

Kevin Hu

CONTACT AND PERSONAL INFORMATION

Brown University,
Division of Applied Mathematics,
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US Citizen

RESEARCH INTERESTS

Probability theory, interacting particle systems, mathematical physics, mathematical neuroscience.

ACADEMIC APPOINTMENTS

07/2025 - 06/2028 Simons Junior Fellow, **Columbia University**
Mentor: Daniel Lacker

EDUCATION

MAY 2025 PhD in APPLIED MATHEMATICS, **Brown University**
Advisor: Kavita Ramanan
MAY 2021 MA in APPLIED MATHEMATICS, **Brown University**
MAY 2019 BA in MATHEMATICS with MINOR in COMPUTER SCIENCE, **NYU**

AWARDS AND HONORS

DECEMBER 2024 Junior Fellowship, Simons Foundation
SEPTEMBER 2024 Best Conference Poster Award, ICERM
MAY 2024 Stella Dafermos Award, Brown University
APRIL 2024 Research Matters Award, Brown University
SEPTEMBER 2019 Graduate Fellowship, Brown University
JUNE 2018 Undergraduate Research Fellowship, Fields Institute

PREPRINTS AND PUBLICATIONS

1. **Hu, K.** , Ramanan, K., (2025). “A case study of the long-time behavior of the Gaussian local-field equation” *arXiv preprint arXiv:2504.06449*.
2. **Hu, K.** , Ramanan, K., (2024). “An H-theorem for conditional McKean-Vlasov processes related to interacting diffusions on regular trees.” *arXiv preprint arXiv:2412.07710*.
3. **Hu, K.** , Ramanan, K., Salkeld, W. (2024). ”A mimicking theorem for processes driven by fractional Brownian motion.” *arXiv preprint arXiv:2405.08803*.
4. **Hu, K.**, Ramanan, K., Salkeld, W. (2024). “The fundamental martingale with applications to Markov random fields”. *arXiv preprint arXiv:2405.08795*.
5. Amin, K., Huang, J. M., **Hu, K.** J., Zhang, J., Ristroph, L. (2019). “The role of shape-dependent flight stability in the origin of oriented meteorites.” *Proceedings of the National Academy of Sciences*, 116(33), 16180-16185.

TEACHING AND MENTORING

Summer 2024	Teaching Assistant, Graduate Bridge Program
Summer 2022	Instructor, Graduate Bridge Program in Analysis
Fall 2020 - Spring 2022	Directed Reading Program Mentor, Stochastic Calculus
Fall 2021	Sheridan Center Certificate in Reflective Teaching
Spring 2021	Teaching Assistant, Statistical Inference II
Fall 2020	Teaching Assistant, Statistical Inference I
Spring 2020	Instructor, CCRI Prison Teaching Program
Fall 2018 - Spring 2019	Undergraduate Mathematics Tutor

INVITED TALKS

1. Probability Seminar, Iowa State University (Dec 2025)
2. Probability and the City seminar, NYU Courant & Columbia University (Dec 2025)
3. Penn/Temple probability seminar, Temple University (Nov 2025)
4. Probability seminar, NYU Shanghai (Oct 2025)
5. Probability seminar, CUNY (Sept 2025)
6. Dynamics seminar, Oberseminar (May 2025).
7. Probability seminar, Brown University (March 2025).
8. ORFE student seminar, Princeton University (February 2025).
9. Mathematical finance seminar, University of Michigan (December 2024).
10. Neural network seminar, Brown University (October 2024).

PROFESSIONAL ACTIVITIES

1. Directed Reading Program Organizer, Brown University (Spring 2022 - Spring 2025)
2. Reviewer for *Annals of Applied Probability*, *SIAM Journal on Applied Dynamical Systems*, *Bernoulli*, *Discrete and Continuous Dynamical Systems*.