H1N1. MathFest, August 2-4, 2012, Madison, Wisconsin

Life Cycle Dynamics of *Gloeotrichia echinulata* and connections to nutrient cycling. Society for Mathematical Biology Annual Meeting, July 25-28, 2012, Knoxville, Tennessee

Senior Seminar, Across a Department and Across the Years (with Chip Ross). Joint Mathematics Meetings, January 4-7, 2012, Boston, Massachusetts

Roller Coasters and the Mathematics Behind Them. MathFest, August 10-12, 2006, Knoxville, Tennessee

Threshold Conditions in an ODE Model of Prion Disease (poster). Society for Mathematical Biology Annual Meeting, July 18-22, 2005, Dresden, Germany

A Mathematical Analysis of Prion Proliferation. AWM Workshop as part of SIAM Annual Meeting, July 11-16, 2004, Portland, Oregon

Steady State Analysis of Prion Proliferation. Joint Conference of MPD 7 and DESTOBIO 3, June 21-25, 2004, Trento, Italy

Math Camp: A Language Immersion Class. Joint Mathematics Meetings, January 6-10, 2004, Phoenix, Arizona

Prion Dynamics Modelled, Displayed, and Analyzed. Society for Mathematical Biology Annual Meeting, August 5-9, 2003, Dundee, Scotland

A Population Model of Prion Dynamics. Joint Mathematics Meetings, January 15-18, 2003, Baltimore, Maryland

Saving Satellites. Regional Meeting of the Mathematical Association of America, November 22-23, 2002, Framingham, Massachusetts

A Population Model of Prion Dynamics (poster). The Society for Mathematical Biology Annual Meeting, July 15-19, 2001, Hilo, Hawaii

A Population Model of Prion Dynamics (poster). AWM Workshop as part of SIAM Annual Meeting, July 9-11, 2001, San Diego, California

GRANTS

Phillips Faculty Fellowship. Full-year sabbatical support, plus travel funding, 2022-2023

STEM Faculty-Student Research Award (Bates internal award). *The Spread of the Birther Conspiracy as an Epidemiological Model.* April-May 2019: \$2368

Howard Hughes Medical Institute (Bates internal award) *Critical Issues in Mathematics Education 2019: Mathematical Modeling in K-16: Community and Cultural Contexts* at Mathematical Sciences Research Institute. March 6-8, 2019: \$1260

Faculty Scholarship Award (Bates internal award) *Agent Based Modeling: Strengthening Classroom Teaching and Research Possibilities.* July-December 2017: \$1,444.76

Sherman Fairchild Foundation faculty-student summer research grant (Bates internal award) *Mathematical Models of National Healthcare Approaches.* June-August 2017: \$4736

Mellon Innovation Fund (Bates internal award) *Mathematical Modeling of Gloeotrichia echinulata.* 2010-2011; used mainly in Summer 2011: \$11,554

CBB Mellon Grant for Math/Bio Seminar Series (Bates internal award) 2007-2008 academic year: \$8500

Ladd Gift (Bates internal award) 2004-2005 academic year: \$3000

AWM Workshop as part of SIAM Annual Meeting July 11-16, 2004, Portland, Oregon. Conference attendance and travel funded by AWM for accepted participants

Howard Hughes Medical Institute IV (Bates internal award) Curriculum development grant awarded December 2004: \$12000

Howard Hughes Medical Institute IV (Bates internal award) Curriculum development grant awarded May 2003: \$7756

The Society for Mathematical Biology Travel Grant Annual meeting, July 15-19, 2001, Hilo, Hawaii

AWM Workshop as part of SIAM Annual Meeting July 9-11, 2001, San Diego, California. Conference attendance and travel funded by AWM for accepted participants

COURSES TAUGHT AT BATES

Mathematics

MATH 102: Mathematics Across the Sciences

MATH 105: Calculus 1

MATH 106: Calculus 2
MATH 110: Great Ideas in Mathematics (as part of the Bates Summer Scholars Program)
MATH 205: Linear Algebra
MATH 206: Multivariable Calculus
MATH 218: Numerical Analysis (now MATH 355A)
MATH 219: Differential Equations
MATH 221: Introduction to Abstraction
MATH 255B: Mathematical Modeling
MATH 255F: Agent-Based Modeling with NetLogo
MATH 301: Real Analysis
MATH 395E: Wavelets and Their Applications (a Senior Seminar)
MATH 495J: Advanced Topics in Biomathematics (a Senior Seminar)
MATH s21: Introduction to Abstraction (“Math Camp”)
MATH s45K: Roller Coasters: Theory, Design, and Properties

Cross-listed between Biology and Mathematics

BI/MA 255A: Mathematical Models in Biology

First-Year Seminar

FYS 405: Zombies: Can Math Help?

