

Shijie Jiang

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Harbin Institute of Technology (Weihai) 2002.8

Undergraduate Student in Mathematics and Applied Mathematics



Academic Performance

GPA	89.2/100
IELTS Score	7.5
CET6 Score	647
Subjects	Operations Research (94), C Programming Language (97), Mathematical Analysis I (98), Complex Analysis (100), Abstract Algebra (96), Functional Analysis (100), Numerical Analysis (100), Probability Theory and Mathematical Statistics (95), Analytical Geometry (95), Point-Set Topology (94), Mathematical Physics Equations (93)
Scholarship	Individual Scholarship
Programming	Proficient in Python, Matlab, Mathematica

Awards & Achievements

- Foreign Language Teaching and Research Press (FLTRP) and GuoCai Cup National College English Reading Contest, **National Third Place (Bronze Medalist)**, First Place in Shandong Province
- Mathematical Contest in Modeling (MCM), **Honorable Mention**

Research Endeavors

- Co-authored a paper titled “Stability of Stochastic State-dependent Delayed Complex Networks under Stochastic Hybrid Impulsive Control” published in the journal **Systems & Control Letters** (in the field of control science, it is ranked as one of the **three top journals**) as the second author: Combining a new stochastic impulsive differential inequality with graph theory, stochastic analysis techniques and the Lyapunov method, stability criteria for state-dependent delayed complex networks under stochastic hybrid impulsive control are given. I designed and implemented the numerical simulations & performed data analysis. In addition, I was responsible for the entire manuscript preparation, ranging from initial draft to revision, encompassing sections like the abstract, introduction, remark, and references. This experience also allowed me to delve deeper into mathematical theory like *stochastic analysis* and *measure-theoretic probability*.
- Nanyang Technological University Artificial Intelligence Research Project: acquired an insight into **Machine Learning** and **Deep Learning**, which includes loss computation (MSE or cross-entropy) and optimization methods (SGD, AdaGrad, mini-batch learning, Batch Normalization, Adam, Dropout, etc.)
- “On Semi-Global Exponential Synchronization Under Sampling Control for Non-linear Stochastic Functional Systems”, **awaiting submission**: presents a novel semi-global exponential synchronization framework for stochastic non-linear functional systems (SNLFS) under sampling control; effectiveness of the approach is demonstrated through numerical simulations, showcasing its robustness under varying system parameters, initial conditions, and stochastic disturbances.

Research Interests

- I am very intrigued by optimization, specifically, robust optimization and continuous optimization.