

Maya Sankar

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Education

Stanford University Ph.D. Candidate, Department of Mathematics Research interests: extremal graph theory, topological combinatorics Advised by Jacob Fox	2020–2025
Massachusetts Institute of Technology B.S. in Mathematics and Computer Science, Minor in Music	2016–2020

Fellowships

Hertz Foundation Fellowship	2020–present
NSF Graduate Fellowship	2020–present
Stanford EDGE Doctoral Fellowship	2020–present

Papers

- M. Sankar, The Turán density of 4-uniform tight cycles, preprint 2024. [arXiv:2411.01782](#)
- M. Krebs and M. Sankar, Abelian groups with 3-chromatic Cayley graphs, preprint 2024. [arXiv:2410.11028](#)
- M. Sankar, An improved Turán exponent for 2-complexes, preprint 2024. [arXiv:2408.09029](#)
- J. Gao, S. Jiang, H. Liu, and M. Sankar, Generalized Ramsey–Turán problems for cliques, preprint 2024. [arXiv:2403.12919](#)
- J. Fox, M. Sankar, M. Simkin, J. Tidor, and Y. Zhou, Ramsey and Turán numbers for sparse hypergraphs, preprint 2023. [arXiv:2401.00359](#)
- M. Sankar, The Turán number of surfaces, *Bulletin of the London Math Society*, to appear. [arXiv:2210.11041](#)
- M. Sankar, Homotopy and the homomorphism threshold of odd cycles, preprint 2022. [arXiv:2206.07525](#)
- M. Sankar, Further bijections to pattern-avoiding valid hook configurations, *Advances in Applied Mathematics* **125** (2021).

Selected Talks

Special Session on Topological and Geometric Combinatorics, AMS Fall Sectional Meeting	Oct 2024
Combinatorics Seminar, California Institute of Technology	Oct 2024
Discrete Mathematics Seminar, Princeton University	Sep 2024
Workshop on Synergies of Combinatorics and Theoretical Computer Science, EPFL	Aug 2024

Minisymposium on Recent Advances in Probabilistic and Extremal Combinatorics, SIAM Conference on Discrete Mathematics 2024	Jul 2024
Special Session on Extremal Combinatorics and Connections, AMS Spring Sectional Meeting	May 2024
9th Lake Michigan Workshop on Combinatorics and Graph Theory	Apr 2024
Graduate Student Combinatorics Conference	Mar 2024
Special Session on Bridging Applied and Quantitative Topology, Joint Mathematics Meetings	Jan 2024
European Conference on Combinatorics, Graph Theory, and Applications	Aug 2023
Random Structures and Algorithms	Jun 2023
IAS Program for Women and Mathematics Evening Research Talks	May 2023
Special Session on Topological and Geometric Methods in Combinatorics, AMS Spring Sectional Meeting	Apr 2023
MIT Combinatorics Seminar	Apr 2023
Discrete Math Seminar, Institute for Basic Science, Korea	Feb 2023
Virtual Discrete Math Colloquium, Institute for Basic Science, Korea	Dec 2022
Special Session on Extremal Graph Theory, AMS Fall Sectional Meeting	Oct 2022
SIAM Conference on Discrete Mathematics 2022	Jun 2022
Stanford Combinatorics Seminar	Apr 2022

Teaching and Outreach

Teaching Assistant, Stanford Math Department Math 61DM — Modern Mathematics: Discrete Methods	Fall 2022
Research Advisor, University of Minnesota Duluth REU	Summers 2023, 2024
Directed Reading Program Mentor, Stanford Math Department	2020, 2021, 2023, 2024
Stanford Women in Math Mentoring Program Mentor	2020–present
Board Member	2021–present
Teaching Assistant, Euler Circle	Summer 2021
PRIMES Circle Mentor, MIT Math Department	2018, 2019

Undergraduate Research Experience

Combinatorics REU at University of Minnesota, Duluth	Summer 2019
MIT Undergraduate Research Opportunities Program	Fall 2016, Spring 2019