Fall Semester Abroad program

BSAG 010: Culture, Controversy, Cryptography, Calculus

UNDERGRADUATE THESES ADVISED

- Mathematical Modeling of the Influenza Pandemic of 1918
- An Examination of the Presence and Biological Implications of Bifurcations Located Within a Continuous-Time Model of Nucleated Polymerization
- Epidemiological Impact of ART in Burkina Faso, South Africa, and Uganda
- An Analysis of the Motion of Fastpitch Softball Pitches
- Probabilities Associated with RISK©
- A Mathematical Model of the Fall 2009 H1N1 Pandemic at Bates College
- Statistical Methods of Wavelet Analysis with Applications to Ecological Time-Series
- Using Community Structure Networks to Model Heterogeneous Mixing in Epidemics, and a Potential Application to HIV in Washington, D.C.
- A Survey of Wavelet Theory and Methods Suited for Time Series Analysis
- Wavelets and Musical Acoustics
- Ranking College Basketball Teams Using Methods from Linear Algebra
- A Mathematical Examination for Modeling the Pelagic Phase of *Gloeotrichia echinulata*
- Modeling H1N1 at Bates with an Agent-Based Simulation
- The Intersection of Mathematics and Germany: A Chronology

- A Network Theory Approach to Math Epidemiology & Healthcare Effectiveness
- Studying Smallpox Oscillations with Changing Population Sizes
- The Spread of the Birther Conspiracy as an Epidemiological Model
- Modeling the 2016 Mumps Outbreak at Bates with Agent-based Models
- The Spread of the Mumps in Immigration Detention Centers Across the United States
- Matchings in Graphs
- Population Dynamics: A Comparison of the Ricker, Logistic, Beverton-Holt and Hassell Models
- Mathematical Model of Tumor Cell Growth: Optimal personalized medicine with combinational treatment for glioblastoma
- Using Compartmental Models to Model Conspiracy Theories on Social Media
- The Application of Mathematical Tools to Analyze Data from an Existing Model for Estimating Cyanobacterial Metabolism in Lake Auburn

SELECTED COMMITTEES AND APPOINTMENTS AT BATES

- Chair of Division of Natural Sciences and Mathematics, 2023-present
- Gender and Sexuality Studies Program Committee, 2023-present
- Chair of Digital and Computational Studies Program, 2019-2021
- Curriculum Review Committee, 2018-2022 (committee chair 2020-2022)
- Chair of Division of Natural Sciences and Mathematics, 2016-2017
- Faculty Scholarship Committee, 2013-2016
- Chair of Mathematics Department, 2011-2015
- Faculty Review Board, 2011-2016
- Women's Track and Cross Country Liaison, 2012-2022
- SLQ Implementation Committee, 2006-2010
- Q (quantitative) Course Approval, 2006-2013
- Women and Gender Studies Program Committee, 2006-2012
- Committee on Personnel, 2010-2011
- Phi Beta Kappa chapter, President 2008-2010, Vice President 2006-2008
- President's Institutional Planning and Advisory Committee, 2004-2005
- Teaching Evaluation Committee, 2003-2005
- Hughes Student-Faculty Research Grant Committee, 2003-2005

OTHER ACTIVITIES

SMB Virtual Mini-Conference. Society for Mathematical Biology's Subgroups in Mathematical Epidemiology and Population Dynamics, Ecology, and Evolution. February 26-28, 2023

Developing Mathematics Programs for Workforce Preparation in Data Science and Other Applications. Professional Enhancement Program (PEP) at the Joint Mathematics Meetings, January 4-7, 2023, Boston, Massachusetts

