

# Trent Lucas

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Brown University  
Department of Mathematics

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## Education **Brown University**

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

## **University of Virginia**

B.A., Mathematics and Computer Science, May 2020

## Research

*Birman-Hilden Theory for 3-manifolds*, preprint.  
*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**

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, Spring 2022  
TA, MATH 90 Introductory Calculus Part I, Fall 2021

## **University of Virginia**

TA, MATH 3310 Basic Real Analysis, Spring 2020  
TA, MATH 3310 Basic Real Analysis, Fall 2019

## Awards

**E.J. McShane Prize**, University of Virginia Mathematics, Spring 2020  
**Edwin E. Floyd Prize**, University of Virginia Mathematics, Spring 2019

## Mentoring

### **Brown University Directed Reading Program**

Heon Lee, *Geometric Group Theory*, Summer 2024  
Luna Wang, *Geometric Group Theory*, Spring 2024  
Alex Feiner, *Representation Theory of Finite Groups*, Fall 2022  
Alex Feiner, *Stokes' Theorem*, Fall 2021  
Alex Feiner, *The Geometry of Surfaces*, Spring 2021

## Service

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

## Talks

Topology, Representation Theory, and Higher Structures (Sabhal Mòr Ostaig), Summer 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