

ZHIHAN JIN

pascalprimer@gmail.com

RESEARCH INTEREST

My research interest lies broadly in Discrete Mathematics, including Ramsey theory, algebraic and probabilistic Methods in Combinatorics, and the applications in Theoretical Computer Science.

EDUCATION

ETH Zürich

October 2022 -

- PhD in Mathematics
- Supervised by *Prof. Benny Sudakov*

ETH Zürich

September 2020 - August 2022

- Master of Computer Science
- GPA: **5.89/6**

Shanghai Jiao Tong University

September 2016 - June 2020

- Bachelor of Engineering in Computer Science and Technology, **ACM Honors Class**, Zhiyuan College
- **ACM Honors Class** is an elite CS program for **top 5%** talented students in SJTU¹.
- Advisor: **Yong Yu**
- GPA: **91.31/100 (3.93/4.3)** Rank: **3rd/37**.

SUBMITTED PAPERS

Zhihan Jin, Matthew Kwan, Lyuben Lichev, Colouring random Hasse diagrams and box-Delaunay graphs.

Noga Alon, Zhihan Jin and Benny Sudakov, The Helly number of Hamming balls and related problems.

Lior Gishboliner, Zhihan Jin and Benny Sudakov, Difference-Isomorphic Graph Families.

PUBLICATIONS

Michael Anastos, Zhihan Jin, Matthew Kwan and Benny Sudakov, Extremal, enumerative and probabilistic results on ordered hypergraph matchings, *Forum of Mathematics*, Sigma 13 (2025), e55.

Recep Altar Çiçeksiz, Zhihan Jin, Eero Rätty and István Tomon, Exponential Erdős-Szekeres theorem for matrices, *Proc. London Math. Soc.*, (2024), Vol. 129, (3): e12632.

Lior Gishboliner, Zhihan Jin and Benny Sudakov, Ramsey problems for monotone paths in graphs and hypergraphs, *Combinatorica*, (2024): 1-21.

Lior Gishboliner, Zhihan Jin and Benny Sudakov, The Minimum Degree Removal Lemma Thresholds, *J. Combinatorial Theory Ser. B*, 166 (2024), 203-221.

Zhihan Jin and István Tomon, Semi-algebraic and semi-linear Ramsey numbers, *J. of Combinatorial Theory Ser. B*, 163 (2023), 54-82.

Zhengfeng Ji, Zhihan Jin and Pinyan Lu, Approximating Permanent of a Random Matrix: Made Better and Simpler, *SODA* 2020.

Surbhi Goel, Aravind Gollakota, Zhihan Jin, Sushrut Karmalkar and Adam Klivans, Superpolynomial Lower Bounds for Learning One-Layer Neural Networks using Gradient Descent, *ICML* 2020.

¹Shanghai Jiao Tong University

HONORS AND AWARDS

Honors

- **Merit Student, top 3%** all-round students over 17,000 in SJTU. 2018

Scholarships

- **CSC-IBM Excellent Student Scholarship, 40** over all students in China; 2019

- **The Kaiyuanlizhi Scholarship, 0.2%** over 17,000 students in SJTU; 2018

- **Zhiyuan College Honored Scholarship, 5%** over 17,000 students in SJTU; 2016, 2017, 2018

- **National Scholarship, the highest honor** for the **top 0.2%** undergraduates in **China**; 2017

- **The Hanyingjuhua Scholarship, 0.2%** over 17,000 students in SJTU; 2017

- **Changzhou Mettler Toledo Scholarship, 12** students in Changzhou, Jiangsu. 2016

Competitive Programming Contests

- **2nd** in The 2017 ACM-ICPC² Asia Hong Kong Regional Contest; 2017

- **Gold Medal** in The 2017 ACM-ICPC Asia East Continent League Final, Shenyang Regional; 2017

- **Gold Medal** in The 2017 CCPC³-Final, Qinghuangdao Regional; 2017

- **3rd** in The 2016 ACM-ICPC Asia Beijing Regional Contest; 2016

- **3rd** in The 2016 CCPC Hefei Regional Contest; 2016

- **Gold Medal** in The 2016 ACM-ICPC Asia China-Final Contest. 2016

TEACHING EXPERIENCE

Teaching Assistant of Graph Theory, ETH Zürich Spring 2025

Teaching Assistant of Probabilistic Methods of Combinatorics, ETH Zürich Autumn 2024

Teaching Assistant of Graph Theory, ETH Zürich Spring 2024

Teaching Assistant of Algebraic Methods of Combinatorics, ETH Zürich Autumn 2023

Teaching Assistant of Graph Theory, ETH Zürich Spring 2023

Teaching Assistant of Probabilistic Methods of Combinatorics, ETH Zürich Autumn 2022

Teaching Assistant of Mathematics for the Information Age, SJTU Summer 2019

Student Coach of SJTU ACM-ICPC Teams, SJTU Spring 2019

Student Coach of SJTU ACM-ICPC Teams, SJTU Autumn 2018

²Association for Computing Machinery-International Collegiate Programming Contest

³China Collegiate Programming Contest