Mason Haberle

Curriculum Vitae

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Education

- 2021 2026 **New York University, Courant Institute**, *PhD in Mathematics Candidate*. Expected Graduation: May 2026
- 2017 2020 **The University of California, Berkeley**, *Bachelor of Arts, Mathematics with Honors, GPA 4.00*.

Graduated December 2020

Research Papers

Chen, A., Demmel, J., Dinh, G., Haberle, M., Holtz, O., (2021). *Communication Bounds for Convolutional Neural Networks*. PASC '22, arXiv:2204.08279 [cs.DC]

Chowdhary, A., Haberle, M., Ofori-Atta, W., Wu, Q. (2023). Weak Diffusive Stability of Roll Solutions at the Zigzag Boundary. Submitted, arXiv:2310.12365 [nlin.PS]

Haberle, M., Wang, J. (2020). A Full Study of the Dynamics on Dilation Tori. Submitted, arXiv:2012.04159 [math.DS]

Research Talks

Slides at haberle.hosting.nyu.edu.

- Jan 2024 Crash Course in Free Probability, NYU Student Probability Seminar.
- Jul 2023 Convex Integration and Onsager's Conjecture, MFD Advanced Summer School, IESC.
- Jun 2022 Communication Bounds for Convolutional Neural Networks, PASC22.
- Aug 2020 **Dynamics on Dilation Tori**, 2020 Indiana REU Conference.

Conferences/Workshops

- 2021, 2023 Mathematical Fluid Dynamics Advanced Summer School, Institut d'Etudes Scientifiques de Cargése.
 - 2022 Platform for Advanced Scientific Computing (PASC) 2022, Congress Center Basel.
 - 2022 MSRI-NCTS Joint Summer School: Recent Topics in Well Posedness, University of Hawaii at Hilo.
 - 2022 Seminar in Stochastic Processes 2022, Lehigh University.
 - 2022 Flexibility and Rigidity in Dynamical Systems 2022, Simons Center at Stony Brook.
 - 2021 Mathematical Problems in Fluid Dynamics, MSRI.

Selected Coursework

- Spring 2024 Magnetohydrodynamics, Alan Kaptanoglu.
 - Fall 2023 Fluid Dynamics, Esteban Tabak.
- Spring 2023 Numerical Methods for ODEs and PDEs, Aleks Donev.
 - Fall 2022 Numerical Linear Algebra, Benjamin Peherstorfer.
 - Fall 2019 Computer Architecture and Parallelism, Dan Garcia, Michael Lustig.

Awards and Scholarships

- 2022 NSF Graduate Research Fellowship
- 2021 NYU GSAS MacCracken Fellowship
- 2021 Dorothea Klumpke Roberts Prize for Academic Achievement in the UC Berkeley Dept of Mathematics