

# Lily Zhang

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## RESEARCH INTERESTS

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*Noncommutative geometry:*  $C^*$ -algebras;  $K$ - and  $KK$ -theory; index theory.

*Poisson geometry:* Lie groupoids; Lie algebroids; foliation theory.

## EDUCATION

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### Texas A&M University

*Ph.D. in Mathematics*

*Present*

College Station, TX

- Advisor: Prof. Guoliang Yu

### Washington University in St. Louis

*Master of Arts in Mathematics*

*May 2026*

St. Louis, MO

- Advisor: Prof. Xiang Tang
- Thesis: *A Generalization of Molino's Theory to Riemannian Groupoids*

## PAPERS

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[1] *Molino's Theory for Proper Riemannian Groupoids*, with Xiang Tang (in progress).

[2] *A Generalization of Molino's Theory to Riemannian Groupoids*, M.A. thesis, Washington University in St. Louis, 2026.

## HONORS & AWARDS

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- Charles J. Turck Presidential Honor Scholarship 2019–2023

## GRANTS

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- MAA MathFest Student Scholars Travel Grant Aug 2022
- JMM Undergraduate Travel Grant Jan 2023
- Macalester College Wallace Scholarly Activities (WSA) Program 2022–2023

## CONTRIBUTED TALKS & POSTERS

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- Poisson 2026, University of Antwerp & KU Leuven, Belgium Aug 2026 (planned)
- Noncommutative Geometry Seminar, Washington University in St. Louis May 2026
- Szegő Seminar, Washington University in St. Louis Oct 2025
- Joint Mathematics Meetings (JMM), Boston, MA Jan 2023
- MAA MathFest, Philadelphia, PA Aug 2022
- SIMIODE EXPO, Virtual Feb 2022

## CONFERENCES & WORKSHOPS ATTENDED

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- Groundwork for Operator Algebras Lecture Series, East Lansing, MI *Jun 2026 (planned)*
- 46th Annual Great Plains Operator Theory Symposium, Iowa City, IA *May 2026 (planned)*
- Workshop on Poisson Geometry (Gone Fishing), Montréal, QC *Apr 2026*
- Recent Progress in Topological and Geometric Structures in Low Dimensions, Berkeley, CA *Mar 2026*
- Topological and Geometric Structures in Low Dimensions & Geometry and Dynamics for Discrete Subgroups of Higher Rank Lie Groups, Berkeley, CA *Jan 2026*
- AMS 2025 Fall Central Sectional Meeting, Saint Louis University, St. Louis, MO *Oct 2025*

## TEACHING EXPERIENCE

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**Washington University in St. Louis**, Department of Mathematics *St. Louis, MO*

- Grader, MATH 5015 – Introduction to Fourier Series and Integrals *Fall 2025*
- Grader, MATH 415 – Partial Differential Equations *Fall 2025*
- Grader, MATH 309 – Matrix Algebra *Spring 2025*
- Grader, MATH 429 – Proof-Based Linear Algebra *Fall 2024*

**Macalester College**, Department of Mathematics, Statistics & Computer Science *St. Paul, MN*

- TA, MATH 377 – Real Analysis *Fall 2021*

**Ross Mathematics Program**

*Hybrid: Columbus, OH & Remote*

- Junior Counselor *Jun 2020 – Aug 2020*

## SERVICE

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- Secretary, Association for Women in Mathematics (WUAWM), Washington University in St. Louis *2025 – 2026*
- Co-organizer, Szegő Seminar, Washington University in St. Louis *2025 – 2026*
- Speaker, Washington University Math Circle, St. Louis, MO *2024 – 2025*
- Mentor, MSCS Mentoring Program, Macalester College, St. Paul, MN *2022 – 2023*