### ERIN KATHLEEN MCKENNA MEGER

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Cell: +1(519)572-2556 Languages: English, French, Python, MATLAB, C

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#### Education

PHD MATHEMATICS, RYERSON UNIVERSITY, Successfully Defended Jan 10, 2020

Thesis (Dr. A. Bonato) - Iterated Models for Social Networks Graduate Professional Development in Teaching Certificate

MSC APPLIED MATHEMATICS, RYERSON UNIVERSITY, 2016

Thesis (Dr. A. Bonato) - Cops, Robbers, and Barricades

BSC MATHEMATICS, WILFRID LAURIER UNIVERSITY, 2014

Thesis (Dr. A. Hamel) - The Graph of the Alternating Sign Matrix Polytope

### Academic Work

2020 POST-DOCTORAL RESEARCH FELLOW - Mount Allison University

· Research Mentor: Dr. M.E. Messinger

2019-2020 OER RESEARCH FELLOW - OpenEd Group

- $\cdot$  Research in faculty use and perspectives of OER
- · Research in diversity and inclusion within OER

2018-2019 Contract Academic Staff, Instructor of Record - Wilfrid Laurier University

Semester	Size	Course
Spring 2019	1	CP493 Directed Research Project Supervisor
		Student Project in Cryptography and Network Searching
Winter 2019	70	CP367 A Introduction to System Programming
Fall 2018	28	SC101 A Essential Skills for Mathematics
	26	SC101 B Essential Skills for Mathematics
		Active learning classroom and use of OER

2018 Course Design - Ryerson University

- · MTH260 Introduction to mathematical reasoning and proof-writing
- · Topics include delta-epsilon proofs, number theory, and geometry

### 2018 Professor's Assistant - AIMS Cameroon

- · Facilitated experiential learning components during lectures
- · Generated course documents, coordinated marking with TA's

## 2014-2019 Graduate Teaching Assistant - Ryerson University

Semester	Courses
Spring 2019	MTH510 Numerical Analysis
	MTH425 Differential Equations and Vector Calculus
Winter 2019	MTH599 Foundations of Mathematical Thought
Fall 2018	AM8002 Graduate Discrete Mathematics
Spring 2018	MTH240 Calculus 2 for Engineers
Winter 2017	MTH310 Calculus 2
Fall 2017	MTH560 Problem Solving
	MTH270 Calculus 1
Winter 2016	MTH312 Differential Equations and Vector Calc
	MTH607 Graph Theory
Fall 2015	MTH525 Real Analysis
	MTH108 Linear Algebra
	MTH131 Modern Math 1 (Calc 1 for Science)
Winter 2015	MTH231 Modern Math 2 (Calc 2 for Science)
	MTH210 Discrete Math 2
	MTH607 Graph Theory
	MTH617 Algebra
Fall 2014	MTH131 Modern Math 1 (Calc 1 for Science)
	MTH110 Discrete Math 1

## 2016-2017 Graduate Teaching Assistant - University of Waterloo

Semester	Courses
Fall 2016	MATH138 Calculus II
Winter 2017	MATH 138 Calculus II

## 2012-2014 Instructor Assistant - Wilfrid Laurier University

Semester	Courses
Winter 2014	MA104 Calculus 2 for Math
Fall 2014	MA201/MA205 Calculus 3 and Differential Equation
Winter 2013	MA104 Calculus 2 for Math
Fall 2013	MA104 Calculus 2 for Math
Winter 2012	MA101 Calculus 2 for Science

#### Publications and Theses

3. W. Freeman, A. Ludbrook, E. Meger, M. Schwartz; *Ryerson Open Moments*; Ryerson University, ISBN: 978-1-77417-016-8 (2020).

Submitted 2: A. Bonato, E. Meger; Iterated Global Models for Social Networks; arXiv:2002.08739 (2020)

Submitted 1: A. Bonato, H. Chuangpishit, S. English, B. Kay, E. Meger; The Iterated Local Model for Social Networks; arXiv:1903.04523 (2019)

THESIS: E. Meger; Iterated Models for Social Networks; Ryerson University; Ph.D. Thesis. (2019)

THESIS: E. Meger; Cops, Robbers, and Barricades; Ryerson University; M.Sc. Thesis. (2016)

IN PREPARATION: S. English, T. Masarik, G. McCourt, E. Meger S. Spiro, M. Ross; *Excluding Small Cycles in Saturation Games* (Expected March 2020)

# Academic Service and Membership

2019-Present	Women in Combinatorics - Initiator
2018-Present	Association for Women in Mathematics
2016-Present	Canadian Mathematics Society American Mathematics Society
2019	MATH CHAIR SEARCH COMMITTEE, Elected Position - Ryerson University
2013-2016	PROGRAM SECRETARY - Women and Math, Institute for Advanced Study
2013-2014	FACULTY OF SCIENCE POLICIES & PETITIONS COMMITTEE - Laurier
	FACULTY OF SCIENCE DIVISIONAL COUNCIL - Wilfrid Laurier University
	Mathematics Department - in - Council - Wilfrid Laurier University

#### Conferences and Talks

2020 SIAM DM 20 - Portland, Oregon (June)

MINI-SYMPOSIUM ORGANIZER: Women in Graph Theory Invited Talk: Iterated Models for Social Networks

COMBINATORICS SEMINAR - UQAM (April)

