# Victoria Blumen

*Curriculum Vitae*

Department of Mathematics
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## Education

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|---|---|
| M.S. in Applied Mathematics at University of Illinois at Urbana-Champaign | *9/2011–05/2014* |
| Topic: *Optimal Control Theory*, advisor Yuliy Baryshnikov | |
| B.S. in Mathematics, Benedictine University, Lisle, IL | *9/2007–05/2011* |

## Appointments

- Assistant Teaching Professor at Iowa State University — *8/2019–to date*
- Lecturer at Iowa State University — *8/2017–8/2019*
- Lecturer at Iowa State University — *8/2016–12/2016*

## Awards

- Graduate Research Assistantship (from Coordinated Science Laboratory) — *Fall 2013, Spring 2014, 2013*
- Research Experience for Graduate Students — *Summer 2011, 2012, 2013*
- 2011 REGS Day Award, Second prize — *Oct 2011*
- Secretary of Math Club at Benedictine University — *2009–2011*
- Deans List award (excellence in math) — *2007, 2008, 2009*

## Teaching experience

*Instructor (at ISU, IA)*

- *MATH 105 - Introduction to Mathematical Ideas* (large lecture) — *Fall 2017*
- *MATH 143 - Preparation for Calculus* (large lecture) — *Fall 2017, Fall 2019, Spring 2020, Fall 2020*
- *MATH 165 - Calculus I* — *Fall 2016, Fall 2017*
- *MATH 150 - Discrete Mathematics for Business and Social Sciences* — *Summer 2015*
- *MATH 151- Business Calculus* — *Fall 2018*
- *MATH 265- Multivariable Calculus* — *Fall 2018, Fall 2019, Spring 2020*

*Teaching assistant (at ISU, IA)*

- *MATH 265 - Calculus III* (6 sections) — *Fall 2016*
- *MATH 265 - Calculus III* (3 sections) — *Spring 2015*
- *MATH 165 - Calculus I* (2 sections) — *Fall 2014*

*Illinois Geometry Lab (at UIUC, IL)*

- *Research assistant for J. Athreya* — *Spring 2012*
- *Research assistant for Y. Baryshnikov* — *Spring 2013*
- Facilitated interactions between faculty and undergraduate programmers with the goal of creating (interactive) visualizations of and/or programs to analyze high level mathematics research.

*Updated August 26, 2020*

*Teaching assistant (at UIUC, IL)*

- *MATH 231 - Calculus II* (2 sessions)                                    *Spring 2012*
- *MATH 221 - Calculus I* (2 sessions)                                     *Fall 2011*

*Grader (at Benedictine University, IL)*

- *MATH 260 - Differential Equations*                               *Spring 2011, Fall 2010*

## Service

- *Precalculus Coordinator*                                         *Spring 2019– to date*
- *Chair Search Committee*                                           *Fall 2019–to date*

## Attended conferences and workshops

- *Wiley STEM Teaching and Learning Workshop*, San Antonio, TX                    *Mar 2020*
- *College Algebra & Precalculus Symposium*, New Orleans, LA                     *Feb 2020*
- *IMA:Short Course 'Topics in Control Theory'*, Minneapolis, MN                  *May 2014*
- *IMA:Topological Systems: Communication, Sensing and Acutation*, Minneapolis, MN  *Mar 2014*
- *$51^{st}$ Allerton Conference on Communication, Control and Computing*, Allerton, IL  *Oct 2013*
- *GEAR Senior Retreat*, Urbana, IL                                              *Aug 2012*
- *GEAR Junior Retreat*, Urbana, IL                                              *Jul 2012*
- *Geometry, Dynamics and Topology Day*, Charleston, IL                          *Apr 2012*

## Publications

- Y. Baryshnikov, V. Blumen, K. Y. Kim, V. Zharnitsky: *Billiard dynamics of bouncing dumbbell* Physica D: Nonlinear Phenomena **269** (2014), 21–27. [doi:10.1016/j.physd.2013.11.007]
- V. Blumen, K. Y. Kim, J. Nance, V. Zharnitsky: *Three-Period Orbits in Billiards on the Surfaces of Constant Curvature* Int. Math. Res. Not. **21** (2012), 5014–5024. [doi:10.1093/imrn/rnr228]

## Presentations

- *Simplified Pursuits with Anti-Collision Mechanisms*, IMA (poster)            *Mar 2014*
- *Applied Dynamics: Three-Period Orbits in Billiards on the Surfaces of Constant Curvature*, UIUC   *Oct 2011*

## Membership

- EDGE, ISU                                                                      *2014–2017*
- Women in Math, UIUC                                                            *2011–2014*
- Member of KME Mathematics Honor Society                                        *2009–2011*