Trent Lucas

University of California, Irvine   trent.lucas@uci.edu
Department of Mathematics   trent-lucas.github.io

Employment

University of California, Irvine
RTG Visiting Assistant Professor, July 2025 - present.

Education

Brown University
Ph.D., Mathematics, May 2025 (Advisor: Bena Tshishiku).
M.Sc., Mathematics, May 2022.

University of Virginia
B.A., Mathematics and Computer Science, May 2020

Research

Isotopy Versus Equivariant Isotopy in Dimensions Three and Higher, preprint.
Birman-Hilden Theory for 3-Manifolds, Adv. Math. 468 (2025) 110204.
Veech Fibrations, with Sam Freedman, submitted.
Homological Representations of Low Genus Mapping Class Groups, J. Algebra 647 (2024) 533-566.

Teaching

Sheridan Teaching Certificate I, Brown University, Fall 2021

Brown University:
Instructor, MATH 520 Linear Algebra, Spring 2025
TA, CEMA 922 Set Theory (Brown Pre-College Program), Summer 2024
Instructor, MATH 50 Analytic Geometry and Calculus, Fall 2023
Instructor, MATH 180 Multivariable Calculus, Spring 2023
TA, MATH 180 Multivariable Calculus, Fall 2022
TA, MATH 90 Introductory Calculus Part I, Fall 2021 - Spring 2022

University of Virginia:
TA, MATH 3310 Basic Real Analysis, Fall 2019 - Spring 2020

Awards

Outstanding Graduate Teaching Award, Brown Math Department, Fall 2024
E.J. McShane Prize, University of Virginia Math Department, Spring 2020
Edwin E. Floyd Prize, University of Virginia Math Department, Spring 2019

Mentoring

Brown Math Graduate Student Mentorship Program, Fall 2022-Spring 2025
Brown Math Family Lunches Program, Spring 2024
Brown University Directed Reading Program:
Michael Sinclair & Griffin Wells, *Surfaces*, Fall 2024
Heon Lee, *Geometric Group Theory*, Summer 2024
Luna Wang, *Geometric Group Theory*, Spring 2024
Alex Feiner, Three projects total, Spring 2021 - Fall 2022

Service

Brown Graduate Student Seminar, Organizer, Fall 2021 - Spring 2025
Brown Math Diversity and Inclusion Committee, Member, Fall 2022 - Spring 2023

Talks

Spring Topology and Dynamics Conference (Christopher Newport), March 2025
Brown Geometry and Topology Seminar, February 2025
University of Chicago Geometry and Topology/No Boundaries Seminar, October 2024
Tufts University Topology/Geometric Group Theory Seminar, September 2024
Topology, Rep. Theory, and Higher Structures (Sabhal Mòr Ostaig), June 2024
Notre Dame Topology Seminar, March 2024
Spring Topology and Dynamics Conference (UNC Charlotte), March 2024
Brown Geometry and Topology Seminar, December 2023
GTA Philadelphia (Temple University), May 2023
AMS New England Grad Student Conference (Brown University), April 2023
Brown Graduate Student Seminar, four talks