

Alexander Wang

University of Toronto Mississauga alexandery.wang@utoronto.ca
Department of Mathematical and Computational Sciences math.utoronto.ca/awang
Mississauga, ON L5L 1C6, Canada Last Updated: September 12, 2026

EMPLOYMENT

2026 – Postdoctoral Fellow, University of Toronto Mississauga.

EDUCATION

2021 – 2026 Ph.D. Mathematics, University of Washington (advisor: Bianca Viray).

2021 – 2024 M.S. Mathematics, University of Washington.

2017 – 2020 B.S. Mathematics, University of Michigan.

PUBLICATIONS

1. Alexander Galarraga, **Alexander Wang**. *Superelliptic degree sets over Henselian fields*. arXiv:2511.15951.
2. Sam Roven, **Alexander Wang**. *On the Hasse Principle for conic bundles over even degree extensions*. Res. number theory **12**, 35 (2026).
3. **Alexander Wang**, Hailun Zheng. *Centrally symmetric and balanced triangulations of $\mathbb{S}^2 \times \mathbb{S}^{d-3}$ with few vertices*. European J. Combin., **85** (Mar. 2020), 103043.

AWARDS AND HONORS

- 2025 Nominated for University of Washington Excellence in Teaching Award.
- 2024 – 2025 UW Math Lead Teaching Assistant.
- 2023 – 2024 Elected UW Math Graduate Student Representative.
- 2023 – 2024 Elected UW Math Graduate Student Social Coordinator.
- 2023 UW Math Excellence in Teaching Award.
- 2022 Finalist for the Math Excellence in Teaching Award.
- 2021 – 2023 Provosts Scholarship, University of Washington.
- 2021 Outstanding Graduating Senior Award, Michigan Math Department.
- 2021 NSF Graduate Research Fellowship Program Honorable Mention.
- 2020 Jack McLaughlin Award in Algebra.
- 2020 Barry Goldwater Scholar.
- 2019 James B. Angell Scholar.
- 2017 USACO Platinum Division.

INVITED TALKS

- 3/6/2026 *Rational points on varieties and the Brauer–Manin obstruction*, lightning talk. Western Algebraic Geometry Symposium Spring 2026. University of California San Diego. San Diego, CA.
- 11/8/2025 *The Hasse Principle for conic bundles over even degree extensions*, poster presentation. Western Algebraic Geometry Symposium Fall 2025. University of Oregon. Eugene, OR.
- 3/1/2025 *Realizable degree sets of superelliptic curves over Henselian fields*. Oregon Number Theory Days. Oregon State University. Corvallis, OR.
- 10/25/2024 *The Brauer–Manin obstruction on del Pezzo surfaces of degree 2*. Back-to-School Seminar. The University of Washington. Seattle, WA.
- 3/21/2024 *Realizable degree sets of superelliptic curves over Henselian fields*. Group, Lie, and Number theory Seminar. The University of Michigan. Ann Arbor, MI.
- 3/21/2024 *Factoring Prime Numbers*. Michigan Math Club. The University of Michigan. Ann Arbor, MI.
- 1/19/2024 *Primes, p -adics, and an exploration of local fields*. 1-2-3 Seminar. The University of Washington. Seattle, WA.
- 11/4/2023 *Classification of Degree Sets of Superelliptic Curves over Henselian Fields*, poster presentation (joint with Alexander Galarraga). Western Algebraic Geometry Symposium Fall 2023. Washington University of St. Louis. St. Louis, MO.
- 1/24/2023 *Number Fields*. 1-2-3 Seminar. The University of Washington. Seattle, WA.
- 1/20/2022 *Divisors and the Riemann-Roch Theorem*. Dynamics and Geometry Seminar. The University of Washington. Seattle, WA.
- 7/30/2020 *Extensions of Irreducible Representations of Quaternion Algebras over p -adic Fields*. REU Seminar Series. The University of Michigan. Ann Arbor, MI.
- 7/24/2019 *The Inverse Problem for Rational Equivariant Cohomology* (with Ying Wang and Juntao Zhou). Cornell SPUR Undergraduate Research Forum. Cornell University. Ithaca, NY.
- 7/2/2019 *Balanced triangulations on few vertices and an implementation of cross-flips*, software demonstration. FPSAC 2019. University of Ljubljana. Ljubljana, Slovenia.
- 7/1/2019 *Triangulations of the product of spheres with few vertices*, poster presentation. FPSAC 2019. University of Ljubljana. Ljubljana, Slovenia.
- 7/19/2018 *Balanced Triangulations of Sphere Products with Minimal Vertices*. REU Seminar Series. The University of Michigan. Ann Arbor, MI.

TEACHING

- 2026 Teaching Assistant/Problem Session Leader, Preliminary Arizona Winter School.
- 2025 Lecturer/Organizer, PCMI Experimental Math Lab. Park City Mathematics Institute.
- 2024 – 2025 Lead Teaching Assistant, University of Washington Math Department.
- 2023 Instructor, Math 340: Advanced Linear Algebra. University of Washington.
- 2023 Instructor, Math 224: Advanced Multivariable Calculus. University of Washington.
- 2021 – 2026 Teaching Assistant/Grader, Math 120, Math 124, Math 125, Math 207, Math 381. University of Washington.

- 2021 – 2026 Washington Directed Reading Program Mentor (4 projects).
2025 Washington Experimental Math Lab Mentor.
- 2022 – 2024 Math Study Center Tutor, University of Washington (2 quarters).
- 2018 – 2020 Course Assistant/Grader, Math 185, Math 186, Math 310, Math 395, Math 490. The University of Michigan.

ACTIVITIES

- 2024 – 2025 Lead Teaching Assistant. Department of Mathematics, University of Washington. Chosen based on teaching record to lead the department's week-long TA training workshop for first-year graduate students, conduct TA observations, mentor new TAs, and substitute for classes throughout the year.
- 2023 – 2024 Graduate Student Representative. Department of Mathematics, University of Washington. Elected to serve as a member of the Graduate Program Committee and performed general graduate student advocacy.
- 2023 – 2024 Graduate Student Social Coordinator. Department of Mathematics, University of Washington. Elected to organize departmental colloquium activities, incoming student activities, and general department events.
- 2019 – 2020 Lemma Math Competition, Lead Organizer. Ann Arbor, MI. Creator and lead organizer of a regional math competition for high school students (now renamed Michigan Math Meet).
- 2018 – 2020 Michigan Math Circle, Volunteer. Ann Arbor, MI. A weekly math workshop for local middle and high school students, conveying interesting and advanced mathematical topics at an introductory level.
- 2018 – 2020 Wolverine Pathways, Volunteer. Ypsilanti, MI. An outreach program to provide mathematics enrichment to underprivileged middle school students with little exposure to extracurricular math.