

# Heng Ma

👤 Born: Sep 14, 1998. Gender: Male. Citizenship: China  
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EDUCATION	Ph.D. in Probability Theory, Peking University	Sep 2020 – Jul 2025 (Expected)
	▪ Advised by Yan-Xia Ren	
	Visiting Student, The University of North Carolina at Chapel Hill	Sep 2024 – Feb 2025
	▪ Hosted by Shankar Bhamidi	
	B.S. in Mathematics, Shandong University	Sep 2016 – Jun 2020
RESEARCH INTERESTS	Probabilistic models incorporating tree and graph structures: branching random walks, Gaussian free field and log-correlated fields, random trees, random graphs and networks, ...	
PUBLICATIONS	<ul style="list-style-type: none"><li>[7] Heng Ma and Pascal Maillard, “Exponential moments of truncated branching random walk martingales”, preprint, 2025, arXiv:2504.20963</li><li>[6] Xinxin Chen and Heng Ma, “Branching brownian motion conditioned on large level sets”, preprint, 2024, arXiv:2409.16104</li><li>[5] Shuwen Lai, Heng Ma and Longmin Wang, “Multifractal spectrum of branching random walks on free groups”, preprint, 2024, arXiv:2409.01346</li><li>[4] Xinxin Chen, Loïc de Raphélis and Heng Ma, “Branching random walk conditioned on large martingale limit”, preprint, 2024, arXiv:2408.05538</li><li>[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</li><li>[2] Heng Ma and Yan-Xia Ren, “Double jump in the maximum of two-type reducible branching Brownian motion”, Accepted in Annales de l’Institut Henri Poincaré - Probabilités et Statistiques, Nov 2024, arXiv:2305.09988</li><li>[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.</li></ul>	
TALKS	<ul style="list-style-type: none"><li>▪ Probability Seminar, Beijing Institute of Technology</li><li>▪ Probability Seminar, Southern University of Science and Technology</li><li>▪ The 8th and 9th Workshops on Branching Processes and Related Topics,</li><li>▪ The 24th Beijing-Tianjin-Hebei Youth Workshop on Probability and Statistics</li><li>▪ Probability Seminar, Peking University</li><li>▪ Yanqi Lake BIMSA Probability Workshop</li></ul>	<ul style="list-style-type: none"><li>Apr 2025, Jun 2024</li><li>May 2024</li><li>Aug 2022 Sep 2023</li><li>Jun 2023</li><li>Feb 2023</li><li>Oct 2022</li></ul>
AWARDS & SCHOLARSHIPS	<ul style="list-style-type: none"><li>▪ President’s Scholarship, Peking University, 2024</li><li>▪ Mathematics Department Scholarships, Peking University, 2021 and 2023</li><li>▪ Qian Minping Scholarship – Second Prize, Peking University, 2022.</li></ul>	

[Last updated: 2025-05-16]