

Work Experience

- **New York University** New York, NY
NSF Postdoctoral Fellow *2023 – present*

Education

- **University of Chicago** Chicago, IL
Ph.D. in Mathematics *2018 – 2023*
– Advisor: Charles Smart
- **Carnegie Mellon University** Pittsburgh, PA
B.S. and M.S. in Mathematical Sciences *2014 – 2018*
– Honors thesis advisor: Boris Bukh

Publications and preprints

8. Cooperman, W., Iyer, G., & Son, S. A Harris theorem for enhanced dissipation, and an example of Pierrehumbert. arXiv, March 28, 2024. <https://arxiv.org/abs/2403.19858>.
7. Bou-Rabee, A., Cooperman, W., & Ganguly, S. Unique continuation on planar graphs. arXiv, September 26, 2023. <https://doi.org/10.48550/arXiv.2309.13728>.
6. Bou-Rabee, A., Cooperman, W., & Dario, P. Rigidity of harmonic functions on the supercritical percolation cluster. arXiv, March 8, 2023. <https://doi.org/10.48550/arXiv.2303.04736>.
5. Cooperman, W. Slow periodic homogenization for Hamilton-Jacobi equations. *Communications in Partial Differential Equations* 48(7–8), 1056–1064 (2023).
4. Cooperman, W. Exponential mixing by shear flows. *SIAM Journal on Mathematical Analysis* 55, 7513–7528 (2023).
3. Cooperman, W. On the random G equation with nonzero divergence. *Calculus of Variations and Partial Differential Equations* 62, 211 (2023).
2. Cooperman, W. Quantitative stochastic homogenization of the G equation. *Probability Theory and Related Fields* 186, 493–520 (2023).
1. Cooperman, W. A near-optimal rate of periodic homogenization for convex Hamilton–Jacobi equations. *Archive for Rational Mechanics and Analysis* 245, 809–817 (2022).

Invited talks

- **Exponential mixing by shear flows**
Princeton University, Analysis of Fluids and Related Topics Seminar November 30, 2023
- **Homogenization for the random G equation**
EPFL, Bernoulli Workshop: Enjoying Probability and Fluids in Lausanne September 19, 2023
- **Exponential mixing**
RISM Summer School: Exotic solutions and well-posedness in PDEs and ODEs July 12, 2023
- **Homogenization for the random G equation**
Brown University, PDE Seminar May 5, 2023
- **Exponential mixing by shear flows**
Carnegie Mellon University, CNA Seminar April 11, 2023
- **Homogenization for the random G equation**
Cornell University, Probability Seminar March 20, 2023
- **Exponential mixing by shear flows**
Duke University, Applied Math and Analysis Seminar December 13, 2022
- **Homogenization for the random G equation**
McGill University, Probability Seminar October 27, 2022
- **Exponential mixing by shear flows**
Georgia Institute of Technology, CDSNS Seminar September 2, 2022
- **Quantitative homogenization of Hamilton-Jacobi equations**
University of Wisconsin-Madison, PDE and Geometric Analysis Seminar December 6, 2021

Teaching experience

- **Linear Algebra (Math 196)**
Graduate student lecturer University of Chicago
Autumn 2022 – Winter 2023
- **Calculus II – III (Math 152, 153)**
Graduate student lecturer University of Chicago
Autumn 2021 – Winter 2022
- **Calculus I – III (Math 131 – Math 133)**
Graduate student lecturer University of Chicago
Autumn 2020 – Spring 2021
- **Complex Analysis, Calculus, Partial Differential Equations**
College Fellow University of Chicago
Autumn 2019 – Spring 2020

Awards and Prizes

- **Mathematical Sciences Postdoctoral Research Fellowship** National Science Foundation
2023
- **Wirszup Prize** University of Chicago
2023
- **Amick Fellowship** University of Chicago
2019-2021