
Christopher Ross

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EDUCATION	Doctor of Philosophy: Mathematics Ohio State University, Columbus, OH Dissertation: Properties of Random Threshold and Difference Graphs Advisor: Boris Pittel	2011
	Master of Science: Mathematics Ohio State University, Columbus, OH	2008
	Bachelor of Science: Computer Science, Mathematics Rutgers, New Brunswick, NJ	2005

ACADEMIC EXPERIENCE	Assistant Professor Department of Mathematics, St. Catherine University, St. Paul, MN <ul style="list-style-type: none">• Teach three courses per semester ranging from 5–25 students• Prepare course materials & grade student work• Hold 4–6 office hours per week• Advise students	2013 – present
	Lecturer Department of Mathematics, Ohio State University, Columbus, OH <ul style="list-style-type: none">• Teach two courses per quarter ranging from 100–200 students• Prepare course materials & grade student work• Hold 5–10 office hours per week	2011 – 2013
	Graduate Teaching Assistant Department of Mathematics, Ohio State University, Columbus, OH <ul style="list-style-type: none">• Lead 4–6 recitations of 20–30 students each week.• Supplement lead instructor’s lecture.• Administer exams and quizzes.• Grade student work.• Hold 3–4 office hours per week.	2005 – 2011

**COURSES
TAUGHT**

St. Catherine University

STAT 1090: Statistical Analysis
MATH 1050: Mathematical Ideas in Contemporary Society
MATH 1090: Precalculus
MATH 1130: Calculus I
MATH 1140: Calculus II
MATH 1800: Discrete Mathematics
MATH 2050: Linear Algebra
MATH 2060: Calculus III
MATH 2850: Sophomore Seminar
MATH 3010: Abstract Algebra
MATH 4850: Senior Seminar
MATH 4994: Topics (Introduction to Set Theory)
CSCI 1110: Algorithms & Computer Programming I
CSCI 1120: Algorithms & Computer Programming II

Ohio State University

Excursions in Mathematics
Precalculus
Business Calculus II
Business Calculus III
Calculus I
Calculus II
Calculus III
Calculus IV (quarter system)
Accelerated Calculus I
Accelerated Calculus II
Accelerated Calculus III
Differential Equations

**TRAINING &
WORKSHOPS**

Foundations of Course Design in Online Environments

2020

St. Catherine University

Eight-week course focusing on best practices of learning design, the user experience, and how to heighten engagement while teaching. Instructors will be able to implement the Quality Matters Rubric (6th ed.) standards into their online course, apply technology to facilitate effective online teaching and learning, and build an effective online learning community.

AWS Cloud Practitioner

2018

Amazon Web Services Academy

AWS Academy Cloud Foundations provides a detailed overview of cloud concepts, AWS core services, security, architecture, pricing, and support.

New Faculty Orientation

2013

Saint Catherine University

This is a three day orientation designed to introduce new faculty to the classroom and Saint Catherine University. Presentations included the mission of the college, curriculum, student support and instructional technology to name a few. The information was both general teaching knowledge and information specific to Saint Catherine University.

Seminar in Teaching College Math for Domestic Grad. Students 2005
Ohio State University
This is a five-week seminar to prepare students for teaching lower-division mathematics courses. This course is targeted at domestic graduate students who have not taught college mathematics before, and covers presentation of material, design/evaluation of assessments, and providing individual assistance.

**AWARDS &
HONORS**

Clare Boothe Luce Fellowship 2016-2017
Saint Catherine University
The grant is focused on increasing and enhancing undergraduate research opportunities for female students majoring in Mathematics, Physics, and Chemistry/Biochemistry. Students collaborate with a faculty mentor on a research project during the summer and the academic year. (With Catherine Wallick)

Clare Boothe Luce Fellowship 2014-2015, 2015-2016
Saint Catherine University
The grant is focused on increasing and enhancing undergraduate research opportunities for female students majoring in Mathematics, Physics, and Chemistry/Biochemistry. Students collaborate with a faculty mentor on a research project during the summer and the academic year. (With Rose Winter)

Curriculum Development Grant 2015
Saint Catherine University
Supports the development of curricula by providing funding for faculty to develop new academic courses and programs. (With Siri Anderson)

Pi Mu Epsilon 2014
Minnesota Beta Chapter, Saint Catherine University
Pi Mu Epsilon is an honor society whose purpose is the promotion and recognition of scholarly activity in the mathematical sciences among students at the academic institutions that have been chartered as chapters of the society.

