

Runhua Wu

H. Milton Stewart School of Industrial and Systems Engineering
Georgia Institute of Technology
765 Ferst Drive NW, Atlanta, GA 30332 • rwu330@gatech.edu

RESEARCH INTERESTS

Queueing systems; stochastic processes.

EDUCATION

Georgia Institute of Technology

Atlanta, Georgia, U.S.A.
August 2023–Present

Ph.D. in Operations Research

- Advisor: Hayriye Ayhan
- GPA: 3.85/4.0
- Passed Comprehensive Exams

Master in Statistics

August 2022–May 2023

- GPA: 4.0/4.0

Fudan University

Shanghai, China

B.Math., Minor in Computational Mathematics

September 2018–June 2022

- Scholarship: Math Undergraduate Scholarship

RESEARCH

Advisor: Hayriye Ayhan

- Investigated a queueing system with different types of impatient customers and completely characterized the optimal admission control policy.
- Investigated the service control problem for systems with impatient customers, completely characterized the optimal service-rate policy in queues with finite or infinite buffer space, and developed efficient algorithms to find the optimal policy.
- Investigating server scheduling in queues with impatient customers, with a focus on the optimal non-anticipating scheduling policy in an $M/G/1+M$ queueing system.

PUBLICATIONS

Wu, R. and Ayhan, H. "Optimal Admission Control in Queues with Multiple Customer Classes and Abandonments." *Queueing Systems*, 109, Article 6 (2025).

Wu, R. and Ayhan, H. "Service Rate Control in Queues with Abandonments." Under revision.

Wu, R., Ayhan, H., and Down, D. G. "Maximizing Throughput in an $M/G/1$ Queue with Customer Abandonments." Under review.

TALKS

"Optimal Admission Control in Queues with Multiple Customer Classes and Abandonments," 2024 INFORMS Annual Meeting	October 2024
"Service Rate Control in Queues with Abandonments," 2025 INFORMS Applied Probability Conference	July 2025
"Service Rate Control in Queues with Abandonments," 2025 INFORMS Annual Meeting	October 2025

TEACHING

Teaching Assistant, Georgia Institute of Technology

Regression and Forecasting (ISyE 4031)	May 2024–June 2024
Design and Analysis of Experiments (ISyE 6413)	September 2024–December 2024
Stochastic Processes II (ISyE 6762)	January 2025–May 2025
Stochastic Manufacturing and Service Systems (ISyE 3232)	May 2025–August 2025
Stochastic Processes I (ISyE 6761)	September 2025–December 2025
Computational Statistics (ISyE 6416)	January 2026–May 2026
Stochastic Processes I (ISyE 6761)	September 2026–Present

Responsibilities have included holding office hours, grading homework assignments and exams, and tidying course notes.

COURSES TAKEN

Ph.D.-level coursework at Georgia Tech:

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| <ul style="list-style-type: none">• Stochastic Processes I• Stochastic Processes II• Stochastic Calculus I• Stochastic Calculus II• Topics in Stochastics• Stochastic Optimization• High-Dimensional Probability | <ul style="list-style-type: none">• Linear Optimization• Probability I• Probability II• Queueing Theory• Simulation Theory• Nonlinear Optimization• Discrete Optimization |
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TECHNICAL STRENGTHS

Language proficiency	Native Chinese speaker; proficient in English
Programming languages	Python, MATLAB, R, $\text{\LaTeX}$