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 and G. Yin. Moderate Deviations for the Langevin Equations: Strong Damping and Fast Markovian Switching, submitted.

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

PUBLICATIONS

1. H. Qian, G. Yin and Q. Zhang. Deep Filtering with Adaptive Learning Rates, to appear in *IEEE. Trans. Automat. Control* (2022).

2. H. Qian, Q. Zhang and G. Yin. Filtering with degenerate observation noise: A stochastic approximation approach, *Automatica*, 142 (2022): 110376.

3. 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.

4. 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]

WORK EXPERIENCE

Graduate Research Assistant, University of Connecticut — Jun. 2020 - present
Graduate Teaching Assistant, Wayne State University — Aug. 2018 - May. 2020

Teaching

MATH 1800: Elementary Functions	Wayne State University, Winter 2019
STA 1020: Elementary Statistics	Wayne State University, Fall 2019

Honors And Awards

- The M.F. Janowitz Endowed Mathematics Scholarship, Wayne State University, 2020.

Professional Activities

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).