

# MEREDITH L. GREER

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## EDUCATION

Vanderbilt University, M.S., Ph.D., Mathematics	1997-2002
University of Delaware, B.A., <i>cum laude</i> , Mathematics	1991-1995

## PROFESSIONAL EXPERIENCE

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

## LEADERSHIP

Division Chair, Natural Sciences and Mathematics, Bates College	2023-2027
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
BIO SIGMAA Chair, Mathematics Association of America BIO SIGMAA is the Special Interest Group of the Mathematical Association of America on Mathematical and Computational Biology	2024-2025
SMB Mathematical Epidemiology Subgroup Chair SMB is the Society for Mathematical Biology	2024-2025
Chair of MAA Committee on Carl B. Allendoerfer Awards	2020-2022
Chair of MAA Committee on George Pólya Awards	2016-2017
Chair of SMB Travel and Meeting Funding Grants Committee	2006-2017

## 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.** 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> . 2020
- Reviews: 500 Examples and Problems of Applied Differential Equations.** Meredith L. Greer. The American Mathematical Monthly vol. 127(7), 668-671, <https://doi.org/10.1080/00029890.2020.1764825> . 2020
- “New” cyanobacterial blooms are not new: two centuries of lake production are related to ice cover and land use.** 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>. 2020
- Paying Our Dues: The Role of Professional Societies in the Evolution of Mathematical Biology Education.** 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> . 2020
- Emergence of oscillations in a simple epidemic model with demographic data.** 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> . 2020
- Engaging Crisis: Immersive, interdisciplinary learning in mathematics and rhetoric.** Meredith L. Greer and Stephanie Kelley-Romano. Journal of Humanistic Mathematics vol. 9(2). <https://scholarship.claremont.edu/jhm/vol9/iss2/4> . 2019
- Interdisciplinarity and inclusivity: natural partners in supporting students.** Meredith L. Greer. PRIMUS (Problems, Resources, and Issues in Mathematics Undergraduate Studies). DOI: 10.1080/10511970.2018.1488782 . 2019
- Functions and their derivatives in SIR models.** 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> . 2018
- Mathematical epidemiology goes to college.** Meredith L. Greer, *Ella Livesay*. Math Horizons vol. 25, pp. 8-11. 2018
- Modeling Pitch Trajectories in Fastpitch Softball.** *Jean M. Clark*, Meredith L. Greer, Mark D. Semon. Sports Engineering vol. 18, pp. 157-164. 2015

- 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?** Meredith L. Greer. FOCUS vol. 26, no. 2, pp. 4-5. 2006
- Determining If Two Solid Ellipsoids Intersect.** Salvatore Alfano and Meredith L. Greer. Journal of Guidance, Control, and Dynamics, vol. 26, no. 1, pp. 106-110. 2003
- Determining If Two Ellipsoids Share the Same Volume.** Salvatore Alfano and Meredith L. Greer. Advances of the Astronautical Sciences, vol. 109, pp. 771-783. 2002

## INVITED PRESENTATIONS

- An Open Access Compartmental Modeling Text** August 9, 2024  
MathFest, Indianapolis, Indiana
- Open Access Compartmental Modeling** July 1, 2024  
Korean Society of Mathematical Biology and Society of Mathematical Biology joint annual meeting, Seoul, South Korea
- Kroepsch Teaching Award Celebratory Panel** March 14, 2024  
Bates College, Lewiston, Maine
- Mathematical Modeling for K-12 Teachers** January 24, 2024  
Presentation and facilitated session for the Lewiston Public Schools Math Standards Working Group, Lewiston, Maine
- Mathematical Epidemiology on a Small College Campus** November 27, 2023  
Colby College, Waterville, Maine
- Studying Change** May 19, 2023  
Math Outreach Day keynote at Auburn Middle School, Auburn, Maine
- An Undergraduate Text in Mathematical Epidemiology** March 17-19, 2023  
Shanks Workshop, Vanderbilt University, Nashville, Tennessee
- DEs: Differential Equations, Data/Epidemics** January 4-7, 2023  
Joint Mathematics Meetings, Boston, Massachusetts
- Paying Our Dues: The Role of Professional Societies in the Evolution of Mathematical Biology Education** June 14, 2021  
Society for Mathematical Biology Annual Meeting: Minisymposium on Highlights of the Special Issue of BMB on Mathematical Biology Education, held virtually
- A Time to Play, A Space for Action: Mathematical Biology as an Undergraduate Program** April 8, 2021  
St. Olaf College (talk presented virtually)
- Coronavirus Panel** March 10, 2020  
Bates College, Lewiston, Maine

