

HONGJIANG QIAN

CONTACT

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EDUCATION

University of Connecticut CT, USA
Ph.D. in Applied Mathematics, Department of Mathematics June 2023, expected
Supervisor: Prof. George Yin

Huazhong University of Science and Technology Wuhan, China
Bachelor of Science, Department of Mathematics and Statistics Sept. 2014 - Jun. 2018
Major: Mathematics and Applied Mathematics

RESEARCH INTERESTS

Applied probability, Stochastic approximation, Stochastic control, Large deviations, Moderate deviations.

PUBLICATIONS AND PREPRINTS

PREPRINTS

1. H. Qian, F. Wu, and G. Yin. Numerical Algorithms for Stochastic Equations with Randomly Varying Truncations, submitted.

PUBLICATIONS

1. H. Qian and G. Yin. Moderate Deviations for the Langevin Equations: Strong Damping and Fast Markovian Switching. *J. Math. Phys.*, **63** (2022), 123304. [Journal]
2. H. Qian, G. Yin and Q. Zhang. Deep Filtering with Adaptive Learning Rates. *IEEE. Trans. Automat. Contr.* (2022), 1-15. [Journal]
3. H. Qian, Q. Zhang and G. Yin. Filtering with degenerate observation noise: A stochastic approximation approach, *Automatica*, **142** (2022): 110376. [Journal]
4. H. Qian, Z. Wen and G. Yin. Numerical Solutions for Optimal Control of Stochastic Kolmogorov Systems with Regime-Switching and Random Jumps. *Stat. Inference Stochastic Process.*, **25** (2022), 1-21. [Journal]
5. G. Yin, Z. Wen, H. Qian and H. Nguyen. Numerical Solutions for Optimal Control of Stochastic Kolmogorov Systems. *J. Syst. Sci. Complex.*, **34** (2021), 1703-1722. [Journal]

REFEREES

- Prof. George Yin, University of Connecticut, Email: gang_george.yin@uconn.edu
- Prof. Qing Zhang, University of Georgia, Email: qz@uga.edu
- Prof. Chao Zhu, University of Wisconsin-Milwaukee, Email: zhu@uwm.edu

WORK EXPERIENCE

Graduate Research Assistant, University of Connecticut
Graduate Teaching Assistant, Wayne State University

Jun. 2020 - present
Aug. 2018 - May. 2020

TEACHING

MATH 1800: Elementary Functions
STA 1020: Elementary Statistics

Wayne State University, Winter 2019
Wayne State University, Fall 2019

HONORS AND AWARDS

- Predoctoral Fellowship, University of Connecticut, 2023.
- The M.F. Janowitz Endowed Mathematics Scholarship, Wayne State University, 2020.

PROFESSIONAL ACTIVITIES

INVITED TALKS

- UConn Control and Optimization seminar, Storrs, Feb 20th, 2023.
- Joint Mathematics Meetings, Financial Mathematics section, Boston, Jan 7th, 2023.
- Probability and statistics seminar (online), University of Wisconsin-Milwaukee, Nov 2nd, 2022.

SERVICE

- Reviewer for
 - IEEE Transactions on Intelligent Transportation Systems
 - IEEE Transactions Automatic Control

ACTIVITIES

- Symposium on Stochastic Hybrid Systems and Applications, University of Connecticut, Oct. 2021, (poster presentation).
- The 10th Annual Graduate and Postdoctoral Research Symposium, Wayne State University, Detroit, MI, United States, Mar. 2020, (poster presentation).
- High Dimensional Hamilton-Jacobi PDEs Tutorials, IPAM's workshop, UCLA, March 9-13, 2020, (supported by a travel grant).
- Stochastic Processes and Applications in Honor of Professor Paul Chow, Wayne State University, Detroit, MI, United States, Apr 12, 2019, (poster presentation).