Mingyuan Rong

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Current Position

2026–present **Postdoctoral Researcher**, *Senior Researcher, Institute for Basic Science (IBS)*, Daejeon, Republic of Korea.
Extremal Combinatorics and Probability Group; working with Prof. Hong Liu

Education

2021–2026 **Ph.D. in Mathematics**, *University of Science and Technology of China (USTC)*, Hefei, Anhui, China.
Advisor: Prof. Jie Ma

2025–2026 **Visiting Student Researcher**, *University of Warwick*, Coventry, UK.
Host and Research Mentor: Prof. Oleg Pikhurko

2017–2021 **B.Sc. in Mathematics**, *University of Science and Technology of China (USTC)*, Hefei, Anhui, China.

Research Interests

Extremal Set Theory, Extremal Graph Theory

Awards and Honors

2025–2026 **Excellent Ph.D. Students Overseas Study Fellowship, USTC**, *A university-wide, fully funded fellowship for a one-year research visit. Awarded as one of 20 First-tier recipients*.

Publications

Journal Articles

- Jie Ma and **Mingyuan Rong**. The codegree Turán density of tight cycles. *Journal of the London Mathematical Society*, to appear, 2025.
- Mingze Li, Jie Ma, and **Mingyuan Rong**. Exact results on traces of sets. *Combinatorica*, 46, Article 18, 2026.
- Xinbu Cheng, Xinqi Huang, **Mingyuan Rong**, and Zixiang Xu. Sublinear hitting sets for some geometric graphs. *Frontiers in Combinatorics and Number Theory*, 2:23–42, 2026.
- Guorong Gao, Jie Ma, **Mingyuan Rong**, and Tuan Tran. Variants of VC dimension and their applications to dynamics. *Pure and Applied Mathematics Quarterly*, 21(6):2425–2449, 2025.

Preprints

- Levente Bodnár, Jun Gao, Oleg Pikhurko, **Mingyuan Rong**, and Shumin Sun. Strong non-principality of positive codegree Turán density. arXiv:2606.20494 [math.CO], 2026.
- Jun Gao, Oleg Pikhurko, **Mingyuan Rong**, and Shumin Sun. Rational codegree Turán density of hypergraphs. arXiv:2601.00758 [math.CO], 2026.
- Wenchong Chen, **Mingyuan Rong**, and Zixiang Xu. Optimal stability results on color-biased Hamilton cycles. arXiv:2507.17739 [math.CO], 2025.
- Xinqi Huang, Yuzhen Qi, **Mingyuan Rong**, and Zixiang Xu. Largest dyadic dual VC-dimension of non-piercing families. arXiv:2506.13606 [math.CO], 2025.
- Xinqi Huang, Hong Liu, **Mingyuan Rong**, and Zixiang Xu. Interpolating chromatic and homomorphism thresholds. arXiv:2502.09576 [math.CO], 2025.

Survey Papers

- Mingze Li, Jie Ma, and **Mingyuan Rong**. Recent advances in arrow relations and traces of sets. *Sum(m)it280*, 327–354, 2026.