<b>Oscillation in Mathematical Epidemiology</b> Plenary Lecture at International Symposium on Biomathematics and Ecology Education and Research (BEER), LaCrosse, Wisconsin.	October 5, 2019
<b>Math Fundamentals: One Model at a Time</b> Society for Mathematical Biology Annual Meeting: Education Mini-Symposium, Montreal, Canada.	July 25, 2019
<b>Discovering Mathematics Through Epidemiological Models</b> <u>Battles Lecture</u> at Northeast Section Meeting of the Mathematical Association of America, Fitchburg, Massachusetts	May 31, 2019
<b>Functions Applied: Precalculus Concepts Via Scientific Uses</b> International Symposium on Biomathematics and Ecology Education and Research (BEER), Tempe, Arizona	October 6, 2018
<b>An Undergraduate Course in Mathematical Epidemiology</b> Society for Mathematical Biology Annual Meeting: Education Mini-Symposium, Salt Lake City, Utah	July 19, 2017
<b>Agent-based Models in Ecology and Epidemiology</b> Unity College Math Colloquium, Unity, Maine	March 15, 2016
<b>The DEs To Your Heart</b> University of Maine Math Colloquium, Orono, Maine	April 15, 2015
<b>The DEs To Your Heart</b> Colby College Math Colloquium, Waterville, Maine	November 24, 2014
<b>Ebola Information Panel</b> Bates College, Lewiston, Maine	October 28, 2014
<b>Roller Coaster Math</b> <u>Plenary Lecture</u> at Northeastern Section of the Mathematical Association of America Fall Meeting, Norton, Massachusetts	November 22, 2013
<b>Collaboration, Cyanobacteria, and Compartmental Modeling</b> Mathematics Awareness Lecture/MAA Dinner Meeting, Boston, Massachusetts	October 28, 2013
<b>The DEs to Your Undergrad's Heart</b> Southeastern-Atlantic Regional Conference on Differential Equations, Knoxville, Tennessee	September 22, 2013
<b>Roller Coasters, Infectious Disease, and Mathematics</b> Alumni College at Bates, Lewiston, Maine	June 10, 2012
<b>Project NExT Panel on Successful Capstone Projects</b> Joint Mathematics Meetings, Boston, Massachusetts	January 4-7, 2012

<b>Toward understanding the role of <i>Gloeotrichia echinulata</i> in eutrophication of lakes: early modeling results</b> University of New Brunswick, Fredericton, Canada	October 14, 2010
<b>Can cyanobacterial blooms in nutrient-poor lakes accelerate eutrophication? Perspectives from modeling</b> Canadian Mathematical Society Summer Meeting, Fredericton, Canada	June 6, 2010
<b>Building Math Models in Biology</b> Connecticut College, New London, Connecticut	February 19, 2008
<b>Building Math Models in Biology</b> Colby College, Waterville, Maine	September 17, 2007
<b>Prion Disease Modeling: Interaction of Infectious and Noninfectious Proteins</b> University of Alberta, Edmonton, Canada	April 25, 2006
<b>Prion Disease Modeling: Interaction of Infectious and Noninfectious Proteins</b> Harvey Mudd and Pomona Colleges, Claremont, California	March 29, 2006
<b>Protein Population Interactions in Prion Diseases</b> University of British Columbia, Vancouver, Canada	February 8, 2006
<b>Interaction of Infectious and Noninfectious Proteins in Prion Disease: Models, Simulations, and Steady State Study</b> Canadian Mathematical Society Annual Meeting, Victoria, Canada	December 11, 2005
<b>Roller Coaster Mathematics</b> United States Military Academy, West Point, New York	October 6, 2005
<b>Threshold Conditions in a Model of Prion Disease</b> International Society for Analysis, its Applications and Computation, Catania, Italy	July 25-30, 2005
<b>Saving Satellites</b> Hobart and William Smith Colleges, Geneva, New York	April 15, 2005
<b>Prion Proliferation: Modeling, Analysis, and Impact</b> CBB (Colby, Bates, Bowdoin) Mathematics Seminar, Bowdoin College	November 12, 2004
<b>A Mathematical Analysis of Prion Proliferation</b> American Mathematical Society Southeast Region Fall Meeting, Nashville, Tennessee	October 15-17, 2004
<b>From Periodic Locusts to Mad Cow Disease: Translating Nature Into Mathematics</b> Connecticut College Majors Seminar, New London, Connecticut	February 17, 2004

