

Zhizhou Liu

Curriculum Vitae

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Personal Details

Date of Birth September 5, 2001
Citizenship Chinese

Education

- 2019 – 2023 **BSc in Mathematics**, *Department of Mathematics*, Southern University of Science and Technology (SUSTech), Shenzhen, China.
Thesis Title: Analysis on Ergodicity of Monotone SODEs,
Advisor: Prof. Zhihui Liu
- 2023 – 2024 **MSc in Statistics**, *Department of Statistics and Actuarial Science*, The University of Hong Kong (HKU), Hong Kong SAR.
- 2024 – **PhD in Mathematics**, *Department of Mathematics*, The Hong Kong University of Science and Technology (HKUST), Hong Kong SAR.
Advisor: Prof. Maximilian Nitzschner

Publications and Preprints

- [1] Numerical Unique Ergodicity of Monotone SDEs driven by Nondegenerate Multiplicative Noise (with Zhihui Liu), *J. Sci. Comput.* **103**, 87 (2025). <https://doi.org/10.1007/s10915-025-02902-4>
- [2] Solidification Estimates for Random Walks on Supercritical Percolation Clusters (with Alberto Chiarini and Maximilian Nitzschner), preprint. To appear in *Potential Anal.* <https://arxiv.org/abs/2508.19929>

Teaching

- Spring, 2022 Tutorial and Teaching Assistance for SUSTech MA212 *Probability and Statistics*, with Prof. Zhihui Liu
- Spring, 2025 Tutorial and Teaching Assistance for HKUST MATH2431 *Honors Probability*, with Prof. Maximilian Nitzschner

- Fall, 2025 Tutorial and Teaching Assistance for HKUST MATH2421 *Probability*, with Prof. Maximilian Nitzschner
- Spring, 2026 Tutorial and Teaching Assistance for HKUST MATH2431 *Honors Probability*, with Prof. Maximilian Nitzschner

(Selected) Awards

- Oct. 2021 **The 13th Chinese Mathematics Competitions (CMC)**, *First Prize in Guangdong Province*, awarded by Chinese Mathematical Society.
- Nov. 2022 **Outstanding Student Scholarship**, *First Class*, offered by SUSTech.
- Jun. 2023 **Outstanding Undergraduate Thesis**, awarded by SUSTech.
- Nov. 2024 **Lifelong Learning Prize in Statistics**, awarded by HKU.
- 2024 – 2028 **Postgraduate Studentship (PGS)**, offered by HKUST.

Research Interest

Rare events in percolation models with long-range correlation, for instance the vacant set of random interlacements and the level-sets of the Gaussian free field.

Languages

Mandarin Native
Chinese
English Fluent