

RESEARCH INTERESTS

Random matrix theory, high-dimensional probability, AI for mathematics, theoretical computer science, and mathematical foundations of data science.

PUBLICATIONS AND PREPRINTS

- On the Subgaussianity of Quantized Linear Maps: An AI-Assisted Note

2026
- Guangyi Zou and Roman Vershynin; *arXiv:2605.27563*; 3rd AI for Math Workshop at ICML 2026
- Edge Universality for Inhomogeneous Random Matrices II: Markov Chain Comparison and Critical Statistics

2026
- Dang-Zheng Liu and Guangyi Zou; *arXiv:2604.20215*; preprint
- Edge Universality for Inhomogeneous Random Matrices

2025
- Dang-Zheng Liu and Guangyi Zou; *arXiv:2508.17838*; submitted
- Revisit the Partial Coloring Method: Prefix Spencer and Sampling

2025
- Dongrun Cai, Xue Chen, Wenxuan Shu, Haoyu Wang, and Guangyi Zou; *arXiv:2408.13756*; COCOON 2025
- Outliers for Deformed Inhomogeneous Random Matrices

2024
- Ruohan Geng, Dang-Zheng Liu, and Guangyi Zou; *arXiv:2407.12182*; submitted
- Edge Statistics for Random Band Matrices

2024
- Dang-Zheng Liu and Guangyi Zou; *arXiv:2401.00492*; submitted

EDUCATION

Ph.D.	University of California, Irvine	Advisor: Prof. Roman Vershynin	Sep 2025 – Present
M.Sc.	University of Science and Technology of China	Advisor: Prof. Dang-Zheng Liu	Sep 2022 – Jun 2024
B.Sc.	University of Science and Technology of China		Sep 2018 – Jun 2022

RESEARCH EXPERIENCE

- Research Assistant, University of Science and Technology of China

Mar 2025 – Jul 2025
- Supervisor: Prof. Dang-Zheng Liu
- Research Assistant, Tsinghua University

Sep 2024 – Jan 2025
- Supervisor: Prof. Fan Yang
- Academic Visitor, Peking University

Jan 2022 – May 2022
- Host: Prof. Xinyi Li

AWARDS

Euler Outstanding Promise Award	2026
Anhui Province Outstanding Graduate (top 4%)	2024
Graduate Scholarship (2×10,000 RMB)	2022, 2023
One Silver Prize and Three Bronze Prizes, S.-T. Yau College Student Mathematics Contest	2020, 2021
Yang Yuanqing Education Foundation Scholarship (top 1%)	2020

LEADERSHIP AND TEACHING

- Teaching Assistant, Probability Theory

Fall 2021; Spring 2022, 2023, 2024
- University of Science and Technology of China
- President, Student Algorithm Club

Jun 2020 – Jun 2021
- University of Science and Technology of China

TECHNICAL SKILLS

Programming: Python, C++ Typesetting: L^AT_EX