

Runzhe Yang

Education

- 10/2024 – **Master of Science in Stochastics and Mathematical Finance**, *Berlin Mathematical School*,
10/2026 *Berlin, German*,
(Expected) Advisor: *Prof. Dr. Peter K. Friz*.
- 2/2024 – **Visiting Internship Student for Research**, *Department of Mathematics, The Hong Kong*
6/2024 *University of Science and Technology, Hong Kong SAR*,
(Expected) Host: *Prof. Dr. Maximilian Nitzschner*.
- 9/2020 – **Bachelor of Science in Statistics**, *School of Mathematics and Statistics, Wuhan University*,
6/2024 *Wuhan, Hubei, China*,
(Expected) Overall GPA: 3.76/4.0 (89.6/100) (2020 Fall - 2024 Winter)
Thesis Title: *Moderate Deviation of Gaussian Fluctuations for Coulomb Gases at Any Temperature*,
Advisor: *Prof. Dr. Fuqing Gao*.

Research Interests

My primary research interests lie in the area involving Probability and Analysis:

1. Statistical Physics.

- Percolations
- Gaussian Free Fields and Interface Models
- Random Walks and Random Interlacements
- Schramm-Loewner Evolutions

2. Stochastic Analysis and its Applications.

- Mathematical Finance
- Stochastic Partial Differential Equations

Research Projects

- 5/2023 – **Lower Bound for Disconnection of Vacant Set in Loop Percolations**,
Present Advisor: *Prof. Dr. Maximilian Nitzschner*,
The principal aim of this project is to derive asymptotic lower on the probability that in a certain model of random walk loops on the integer lattice, a macroscopic set is disconnected from infinity by the trace of the loops.

Academic Experiences

- 7/2023 **Summer School Series on Probability and Related Fields: Masterclass in Random Geometry**, *funded by Beijing International Center For Mathematical Research (BICMR), Peking University, Beijing, China*.

Honors and Awards

- 12/2021 First Prize, Rank 16th, *the 13th China National Mathematics Competition for College Students*
5/2022 Finalist, Top 1%, *the 4th Alibaba Global Mathematics Competition*
7/2022 Winner's Prize, Rank 19th Nationwide, *the 13th S.-T. Yau College Student Mathematics Contest, Statistics and Probability track*
11/2022 First Class, Top 3%, *WHU Outstanding Mathematics Student Scholarship, 2021-2022 Academic Year*
3/2023 Third Prize, *Finals of the 13th China National Mathematics Competition for College Students*

1/2024 Laureate, *Scholarship for Research Internship Student at HKUST (15,000 HKD per Month), Spring Semester*

2/2024 Laureate, *Phase I Scholarship for Student at Berlin Mathematical School (1,000 Euros per Month), 2024 - 2026*

Standardized Test

TOEFL iBT: 92 (R:28, L:22, S:18, W:24)

Technical Proficiencies

Computer C/C++, R, \LaTeX

Language Mandarin/Cantonese (Native), English (Fluent), Germany (Beginner)