

Jiantong Liu*

CONTACT INFORMATION ◇ Phone: (424)440-9698 273 Altgeld Hall
◇ Email: jl106@illinois.edu Department of Mathematics
◇ Website: jiantongliu.github.io University of Illinois Urbana-Champaign
Urbana, IL 61801

RESEARCH INTEREST Algebraic Geometry, Algebraic K-theory, 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.

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

Internal
◇ *Equivariant Cohomology.* Equivariant Homotopy Theory Learning Seminar, February 2024.
◇ $+ = Q$. (*2 parts*) UIUC Algebraic K-theory Reading Seminar, February 2024.
◇ *Quillen's and Suslin's K-theory.* (*5 parts*) UIUC Algebraic K-theory Reading Seminar, October - December 2023.
◇ *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*
◇ MATH 257, *Linear Algebra with Computational Applications*, Teaching Assistant.
◇ MATH 241, *Calculus III*, Course Grader.

At UCLA *Sept 2020 - Sept 2022*
◇ MATH 115AH, *Upper Division Linear Algebra (Honors)*, Course Grader. (×5)
◇ MATH 115A, *Upper Division Linear Algebra*, Course Grader. (×2)
◇ MATH 105 Series, *Mathematics and Pedagogy for Teaching Secondary Mathematics*, Course Grader. (×3)

At UCLA Olga Radko Endowed Math Circle *Sept 2021 - Jun 2023*
◇ Intermediate Level, Assistant Instructor.

*Last updated March 2024.

RESEARCH
EXPERIENCE

Undergraduate Researcher at Polymath Jr *Jun 2022 - Jan 2023*
Topic: On combinatorial knot theory, in particular on stick knots.
Supervisors: Professor Marion Campisi, Nicholas Cazet

Undergraduate Researcher at UCLA CAM REU *Jun 2021 - Aug 2021*
Topic: On compartmental modeling, in particular on SEIR models.
Supervisors: Professor Andrea Bertozzi, Professor Paul Brantingham, Professor David Hyde, Professor Chuntian Wang, Yotam Yaniv

Lab Research Assistant at UCLA Psychology Department *Mar 2022 - Mar 2023*
Topic: On object recognition and motion perception.
Supervisors: Professor Zili Liu, Yang Xing, Maggie Yeh

SERVICES

UIUC Graduate Affairs Committee *Aug 2023 - May 2024*

Organization for Transformative Works (OTW) *Oct 2018 - Present*

SKILLS

Programming Languages: R, Python, Java, C++

Other Mathematical Tools: MATLAB, Lean, Agda

General Tools: WordPress, L^AT_EX

Language: Chinese (native), English (fluent)