

Jiantong Liu*

CONTACT INFORMATION	<ul style="list-style-type: none">◇ Phone: (424)440-9698◇ Email: jl106@illinois.edu◇ Website: jiantongliu.github.io	Altgeld Hall Department of Mathematics University of Illinois Urbana-Champaign Urbana, IL 61801
RESEARCH INTEREST	Algebraic Geometry, Algebraic Topology, Category Theory, Homotopy Theory.	
EDUCATION	University of Illinois Urbana-Champaign (UIUC) Ph.D., Mathematics	<i>Aug 2023 - Present</i>
	University of California, Los Angeles (UCLA) B.S., Mathematics, with Highest Departmental Honors B.S., Cognitive Science, with Specialization in Computing	<i>Sept 2019 - Jun 2023</i>
PUBLICATION	Preprint <ul style="list-style-type: none">◇ Y. Bao, A. Benveniste, A. Goh, J. Liu[†], E. Sherman, M. Campisi, N. Cazet, “Bounds in Simple Hexagonal Lattice and Classification of 11-stick Knots”, November 2022. https://doi.org/10.48550/arXiv.2211.00687. Submitted.	
TALK	◇ <i>Bounds in Simple Hexagonal Lattice and Classification of 11-stick Knots</i> . AMS Special Session at Joint Mathematics Meeting, Jan 2023, Boston, Massachusetts. [Abstract]	
RESEARCH	Undergraduate Researcher at Polymath Jr Topic: On combinatorial knot theory, in particular on stick knots. Supervisors: Professor Marion Campisi, Nicholas Cazet	<i>Jun 2022 - Jan 2023</i>
	Undergraduate Researcher at UCLA CAM REU Topic: On compartmental modeling, in particular on SEIR models. Supervisors: Professor Andrea Bertozzi, Professor Paul Brantingham, Professor David Hyde, Professor Chuntian Wang, Yotam Yaniv	<i>Jun 2021 - Aug 2021</i>
	Lab Research Assistant at UCLA Psychology Department Topic: On object recognition and motion perception. Supervisors: Professor Zili Liu, Mac Xing	<i>Mar 2022 - Jun 2023</i>
TEACHING	At UCLA <ul style="list-style-type: none">◇ Course Grader<ul style="list-style-type: none">115AH Honors Linear Algebra <i>Fall 2020 - Winter 2022</i>115A Linear Algebra <i>Summer 2021, 2022</i>105ABC Mathematics for Teaching <i>Fall 2021 - Spring 2022</i>◇ Assistant Instructor at UCLA Math Circle <i>Sept 2021 - Jun 2023</i>	

*Last updated June 18, 2023.

[†]Corresponding Author

READING & SEMINAR	At UCLA	
	Algebra Seminar	
	◊ ∞ -Category Theory	<i>Spring 2023</i>
	Faculty: Professor Paul Balmer	
	Text: Riehl & Verity, <i>Elements of ∞-Category Theory</i>	
	◊ Reductive Algebraic Groups	<i>Winter 2023</i>
	Faculty: Professor Alexander Merkurjev	
	Text: Knus et al., <i>The Book of Involutions</i>	
	Directed Reading Program with Ben Spitz	
	◊ Algebraic Topology	<i>Fall 2022</i>
	◊ Algebraic Number Theory	<i>Spring 2022</i>
	◊ Enriched Category Theory	<i>Winter 2022</i>
	Research Seminar on Category Theory	<i>Spring 2021</i>
	The HOTTest Summer School	<i>Summer 2022</i>
GRADUATE-LEVEL COURSEWORK	At UCLA	
	205A Algebraic Number Theory	
	210ABC Algebra	
	212A Homological Algebra	
	212B Tensor Triangulated Geometry	
	214AB Algebraic Geometry	
	215A Commutative Algebra	
	225A Differential Topology	
	225C Algebraic Topology	
	229A Lie Groups and Lie Algebra	
VOLUNTEERING	Organization for Transformative Works (OTW)	<i>Oct 2018 - Present</i>
SKILL	Programming Languages R, Python, Java, C++.	
	Other Mathematical Tools MATLAB, Lean, Agda.	
	General Tools WordPress, L ^A T _E X.	
	Language Chinese (native), English (fluent)	