

Employment

2024–present **H. C. Wang Assistant Professor**, *Cornell University*.

Education

2018–2024 **Ph.D. in Mathematics** *University of Chicago*.
Advisor: Frank Calegari.

2014–2018 **MMathCompSci in Mathematics and Computer Science**, *University of Oxford*
BA Advisor: Alan Lauder.
MMathCompSci Advisor: Minhyong Kim.

Visiting positions

June - July 2025 **Professeure Invitée Junior**, *DMA, École Normale Supérieure*.
Visiting Ariane Mézard.

Publications and Preprints

- [3] **Increasing the Size of Tame Shafarevich Groups**, with *R. Ramakrishna*
Submitted; arXiv:2512.03327.
- [2] **Towards a Classification of p^2 -Discriminant Ideal Twins over Number Fields**,
with *A. Deines, A. S. Hamakiotes, C. Namoiyam, M. Roy, and L. Watson*
To appear in Research Directions in Number Theory; arXiv:2403.01287.
- [1] **Constructing Unramified Extensions and Murphy's Law for Galois Deformation Rings**
To appear in Journal of Number Theory; arXiv:2310.07105.

Talks

Invited

November 2025 Number Theory Seminar, Cornell University.
April 2025 Arithmetic Seminar, SUNY Binghamton.
April 2025 Five Colleges Number Theory Seminar, Amherst College.
March 2025 Algebra Seminar, University of Connecticut (online).
November 2024 Quebec-Vermont Number Theory Seminar, McGill University.
October 2024 Number Theory Seminar, Cornell University.
July 2024 Galois representations and Automorphic forms and their L-functions, University of Luxembourg.
February 2024 Junior Number Theory Days, Johns Hopkins University.
January 2024 Arithmetic Statistics Seminar, Harvard University.
December 2023 Algebra Seminar, Michigan State University.
December 2023 Number Theory Seminar, Northwestern University.
November 2023 Number Theory Seminar, University of Chicago.
September 2023 Number Theory Seminar, University of Wisconsin–Madison.

- July 2023 Bucharest Number Theory Days, IMAR (Bucharest).
- May 2023 Number Theory Seminar, University of Illinois Chicago.

Other

- 2018–2024 I have given various talks in the University of Chicago graduate student seminars.

Selected Conferences and Workshops

- March 2025 **The Legacy of John Tate, and Beyond**,
Harvard University.
- July 2024 **Galois representations and Automorphic forms and their L-functions**,
University of Luxembourg.
- February 2024 **Junior Number Theory Days**,
Johns Hopkins University.
- July 2023 **Bucharest Number Theory Days**,
IMAR (Bucharest).
- March 2023 **Women in Numbers 6**,
Banff Research Station.
- February 2023 **SAGA: Symposium on Arithmetic Geometry and its Applications**,
CIRM (Marseille Luminy).
- January 2023 **Introduction to SAGA: Symposium on Arithmetic Geometry and its Applications**,
CIRM (Marseille Luminy).
- March 2022 **Arizona Winter School on Automorphic Forms Beyond GL_2** ,
University of Arizona.
- March 2020 **Arizona Winter School on Nonabelian Chabauty**,
University of Arizona (accepted; followed online, due to COVID-19).
- September 2017 **Instruments of Algebraic Geometry**,
University of Bucharest.

Awards

- 2024 **Wirszup Fellowship**, *University of Chicago*
Annual departmental fellowship awarded to a graduating Ph.D. student for excellent research.
- 2015 **Fowler Prize**, *Merton College, University of Oxford*
College Award for Internal Examinations.

Service

Refereeing

I have served as a referee for Algebra & Number Theory.

Seminars Organised

- 2020-2021 Student Number Theory Seminar, University of Chicago.

Mentoring

- Summer 2020 *Mentor*, University of Chicago REU.
- Summer 2017 *Head Counselor*, PROMYS.
- Summer 2016 *Counselor*, PROMYS Europe.
- Summer 2015 *Counselor*, PROMYS Europe.

Teaching

Instructor of Record, Cornell University

- Fall 2025 MATH 4310: Linear Algebra II (two sections).
- Spring 2025 MATH 4310: Linear Algebra II (two sections).
- Fall 2024 MATH 2210: Linear Algebra I (one section).

Instructor of Record, University of Chicago

- Winter 2024 MATH 153: Calculus III (one section).
- Autumn 2023 MATH 152: Calculus II (one section).
- Autumn 2022 MATH 153: Calculus III (one section).
- Winter 2022 MATH 152: Calculus II (one section).
- Autumn 2021 MATH 151: Calculus I (one section).
- Spring 2021 MATH 133: Calculus III (one section).
- Winter 2021 MATH 132: Calculus II (two sections).
- Autumn 2020 MATH 131: Calculus I (two sections).

Teaching Assistant, University of Chicago

- Spring 2022 Mathematics Study Abroad at the University of Chicago Center in Paris - MATH 29512: Introduction to p -Groups, MATH 29501: Harmonic Analysis on p -adic Fields, MATH 29528: Topics in Modelling.
- Spring 2020 MATH 259: Honors Algebra III.
- Winter 2020 MATH 258: Honors Algebra II.
- Autumn 2019 MATH 257: Honors Algebra I.

Languages

Romanian - Native; English - Fluent; German - Basic.