

# Yue Jiao

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## EDUCATION

- **Beihang University** 2023 - 2025 (expected)  
*Master degree* Beijing, China
  - Major Area: Statistics
  - Tutor: Prof. Xiaoxian Tang
  - GPA: 3.82/4.00
  - Relevant Coursework: Multivariate Statistical Analysis, Real Analysis, Convex Analysis, Machine Learning, Statistical Learning, Data Mining and Analysis
- **Beihang University** 2019 - 2023  
*Bachelor degree* Beijing, China
  - Major Area: Mathematics and Applied Mathematics
  - GPA: 3.55/4.00
  - Relevant Coursework: Abstract Algebra, Algebraic Geometry, Real Variable Functions, Functional Analysis, Differential Manifolds, Stochastic Process

## RESEARCH AND TEACHING EXPERIENCE

- **An algorithm for efficiently determining the equivalence of the reaction networks** July 2024 - Now  
*School of Mathematical Sciences, Beihang University*
  - Developed computational methods to analyze key issues in equivalent reaction networks.
  - Established mathematical proofs based on experimental findings.
  - Authored a research paper presenting research findings.
- **Multistability/Multistationarity of small zero-one reaction networks** Mar 2022 - June 2024  
*School of Mathematical Sciences, Beihang University*
  - Designed algorithms to conduct experiments, identifying key issues in small zero-one reaction networks.
  - Proved mathematical theorems based on experimental findings.
  - Authored a research paper presenting research findings.
- **TA of data mining and analysis** Sep 2024 - Jan 2025  
*School of Mathematical Sciences, Beihang University*
  - Provided detailed feedback on assignments, enhancing student understanding of key concepts.
  - Assisted in designing and refining course materials, contributing to improved curriculum quality.
- **Computational Algebraic Geometry Discussion Class** Sep 2024 - Now  
*School of Mathematical Sciences, Beihang University*
  - Enhanced lecturing abilities by serving as one of the principal speakers.
  - Deepened foundational knowledge in computational algebraic geometry.
  - Integrated discussions with ongoing research, devising new methods for problem solving.

## PATENTS AND PUBLICATIONS

1. **Yue Jiao**, Xiaoxian Tang, Xiaowei Zeng. **Multistability of Small Zero-One Reaction Networks**. *arXiv preprint arXiv:2406.11586*, 2024
2. **Yue Jiao**, Xiaoxian Tang. **An Efficient Algorithm for Determining the Equivalence of Zero-one Reaction Networks..** *arXiv preprint arXiv:2503.00008*, 2025

CONFERENCES EXPERIENCE

- **Winter school for Symbolic Computation** Jan 2025  
*Shenzhen University*
- **Forum on Intelligent Computer Mathematics 2024** Oct 2024  
*Beihang University*  
Talk Title: Multistability of Small Zero-One Reaction Networks
- **Summer school for Machine Learning** July 2024  
*The Hong Kong Polytechnic University*
- **Twelfth National Conference on Probability Statistics** Apr 2023  
*Shandong University*

HONORS AND AWARDS

- **National Scholarship** Nov 2024  
*Beihang University*
- **Scholarships for new postgraduate students** Sep 2023  
*Beihang University*
- **Outstanding undergraduate thesis** Jun 2023  
*School of Mathematical Sciences, Beihang University*

LEADERSHIP EXPERIENCE

- **Admissions Coordinator** Jul 2024  
*School of Mathematical Sciences, Beihang University*
  - Managing recruitment across multiple top high schools in Guangdong Province.
  - Formulated promotional strategies, increasing applicant engagement and awareness.
- **Freshman Mentor** Sep 2020 - Jun 2021  
*College of Zhi Zhen, Beihang University*
  - Advised first-year students on academic and psychological adjustment, improving their transition to university life.
- **Project Leader** May 2020 - May 2021  
*Innovation and Entrepreneurship Training Program for University Students*
  - Led a research project using game theory to analyze financial market regulation.
  - Identified key research gaps, guiding project direction.
  - Assigned tasks based on research needs, ensuring effective collaboration.

VOLUNTEER EXPERIENCE

- **Member** Sep 2020 - Sep 2021  
*Answer Team for Python Programming Course*
  - Resolved coding issues for students, enhancing their understanding and application of Python programming.
  - Developed debugging skills through detailed problem analysis.

SKILLS

- **Programming Languages:** Python, C
- **Mathematical Tools:** Maple, Mathematica, Matlab
- **Language:** Mandarin, English (IELTS 7)