ANQI LI

https://aqlithium.github.io/anqili/

EDUCATION

Allen School, University of Washington — Seattle, Washington
Ph.D. in Computer Science and Engineering — *May 2030 (expected)*

Stanford University — Stanford, California
M.S. in Mathematics GPA : 4.0/4.0 — *September 2026 (expected)*

University of Cambridge — Cambridge, UK
MASt in Mathematics Merit — *October 2024*

Massachusetts Institute of Technology — Cambridge, Massachusetts
B.Sc. in Mathematics GPA: 5.0/5.0 — *May 2023*

PAPERS

Authors listed in alphabetical order.

12. Ainesh Bakshi, Arpon Basu, Pravesh Kothari, **Anqi Li**. Sharp Bounds on the Eigenvalues of Kikuchi Graphs and Applications to Quantum Max Cut. *Submitted.* Preprint available at arXiv:2605.14994.

11. Csongor Beke, **Anqi Li**, Julian Sahasrabudhe. The multicolour size Ramsey number of a path. *Submitted.* Preprint available at arXiv:2511.16656.

10. Nima Anari, Carlo Baronio, CJ Chen, Alireza Haqi, Frederic Koehler, **Anqi Li**, Thuy-Duong Vuong. Parallel Sampling via Autospeculation. In Proceedings of the 58th Annual ACM Symposium on Theory of Computing (STOC), pp. 1168–1179. Association for Computing Machinery, 2026.

9. Ting-Wei Chao, Asaf Cohen Antonir, **Anqi Li**, Hung-Hsun Hans Yu. Edge inducibility via local directed graphs. *Submitted.* Preprint available at arXiv:2509.24064.

8. Lili Ködmön, **Anqi Li**, Ji Zeng. Unbalanced Zarankiewicz problem for bipartite subdivisions with applications to incidence geometry. *Submitted.* Preprint available at arXiv:2412.10204.

7. Henry Cohn, **Anqi Li**. Improved kissing numbers in seventeen through twenty-two dimensions. *Submitted.* Preprint available at arXiv:2411.04916. Featured on Quanta.

6. Dingding Dong, **Anqi Li**, Yufei Zhao. Uncommon linear systems of two equations. *Submitted.* Preprint available at arXiv:2404.17005.

5. Samuel B. Hopkins, **Anqi Li**. Adversarially-robust inference on trees via belief propagation. In The Thirty Seventh Annual Conference on Learning Theory (COLT), pp. 2389-2417. PMLR, 2024.

4. **Anqi Li**, Lisa Sauermann. Sárközy's theorem in various finite field settings. SIAM Journal on Discrete Mathematics 38, no. 2 (2024): 1409-1416.

3. Dain Kim, **Anqi Li**, Jonathan Tidor. Cubic Goldreich-Levin. In Proceedings of the 2023 Annual ACM-SIAM Symposium on Discrete Algorithms (SODA), pp. 4846-4892. Society for Industrial and Applied Mathematics, 2023.

2. **Anqi Li**. Progress on local properties problems of difference sets. European Journal of Combinatorics 108 (2023): 103618.

1. **Anqi Li**. Dynamics of pop-tsack torsing. Advances in Applied Mathematics 164 (2025): 102826.

SELECTED HONORS AND FUNDING

Paul G. Allen Diamond Fellowship	2026 - 2027
Jane Street Graduate Research Fellowship: Finalist	2024
Stanford EDGE Doctoral Fellowship Program	2024 - 2026
Trinity Studentship in Mathematics (Trinity College, Cambridge)	2023 - 2024
MIT Jon A. Bucsela Prize in Mathematics	2023
Alice T. Schafer Mathematics Prize: Runner Up	2022
Mariana Polonsky Slocum (1955) Memorial Fund	Spring 2022
Carl Pullen Dennett Memorial Scholarship	2021 - 2022
MIT Hartley Rogers Jr. Prize	2021
Fund for the Future of Science (MIT School of Science)	Summer 2020

INTERNSHIPS AND INVITED TALKS

Internships

Research intern at Microsoft Research: New England, mentored by Henry Cohn	Summer 2023

Invited Talks

The multicolor size Ramsey number of a path, SIAM Conference on Discrete Mathematics (DM)	June 2026
The multicolor size Ramsey number of a path, Atlanta Discrete Analysis Seminar	February 2026
Adversarially-Robust Inference on Trees via Belief Propagation, Conference on Learning Theory (COLT)	June 2024
Sárközy's Theorem in Various Settings, Stanford Combinatorics Seminar	March 2023
Cubic Goldreich-Levin, ACM-SIAM Symposium on Discrete Algorithms (SODA)	January 2023
Local Properties of Difference Sets, New York Number Theory Seminar (CANT)	June 2021

SERVICE

Referee

European Journal of Combinatorics, SIAM Journal on Discrete Mathematics and Designs, Codes and Cryptography.

MIT Mathematics Department

18.218 (Graduate): Ramsey theory. *Grader*	Spring 2023
18.226 (Graduate): Probabilistic Methods in Combinatorics. *Grader*	Fall 2022
18.408 (Graduate): Probabilistically Checkable Proofs. *Grader*	Fall 2022
Tutor at the MIT Math Learning Center	Spring 2022
18.225 (Graduate): Graph Theory and Additive Combinatorics. *Grader*	Fall 2021
18.702: Algebra II. *Undergraduate Assistant*	Spring 2021

MIT Computer Science Department

18.404: Introduction to Theory of Computation. *Grader*	Fall 2021

Stanford Women in Math Mentoring (SWIMM)

Board member and mentor.	Autumn 2025, 2024

Raffles Girls' School (Secondary)

Curriculum planner and tutor for mathematics enrichment courses.	2019