

Anya Katsevich

Ph.D. Candidate

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Education

Courant Institute, New York University, Ph.D. in Mathematics, expected June 2022.

Advisors: Afonso Bandeira and Jonathan Weare

University of North Carolina at Chapel Hill, B.S. in Mathematics (Magna Cum Laude), May 2017.

Thesis Project: The hydrodynamic limit of a crystal surface jump diffusion with Metropolis-type rates

Thesis Advisor: Jeremy Marzuola.

Awards

- Department of Energy Computational Sciences Graduate Fellowship (DOE CSGF), 2017-2021
- NSF Graduate Research Fellowship (declined for DOE CSGF)
- Barry Goldwater Scholarship, 2015-2017
- Archibald Henderson Medal, awarded by UNC math dept. for “high degree of mathematical ability and the greatest promise of originality in the field”, 2015
- Phi Beta Kappa invitee, 2015
- University of Central Florida Advanced Calculus Award for best performance in advanced calculus sequence, 2013

Preprints

- [1] **A. Katsevich**. From local equilibrium to numerical PDE: Metropolis crystal surface dynamics in the rough scaling limit. Available on [arXiv](#).
- [2] **A. Katsevich**. The Local Equilibrium State of a Crystal Surface Jump Process in the Rough Scaling Regime. Available on [arXiv](#).

Publications

- [1] **A. Katsevich**, A. Bandeira. Likelihood Maximization and Moment Matching in Low SNR Gaussian Mixture Models. *Communications on Pure and Applied Mathematics*, 2021 (to appear). Available on [arXiv](#).
- [2] Y. Gao, **A. Katsevich**, J. Liu, J. Lu, J. Marzuola. Analysis of a fourth order exponential PDE arising from a crystal surface jump process with Metropolis-type transition rates. *Pure and Applied Analysis*, 2020 (to appear) Available on [arXiv](#).

- [3] **A. Katsevich**, P. Mikusinski. On De Graaf spaces of pseudoquotients. *Rocky Mountain J. Math* 45 (5): pp. 1445-1455 (2015). Available on [Project Euclid](#).
- [4] **A. Katsevich**, P. Mikusinski. Order in Spaces of Pseudoquotients. *Topology Proceedings* 44: pp. 21-31 (2014). Available from [journal](#).

Presentations

Contributed talks

- *The Connection between EM and the Method of Moments in Low SNR Gaussian Mixtures.*
National Meeting of the Sociedade Portuguesa de Matemática (ENSPM), July 12–16, 2021, held virtually.

Poster Presentations

- *Microgrid Reliability under Uncertainty: Static and Dynamic Analysis*
DOE CSGF Annual Program Review, July 14–18, 2019, in Arlington, VA

Last updated: August 9, 2021