

MARIA ROSS

16681 185 St E Hastings, MN 55033
(+1) 651 438 3806 ♦ mrross@pugetsound.edu

RESEARCH INTERESTS

All things algebraic: primarily group theory, Galois theory, representation theory, and category theory, along with some combinatorics and number theory.

EDUCATION

University of Puget Sound

August 2015 - May 2019

Bachelors of Science in Mathematics

GPA: 3.82

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 (ongoing)

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 (ongoing)

Mathematical Optimization (ongoing)

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 AM 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 is currently in production for publication.

Kansas State University

Summer 2016

Undergraduate Research

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. Accepted for publication in Mathematical Research Letters.

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

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

*Mathematics department-sponsored scholarships

MEMBERSHIPS

Pi Mu Epsilon Mathematical Honor Society

Phi Eta Sigma National Honor Society