# **Heng Ma**

Born: Sep 14, 1998. Gender: Male. Citizenship: China

≥ 219 21-th building, Peking University, 5 Yiheyuan Rd, Beijing, 100871, China

hengmamath.github.io hengmamath@gmail.com maheng@stu.pku.edu.cn

### **EDUCATION**

Ph.D. in Probability Theory, Peking University

Sep 2020 – Jul 2025 (Expected)

Adviser: Prof. Ran-Xia Ren

Visiting Student, The University of North Carolina at Chapel Hill

Sep 2024 – Mar 2025

• Hoster: Prof. Shankar Bhamidi.

B.S. in Mathematics, Shandong University

Sep 2016 – Jun 2020

## RESEARCH INTERESTS

Probabilistic models incorporating tree and graph structures: random trees, random graphs and networks, branching random walks, log-correlated fields, ...

#### **PUBLICATIONS**

- [6] Xinxin Chen and Heng Ma, "Branching brownian motion conditioned on large level sets", preprint, 2024, arXiv:2409.16104
- [5] Shuwen Lai, Heng Ma and Longmin Wang, "Multifractal spectrum of branching random walks on free groups", preprint, 2024, arXiv:2409.01346
- [4] Xinxin Chen, Loïc de Raphélis and Heng Ma, "Branching random walk conditioned on large martingale limit", preprint, 2024, arXiv:2408.05538
- [3] Heng Ma and Yan-Xia Ren, "From 0 to 3: Intermediate phases between normal and anomalous spreading of two-type branching Brownian motion", preprint, 2023, arXiv:2312.13595
- [2] Heng Ma and Yan-Xia Ren, "Double jump in the maximum of two-type reducible branching Brownian motion", preprint, 2023, arXiv:2305.09988
- [1] Jian Ding, Yiyang Jiang and Heng Ma, "Shotgun Threshold for Sparse Erdős–Rényi Graphs", IEEE Transactions on Information Theory, vol.69, no.11, pp.7373-7391, 2023.

### TALKS

Probability Seminar, Beijing Institute of Technology

Jun 2024

Probability Seminar, Southern University of Science and Technology

May 2024

• The 9th Workshop on Branching Processes and Related Topics,

Sep 2023

• The 24th Beijing-Tianjin-Hebei Youth Workshop on Probability and Statistics

• The 8th Workshop on Branching Processes and Related Topics

Jun 2023

Probability Seminar, Peking University

Feb 2023 Oct 2022

Yanqi Lake BIMSA Probability Workshop

Aug 2022

# AWARDS & SCHOLARSHIPS

- President's Scholarship, Peking University, 2024
- Mathematics Department Scholarships, Peking University, 2021 and 2023
- Qian Minping Scholarship Second Prize, Peking University, 2022.
- National Scholarship, Ministry of Education of China, 2018

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