

Jiantong Liu*

CONTACT INFORMATION ♦ Website: jiantongliu.github.io 214 Harker Hall
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University of Illinois Urbana-Champaign
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RESEARCH INTEREST Algebraic K-theory and its applications in motivic homotopy theory.

EDUCATION **University of Illinois Urbana-Champaign (UIUC)** *Aug 2023 - Present*
Ph.D., Mathematics

University of California, Los Angeles (UCLA) *Sept 2019 - Jun 2023*
B.S., Mathematics, with Departmental Highest Honors
B.S., Cognitive Science, with Specialization in Computing

PUBLICATIONS ♦ *Bounds in Simple Hexagonal Lattice and Classification of 11-stick Knots.* (With Y. Bao, A. Benveniste, M. Campisi, N. Cazet, A. Goh, E. Sherman.) *J. Knot Theory Ramif.* (2023), Vol. 32, No. 14, 2350097.

SELECTED TALKS **External**
♦ *Bounds in Simple Hexagonal Lattice and Classification of 11-stick Knots.* AMS Special Session at Joint Mathematics Meeting, January 2023, Boston, MA.

Internal
♦ *Localisation Theorems for the Connective K-theory of Exact Categories.* UIUC Motivic Homotopy Theory Literature Seminar, December 2025.
♦ *Descent Properties in Algebraic K-Theory.* UIUC Graduate Student Homotopy Theory Seminar, April 2025.
♦ *Reinterpreting Universal Localizing Invariant.* UIUC Motivic Homotopy Theory Literature Seminar, April 2025.
♦ *Categorifying Spectra.* UIUC Motivic Homotopy Theory Literature Seminar, October 2024.
♦ *A Tropical Proof of the Brill-Noether Theorem.* UIUC Graduate Algebraic Geometry and Commutative Algebra Seminar, September 2024.
♦ *Equivariant Cohomology.* UIUC Equivariant Homotopy Theory Learning Seminar, February 2024.
♦ *Triangulated Category's Christmas Wish List.* UIUC Graduate Algebraic Geometry and Commutative Algebra Seminar, September 2023.
♦ *Enriched Categories and Applications.* UCLA Directed Reading Program Colloquium, March 2022.

AWARDS UCLA Latin Honors, Magna cum laude *Jun 2023*

UCLA Departmental Highest Honors in Mathematics *Jun 2023*

TEACHING **At UIUC** *Aug 2023 - Present*
Teaching Assistant
♦ MATH 221, *Calculus I.*
♦ MATH 227, *Linear Algebra for Data Science.*
♦ MATH 257, *Linear Algebra with Computational Applications.* (×2)

*Last updated February 2026.

	<ul style="list-style-type: none"> ◇ MATH 314, <i>Introduction to Higher Mathematics</i>. 	
	Course Grader	
	<ul style="list-style-type: none"> ◇ MATH 241, <i>Calculus III</i>. ◇ MATH 444, <i>Elementary Real Analysis</i>. 	
	At UCLA	<i>Sept 2020 - Sept 2022</i>
	Course Grader	
	<ul style="list-style-type: none"> ◇ MATH 115AH, <i>Upper Division Linear Algebra (Honors)</i>. (×5) ◇ MATH 115A, <i>Upper Division Linear Algebra</i>. (×2) ◇ MATH 105, <i>Mathematics and Pedagogy for Teaching Secondary Mathematics</i>. (×3) 	
OUTREACH & SERVICE	Illinois Mathematics Lab	<i>Aug 2024 - Present</i>
	Graduate Team Leader	
	<ul style="list-style-type: none"> ◇ Geometry, Arithmetic, and Physics of the Wythoff Array. (×2) ◇ Stochastic Process and Differential Equation Models for Cross-Scale Evolutionary Dynamics. (×2) 	
	UIUC Directed Reading Program	<i>Aug 2025 - Present</i>
	Co-organizer	
	UIUC Math Circle	<i>Aug 2024 - Dec 2024</i>
	Instructor	
	UIUC Graduate Affairs Committee	<i>Aug 2023 - May 2024</i>
	Graduate Student Member	
	UCLA Olga Radko Endowed Math Circle	<i>Sept 2021 - Jun 2023</i>
	Assistant Instructor	
RECENTLY- ATTENDED	FRG workshop on higher categories and geometry. Chicago, IL.	<i>Mar 2026</i>
CONFERENCES & WORKSHOPS	Midwest Topology Seminar. Cleveland, OH.	<i>Feb 2026</i>