Matthew H. Hamil

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Education

University of Georgia — **Athens, GA**
B.S. in Mathematics — *2016–2019*

University of Georgia — **Athens, GA**
M.A. in Mathematics — *2019–2020*
Advisors: Brian Boe and Arik Wilbert; Thesis: *On parabolic Kazhdan–Lusztig polynomials*

University of Georgia — **Athens, GA**
Ph.D. in Mathematics (*Anticipated*) — *2020–2025*
Advisor: Daniel K. Nakano; Thesis: *On localizing subcategories of Lie superalgebra representations*

Research

Research in Combinatorial Representation Theory
University of Georgia — *2020-2021*
Working with Arik Wilbert to give a diagrammatic description of type A_n, $A_{n-k} \times A_k$ parabolic Kazhdan–Lusztig polynomials. Master's thesis.

Doctoral Research in Algebra
University of Georgia — *2021-Present*
Working with Daniel K. Nakano on problems in the representation theory of Lie superalgebras.

Papers and Preprints

The Homological Spectrum and Nilpotence Theorems for Lie Superalgebra Representations — *July 2024*
joint with Daniel K. Nakano. Submitted. arXiv:2404.04457

On localizing subcategories for Lie superalgebra representations — *September 2024*
In preparation.

Research Talks

13th Southeastern Lie Theory Workshop — **Raleigh, NC**
Stratifying rings for the stable category of modules over detecting Lie subalgebras. — *May 2023*
North Carolina State University

AMS Fall Southeastern Sectional Meeting — **Mobile, AL**
Nilpotence theorems via homological residue fields for Lie superalgebra representations — *October 2023*
University of South Alabama

University of Georgia Algebra Seminar — **Athens, GA**
A nilpotence theorem via homological residue fields for Lie superalgebra representations — *November 2023*
University of Georgia

14th Southeastern Lie Theory Workshop — **Charlottesville, VA**
Homological spectrum and nilpotence theorems for Lie superalgebra representations — *March 2024*
University of Virginia

AMS Spring Western Sectional Meeting — **San Francisco, CA**
The homological spectrum and nilpotence theorems for Lie superalgebra representations — *May 2024*

San Francisco State University

AMS Fall Southeastern Sectional Meeting <div style="float:right">**Savannah, GA**</div>

Localizing subcategories for Lie superalgebra representations <div style="float:right">*October 2024*</div>

Georgia Southern University

Joint Mathematics Meeting <div style="float:right">**Seattle, WA**</div>

Classifying localizing subcategories for Lie superalgebra representations <div style="float:right">*January 2025*</div>

Seattle Convention Center

Conferences Attended

AMS Spring Southeastern Sectional Meeting <div style="float:right">**Atlanta, GA**</div>

Georgia Institute of Technology <div style="float:right">*March 2023*</div>

Service

Mathematics Department Graduate Student Orientation <div style="float:right">**Athens, GA**</div>

University of Georgia <div style="float:right">*August 2022, 2023, 2024*</div>

Organizer, speaker

Representation Theory and Related Geometry: Progress and Prospects <div style="float:right">**Athens, GA**</div>

University of Georgia <div style="float:right">*May 2024*</div>

Local organizer

Teaching

University of Georgia <div style="float:right">**Athens, GA**</div>

MATH 1113: Precalculus <div style="float:right">*2021-2024*</div>

Instructor of Record. 8 sections

University of Georgia <div style="float:right">**Athens, GA**</div>

MATH 2250: Calculus I for Science and Engineering <div style="float:right">*2021-2024*</div>

Instructor of Record. 3 sections

University of Georgia <div style="float:right">**Athens, GA**</div>

MATH 2250E: Calculus I for Science and Engineering <div style="float:right">*Summer 2024*</div>

Instructor of Record. 1 section. Online.

Distinctions

University of Georgia <div style="float:right">**Athens, GA**</div>

Hollingsworth Award <div style="float:right">*2016–2017*</div>

Departmental awards for the top performing student in Introduction to Higher Mathematics.

University of Georgia <div style="float:right">**Athens, GA**</div>

Charles M. Strahan Award <div style="float:right">*2019*</div>

Awarded annually by the department for outstanding junior mathematics majors.

Employment

Five Points Prep <div style="float:right">**Watkinsville, Georgia**</div>

Mathematics and English Tutor <div style="float:right">*2018-2019*</div>

University of Georgia <div style="float:right">**Athens, Georgia**</div>

Graduate Teaching Assistant <div style="float:right">*2020-Present*</div>

Skills

Programming languages: Basic familiarity with Java, GAP, Python, LaTeX, and HTML/CSS.
Other: Proficient in Portuguese.