

Amy Qing Hai Li

Personal Data

Location: Austin, TX
Email: amyqli@utexas.edu
Citizenship: U.S.A.

Education

Graduate student, Ph.D. program in Mathematics Aug 2020 - Present
The University of Texas at Austin
Austin, TX
Advisor: Sam Payne

B.A., *magna cum laude* May 2020
Wellesley College
Wellesley, MA
Honors in Mathematics

Research Interests

Broadly: the moduli spaces of curves and of admissible covers. In particular, computing the cohomology and Chow rings of Hurwitz spaces, via enumerative and tropical geometry.

Preprints and Publications

1. Chow rings of Hurwitz spaces with marked ramification (with E. Clader, Z. Hu, H. Larson, and R. Lopez). arXiv:2505.04903.
2. Holomorphic forms and non-tautological cycles on moduli spaces of curves (with V. Arena, S. Canning, E. Clader, R. Haburcak, S. C. Mok, and C. Tamborini). arXiv:2402.03874. In *Selecta Mathematica* (2025).
3. Partial Configuration Spaces as Pullbacks of Diagrams of Configuration Spaces (with I. Volić). In *Advanced Technologies, Systems, and Applications V*, Springer (2020).
4. Measuring microfluidic flow rates: Monotonicity, convexity, and uncertainty (with P. Patrone, G. Cooksey, and A. Kearsley). In *Applied Mathematics Letters*, Volume 112, 2021, <https://doi.org/10.1016/j.aml.2020.106694>

Talks

“The Chow ring of Hurwitz spaces with marked ramification,” Perspectives on Hurwitz Theory, Trinity College Dublin. June 2025.

“On the vanishing of H^1 of the moduli space of degree 3 admissible covers,” (Mini-talk) Combinatorial Algebraic Geometry: Highlighting Underrepresented Genders, Goethe University Frankfurt am Main. April 2025.

“Double covers and non-tautological classes,” (Mini-talk) Georgia Algebraic Geometry Symposium (GAGS), UG Athens. March 2025.

“Holomorphic forms and non-tautological classes,” Junior Algebraic Geometry at Warwick (JAWS), University of Warwick. February 2025.

“Hurwitz Numbers: An Enumeration Problem,” UT Undergraduate Math Club, UT Austin. September 2023.

“Tropical Geometry and the Moduli Space of Curves,” Texas Women in Math Symposium (TWiM), UT Austin. February 2023.

“An introduction to abelian varieties,” Beginning Algebraic Geometry Seminar, UT Austin. April 2022.

Teaching Experience

Teaching Assistant Sep 2021 - Present
UT Austin

- Multivariable Calculus Fall 2024
- Introduction to Mathematical Statistics Fall 2023
- Linear Algebra Spring 2022
- UGS 303 From Numbers to Chaos Fall 2021, Fall 2022

Tutor/Grader Jan 2018 - May 2020
Wellesley College

- Tutored for: Real Analysis, Abstract Algebra, Complex Analysis, Linear Algebra, Calculus I/II/III.
- Graded for: Spring 2020 Cryptography, Fall 2019 Complex Analysis.

Calculus II Supplemental Instruction Leader Sep 2018 - Dec 2018
Wellesley College

Honors and Awards

Provost's Graduate Excellence Fellowship Aug 2020 - Present
University of Texas at Austin

Frank Gerth III Teaching Excellence Award Spring 2022
University of Texas at Austin

Martha Davenport Heard Prize in Mathematics May 2020
Wellesley College Department of Mathematics

The Waldemar J. Trjitzinsky Memorial Award Sep 2019
American Mathematical Society

The Samuel and Hilda Levitt Fellowship May 2019
Wellesley College

Martha Davenport Heard Sophomore Prize in Mathematics May 2018
Wellesley College Department of Mathematics

Outreach

Sunday Morning Math Group Fall 2024 - Spring 2025
UT Austin
Proctored AMC exams for local middle and high-school students. Volunteered as a graduate student helper at SMMG talks.

Directed Reading Program Fall 2022 - Fall 2023
UT Austin
Mentored undergraduate students in reading projects on algebraic topology, differential topology, algebraic geometry, Galois theory, and algebraic number theory.

Texas Prison Education Initiative Fall 2023 - Spring 2024
UT Austin

Worked as an instructor for a college math course serving incarcerated women at a state prison in Lockhart, Texas.

Service	<i>Géométrie Algébrique en Liberté XXXIII</i> , Leiden, the Netherlands I am the US organizer for the upcoming edition of GAeL.	July 2026
	<i>Géométrie Algébrique en Liberté XXXII</i> , Toulouse, France US Organizer.	June 2025
	<i>Beginning Algebraic Geometry Seminar</i> , UT Austin Organizer.	Fall 2022
	<i>Summer Minicourses</i> , UT Austin Organizer.	Summer 2021, Summer 2022
	<i>Graduate Representative</i> , UT Austin Served on the student-elected Graduate Representative Committee as a liaison between the math graduate students and math faculty.	Fall 2020 - Spring 2021
Conferences and Workshops Attended	<i>Summer Research Institute in Algebraic Geometry</i> Fort Collins, CO, U.S.A.	July 2025
	<i>Perspectives on Hurwitz Theory</i> Dublin, Ireland.	June 2025
	<i>Géométrie Algébrique en Liberté XXXII</i> Dublin, Ireland.	June 2025
	<i>CoAlgGeo: Highlighting Underrepresented Genders</i> Frankfurt, Germany.	April 2025
	<i>Georgia Algebraic Geometry Symposium</i> Athens, GA, U.S.A.	March 2025
	<i>Women in Algebraic Geometry II</i> Princeton, NJ, U.S.A.	June 2024
	<i>Géométrie Algébrique en Liberté XXXI</i> Torino, Italy	June 2024
	<i>Autumn School on Torus Actions and Singularities</i> Oldenburg, Germany	September 2023
	<i>BIRS Workshop: Curves Algebraic, Tropical, and Logarithmic</i> Banff, Canada	August 2023
	<i>AGNES Summer School on Intersection Theory</i> Providence, RI, U.S.A.	July 2023
	<i>Texas Women in Mathematics Symposium</i> Austin, TX, U.S.A.	March 2023
	<i>MSRI Summer School in Tropical Geometry</i> Moraga, CA, U.S.A.	August 2022

International School in Tropical Geometry
Valladolid, Spain

May 2022

**Professional
Membership**

Sigma Xi, Wellesley College Chapter; American Mathematical Society.