Katharine Adamyk

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Education

Ph.D. in **Mathematics**   Anticipated May 2020
University of Colorado
Boulder, CO, USA

M.Sc. in **Applied Mathematics**   December 2017
University of Colorado
Boulder, CO, USA

B.Sc. in **Mathematics** and **Psychology**   May 2014
Gordon College
Wenham, MA, USA

Research Interests

My research interests are in stable homotopy theory, an area of algebraic topology. So far, my work has focused on the Steenrod algebra and equivariant stable homotopy theory. There are frequent connections to homological algebra, representation theory, and category theory.

Publications

K.L.M. Adamyk, E. Holmes, G.R. Mayfield, D.J. Moritz, M. Scheepers, B.E. Tenner, and H. C. Wauck, "Sorting Permutations: Games, Genomes, and Cycles". *Discrete Mathematics, Algorithms and Applications.* Vol. 9, No. 5 (2017). ArXiv: 1410.2353

Awards & Honors

Fellowships

Summer Graduate School Fellowship, 2019

Math Department Summer Funding, 2018

Adele V. Leonhardy Summer Fellowship, 2017

Teaching Awards

Burton W. Jones Teaching Excellence Award, 2018

W.E. Briggs Teaching Excellence Award, 2015

Research Programs

"Hochschild homology for Green functors", *Women in Topology III*. Hausdorff Research Institute for Mathematics. Bonn, NRW, Germany. August 2019. Publications in preparation.

"2-cocyles and higher-rank graphs", *Summer Research Program for First Year Graduate Students*. University of Colorado. Boulder, CO, USA. May−July 2015.

"Game theory and algebraic structures". *Research Experience for Undergraduates*. Boise State University. Boise, ID, USA. Publication listed above.

Invited Talks

*UVA February 2020	Topology Seminar University of Virginia. Charlottesville, VA, USA.
Northwestern January 2020	Topology Seminar Northwestern University. Chicago IL, USA.
University of Chicago January 2020	Algebraic Topology Seminar University of Chicago. Chicago, IL, USA.
JMM January 2020	Joint Mathematics Meetings Special Session on Categorical and Computational Methods in Homotopy Theory Denver, CO, USA.
UCLA November 2019	Topology Seminar University of California. Los Angeles, CA, USA.
AMS Sectional September 2019	American Mathematical Society, Fall Central Sectional Meeting Special Session on Homotopy Theory "Localized Ext and Lifting $\mathcal{A}(1)$-Modules". Madison, WI, USA.

*Anticipated

Additional Conference Talks & Presentations

GSTGC March 2019	Graduate Student Topology and Geometry Conference Talk, "Localized Ext and Lifting $\mathcal{A}(1)$-Modules". University of Illinois. Urbana-Champaign, IL, USA.
European Talbot June 2017	Workshop Talk, "Elliptic Curves". Geestland, Lower Saxony, Germany.
JMM January 2014	Joint Mathematics Meetings Poster Presentation, "Games, Genomes, and Graphs". Baltimore, MD, USA.
MAA Section November 2013	Mathematical Association of America, Northeastern Fall Section Meeting Undergraduate Presentation, "Games, Genomes, and Graphs". Wheaton College. Norton, MA, USA.

Selected Mathematical Workshops

"Women in Topology Open Problem Session". Mathematical Sciences Research Institute. Berkeley, CA, USA. November 2017.

"Dualities in Algebra, Geometry, and Topology", European Talbot Workshop. Geesland, Germany. June 2017.

"Obstruction Theory for Structured Ring Spectra", MIT Talbot Workshop. Gooding, ID, USA. May 2017.

Teaching Experience

University of Colorado	Calculus I Coseminar Instructor	Fall 2019
Student Academic Success Center	Calculus III Coseminar Instructor	Spring 2019
(TA Appointment through Math Dept.)	Calculus II Coseminar Instructor	Fall 2018
University of Colorado	Intro to Statistics Instructor	Fall 2017 & Spring 2018
Department of Mathematics	Calculus II Instructor	Spring 2017
(TA Appointment)	Calculus II Recitation TA	Fall 2016
	Calculus I Instructor	Fall 2015 – Summer 2016
	College Algebra Recitation TA	Fall 2014 & Spring 2015

Teaching Conferences & Professional Development

GTP Workshops August 2014-present	Workshops presented by the University of Colorado's Graduate Teacher Program. (12 attended to date.) Boulder, CO, USA.
AIBL Summer Workshop June 2018	Four day workshop by the Academy of Inquiry Based Learning. DePaul University, Chicago, IL, USA.
AIBL Summer Workshop August 2016	Three day workshop by the Academy of Inquiry Based Learning. University of Colorado, Boulder, CO, USA.
MATH 5905 August 2014-May 2015	Year-long mathematics pedagogy course. University of Colorado, Boulder, CO, USA.

Selected Leadership & Service

Lead IA Hiring Committee Spring 2019	Collaboratively developed job description and interview questions, then assisted in interviewing and selecting candidates for the Student Academic Success Center's lead undergraduate Instructional Assistants.
Curriculum Development Spring 2019	Evaluated and selected free and open resources for the Student Academic Success Center's Calculus I courses. This included selecting a textbook, choosing and setting up an online homework system, and developing in-class online activities.