# Runzhe Yang

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☐ Homepage

#### Personal Details

Date of Birth December 31<sup>st</sup>, 2001

Citizenship Chinese

Gender Male

## Educations

10/2024 - Master of Science in Math (Stochastics & Finance), Berlin Mathematical School, Berlin,

10/2026 Berlin, German,

(Expected) Advisor: Prof. Dr. Peter Friz.

3/2024 - Visiting Internship Student for Research, Department of Mathematics, The Hong Kong

6/2024 University of Science and Technology, Hong Kong SAR,

Host: Prof. Dr. Maximilian Nitzschner.

9/2020 - Bachelor of Science in Math (Probability & Statistics), School of Mathematics and Statistics,

6/2024 Wuhan University, Wuhan, Hubei, China,

Thesis Title: Moderate Deviation of Gaussian Fluctuations for Coulomb Gases at Any Temperature,

Advisor: Prof. Dr. Fuqing Gao

Overall GPA:3.77/4.0 (89.8/100).

9/2017 - Abitur, Huizhou No.1 Middle School, Huizhou, Guangdong, China,

6/2020 Final Grade: Top 1% Provincewide.

#### Research Interests

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

- 1. Stochastic Analysis and its Applications.
- Mathematical Finance
- Rough Analysis
- Stochastic Partial Differential Equations
- 2. Statistical Physics.
- Percolations
- Gaussian Free Fields and Interface Models
- Random Walks and Random Interlacements
- Schramm-Loewner Evolutions

#### Research Projects

5/2023 - Lower Bound for Disconnection of Vacant Set in Loop Percolations,

6/2024 Adviosr: 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. We also investigate the large deviation for occupation time field of loop soup.

## 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 16<sup>th</sup>, the 13<sup>th</sup> China National Mathematics Competition for College Students, Wuhan
- 5/2022 Finalist, Top 1‰, the 4<sup>th</sup> Alibaba Global Mathematics Competition
- 7/2022 Winner's Prize, Rank 19<sup>th</sup> Nationwide, the 13<sup>th</sup> S.-T. Yau College Student Mathematics Contest, Statistics and Probability track (individual)
- 11/2022 First Class, Top 3%-, WHU Outstanding Mathematics Student Scholarship, Wuhan University, 2021-2022 Academic Year
- 3/2023 Third Prize, Finals of the 13<sup>th</sup> China National Mathematics Competition for College Students, Shanghai
- 1/2024 Laureate, Scholariship for Research Internship Student at HKUST (15,000 HKD/Month), Spring Semester
- $2/2024 \quad \text{Laureate, Phase I Scholarship for Student at Berlin Mathematical School (1,000~Euros/Month),} \\ 2024 2026$
- 5/2024 Merit Undergraduate, Top 20%-, Wuhan University
- 6/2024 Laureate, Top 3%-, Outstanding Bachelor's Degree Thesis Award, Wuhan University

# Technical Proficiencies

Computer C/C++, R, LATEX

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