Creating Accessible and Interactive Documents with PreTeXt. Professional Enhancement Program (PEP) at the Joint Mathematics Meetings, January 4-7, 2023, Boston, Massachusetts

DIFUSE Workshop (Data Science InFusion Into Undergraduate STEM Education), Dartmouth faculty-led two-day workshop on Data Science Course Module Design, July 11-12, 2022

Development and Use of Open Educational Resources in Higher Education, April 26, 2019, Lewiston, Maine: [Panelist](#)

DEMARC (Differential Equations Model and Resource Creators) workshop, July 15-21, 2018, at Manhattan College, NYC

Sectional Meeting of the American Mathematical Society, September 24-25, 2016, Brunswick, Maine: [Organized special session](#) titled “Mathematics and Statistics Applied to Biology and Related Fields”

The Society for Mathematical Biology Annual Meeting, July 27-30, 2009, Vancouver, Canada

Mathematical Association of America, Northeast Section, Fall Meeting, November 17, 2007, Framingham, Massachusetts: [Accompanied a presenting undergraduate](#)

The Society for Mathematical Biology Annual Meeting, July 31-August 3, 2007, San Jose, California

MathFest 2007, August 3-5, 2007, San Jose, California

Bioinformatics in the Undergraduate Curriculum Workshop, July 19, 2007, Lewiston, Maine

The Society for Mathematical Biology Annual Meeting, July 31-August 4, 2006, Raleigh, North Carolina

Bioinformatics Mini-Workshop, August 22, 2005, Lewiston, Maine

Mathematical Association of America, Northeast Section, Spring Meeting, June 17-18, 2005, Lewiston, Maine

Hudson River Undergraduate Mathematics Conference, April 30, 2005, Williamstown, Massachusetts: [Accompanied six Bates students](#)

Joint Mathematics Meeting, January 5-8, 2005, Atlanta, Georgia

MathFest 2004, August 12-14, 2004, Providence, Rhode Island: [Co-organized a special session and served as panel chair](#)

Legacy of R. L. Moore Conference, March 12-14, 2004, Austin, Texas

Joint Mathematics Meetings, January 6-10, 2004, Phoenix, Arizona

MathFest 2003, July 31-August 2, 2003, Boulder, Colorado

Bioinformatics Conference at Dickinson College, March 21-22, 2003, Carlisle, Pennsylvania

MathFest 2002, August 1-3, 2002, Burlington, Vermont

Joint Mathematics Meetings, January 6-9, 2002, San Diego, California

Horizons in Combinatorics, May 21-24, 2001, Nashville, Tennessee

DESTOBIO, August 23-27, 2000, West Lafayette, Indiana

HONORS AND PROFESSIONAL ACTIVITIES

Mathematical Association of America, member since 2002

Chair-Elect of BIO SIGMAA (mathematical biology special interest group), 2023

Teaching Support Group facilitator on mathematical modeling, 2021-2022

Chair of Committee on Carl B. Allendoerfer Awards, 2020-2022

Member of Committee on Carl B. Allendoerfer Awards, 2018-2021

Chair of Committee on George Pólya Awards, 2016-2017

Member of Committee on George Pólya Awards, 2013-2016

Project NExT, 2003-2004 (Sky Dot)

The Society for Mathematical Biology, member since 2000

Co-Chair of Mathematical Epidemiology subgroup, beginning July 2023

Chair of Travel and Meeting Funding Grants Committee, 2006-2017

Scientific Committee Member and Webmaster for the 2007 Annual Meeting

PRIMUS (Problems, Resources, and Issues in Mathematics Undergraduate Studies),

editorial board member 2006-2015

Mathematical Moments Consultant, September 2014

Consulted for *Going Over the Top*, about roller coasters; link and podcast here:

<http://www.ams.org/samplings/mathmoments/mm114-roller-coasters-podcast>

American Mathematical Society, member since 1997

Association for Women in Mathematics, member since 1997

Patent and Company Invention Award, for new technique developed at The Aerospace Corporation in summer 2000

Phi Beta Kappa, member since 1995; vice president of Bates College chapter, 2006-2008; president of Bates College chapter, 2008-2010