


# Gary D. Dunkerley

 [garydunkerley.github.io](https://github.com/garydunkerley)

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## RESEARCH INTERESTS

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Knot concordance and cobordism, 3- & 4-manifolds, Heegaard Floer homology, Khovanov homology

## EDUCATION

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<b>The University of Georgia</b> Ph.D. in Pure Mathematics	Athens, GA 2021-Present
<b>Brandeis University</b> M.A. in Pure Mathematics	Waltham, MA 2019-2020
<b>Hillsdale College</b> B.Sc. in Mathematics and English	Hillsdale, MI 2014-2018

## TEACHING

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- **Instructor of record** (University of Georgia) 2022-Present  
*MATH 2250: Calculus I*  
*MATH 1113: Pre-Calculus*
- **Grader** (University of Georgia) 2021-2022  
*MATH 3300: Applied Linear Algebra*  
*MATH 4000: Modern Algebra and Geometry*
- **Grader** (Brandeis University) 2019-2020  
*MATH 151A: Topology I*  
*MATH 105A: Introduction to Real Analysis*

## SELECTED TALKS & PRESENTATIONS

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- **“Slice torus invariants and squeezed knots”** 2023  
*Candidacy oral examination, 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*
- **“Towards the Jones unknotting conjecture”** 2023  
*Graduate Student Seminar, UGA*
- **“Summiting HFK: a view from the top and next-to-top gradings”** 2022  
*Graduate Student Topology Seminar, UGA*
- **“Cutting out knots”** 2022  
*Graduate Student Seminar, UGA*
- **“Spin and Spin<sup>c</sup>: a creature double-feature”** 2022  
*Graduate Student Topology Seminar, UGA*

- **“On the analogy between knots and primes”** 2021  
*Graduate Student Seminar, UGA*
- **“Topological Quantum Field Theory and the Jones Polynomial”** 2020  
*Graduate Student Seminar, Brandeis*
- **“In Search of an Equivariant Characterization of the Tropical Grassmanian  $G_{tr}(2, 4)$ ”** 2018  
*Hillsdale College Department of Mathematics*

## SERVICE

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- **Co-organizer: UGA Graduate Student Seminar** 2023-Present  
*UGA Math Dept.*
- **Peer Mentor** 2023-Present  
*Mentees: Stephen Hu and Matthew Zediker*
- **Directed Reading Program Mentor** Spring 2024  
*Mentee: Bradley Arogeti*

## HONORS & AWARDS

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- **Doctoral Candidacy** 2023  
*University of Georgia College of Arts and Sciences*
- **Winning submission: “Eliciting latent knowledge: an epistemically honest ‘SmartVault’”** 2022  
*Alignment Research Center: Eliciting Latent Knowledge Proposal Competition*
- **Graduate Teaching Assistantship** 2021-2024  
*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*