

Jiantong Liu*

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| CONTACT INFORMATION | ◇ Phone: (424)440-9698 ◇ Email: jl106@illinois.edu ◇ Website: jiantongliu.github.io | 273 Altgeld Hall Department of Mathematics University of Illinois Urbana-Champaign Urbana, IL 61801 |
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| RESEARCH INTEREST | Algebraic Geometry, Algebraic K-theory, Category Theory, Homotopy Theory. |
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| EDUCATION | University of Illinois Urbana-Champaign (UIUC) Ph.D., Mathematics | <i>Aug 2023 - Present</i> |
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| | 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> |
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| 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.) ArXiv:2211.00687. To appear in <i>Journal of Knot Theory and Its Ramifications</i> . |
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| TALKS | External ◇ <i>Bounds in Simple Hexagonal Lattice and Classification of 11-stick Knots</i> . AMS Special Session at Joint Mathematics Meeting, January 2023, Boston, Massachusetts. |
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| | Internal ◇ <i>Quillen and Suslin's K-theory. (5 parts)</i> UIUC Algebraic K-theory Reading Seminar, October - December 2023. Topics: (1) Brauer lift, (2) Quillen's detection theorem, (3) Quillen's dévissage theorem and localization theorem, (4) Suslin's rigidity theorem and K-theory over algebraically closed fields. ◇ <i>Triangulated Category's Christmas Wish List</i> . UIUC Graduate Algebraic Geometry and Commutative Algebra Seminar, September 2023. |
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| AWARDS | UCLA Latin Honors, Magna cum laude | <i>Jun 2023</i> |
| | UCLA Highest Departmental Honors in Mathematics | <i>Jun 2023</i> |

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| RESEARCH EXPERIENCE | 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> |
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| | 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> |
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| | Lab Research Assistant at UCLA Psychology Department Topic: On object recognition and motion perception. Supervisors: Professor Zili Liu, Yang Xing, Maggie Yeh | <i>Mar 2022 - Mar 2023</i> |
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*Last updated December 22, 2023.

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| TEACHING | At UIUC | |
| | ◇ Course Grader | <i>Aug 2023 - Present</i> |
| | 241 Calculus III | |
| | At UCLA | |
| | ◇ Course Grader | <i>Sept 2020 - Sept 2022</i> |
| | 115AH Honors Linear Algebra | |
| | 115A Linear Algebra | |
| | 105ABC Mathematics for Teaching | |
| | ◇ Assistant Instructor at UCLA Math Circle | <i>Sept 2021 - Jun 2023</i> |
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| SERVICES | UIUC Graduate Affairs Committee | <i>Aug 2023 - May 2024</i> |
| | Organization for Transformative Works (OTW) | <i>Oct 2018 - Present</i> |
| SKILLS | 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) | |