

MARIA ROSS

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RESEARCH INTERESTS

Primarily algebraic and analytic number theory, group theory, Galois theory, and other areas of algebra together with combinatorics and some graph theory.

EDUCATION

University of Glasgow

September 2019 - September 2020

Master of Science in Mathematics

University of Puget Sound

August 2015 - May 2019

Magna Cum Laude

GPA: 3.85

Bachelor of Science in Mathematics with Honors in the Major

Recipient of Award for Outstanding Senior in the Department of Mathematics and Computer Science

Studied abroad through Budapest Semesters in Mathematics for 2017-2018 academic year

Relevant courses:

Abstract Algebra I

Complex Analysis

Abstract Algebra II

Advanced Calculus I

Advanced Abstract Algebra

Advanced Calculus II

Number Theory

Combinatorics

Introduction to Topology

Binomial Coefficients

Algebraic Topology

Mathematical Cryptography

Independent Study in Algebraic Graph Theory

Set Theory

Senior Thesis in Algebraic Graph Theory

Mathematical Optimization

RESEARCH EXPERIENCE

Williams College

Summer 2018

Undergraduate Research

Williamstown, Massachusetts

Participated in small-group research in analytic number theory under the mentorship of Dr. Steven J. Miller. Used the L -functions ratios conjecture to generalize results relating to primes in the ring of Gaussian integers to the rings of integers of all imaginary quadratic fields with class number one.

Texas A&M University

Summer 2017

Undergraduate Research

College Station, Texas

Participated in small-group research on modular forms and nonvanishing regions of L -functions associated to canonical Hecke characters under the direction of Dr. Riad Masri. Contributed to a density result involving the number of certain L -functions in imaginary quadratic fields satisfying certain local conditions. Co-authored a research paper which has been published in Mathematical Research Letters Volume 26.

Kansas State University
Undergraduate Research

Summer 2016
Manhattan, Kansas

Participated in small-group research involving various products of directed graphs and higher-rank graphs, under the direction of Dr. Danny Crytser. Studied C^* -algebras and examined properties of directed graphs connected to C^* -algebras.

WORK EXPERIENCE

Mathematics Tutor and Grader 2016-2017, 2018-2019

Graded homework assignments for Calculus I and Calculus II courses. Tutored students in Calculus I, II, III, and Linear Algebra courses.

PUBLICATIONS

Nonvanishing of Hecke L -Functions and Bloch-Kato p -Selmer Groups, with Arianna Iannuzzi, Byoung Du Kim, Riad Masri, Alexander Mathers, and Wei Lun Tsai. Published in Mathematical Research Letters, Volume 26.

PRESENTATIONS

Distributions of Primes in Number Fields and the L -function Ratios Conjecture, with Casimir Kothari. Young Mathematicians Conference, August 2018, at Ohio State University.

HONORS & AWARDS

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| John and Hazel Wiborg Scholarship | 2016-2017 |
| McGill Family Scholarship | 2016-2018 |
| Claire Brossoit Hoffner Scholarship | 2016-2018 |
| Thomas Malcolm and Hilda Enden Jack Scholarship | 2018-2019 |
| Award for Outstanding Senior in Department of Mathematics & Computer Science | 2019 |
| McGill Book Award | 2019 |

MEMBERSHIPS

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| Pi Mu Epsilon Mathematical Honor Society | Phi Eta Sigma National Honor Society |
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