

Xinchun Ma

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Education

University of Chicago

2019 - 2025

Ph.D. Candidate, Mathematics. Advised by Victor Ginzburg

Fudan University

2015 - 2019

Bachelor of Science, Mathematics and Applied Mathematics

Research

- *From Cherednik algebras to knot Homology via cuspidal \mathcal{D} -modules* arXiv: 2407.00971
- *Rational Cherednik algebras and torus knot invariants*, submitted, arXiv: 2402.18770
- with Matilde Lalín, *θ -triangle and parallelogram pairs with common area and common perimeter*. J. Number Theory 202 (2019), 1 – 26.

Invited Talks

- Special session on “Geometric Methods in Representation Theory” at the AMS Spring Central Sectional Meeting April 2024
- Algebra and Discrete Mathematics seminar, UC Davis Jan 2024
- Algebra and Algebraic geometry seminar, UW Madison October 2023
- AWM Research Symposium special session, Atlanta September 2023
- QUACKS II, University of Oregon August 2022
- Algebra and Discrete Mathematics seminar, UC Davis April 2022

Teaching and Mentoring

At University of Chicago:

Instructor on record:

- TBD 2024 - 2025
- Math 152, Calculus II 2023 - 2024
- Math 151-152, Calculus I-II 2022 - 2023
- Math 131, 132, 153 Calculus I, II, III 2021 - 2022

Teaching assistant:

2020 - 2021

Abstract Linear Algebra, Riemannian Geometry, Differential Manifolds and integration on Manifolds

REU mentor for:

2021: Sydney Bergen, Drew Melman-Rogers, Sean Ryan;

2020: Helena Perez-Stark, Ryan Wandsnider

Directed reading program mentor for:

Spring 2024: Jake Zummo; Winter 2023: Daohong Xu; Spring 2022: Jen Tang; Winter 2021: Helena Perez-Stark

Awards

McCormick Fellowship

2019 - 2021

University of Chicago

Services

Referee for IMRN

Outreach

UChicago AWM (Association of Women in Math) leadership team *2023 -*
UChicago WIGS+(Women and Gender Minorities in Graduate Science) leadership team *2022 - 2023*

Conferences attended

- VI Canada-Mexico-US Meeting, UNAM (presented a poster) *June 2024*
- Representation Theory and Related Geometry: Progress and Prospects, UGA (gave a 10-min contributed presentation) *May 2024*
- WAGS - Western Algebraic Geometry Symposium, UC Davis *April 2024*
- Special session on “Geometric Methods in Representation Theory” at the AMS Spring Central Sectional Meeting *April 2024*
- AWM Research Symposium special session, Atlanta *September 2023*
- QUACKS II, University of Oregon *August 2022*
- MSRI Summer School on New Directions in Representation Theory, Hawaii *June 2022*
- Summer School in Geometric Representation Theory, MIT *June 2022*
- Lie Theory and Poisson Geometry, CIRM *Jan 2021*