INVITED TALK: Iterated Models for Social Networks

COMBINATORICS SEMINAR - UC San Diego (March)

INVITED TALK: Iterated Models for Social Networks

Combinatorics Seminar - Yale University

INVITED TALK: Iterated Models for Social Networks

JOINT MATH MEETING - CU Denver

INVITED TALK: Iterated Models for Social Networks

- Special Session on Extremal and Probabilistic Combinatorics

Talk: Odd Cycle Saturation Games - Research from GRWC

2019 CMS WINTER MEETING 2019 - Fields Institute

Session Organizer: Graph Searching

Network Seminar - City University of New York

INVITED TALK: Iterated Models for Social Networks

TESS 2019 - eCampus Ontario

Talk: Creating Value for Open Educational Practice

Combinatorics, Algebra, and Topology Seminar - US Naval Academy

Invited Talk: Cops, Robbers, and Barricades

COMBINATORICS SEMINAR - University of Vermont

INVITE TALK: Iterated Models for Social Networks

OPEN EDUCATION CONFERENCE 2019 - Phoenix, AZ

OER RESEARCH FELLOW

DISCRETE SEMINAR - University of Colorado Denver

INVITED TALK: The Iterated Local Model for Social Networks

Analysis Seminar - University of Denver

INVITED TALK: The Iterated Local Model for Social Networks

MIDSUMMER COMBINATORIAL WORKSHOP GENA AND ROBERT DAY

- Charles University in Prague

Talk: The Iterated Local Model for Social Networks

WC2 Symposium - St. Petersburg Polytechnic University

WORKSHOP FACILITATOR: Empowering Diverse Voices through Open Education

Summer Combo 2019 - University of Vermont

Poster: The Iterated Local Model for Social Networks

GRADUATE RESEARCH WORKSHOP IN COMBINATORICS - University of Kansas RESEARCH GROUP: Odd Cycle Saturation
RESEARCH GROUP: Multi-color Hypergraph Discrepancy

CANADAM - Simon Fraser University

LEARNING AND TEACHING CONFERENCE - Ryerson University
TALK: Ryerson Open Moments

 $6^{th}$  Lake Michigan Workshop on Combinatorics and Graph Theory - Western Michigan University

GRAPHS @ RYERSON - Ryerson University
INVITED TALK: Iterated Local Models

GRAPHS AND MATROIDS SEMINAR - University of Waterloo Invited Talk: Iterated Local Models

2018 GRAPH SEARCHING CANADA - University of Regina

LEARNING AND TEACHING CONFERENCE - Ryerson University
CONFERENCE MODERATOR

SIAM DISCRETE MATH '18 - University of Colorado Denver

Graduate Seminar - Ryerson University

Talk: Cops and Robbers, and Other Variants

2017 GRADUATE SEMINAR - University of Waterloo
TALK: Cops and Robbers: A Brief Encyclopedia

2016 Graph Searching Canada - Dalhousie University

SIAM DISCRETE MATH '16 - Georgia State University
INVITED MINISYMPOSIUM TALK: Cops, Robbers, and Barricades
Cops and Robbers Minisymposium

GRADUATE SEMINAR - Ryerson University
Talk: Cops, Robbers, and Barricades

2015 GRASTA-MAC - Universite de Montreal

GRADUATE SEMINAR - McGill University

INVITED TALK: A Brief Overview of a New Variant of Cops and Robbers

CANADAM - University of Saskatchewan

APPLIED COMBINATORICS SUMMER SCHOOL - PIMS, University of Saskatchewan

2014 CANADIAN UNDERGRADUATE MATHEMATICS CONFERENCE - Carleton University

TALK: Matrices, Graphs, and Polytopes, Oh My!

Godsil 65 - University of Waterloo

ONTARIO COMBINATORICS WORKSHOP - The Fields Institute

HONOURS SEMINAR - Wilfrid Laurier University

Talk: Matrices, Graphs, and Polytopes, Oh My!

TALK: Introduction to the Graph of the Alternating Sign Matrix Polytope

2013 CANADIAN UNDERGRADUATE MATHEMATICS CONFERENCE - Universite de Montreal

Talk: The Five Colour Theorem

Women and Math Program - Institute for Advanced Study

# Recognitions and Grants

2019-2020	RYERSON GRADUATE SCHOLARSHIP - Ryerson University Scholarship: \$15,000
2018	YSGS LEADERSHIP AWARD IN COMMUNITY ENGAGEMENT & CITY BUILDING Ryerson University, Award: \$1,000
2018-2019	Ontario Graduate Scholarship - Ryerson University Scholarship: \$15,000
2017-2018	MATHEMATICS GRADUATE AWARD - Ryerson University Award: \$5,400
	Ryerson Graduate Fellowship - Ryerson University Fellowship: \$2,600
2016-2017	Graduate Research Studentship - University of Waterloo Scholarship: \$7,488

MATH DOMESTIC GRADUATE STUDENT AWARD - University of Waterloo Scholarship: \$2,000

2015-2016	RYERSON GRADUATE FELLOWSHIP - Ryerson University Fellowship: \$ 5,200
2014-2015	QEII GRADUATE SCHOLARSHIP IN SCIENCE AND TECHNOLOGY Ryerson University, Scholarship: \$15,000
2013	Women in Science Travel Grant - Wilfrid Laurier University Grant: \$500
Total	\$69,188