<b>Satellites, Ellipsoids, and Eigenvalues</b> Bates Mathematics Department Seminar, Lewiston, Maine	November 6, 2002
<b>Mad Cows and Hungry Locusts</b> Vanderbilt University Mathematics Seminar for Undergraduates,, Nashville, Tennessee	March 28, 2001
<b>HTML for Beginners</b> Vanderbilt University Mathematics Department, Nashville, Tennessee	February 8, 2001

## CONTRIBUTED PRESENTATIONS

<b>Data Challenges in Epidemic Modeling</b> MathFest, Philadelphia, Pennsylvania	August 3-6, 2022
<b>Teaching Mathematical Epidemiology in the Time of COVID-19</b> Joint Mathematics Meetings, held virtually	January 6-9, 2021
<b>Estimating Parameters and Responding to Questions During an Outbreak: Modeling Ebola in Fall 2014</b> Joint Mathematics Meetings, Seattle, Washington	January 6-9, 2016
<b>A 2016 Calendar of Math in Berlin: Twelve Historical Moments That Influence Us Today</b> Joint Mathematics Meetings, Seattle, Washington	January 6-9, 2016
<b>Combining Forces: Math and Bio Students Join to Study H1N1</b> MathFest, Madison, Wisconsin	August 2-4, 2012
<b>Life Cycle Dynamics of <i>Gloeotrichia echinulata</i> and connections to nutrient cycling</b> Society for Mathematical Biology Annual Meeting, Knoxville, Tennessee	July 25-28, 2012
<b>Senior Seminar, Across a Department and Across the Years</b> Joint Mathematics Meetings (with Chip Ross), Boston, Massachusetts	January 4-7, 2012
<b>Roller Coasters and the Mathematics Behind Them</b> MathFest, Knoxville, Tennessee	August 10-12, 2006
<b>Threshold Conditions in an ODE Model of Prion Disease (poster)</b> Society for Mathematical Biology Annual Meeting, Dresden, Germany	July 18-22, 2005
<b>A Mathematical Analysis of Prion Proliferation</b> AWM Workshop as part of SIAM Annual Meeting, Portland, Oregon	July 11-16, 2004
<b>Steady State Analysis of Prion Proliferation</b> Joint Conference of MPD 7 and DESTOBIO 3, Trento, Italy	June 21-25, 2004

<b>Math Camp: A Language Immersion Class</b> Joint Mathematics Meetings, Phoenix, Arizona	January 6-10, 2004
<b>Prion Dynamics Modelled, Displayed, and Analyzed</b> Society for Mathematical Biology Annual Meeting, Dundee, Scotland	August 5-9, 2003
<b>A Population Model of Prion Dynamics</b> Joint Mathematics Meetings, Baltimore, Maryland	January 15-18, 2003
<b>Saving Satellites</b> Regional Meeting of the Mathematical Association of America, Framingham, Massachusetts	November 22-23, 2002
<b>A Population Model of Prion Dynamics (poster)</b> The Society for Mathematical Biology Annual Meeting, Hilo, Hawaii	July 15-19, 2001
<b>A Population Model of Prion Dynamics (poster)</b> AWM Workshop as part of SIAM Annual Meeting, San Diego, California	July 9-11, 2001

