

Hao Chen

School of Mathematical Sciences,
University of Science and Technology of China (USTC)
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Personal Data

Date of Birth: 3 Mar, 1997
Place of Birth: Jiangsu Province, China
Gender: Male
Nationality: China
Language: Chinese and English

Research interests

Extremal Combinatorics, Graph theory and Graph Limits

Education

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|-------------|---|
| 2024 - 2025 | Visiting Ph. D. Student in Mathematics
Department of Mathematics and Statistics, University of Victoria,
Supervisor: Prof. Jonathan A. Noel |
| 2019 - | Ph. D. Candidate in Applied Mathematics
School of Mathematical Sciences, University of Science and Technology of China,
Supervisor: Prof. Jie Ma |
| 2015 - 2019 | B. Sc in Mathematics and Applied Mathematics
School of Mathematical Sciences, Soochow University,
Supervisor: Prof. Lijun Ji |

Research Papers

- A property on monochromatic copies of graphs containing a triangle (with Jie Ma). *SIAM J. Discrete Math.* **38(1)** 2024, 316–326.
- Undecidability of polynomial inequalities in tournaments (with Yupeng Lin, Jie Ma and Fan Wei). *Int. Math. Res. Not.* **2025(11)** 2025, rnaf131.
- Kohayakawa-Nagle-Rödl-Schacht conjecture for subdivisions (with Yupeng Lin and Jie Ma). Submitted.
- Maximizing alternating paths via entropy (with Felix Christian Clemen and Jonathan A. Noel). Submitted.
- On alternating 6-cycles in edge-coloured graphs (with Jonathan A. Noel). Submitted.

Teaching Experience

- Extremal Combinatorics. University of Science and Technology of China, Teaching Assistant, Spring 2023.
- Extremal Problems in Graphs and Hypergraphs. Tianyuan Mathematical Center in Southwest China, Teaching Assistant, July 2024.

Talks

- USTC Workshop on Combinatorics 2023. Hefei, China. August 2023.
- The 11th Chinese Combinatorics and Graph Theory Conference. Qingdao, China. September 2024.
- Discrete Math Seminar at UVic. Victoria, Canada. November 2024.
- Canadian Discrete and Algorithmic Mathematics Conference 2025 (CanaDAM 2025). Ottawa, Canada. May 2025.