Jinxin Wang (王金鑫)

University of Science and Technology of China Email: jinxinwang@mail.ustc.edu.cn Born in 2002

Education

B.S. in University of Science and Technology of China School of Mathematical Sciences **Major**:Probability **Overall GPA**: 3.33/4.30

M.S. in University of Science and Technology of China School of Mathematical Sciences Major:Probability Overall GPA: 3.75/4.30

09/2019 - 07/2023

09/2023-Present

Graduate-Level Courses

Graduate-Level Courses	Credits	Grade
Martingale Theory and Stochastic analysis	4	97
Advanced real analysis	4	85
Differential Manifold	4	89
Advanced Probability	4	84
Commutative Algebra	4	70
Modern Partial Differential Equation	4	82
Applied Stochastic process(Undergraduate-level)	4	93

Research Experiences

Uniqueness and existence of SDE with polynomial drift coefficient

Advisor: Jianliang Zhai, Associate Professor

 Defining the local solution and the solution space. Using Picard-iteration and lots of technical methods to prove the existence of the equation. Utilizing the special quality of the polynomial's first term to prove the explosive time is +∞, thereby the local solution is actually global.

Undergraduate Thesis: Stochastic wave equation

Advisor: Tusheng Zhang, Professor

 Introducing properties of white noise and Brownian sheet. Defining martingale measures and stochastic integral w.r.t worthy martingale measures. Using this knowledge to research the existence and uniqueness of weak solution of one-dimension stochastic wave equation.

11/2023-01/2024

12/2022-07/2023

Undergraduate Research Program: Branching Process

12/2021-12/2022

Advisor: Wen Sun, Professor

Using generating function and the ideas of Galton-Watson tree and size-biased trees to research the asymptotic long-time behaviors of GWP: Heyde-Seneta Theorem and Kesten-Stigum Theorem for super-critical case, Kolmogorov and Yaglom limits for sub-critical and critical cases.

Research Interests

- Stochastic Analysis
- Algebraic Geometry& Category

Awards & Honors

National Encouragement Scholarship (Top 10%)

Outstanding Undergraduate Scholarship Bronze Prize *2 (Top 35%)

First Prize in Chinese Mathematical Competition for University Students

CAS Guangzhou Institute of Energy Research Scholarship

Second Prize (Ranked 5) in the USTC Jiuzhang Cup Mathematical Competition

Teaching Experiences

Teaching Assistant for Mathematical analysis B1

Teaching Assistant for Mathematical analysis B2

Others

Seminar: Topics on Stochastic Differential Equation and Diffusion Process

Sports: Member of a Competitive Ultimate Frisbee Team 'Luzhou'

Running and Hiking: Hefei Half Marathon, 100 Kilometer Endurance Walk

Fall, 2022

Spring, 2023