## GRANTS

<b>STEM Faculty-Student Research Award</b> (Bates internal award) <i>Mathematical Epidemiology Textbook, Version 1: Completion and Promotion: \$4874</i>	June-August 2024
<b>Phillips Faculty Fellowship</b> (Bates internal award) Full-year sabbatical support, plus travel funding	2022-2023
<b>STEM Faculty-Student Research Award</b> (Bates internal award) <i>The Spread of the Birther Conspiracy as an Epidemiological Model: \$2368</i>	April-May 2019
<b>Howard Hughes Medical Institute</b> (Bates internal award) <i>Critical Issues in Mathematics Education 2019: Mathematical Modeling in K-16: Community and Cultural Contexts</i> conference attendance at Mathematical Sciences Research Institute: \$1260	March 6-8, 2019
<b>Faculty Scholarship Award</b> (Bates internal award) <i>Agent Based Modeling: Strengthening Classroom Teaching and Research Possibilities: \$1,444.76</i>	July-December 2017
<b>Sherman Fairchild Foundation faculty-student summer research grant</b> (Bates internal award) <i>Mathematical Models of National Healthcare Approaches: \$4736</i>	June-August 2017
<b>Mellon Innovation Fund</b> (Bates internal award) <i>Mathematical Modeling of <i>Gloeotrichia echinulata</i>: \$11,554</i>	2010-2011



<b>CBB Mellon Grant for Math/Bio Seminar Series</b> (Bates internal award) Hosted a seminar with Colby and Bowdoin; brought in speakers: \$8500	2007-2008
<b>Ladd Gift</b> (Bates internal award) Added to library holdings in mathematical biology texts: \$3000	2004-2005
<b>AWM Workshop as part of SIAM Annual Meeting</b> Conference attendance and travel funded by AWM for accepted participants, Portland, Oregon	July 11-16, 2004
<b>Howard Hughes Medical Institute IV</b> (Bates internal award) Curriculum development grant: \$12000	2004
<b>Howard Hughes Medical Institute IV</b> (Bates internal award) Curriculum development grant: \$7756	2003
<b>The Society for Mathematical Biology Travel Grant</b> Annual meeting, Hilo, Hawaii	July 15-19, 2001
<b>AWM Workshop as part of SIAM Annual Meeting</b> Conference attendance and travel funded by AWM for accepted participants, San Diego, California.	July 9-11, 2001

## **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 495N: Writing Mathematics with Data (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?

FYS 557: Learning Math Using Crafts, Coding, and Games

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  
 Queer Data for Queer Change: Examining Substance Use Among Queer Youth in Androscoggin County, Maine  
 Mathematical Model of the Response of Bacterial Biofilms to Antibiotic Treatments  
 A Compartmental Modeling Approach to Investigating the Impact of Climate Change on Malaria Transmission in Maine  
 Compartmental Modeling the Spread of Obama

## **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 (committee chair 2020-2022)	2018-2022
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**

<b>SMB Virtual Mini-Conference: Organizing Committee Member</b>	February 18-20, 2024
Society for Mathematical Biology's Subgroups in Mathematical Epidemiology and Mathematical Oncology	
<b>Course (re)Design Institute</b>	August 15-16, 2023
Bates CITL (Center for Inclusive Teaching and Learning) workshop	

<b>MathFest</b>	August 4-5, 2023
Participated in the minicourse “How to Write an Excellent Expository Article in Mathematics”, Tampa, Florida	
<b>Workshop for Program Review Consultants</b>	August 9, 2023
Led online by TPSE Math (Transforming Post-Secondary Education in Mathematics)	
<b>Data Analysis and Visualization with R</b>	May 11-12, 2023
Bates workshop	
<b>SMB Virtual Mini-Conference</b>	February 26-28, 2023
Society for Mathematical Biology’s Subgroups in Mathematical Epidemiology and Population Dynamics, Ecology, and Evolution	
<b>Developing Mathematics Programs for Workforce Preparation in Data Science and Other Applications</b>	January 4-7, 2023
Professional Enhancement Program (PEP) at the Joint Mathematics Meetings, Boston, Massachusetts	
<b>Creating Accessible and Interactive Documents with PreTeXt</b>	January 4-7, 2023
Professional Enhancement Program (PEP) at the Joint Mathematics Meetings, Boston, Massachusetts	
<b>DIFUSE Workshop (Data Science InFusion Into Undergraduate STEM Education)</b>	July 11-12, 2022
Dartmouth faculty-led two-day workshop on Data Science Course Module Design	
<b>Development and Use of Open Educational Resources in Higher Education: Panelist</b>	April 26, 2019
Bates College	
<b>DEMARC (Differential Equations Model and Resource Creators) workshop</b>	July 15-21, 2018
Manhattan College, New York City, New York	
<b>Special Session Organizer at the Sectional Meeting of the American Mathematical Society</b>	September 24-25, 2016
“Mathematics and Statistics Applied to Biology and Related Fields” Bowdoin College, Brunswick, Maine	
<b>The Society for Mathematical Biology Annual Meeting</b>	July 27-30, 2009
Vancouver, Canada	
<b>Fall Meeting of the Mathematical Association of America’s Northeast Section</b>	November 17, 2007
Accompanied a presenting undergraduate, Framingham, Massachusetts	

