# asimina.hamakiotes@uconn.edu asiminah.github.io

# Asimina S. Hamakiotes

### **EDUCATION**

University of Connecticut

Storrs, CT

Ph.D. in Mathematics, Advisor: Álvaro Lozano-Robledo

2020-Present

Macaulay Honors at Baruch College

New York City, NY

B.A. in Mathematics, GPA: 3.73

2016-2020

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

**Budapest Semesters in Mathematics** 

Budapest, Hungary

Study abroad program

Spring 2019

# Research Experience

#### Honors Thesis in Number Theory

Fall 2019 - Spring 2020

Advisor: Andrew Obus

 Researched the distribution of the greatest common divisors of Gaussian integers and other quadratic integer rings.

# Number Theory REU at Texas A&M University

Summer 2019

Advisor: Riad Masri

 Researched and proved the equidistribution of the crank partition function with an effective asymptotic bound on the error.

### Number Theory REU at Oregon State University

Summer 2018

Advisor: Holly Swisher

 Researched modular forms and elliptic curves and produced results for eta-quotients of prime or semiprime level and elliptic curves.

# **PUBLICATIONS**

- 1. Asimina Hamakiotes, The Distribution of the Greatest Common Divisors of Elements in Quadratic Integer Rings, (2020), https://academicworks.cuny.edu/bb\_etds/99/.
- 2. Asimina Hamakiotes, Aaron Kriegman, and Wei-Lun Tsai, Asymptotic Distribution of the Partition Crank, to appear in Ramanujan Journal (2021), https://arxiv.org/abs/1909.12806.
- 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. https://arxiv.org/abs/1901.10511.

#### AWARDS

• Graduate Fellowship for STEM Diversity (\$20,000 annually)

2022 - Present

• CLAS Course Improvement Mini Grant (\$1,500) (Created a module for an inquiry-based mathematical modeling course.) August 2022

• 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
TEACHING	
• MATH 2210Q Applied Linear Algebra, Instructor	Spring 2023
• 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 Sierra Woods (project on elliptic curves)	Spring 2022
Invited Talks	
• Conférence de théorie des nombres Québec-Maine Computing the Proportion of Sneaky Primes for Pairs of Elliptic Curves - Talk Université Laval	10/15/22 - 10/16/22
• PAlmetto Number Theory Series XXXIV (PANTS 34)  Computing the Proportion of Sneaky Primes for Pairs of Elliptic Curves - Talk University of North Carolina at Charlotte	9/24/22 - 9/25/22
• Joint Mathematics Meetings, Denver Asymptotic Distribution of the Partition Crank MAA Undergraduate Student Poster Session *Received Honorable Mention	1/15/20 - 1/18/20
• Shenandoah Undergraduate Mathematics and Statistics Conference (SUMS)  Asymptotic Distribution of the Partition Crank - Talk  James Madison University	9/21/19
• Nebraska Conference for Undergraduate Women in Mathematics (NCUWM)  Eta-Quotients of Prime or Semiprime Level and Elliptic Curves - Talk  University of Nebraska - Lincoln	1/25/19 - 1/27/19
• Joint Mathematics Meetings, Baltimore Eta-Quotients of Prime or Semiprime Level and Elliptic Curves MAA Undergraduate Student Poster Session	1/16/19 - 1/19/19
• Shenandoah Undergraduate Mathematics and Statistics Conference (SUMS)  Eta-Quotients of Prime/Semiprime Level and Elliptic Curves - Talk  James Madison University	10/13/18
• Women in Mathematics in New England Conference (WIMIN) Eta-Quotients of Prime or Semiprime Level and Elliptic Curves - Talk Smith College	9/22/18

### Presentations

• Computing the proportion of sneaky primes for pairs of elliptic curves, Oregon State University Number Theory Seminar	Oct. 18, 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
• 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
• Lubin-Tate formal group laws, UConn Number Theory Reading Group	Feb. 26, 2021
• Undergraduate math research (panelist), UConn Math Club	Nov. 11, 2020

# Instructional Schools Attended / Workshops

• 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 July 17 - August 6, 2022 Park City Mathematics Institute (PCMI) Graduate Summer School in Number Theory Informed by Computation.

- Rethinking Number Theory 3 (RNT3)

  Project on computing the proportion of sneaky primes for pairs of elliptic curves.

  June 20 July 1, 2022
- Connecticut Summer School in Number Theory (CTNT)

  Participated and helped run both the summer school and conference.

  June 6 12, 2022
- PCMI Graduate Summer School (Virtual)

  Park City Mathematics Institute (PCMI) Graduate Summer School in Number Theory Informed by Computation.
- Arizona Winter School (AWS)

  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.

#### Professional Services

• 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.

# Clubs/Leadership

- UConn Number Theory Reading Group (NTRG): Member Summer 2020 -Present We study various topics related to number theory, such as p-adics, class field theory (I gave a talk on the Lubin-Tate formal group laws), and we are currently reading some research papers on unit groups. We are learning about how to compute unit groups in cubic fields and will try to expand upon related research.
- 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 novice

# COMPUTER SKILLS

- Magma
- SageMath
- Mathematica
- C++, Java, and Python (novice)