

# Andreea Iorga

✉ ai324@cornell.edu

## 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. Namojam, 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 **Wirsup 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.*

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## 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.

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## Languages

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