

DANIEL MINAHAN

Georgia Institute of Technology
School of Mathematics
Skiles 152

dminahan6@gatech.edu
<https://dminahan6.math.gatech.edu/>

EDUCATION

Graduate Institution

- Ph.D. in Mathematics (expected graduation Spring 2024).
- Advisor: Dan Margalit.

Undergraduate Institution

- B.S. in Mathematics, University of Michigan *Magna cum Laude* (2018).

PAPERS

1. **Automorphisms of the 1–fine curve graph** (joint with Katherine Williams Booth and Roberta Shapiro). (Preprint). ([arXiv](#))
2. **Finiteness of the second rational homology of the Torelli group**. (Preprint). ([arXiv](#))
3. **The acyclicity of the complex of homologous curves**. (Preprint). ([arXiv](#))
4. **The cohomological dimension of the terms of the Johnson filtration**. (Preprint). ([arXiv](#))
5. **All lines on a cubic surface in terms of three skew lines** (joint with Stephen McKean and Tianyi Zhang). (Published). ([New York Journal of Mathematics](#))
6. **Derandomized Identity testing of certain families of polynomial circuits** (joint with Ilya Volkovich). (Published). ([ECCC 2017](#))

INVITED TALKS

1. *Representation Stability in the Torelli group*. [University of Virginia Topology Seminar](#), University of Virginia, 2023.
2. *Representation Stability in the Torelli group*. [Notre Dame Topology Seminar](#), Notre Dame, 2023.
3. *Homological Finiteness in the Torelli group*. [Wasatch Topology Conference](#), University of Chicago, 2023.
4. *Homological Finiteness in the Torelli group*. [University of Chicago Topology and Geometry Seminar](#), University of Chicago, 2023.
5. *Homological Finiteness in the Torelli group*. [Stability in Topology, Arithmetic, and Representation Theory 2023](#), Purdue University, 2023.
6. *Finiteness in the homology of the Torelli group*. [GTGaps Seminar](#), Virtual Seminar, 2023.

¹Updated October 18, 2023

7. *The cohomological dimension of the terms of the Johnson filtration.* [AMS Southeastern Sectional](#), Georgia Tech, 2023.
8. *On the homology of Torelli groups.* [Vanderbilt Topology and Group Theory Seminar](#), Vanderbilt University, 2023.
9. *On the homology of Torelli groups.* [Georgia Tech Topology Seminar](#), Georgia Tech, 2023.
10. *The homotopy type of the complex of separating curves.* [Spring Topology and Dynamics conference](#), Baylor University, 2022.

AWARDS

- Jack McLaughlin Award in Algebra (collegiate)
- EECS Scholar (collegiate)
- Eight University Honors (collegiate)
- Outstanding Achievement in Mathematics (collegiate)
- Presidential Fellowship (graduate)
- David L. Brown Fellowship (graduate)

ORGANIZATION

Conferences Organized

- Co-organizer of [GSTGC 2022](#).

Seminars Organized

- Co-organizer of Georgia Tech [Student topology seminar](#) (2022–Present)

Committee Work

- Treasurer, Georgia Tech AMS Chapter (2021-2022)
- Council Member, Georgia Tech Math department graduate student council (2022–Present)

TEACHING EXPERIENCE

University Name

- Instructor, Calculus I (Summer 2019).
- Instructor, Calculus I (Summer 2021).
- Instructor, Calculus I (Summer 2022).
- Instructor, Pre-Calculus (Summer 2023).
- Teaching Assistant, Calculus II or Linear Algebra (Spring and Fall, 2018-2022)
- Teaching Assistant, Combinatorics (Summer 2020)
- Teaching Assistant, Intro to Finite Math (Spring 2023)
- Grader, Algebraic Number Theory (Spring 2019)