

BYRON CHIN

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MIT Department of Mathematics
77 Massachusetts Ave, Room 2-231A
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EDUCATION

- Massachusetts Institute of Technology** *2021-Present*
Ph.D. Mathematics, Advised by Elchanan Mossel
- Princeton University** *2017-2021*
A.B. Mathematics, with high honors
GPA: 3.92 (4.0 Departmental)

RESEARCH INTERESTS

Discrete Probability, Combinatorics

AWARDS

- NSF Graduate Research Fellowship *2021-2026*
- MIT Akamai Presidential Fellowship *2021*
- Best Independent Work – Princeton Statistics and Machine Learning Certificate *2021*
- Shapiro Prize for Academic Excellence *2019*

PAPERS

6. Matching algorithms in sparse stochastic block models.
with Anna Brandenberger, Nathan Sheffield, Divya Shyamal.
Analysis of Algorithms (AofA 2024). [arXiv:2403.02140](https://arxiv.org/abs/2403.02140)
5. Structure of lower tails in sparse random graphs.
submitted. [arXiv:2312.12673](https://arxiv.org/abs/2312.12673)
4. The power of an adversary in Glauber dynamics.
with Ankur Moitra, Elchanan Mossel, Colin Sandon.
Conference on Learning Theory (COLT 2024). [arXiv:2302.10841](https://arxiv.org/abs/2302.10841)
3. When will (game) wars end?
with Manan Bhatia, Nitya Mani, Elchanan Mossel.
submitted. [arXiv:2302.03535](https://arxiv.org/abs/2302.03535)
2. Optimal reconstruction of general sparse stochastic block models.
with Allan Sly.
submitted. **Princeton SML Best Independent Work**. [arXiv:2111.00697](https://arxiv.org/abs/2111.00697)
1. Optimal recovery of block models with q communities.
with Allan Sly.
[arXiv:2010.10672](https://arxiv.org/abs/2010.10672)

TALKS

- MIT Probability Seminar *May 2024*

MENTORING/ORGANIZATION

- Co-organizer of MIT SPAMS graduate student seminar *2024*

- MIT Summer Program in Undergraduate Research mentor 2023
- Princeton University Math Competition officer 2019
- Co-founder of West Windsor Math Advancement Center 2016

PRIOR RESEARCH EXPERIENCES

- Princeton Junior Paper, Summer Research, Senior Thesis – Advised by Allan Sly 2020-2021
- Beijing Institute of Big Data Research, Research Intern – Advised by Weinan E 2019
- Princeton Junior Seminar Talk 2019
- PROMYS Research Project 2015, 2016

OTHER ACCOMPLISHMENTS

- Inducted to Phi Beta Kappa, Sigma Xi 2021
- Top 150 in Putnam Competition 2018
- Top 10 in Virginia Tech Regional Math Contest 2018
- Qualifier of United States Mathematical Olympiad (USAMO) 2016, 2017
- Participant of PROMYS 2015, 2016