Daniel Minahan

Georgia Institute of Technology
School of Mathematics
Skiles 152

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

Employment

University of Chicago NSF Postdoc

- Sponsoring Scientist: Benson Farb

Education

Graduate Institution

- Ph.D. in Mathematics, Georgia Institute of Technology (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.* Homotopy Theory in Manifolds Seminar, Virtual, 2024.

2. *Representation Stability in the Torelli group.* Spring Topology and Dynamics Conference, UNC Charlotte, 2024.

3. *Representation Stability in the Torelli group.* Central AMS Sectional, University of Wisconsin-Milwaukee, 2024.

4. *Representation Stability in the Torelli group.* University of Virginia Topology Seminar, University of Virginia, 2023.

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[1] Updated August 11, 2024

5. *Representation Stability in the Torelli group.* Notre Dame Topology Seminar, Notre Dame, 2023.

6. *Homological Finiteness in the Torelli group.* Wasatch Topology Conference, University of Chicago, 2023.

7. *Homological Finiteness in the Torelli group.* University of Chicago Topology and Geometry Seminar, University of Chicago, 2023.

8. *Homological Finiteness in the Torelli group.* Stability in Topology, Arithmetic, and Representation Theory 2023, Purdue University, 2023.

9. *Finiteness in the homology of the Torelli group.* GTGaps Seminar, Virtual Seminar, 2023.

10. *The cohomological dimension of the terms of the Johnson filtration.* AMS Southeastern Sectional, Georgia Tech, 2023.

11. *On the homology of Torelli groups.* Vanderbilt Topology and Group Theory Seminar, Vanderbilt University, 2023.

12. *On the homology of Torelli groups.* Georgia Tech Topology Seminar, Georgia Tech, 2023.

13. *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)