

EDUCATION

University of Connecticut

Ph.D. in Mathematics

Advisor: Álvaro Lozano-Robledo

Masters in Mathematics

Storrs, CT

2020–Present

2020–2022

Macaulay Honors at Baruch College

B.A. in Mathematics

Minors: Philosophy, Interdisciplinary Minor with Honors in New York City Studies

- Honors Thesis: Asimina Hamakiotes, *The Distribution of the Greatest Common Divisors of Elements in Quadratic Integer Rings*, Baruch College CUNY Library (2020).

New York City, NY

2016–2020

Budapest Semesters in Mathematics

Study abroad program

Budapest, Hungary

Spring 2019

RESEARCH INTERESTS

Algebraic number theory and arithmetic geometry. Elliptic curves and Galois representations.

PUBLICATIONS

1. John Cullinan, Shanna Dobson, Linda Frey, Asimina S. Hamakiotes, Roberto Hernandez, Nathan Kaplan, Jorge Mello, and Gabrielle Scullard, *The probability of non-isomorphic group structures of isogenous elliptic curves in finite field extensions, II*, submitted.
2. Asimina S. Hamakiotes and Álvaro Lozano-Robledo, *Elliptic curves with complex multiplication and abelian division fields*, submitted.
3. Eduardo Dueñez, Asimina S. Hamakiotes, and Steven J. Miller, *Sums of Powers by L'Hopital's Rule*, submitted.
4. Asimina Hamakiotes, Aaron Kriegman, and Wei-Lun Tsai, *Asymptotic Distribution of the Partition Crank*, Ramanujan Journal, Vol. 56, 803-820 (2021).
5. Michael Allen, Nicholas Anderson, Asimina Hamakiotes, Ben Oltsik, and Holly Swisher, *Eta-quotients of prime or semiprime level and elliptic curves*, Involve, Vol. 13, No. 5 (2020), 879-900.

IN PREPARATION

1. Alyson Deines, Asimina S. Hamakiotes, Andreea Iorga, Changningphaabi NamoiJam, Manami Roy, and Lori D. Watson, *Towards a classification of p^2 -discriminant ideal twins over number fields*.
2. Asimina S. Hamakiotes, *Maximal abelian subextensions of division fields of elliptic curves with complex multiplication*

AWARDS

- Graduate Fellowship for STEM Diversity (\$20,000 annually) 2022 - Present
- Conference Participation Award from The Graduate School, UConn (\$750) Spring 2024
- CLAS Course Improvement Mini Grant (\$1,500) August 2022
(Created a module for an inquiry-based mathematical modeling course.)
- NCAA Woman of the Year Semifinals 2019–2020
- Kanner Prize for Outstanding Baruch Honors Thesis 2019–2020
- CUNY Athletic Conference Female Scholar-Athlete of the Year 2019–2020
- Dr. Jane Katz Academic, Athletics, and Community Service Award 2019–2020
- Meyer Scholar Recipient, Merit Based Scholarship (\$4,000) 2018
- 2nd place in Traders@MIT (largest algorithmic collegiate trading competition) 2017

INVITED CONFERENCE TALKS

- **Maine-Quebec Number Theory Conference** 9/30/23 - 10/1/23
Elliptic curves with complex multiplication and abelian division fields - Talk
University of Maine
- **LMFDB, Computation, and Number Theory (LuCaNT)** 7/10/23 - 7/14/23
Elliptic Curves with CM and Abelian Division Fields - Lightning Talk
Institute for Computational and Experimental Research in Mathematics (ICERM)
- **Joint Mathematics Meetings (Boston, MA)** 1/4/22 - 1/7/22
The Probability of Non-isomorphic Group Structures of Isogenous Elliptic Curves in Finite Field Extensions - Talk
AMS Special Session on Rethinking Number Theory II
- **Conférence de théorie des nombres Québec-Maine** 10/15/22 - 10/16/22
Computing the Proportion of Sneaky Primes for Pairs of Elliptic Curves - Talk
Université Laval
- **PAlmetto Number Theory Series XXXIV (PANTS 34)** 9/24/22 - 9/25/22
Computing the Proportion of Sneaky Primes for Pairs of Elliptic Curves - Talk
University of North Carolina at Charlotte
- **Joint Mathematics Meetings (Denver, CO)** 1/15/20 - 1/18/20
Asymptotic Distribution of the Partition Crank
MAA Undergraduate Student Poster Session **Received Honorable Mention*
- **Shenandoah Undergraduate Mathematics and Statistics Conference (SUMS)** 9/21/19
Asymptotic Distribution of the Partition Crank - Talk
James Madison University
- **Nebraska Conference for Undergraduate Women in Mathematics (NCUWM)** 1/25/19 - 1/27/19
Eta-Quotients of Prime or Semiprime Level and Elliptic Curves - Talk
University of Nebraska - Lincoln
- **Joint Mathematics Meetings (Baltimore, MD)** 1/16/19 - 1/19/19
Eta-Quotients of Prime or Semiprime Level and Elliptic Curves
MAA Undergraduate Student Poster Session
- **Shenandoah Undergraduate Mathematics and Statistics Conference (SUMS)** 10/13/18
Eta-Quotients of Prime/Semiprime Level and Elliptic Curves - Talk
James Madison University
- **Women in Mathematics in New England Conference (WIMIN)** 9/22/18
Eta-Quotients of Prime or Semiprime Level and Elliptic Curves - Talk
Smith College

