

MOXUAN (JASPER) LIU

University of California, San Diego
Department of Mathematics
HSS 4070

mol008@ucsd.edu

ACADEMIC INTERESTS

My research interests are in algebraic combinatorics, and I am currently studying notions of locality and degree of statistics on the symmetric group, and in so doing uncovered an algebraic notion of ‘longest increasing subsequences’ in colored permutations.

EDUCATION

University of California, San Diego

- Ph.D. in Mathematics (expected graduation: 2027).
- Advisor: Brendon Rhoades.

Brown University

- B.S. in Mathematics, *magna cum laude* (2022).
- Senior thesis: *Cryptograph based on finite field isomorphisms*.

PUBLICATIONS AND PREPRINTS

1. **Viennot shadows and increasing subsequences in colored permutation groups.** (Submitted).

TALKS

3. CombinaTexas. Texas A&M University. College Station, TX, USA. March 2024.
2. Graduate Student Combinatorics Conference. Carnegie Mellon University. Pittsburgh, PA, USA. March 2024.
1. Directed Reading Program presentation. Brown University. Providence, RI, USA. December 2018.

TEACHING EXPERIENCE

University of California, San Diego

- Teaching Assistant, Math 184 Enumerative Combinatorics (WI2024).
- Teaching Assistant, Math 10C Calculus III (FA2023).
- Teaching Assistant, Math 202A Applied Algebra (FA2023)
- Teaching Assistant, Math 109 Mathematical Reasoning (SU2023)
- Teaching Assistant, Math 154 Discrete Math and Graph Theory (SP2023 and FA2022).
- Teaching Assistant, Math 10A Calculus I (WI2023).

¹Updated April 8, 2024

Brown University

- Teaching Assistant, Math 180 Calculus III (FA2018)
- Teaching Assistant, Math 1230 Graph Theory (SP2019 and SP2020)
- Teaching Assistant, Math 1530 Abstract Algebra (FA 2019 and FA 2020)