

Kathryn J. Montovan

Curriculum Vitae
March 20, 2016

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Bennington, VT 05201
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802-440-4484

Education

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| Ph.D. Applied Mathematics, Cornell University. Defended: July 2013 | Conferred: December 2013 |
| M.S. Applied Mathematics, Cornell University | August 2010 |
| B.A. (Magna Cum Laude) Mathematics, University of Minnesota, Morris | May 2005 |

Professional Appointments

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| Faculty of the College, Bennington College | 2013 - present |
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Publications

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| Montovan*, Couchoux, Jones, Reeve, and van Nouhuys. The puzzle of partial resource use by a parasitoid wasp. <i>The American Naturalist</i> , doi: 10.1086/680036 | 2015 |
| Stieha, Montovan*, Castillo-Guajardo. A Field Guide to Programming: A Tutorial for Learning Programming and Population Models. <i>Community of Ordinary Differential Equations Educators</i> , published online on July 5. | 2014 |
| Montovan*, Karst, Seeley, and Jones. Local behavioral rules sustain the cell allocation pattern in the combs of honey bee colonies (<i>Apis mellifera</i>). <i>Journal of Theoretical Biology</i> , doi:10.1016/j.jtbi.2013.07.010 | 2013 |
| Erickson, Peresta, Montovan*, Drake. Direct and indirect effects of elevated atmospheric CO ₂ on net ecosystem production in a Chesapeake Bay tidal wetland. <i>Global Change Biology</i> , doi: 10.1111/gcb.12316 | 2013 |

Teaching Experience

Bennington College Courses Taught

Statistical Methods for Data Analysis. Spring 2016
The Art of Mathematics. Spring 2016
Nonlinear Dynamical Systems. Fall 2013, Fall 2015
Introduction to Quantitative Reasoning and Mathematical Modeling. Fall 2015
Calculus Techniques and Applications. Fall 2014, Fall 2015
Statistics and Their Presentation. Spring 2014, Spring 2015
Discrete Mathematics. Spring 2015
Introduction to Game Theory. Spring 2014, Spring 2016
Introduction to Applied Mathematics. Fall 2013, Fall 2014
Fifth Term Seminar. Fall 2014

Cornell University Math Department Courses Taught

Math and Politics (*Recitation TA:*). Spring 2013
Calculus I (*Instructor*), Spring 2011. Fall 2012
Honors Calculus II (*Recitation TA:*). Fall 2010
Multivariable Calculus for Engineers (*Recitation TA:*). Fall 2009, Spring 2010

Invited Talks

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| Using mathematical modeling to understand diverse behaviors. Middlebury College | 2016 |
| Using mathematical modeling to understand animal behavior Williams College | 2016 |
| Using mathematical modeling to understand animal behavior St. Olaf College | 2016 |
| When less is more: explaining why a wasp parasitizes caterpillars at a surprisingly low rate. Latterell Visiting Alumni Fellowship. University of Minnesota, Morris. | 2014 |

Conference Activity

Panels Organized

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| Sending Off Students: Advising Students for Post-Graduation. Mathematics Association of America, MathFest (Washington D.C.) | 2015 |
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Papers presented

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| Teaching Intro Stats through big data projects. Joint Mathematical Meetings (San Antonio, TX) | 2015 |
| Evolutionary pressures maintain low parasitism rates in a parasitoid wasp Joint Mathematical Meetings (San Diego, CA) | 2013 |
| Using game theory and population modeling to explain sub-maximal parasitism. SIAM Annual Meeting (Minneapolis, MN) | 2012 |
| The evolutionary causes of individual restraint for a host-parasitoid system. Dynamics Days (Baltimore, MD) | 2012 |

Campus or Departmental Talks

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| Using mathematical modeling to understand diverse behaviors. Bennington College | 2016 |
| Using mathematical modeling to understand the evolution of surprisingly low parasitism rates. Bennington College Faculty Supper Club | 2015 |
| When less is more: Understanding the evolution of low parasitism rates by a wasp in Finland. Bennington College Science Workshop | 2015 |
| The Mathematics of Cooperation. Bennington College Science Workshop | 2013 |
| When less is more: explaining why a wasp parasitizes caterpillars at a surprisingly low rate. Bennington College | 2012 |
| Mathematical modeling of host parasitoid interactions. Cornell STEM colloquium | 2012 |
| Self-organization in the comb of honey bees. Cornell Ecology and Evolutionary Biology Graduate Student Symposium | 2010 |
| An introduction to time series analysis. Cornell Applied Dynamical Systems Graduate Seminar | 2010 |

Bennington College Service

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| Sexual Harrassment Advisor | Fall 2015 - Present |
| Member of the Committee on Research With Human Participants | Fall 2015 - Present |
| Website Committee | Fall 2015 - Present |
| Member of the Sustainability Working Group | Spring 2015 - Present |
| Member of Psychology Search Committee | Fall 2015 - Present |
| Took a group of 6 students to the Women in Mathematics in New England Conference | Fall 2015 |

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| Took a group of 12 students to the Hudson River Undergraduate Mathematics Conference | Spring 2015 |
| Science Workshop Organizer | 2014 - 2015 |
| Co-facilitator of a math problem-solving group | 2014 - 2015 |

Honors and Awards

Professional

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| Project NExT Fellow | 2014 |
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Graduate

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| Math Department Graduate Student Teaching Award, Cornell University | 2012 |
| Sloan Fellowship, Cornell University | 2011-2012 |
| National Science Foundation IGERT Fellowship in Nonlinear systems, Cornell University | 2007-2009 |

Undergraduate

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| Chancellor's Award, The University of Minnesota, Morris | May 2005 |
| Scholar of the College Award, The University of Minnesota, Morris | May 2005 |

Public Service Activities

Supporting women in mathematics 2012 - 2013

Mentored an undergraduate student as part of the Cornell Diversity Programs in Mathematics. This group's primary goal is to "empower and provide opportunities to women and under-represented minorities, helping them pursue and prepare for graduate study in the Mathematical Sciences."

Empowering women in engineering 2010 - 2012

Residence hall director for CURIE Academy, a weeklong engineering summer camp for 10th and 11th graders at Cornell which provided participants the opportunity to perform independent projects under the supervision of a Cornell Professor. Created a safe camp environment for all participants and supported undergraduate program counselors in leading activities relating to engineering, community building, and empowerment.

Introducing advanced math to talented high school students 2009 - 2011

Workshop leader for the yearly *Johns Hopkins University Center for Talented Youth* conferences. Developed and presented the workshops 'Chaos!' (fall 2009), 'Game Theory' (fall 2010), and 'Networks' (fall 2011) using interactive activities and computer simulations to make the topics accessible and fun for middle and high school aged students and their parents.

Inspiring middle school girls in math and science 2007 - 2011

Planning chair for Cornell's *Expanding Your Horizons* conference. Organized key pieces of this annual conference for 300 participants, whose mission is to inspire middle school girls who are interested math and science to continue to study these topics.

Tutoring underprivileged rural students 2011

Volunteer for the *Rural Schools Mathematics Tutoring Program* at Groton Middle School. Worked with struggling students to help them better understand and enjoy mathematics.

Sustainability and teen empowerment 2008 - 2010

Instructor and youth group adviser for *SewGreen*. Taught youth sewing and refashion skills at this local nonprofit sustainable sewing education and retail center. Helped the teens develop leadership skills within the group and empowered them to plan activities and take on leadership roles.