NICHOLAS KARRIS

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EDUCATION

University of California, San Diego — La Jolla, CA (*expected*) *June 2026*
Ph.D. in Mathematics

Advisor: Alex Cloninger
Research Interests: Geometric Data Analysis, Optimal Transport, Time Series, Diffusion Models

Northwestern University — Evanston, IL *June 2021*
B.A. in Mathematics | Minor in Computer Science *Summa Cum Laude*

Advisor: Ezra Getzler
Honors Thesis: Poisson-Lie Groups and Lie Bialgebras

PAPERS

N. Karris, S. Lee, I. Kevrekidis, E. Nikitopoulos, A. Cloninger. *Using Linearized Optimal Transport to Predict the Movement of Stochastic Particle Systems* (in preparation)

AWARDS AND HONORS

Robert R. Welland Prize for Outstanding Achievement in Mathematics *June 2021*
Award for Outstanding Contributions to Undergraduate Mathematical Life *June 2021*
Undergraduate Teaching Assistant Service Award *June 2021*
Phi Beta Kappa Honor Society *Elected June 2020*

TEACHING

Graduate Teaching Assistant — UC San Diego *September 2021 – Present*
Weekly Discussion Sections, Office Hours, Exam Grading
[†]Lead TA: additionally responsible for coordinating with instructors for large "super lecture" courses

Math 10A: Differential Calculus – Summer 2023, Spring 2022
Math 18: Linear Algebra – Spring 2024[†], Winter 2024[†], Fall 2023[†], Spring 2023[†]
Math 20B: Integral Calculus – Winter 2023[†], Fall 2022[†], Winter 2022, Fall 2021
Math 20C: Multivariable Calculus – Summer 2022
Math 20E: Vector Calculus – Summer 2023

Undergraduate Teaching Assistant — Northwestern *September 2019 – March 2021*
Weekly Discussion Sections, Office Hours, Homework and Exam Grading

Math 228-1: Multivariable Calculus – Fall 2019
Math 220-2: Integral Calculus – Fall 2020, Winter 2020
Math 226-0: Sequences and Series – Spring 2020
Math 220-1: Differential Calculus – Winter 2021

SERVICE

Mathematics Graduate Student Council — UC San Diego *September 2022 – Present*
Vice Chair (July 2023 – Present)
Mentorship Committee Co-chair (July 2022 – June 2023)

Description: MGSC at UCSD is a student organization dedicated to improving the mathematics graduate students' experience at UCSD. We represent the mathematics graduate students in department affairs meetings, collaborate with department administration to resolve graduate students' concerns, facilitate a mentorship program, plan social events, and more.

Northwestern Emerging Scholars Program — Northwestern *September 2019 – June 2021*
Peer Leader

Description: NESP is a program designed to introduce early undergraduates to the topics of advanced mathematics courses in a low-stakes, collaborative, inclusive environment. Born out of a desire to ease the transition from introductory to advanced courses, NESP strives to give students of all backgrounds a taste of the courses they would encounter as a math major. As a peer leader, I led weekly sessions in which students would work together on worksheets to guide them through an introduction to various mathematical topics.