INVITED SEMINAR TALKS

- **Elliptic curves with complex multiplication and abelian division fields**,
Joint Columbia-CUNY-NYU Number Theory Seminar March 7, 2024
- **Elliptic curves with complex multiplication and abelian division fields**,
Brown University Algebra/Number Theory Seminar Feb. 26, 2024
- **Elliptic curves with complex multiplication and abelian division fields**,
Greek Algebra & Number Theory Seminar (online) Feb. 19, 2024
- **Elliptic curves with complex multiplication and abelian division fields**,
University of Washington Number Theory Seminar Jan. 23, 2024
- **Guest Lecture on complex multiplication and Galois representations**,
Graduate Course on Elliptic Curves at Wake Forest University Nov. 20, 2023
- **Computing the proportion of sneaky primes for pairs of elliptic curves with and without CM**,
unQVNTS (Québec-Vermont Number Theory Seminar) at the University of Vermont March 30, 2023
- **Computing the proportion of sneaky primes for pairs of elliptic curves**,
Oregon State University Number Theory Seminar (online) Oct. 18, 2022

LOCAL SEMINAR TALKS

- **Abelian Galois extensions and division points**,
UConn S.I.G.M.A. Seminar April 19, 2024
- **Construction of elliptic curves with large rank**,
UConn Number Theory Reading Group Feb. 29, 2024
- **Linear congruences**,
Undergraduate Course on Number Theory at UConn Feb. 20, 2024
- **Elliptic curves with complex multiplication and abelian division fields**,
UConn Algebra Seminar Jan. 17, 2024
- **Introduction to Magma and Sage**,
UConn Number Theory Reading Group Oct. 23, 2023
- **Infinitude of the primes**,
UConn Math Club Sept. 20, 2023
- **Frequently asked questions on quant interviews**,
UConn S.I.G.M.A. Seminar Sept. 15, 2023
- **Sums of powers by L'Hopital's rule**,
UConn Math Club Feb. 22, 2023
- **Computationally hard problems and their uses in cryptography: RSA and DLP**,
UConn S.I.G.M.A. Seminar Feb. 17, 2023
- **Computing the genus of modular curves**,
UConn Number Theory Reading Group Dec. 12, 2022
- **Creating a modular, inquiry-based modeling course**,
UConn Math Teaching Workshop Dec. 9, 2022
- **Genus of a modular curve**,
UConn Number Theory Reading Group Dec. 2, 2022
- **Computationally hard problems and their uses in cryptography**,
UConn Math Club Oct. 5, 2022
- **Computing the proportion of sneaky primes for pairs of elliptic curves**,
UConn S.I.G.M.A. Seminar Sept. 30, 2022
- **Computing the proportion of sneaky primes for pairs of elliptic curves**,
UConn Algebra Seminar Sept. 14, 2022

- **Lubin-Tate formal group laws,**
UConn Number Theory Reading Group

Feb. 26, 2021

TEACHING AT UCONN

- MATH 2705W Technical Writing in Mathematics, Instructor Spring 2024
- MATH 1071Q Calculus for Business and Economics, Instructor Fall 2023
- UConn Algebra Prelim Tutor (hired by department) Summer 2023
- MATH 2210Q Applied Linear Algebra, Instructor Spring 2023
- UConn Algebra Prelim Tutor (hired by department) Winter 2022
- MATH 1020Q Problem Solving, Instructor Fall 2022
- MATH 1132Q Calculus II, Teaching Assistant Spring 2022
- MATH 1132Q Calculus II Honors, Teaching Assistant Fall 2021
- MATH 1132Q Calculus II, Teaching Assistant Spring 2021
- MATH 1131Q Calculus I, Teaching Assistant Fall 2020

MENTORING

- Directed Reading Program, mentor to Sarah Hocutt (project on mathematical cryptography) Spring 2023
- Directed Reading Program, mentor to Sierra Woods (project on elliptic curves) Spring 2022

