

Gary D. Dunkerley

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RESEARCH INTERESTS

Link cobordism, knotted surfaces, 3- & 4-manifolds, Heegaard Floer homology

EDUCATION

The University of Georgia

Ph.D. in Pure Mathematics

Athens, GA

2021-2027 (Expected)

Brandeis University

M.A. in Pure Mathematics

Waltham, MA

2019-2020

Hillsdale College

B.Sc. in Mathematics and English

Hillsdale, MI

2014-2018

TALKS & PRESENTATIONS

Invited talks

- “Twisting inequalities for the ϵ invariant of generalized Θ -graphs” 2026
AMS Southeastern Sectional, Georgia Southern
- “New perspectives on symmetric unions” 2024
AMS Central Sectional, UT San Antonio

Select Contributed Talks

- “Surgery Modules” 2025
Topology Working Seminar, UGA
- “Cabling squeezed knots” 2024
Graduate Student Topology Seminar, UGA
- “Slice torus invariants and genus minimizing cobordisms” 2023
Graduate Student Geometry and Topology Conference, Harvard
- “On Agol’s proof that ribbon concordance is a partial order” 2023
Graduate Student Topology Seminar, UGA
- “Goeritz matrices and the Jones polynomial” 2023
Graduate Student Seminar, UGA
- “HFK: top and next-to-top gradings” 2022
Graduate Student Topology Seminar, UGA
- “Cutting out knots” 2022
Graduate Student Seminar, UGA
- “Spin and Spin^c: a creature double-feature” 2022
Graduate Student Topology Seminar, UGA
- “On the analogy between knots and primes” 2021
Graduate Student Seminar, UGA

TEACHING

- **Instruction** (University of Georgia) 2022 – 2024
MATH 2250: Calculus I
MATH 1113: Pre-Calculus
- **Grading** (University of Georgia) 2021-2025
MATH 3300: Applied Linear Algebra
MATH 4000: Modern Algebra and Geometry
MATH 8200: Algebraic Topology
- **Grading** (Brandeis University) 2019-2020
MATH 151A: Topology I
MATH 105A: Introduction to Real Analysis

SERVICE

- **Co-organizer** 2025-2026
Topology Working Seminar, UGA
- **Organizer** 2025
Surgery Module Reading Group, Zoom
- **Organizational Assistant & Activity Coordinator** 2025
Georgia International Topology Conference
- **Organizational Assistant** 2024
Georgia Topology Conference
- **Co-organizer** 2023-2024
Graduate Student Seminar, UGA
- **Peer Mentor** 2023-2026
Mentees: Yangkun Dai, Stephen Hu, Jaime Negrete, and Matthew Zediker
- **Directed Reading Program Mentor** Spring 2024
Mentee: Bradley Arogeti
Project: Knots and ribbon disks
- **Directed Reading Program Mentor** Fall 2025
Mentee: Syed Sakir
Project: Configuration spaces and self-driving vehicles

HONORS & AWARDS

- **RTG Research Assistantship** 2024-2025
University of Georgia College of Arts and Sciences
- **Doctoral Candidacy** 2023
University of Georgia College of Arts and Sciences
- **Merit scholarship** 2019-2020
Brandeis University Graduate School of Arts and Sciences
- **Laureates Summer Research Grant** 2017
Hillsdale College Department of Sciences
- **McQuiston Science Scholarship** 2014-2018
Hillsdale College Department of Sciences