

Curriculum Vitae - John Hopper

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Education	University of California, Los Angeles Ph.D Mathematics - Advisor: Wilfrid Gangbo M.A. Mathematics Passed Qualifying exams: Basic, Analysis, and Geometry/Topology. University of Chicago B.A. with honors in Mathematics Minor in Physics 2022 Cohen Prize recipient	Los Angeles, California August 2022-Present August 2022-March 2024 August 2018-June 2022
Papers	Araiza et al., White Paper: “Non-commutative Optimal Transport”, ipam reports and white papers (2025). <i>Sliced Wasserstein Geodesics and Equivalence of Wasserstein and Sliced Wasserstein Metrics</i> , July 2024, Preprint: arXiv:2407.07219.	
Conference Presentations	“Sliced Wasserstein Geodesics and Metric Equivalence” Poster at Foundations of Computation Mathematics, July 9-11 2026 “Optimal Control in Noncommutative Laws” at Great Planes Operator Theory Symposium, 05/27/2026	
Student Presentations	UCLA Applied optimal transport seminar, Spring 2026 “The Benamou-Brenier Formula” - 05/04/2026 “Uniqueness of transport maps” - 04/27/2026 “Introduction: why optimal transport is useful” - 03/30/2026 UCLA participating seminars: “Hamilton-Jacobi-Bellman in Hilbert spaces” - 02/12/2025 “Calculation of norms of elements in group C^* -algebras” - 12/02/2024 “An introduction to Mean Field Games” - 11/18/2024 “Using Optimal Transport to prove Log Sobolev inequality” - 11/30/2023 UCLA graduate student outreach seminar: “Book shuffling problems” - 01/22/2025 “Probabilists don’t want you to know this one simple trick!!” - 10/10/2024 “Peano Curves: quietly pathological” - 04/11/2024 “Game, set, metric space” - 02/15/2024	
Mentoring	UCLA Blackwell REU (TA): Roni Edwin - Summer 2025 Zachary Duah - Summer 2024 and 2025 Xiaoxian Chen - Summer 2024 UCLA Directed Reading program: Sanvi Krishnan Fall 2026-present. Leo Feng - Spring 2026 Jack Dye, “Mean Field Games” - Winter 2026 Richard Li, “Schwartz Class in L_p ” - Fall, Winter, Spring 2024-25, Michael Papagni, “Discrete time Markov Processes” - Fall 2023	
Organization and Committee work	UCLA math Directed Reading program (DRP) committee - Winter 2026-present UCLA undergraduate committee - Winter 2026-present UCLA Applied optimal transport seminar - Spring 2026 UCLA qual reform committee - Spring 2025 UCLA participating analysis seminar Fall 2024-Winter 2025	

Teaching and Grading

University of California, Los Angeles

Teaching Assistant

Math 1 (Precalculus)	Fall 2026
Math 31A (Calculus 1)	Fall 2024, Winter 2023
Math 31B (Calculus 2)	Winter 2026
Math 32A (Multivariable Calculus 1)	Fall 2024, Spring 2024, Fall 2023
Math 32B (Multivariable Calculus 2)	Winter 2024 (two classes)
Math 32BH (Honors Multivariable Calculus 2)	Winter 2025
Math 33B (Differential Equations)	Fall 2022
Math 106 (History of Math)	Spring 2023
Math 115A (Proof based Linear Algebra)	Winter 2025
Math 120A (Differential Geometry: Curves and Surfaces)	Fall 2023
Math 131A (Analysis 1)	Spring 2025, Winter 2026
Math 170S (Intro to Probability and Statistics 2)	Spring 2024

Grader

Math 245C (Graduate Real Analysis 3)	Spring 2024
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University of Chicago

Teaching Assistant

Math 132 (Calculus 2)	Spring 2022
Math 113 (Basic Geometry)	Winter 2022
Chicago Academic Achievement Program	Summer 2020