Phil Huneke Excellence in Teaching Award 2002
Mathematics Department, Ohio State University
Awarded annually to a graduate teaching assistant in the Department of Mathematics.

Teaching Assistantship 2005 - 2011
Department of Mathematics, Ohio State University

PUBLICATIONS **Properties of Random Difference Graphs**, Electronic Journal of Combinatorics, Volume 19, Issue 4, 2012

With E. Agrimson, J. Flaten, M. McNamara, J. Roith, J. Lenarz, and K. Smith, **Statistical Tests Exploring a Subset of Variables Related to Weather Balloon Burst Altitude**, Proceedings of the 2016 Academic High Altitude Conference, accepted.

With C. Wallick, **Homology of Permutation Complexes**, in preparation.

PRESENTATIONS

Contributed Talks (Peer Reviewed)

with R. Winter, **Firefighter on Random Threshold Graphs**, Canadian Discrete and Algorithmic Mathematics, Saskatoon, Saskatchewan, Canada, 2015

Longest Cycle Lengths in Random Difference Graphs, Random Structures and Algorithms, Atlanta, Georgia, 2011

Poster Presentations

with S. Anderson, **Coding and Computational Thinking: K-8**, TIES Education Technology Conference, Minneapolis, Minnesota, 2014

Supervised Talks (Peer Reviewed)

by C. Wallick, **Homology of Permutation Complexes**, MathFest, Chicago, Illinois, 2017

by R. Winter, **Cleaning Threshold Graphs**, MathFest, Columbus, Ohio, 2016

UNDER-GRADUATE RESEARCH

Summer Scholars / Clare Booth Luce

Catherine Wallick, 2016-2017

Talk: MathFest, 2017

Poster: Sr. Gibbons Undergraduate Research Symposium, 2017

Talk: National Conference for Undergraduate Research, 2017

Poster: Nebraska Conference for Undergraduate Women in Math, 2017

Rose Winter, 2015-2016

Talk: MathFest, 2016

Poster: Sr. Gibbons Undergraduate Research Symposium, 2016

Talk: National Conference for Undergraduate Research, 2016

Rose Winter, 2014-2015

Talk: Canadian Discrete and Algorithmic Mathematics, 2015

Poster: Sr. Seraphim Gibbons Undergraduate Research Symposium, 2015

Talk: National Conference for Undergraduate Research, 2015

Poster: Nebraska Conference for Undergraduate Women in Math, 2015

Senior Project Mentor

Elizabeth Kula, *Solving an Optimization Problem Using Quadratic Programming*, 2019

Autumn Mortenson, *Markov Chains Using Baseball*, 2019

Tenzin Palsang, *Voting Theory Simulations*, 2018

Alynie Walter, *Markov Models*, 2017

Poster: Sr. Seraphim Gibbons Undergraduate Research Symposium, 2018

Marie Fallon, *The Stable Marriage Problem*, 2014

Poster: Sr. Seraphim Gibbons Undergraduate Research Symposium, 2015

Michelle Johnson, *Enumeration of Medial Graphs Corresponding to Knots*, 2014

Poster: Sr. Seraphim Gibbons Undergraduate Research Symposium, 2015

Angela Zarich, *Graph Theory and Conservation*, 2013

Poster: Sr. Seraphim Gibbons Undergraduate Research Symposium, 2014

Honors Committees

Marilyn McNamara, *Analysis of Burst Conditions for High Altitude Ballooning*,
Member, 2015-2016

SERVICE

Department

Placement Exam Coordinator, St. Catherine University, 2020 – Present

Student Employee Supervisor, St. Catherine University, 2016 – 2019

Mathematics Department Search Committee, St. Catherine University,
2014 – 2015

Mathematics Department Search Committee, St. Catherine University,
2018 – 2019

University

University Curriculum and Policy Committee, St. Catherine University,
2017 – 2020

Chair, Baccalaureate Subcommittee, 2018 – 2019

School Curriculum and Assessment Committee, (School of Humanities,
Arts, and Sciences), St. Catherine University, 2014 – 2017

Co-chair, 2015 – 2017

Advanced Google Advisory Committee, St. Catherine University, 2016 –
2017

COMPUTER SKILLS

Programming Languages: C++, Python, Java, R

Online Homework Systems: WebAssign (Cengage), MyLab (Pearson), Möbius
(DigitalEd)

Other: L^AT_EX, Mathematica, Matlab, Maple, Blender, Cura, Microsoft Office