<b>Scientific Committee Member and Webmaster, The Society for Mathematical Biology Annual Meeting San Jose, California</b>	July 31-August 3, 2007
<b>MathFest 2007 San Jose, California</b>	August 3-5, 2007
<b>Bioinformatics in the Undergraduate Curriculum Workshop Lewiston, Maine</b>	July 19, 2007
<b>The Society for Mathematical Biology Annual Meeting Raleigh, North Carolina</b>	July 31-August 4, 2006
<b>Bioinformatics Mini-Workshop Lewiston, Maine</b>	August 22, 2005
<b>Northeast Section Spring Meeting, Mathematical Association of America Lewiston, Maine</b>	June 17-18, 2005
<b>Hudson River Undergraduate Mathematics Conference Accompanied six Bates students, Williamstown, Massachusetts</b>	April 30, 2005
<b>Joint Mathematics Meeting Atlanta, Georgia</b>	January 5-8, 2005
<b>Co-organized a special session and served as panel chair at MathFest Providence, Rhode Island</b>	August 12-14, 2004
<b>Joint Mathematics Meetings Phoenix, Arizona</b>	January 6-10, 2004
<b>MathFest Boulder, Colorado</b>	July 31-August 2, 2003
<b>Bioinformatics Conference at Dickinson College Carlisle, Pennsylvania</b>	March 21-22, 2003
<b>MathFest Burlington, Vermont</b>	August 1-3, 2002
<b>Joint Mathematics Meetings San Diego, California</b>	January 6-9, 2002
<b>DESTOBIO West Lafayette, Indiana</b>	August 23-27, 2000

## **HONORS AND PROFESSIONAL ACTIVITIES**

<b>Mathematical Association of America</b> member	Since 2002
Textbooks Editorial Board	2024-present
Chair of BIO SIGMAA (mathematical biology special interest group)	2024-2025
Chair-Elect of BIO SIGMAA	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 (Sky Dot)	2003-2004
<b>The Society for Mathematical Biology</b> member	Since 2000
Chair of Mathematical Epidemiology subgroup	July 2024-July 2025
Co-organizer of SMB Miniconference in Epidemiology and Oncology	Feb 18-20, 2024
Co-Chair of Mathematical Epidemiology subgroup	July 2023-July 2024
Chair of Travel and Meeting Funding Grants Committee	2006-2017
Scientific Committee Member and Webmaster for the 2007 Annual Meeting	2007
<b>PRIMUS</b> (Problems, Resources, and Issues in Mathematics Undergraduate Studies), editorial board member	2006-2015
<b>Mathematical Moments Consultant</b>	2014
<i>Going Over the Top</i> , about roller coasters; link and podcast here: <a href="http://www.ams.org/samplings/mathmoments/mm114-roller-coasters-podcast">http://www.ams.org/samplings/mathmoments/mm114-roller-coasters-podcast</a>	
<b>American Mathematical Society</b> member	Since 1997
<b>Association for Women in Mathematics</b> member	Since 1997
<b>Patent and Company Invention Award</b> , for new technique developed at The Aerospace Corporation	2000
<b>Phi Beta Kappa</b> member	Since 1995
Vice president of Bates College chapter	2006-2008
President of Bates College chapter	2008-2010