INSTRUCTIONAL SCHOOLS ATTENDED / WORKSHOPS / SUMMER PROGRAMS

- **Modular Curves Workshop 3 at MIT** March 11 - 15, 2024
This conference is an activity of the Simons Collaboration in Arithmetic Geometry, Number Theory, and Computation.
- **Arizona Winter School (AWS)** March 2 - 6, 2024
Topic: Abelian Varieties. Project group (Joseph Silverman): Canonical heights on abelian varieties.
- **Preliminary Arizona Winter School (PAWS)** Oct. 2 - Nov. 10, 2023
PAWS is a virtual program on topics related to the upcoming AWS. Topic: Elliptic Curves and Abelian Varieties.
- **Statistiques Arithmétiques** May 15 - 19, 2023
Conference on Arithmetic Statistics in CIRM, France.
- **École de printemps en statistiques arithmétiques** May 8 - 12, 2023
Research school on Arithmetic Statistics in CIRM, France. Courses on Galois representations and statistics, complex multiplication, class field theory, and Frobenius distributions.
- **Women In Numbers 6 (WIN6)** March 26 - 31, 2023
Project: Isogenous discriminant twins over number fields.
- **Arizona Winter School (AWS)** March 4 - 8, 2023
Topic: Unlikely Intersections. Study group: Special point problems and their arithmetic.
- **Symposium sur la géométrie arithmétique et ses applications (SAGA)** Jan. 30 - Feb. 3, 2023
Research school: Introduction to SAGA in CIRM, France. Courses on Galois representations and modular forms, modularity and diophantine applications, local-global principles, and Jacobians and models of curves.
- **Preliminary Arizona Winter School (PAWS)** Oct. 3 - Nov. 11, 2022
PAWS is a virtual program on topics related to the upcoming AWS. Topic: Heights in Diophantine geometry.
- **PCMI Graduate Summer School, Utah** July 17 - August 6, 2022
Park City Mathematics Institute (PCMI) Graduate Summer School in Number Theory Informed by Computation.
- **Rethinking Number Theory 3 (RNT3)** June 20 - July 1, 2022
Virtual workshop. Project on computing the proportion of sneaky primes for pairs of elliptic curves.

- **Connecticut Summer School in Number Theory (CTNT)** June 6 - 12, 2022
Participated and helped run both the summer school and conference. Courses on algebraic number theory, local fields, introduction to Galois theory, and the Chebotarev density theorem.
- **PCMI Graduate Summer School (Virtual)** July 26-30, 2021
Park City Mathematics Institute (PCMI) Graduate Summer School in Number Theory Informed by Computation.
- **Arizona Winter School (AWS)** Spring 2021
AWS Virtual School in Number Theory was a 12 week program featuring four online lecture series (and problem solving sessions) on modular forms, modular groups, an exploration of the p -adic numbers and modular forms, and quadratic forms and the local global principle.
- **Connecticut Summer School in Number Theory (CTNT)** June 8 - 12, 2020
Virtual courses on sieves, infinite Galois theory, computations in number theory research, curves over finite fields, and p -adic functions on Z_p .
- **Number Theory REU at Texas A&M University, Advisor: Riad Masri** Summer 2019
Researched and proved the equidistribution of the crank partition function with an effective asymptotic bound on the error. (Paper in the Ramanujan Journal.)
- **Number Theory REU at Oregon State University, Advisor: Holly Swisher** Summer 2018
Researched modular forms and elliptic curves and produced results for eta-quotients of prime or semiprime level and elliptic curves. (Paper in the Involve Journal.)

PROFESSIONAL SERVICES

- **MATHCOUNTS Eastern Chapter Competition: Grader** Feb. 17, 2024
MATHCOUNTS is a high school coaching and competition program that brings to math achievement the same enthusiasm and prestige enjoyed by athletics.
- **UConn AMS Integration Bee for Undergraduates: Judge** Nov. 17, 2022
An integration bee is like a spelling bee, but students take turns computing integrals instead of spelling words.
- **Mathematics Continued Conference (MCC): Organizer** Oct. 22, 2022
The MCC at UConn is aimed at undergraduates to give a glimpse of what graduate school and math research is like.

PROFESSIONAL ACTIVITIES

- **Math and Society (panelist)**, High School for Math, Science, and Engineering at CCNY Oct. 25, 2023
- **Bridging the Knowledge Gap in Math (panelist)**, Wiley Oct. 25, 2023
- **Graduate school panel (moderator)**, Mathematics Continued Conference Oct. 22, 2022
- **Successful Baruch Alumni Panel (panelist)**, Baruch College Nov. 9, 2021
- **Graduate school panel (panelist)**, Mathematics Continued Conference Oct. 23, 2021
- **Preparing for graduate school (panelist)**, UConn Math Club April 21, 2021
- **Undergraduate math experience (panelist)**, Baruch Math Club March 26, 2021
- **Undergraduate math research (panelist)**, UConn Math Club Nov. 11, 2020

CLUBS/LEADERSHIP

- **UConn Number Theory Reading Group (NTRG): Member** Summer 2020 –Present
We study various topics related to number theory. We have studied the p -adics and p -adic analysis, local class field theory, units of cyclic cubic number fields, and modular forms and modular curves. We are currently reading about computing ranks of elliptic curves.
- **AWM Baruch Student Chapter: President/Founder** Fall 2019 –Spring 2020

Started the Association for Women in Mathematics (AWM) Student Chapter at Baruch, organized events, shared knowledge and experience in math, research, math study abroad programs, internships, and mathematical jobs in industry.

- **Baruch Traders Club:** Trader

Spring 2017 –Spring 2018

Gained experience and knowledge of financial markets via trading simulations and trading seminars. Competed in various Baruch and intercollegiate trading competitions.

LANGUAGES

- English - fluent (U.S. Citizen)
- Greek - fluent (Dual Citizen)
- Spanish - proficient
- French - beginner

COMPUTER SKILLS

- Magma
- SageMath
- Mathematica
- C++, Java, and Python