

Andrew B. Maurer
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Education

- **University of Georgia** Athens, Georgia
Mathematics, Ph.D. Candidate. 2014 – Present
 - Advisor: Daniel K. Nakano
 - Research Area: Cohomology of Lie superalgebras.
- **University of Massachusetts** Amherst, Massachusetts
Mathematics, BS. Computer Science, Minor. 2010 – 2014
 - Advisor: Farshid Hajir
 - Senior Project: Hasse-Witt invariants of Jacobi polynomials.

Research

- **Representations, cohomology, and geometry of Lie superalgebras.** I study support variety theory for Lie superalgebras. I have proven certain finitude results on the Krull dimension of cohomology rings relative to an even subsuperalgebra. Currently I am working on a rank-variety description of support varieties for Lie superalgebras.
This research builds on work by Benson, Boe, Carlson, Friedlander, Gruson, Hochschild, Kujawa, Nakano, Parshall, and Serre.

External Talks & Presentations

- **On the finite generation of cohomology for Lie superalgebras** Spring 2018
AMS Sectional: Hopf algebras, tensor categories, and homological algebra special session
- **On the finite generation of cohomology for Lie superalgebras** Fall 2017
AMS Sectional: Categorical methods in representation theory special session
- **Cohomology, Support Varieties, and Lie Superalgebras** Spring 2016
University of Colorado Boulder: Student Algebra Seminar

Internal Talks & Presentations

- **Graded Algebra** Spring 2018
UGA SMARTS
- **On the finite generation of cohomology for Lie superalgebras** Fall 2017
UGA Algebra Seminar
- **Representation theory I & II** Fall 2017
UGA SMARTS
- **Representation theory via algebraic geometry** Summer 2017
UGA Mock AMS Conference
- **Tropical linear spaces** Fall 2015
UGA Tropical Geometry VRG
- **The tropical Grassmannian** Fall 2015
UGA Tropical Geometry VRG
- **Asymptotically good families** Spring 2015
UGA Graduate Student Seminar
- **Determinantal complexity of the permanent** Spring 2015
UGA Student Algebraic Geometry Seminar
- **Construction of Grassmannian for Schubert calculus** Fall 2014
UGA Schubert Calculus on Grassmannian VRG
- **Computability with an eye towards elliptic curves** Fall 2014
Elliptic Curves Discussion Section

Service

- **Graduate Student Organizer** Summer 2018
University of Georgia Department of Mathematics Graduate Student Summer Program
- **Local Organizer** 2018
Southeast Lie Theory Workshop
- **Organizer** 2017 – 2018
SMARTS Seminar
- **Graduate Student Instructor** Summer 2016
University of Georgia Math Camp
- **Algebra Qualifying Exam Preparation Assistant** Summer 2016
UGA Department of Mathematics
- **Graduate Visitation Day Organizer** Spring 2016 & 2017
UGA Department of Mathematics
- **President** 2016 – 2017
Secretary 2015
UGA Chapter of the American Mathematical Society
- **Logistic Assistance**
Student Algebraic Geometry Seminar 2014 – 2015
Summer Workshop in Algebraic Geometry 2016
Topological Aspects of Algebra and Arithmetic Geometry 2016

Conferences, Summer Schools, and Workshops Attended

- **Derived Categories Summer School**
Mathematical Sciences Research Institute

Summer 2018
- **Southeast Lie Theory Workshop**
University of Georgia

Summer 2018
- **Summer School on Lie Theory**
University of Georgia

Summer 2018
- **Special Session on Hopf Algebras, Tensor Categories, and Homological Algebra**
2018
Northeastern University

Spring
- **Special Session on Categorical Methods in Representation Theory**
University of Central Florida

Fall 2017
- **Southern Regional Algebra Conference**
University of Southern Alabama

Spring 2017
- **Topological & Geometric Aspects of the Representation Theory of Finite Groups (Summer School & Workshop)**
Pacific Institute for the Mathematical Sciences

Summer 2016
- **Character Theory and the McKay Conjecture Summer School**
Mathematical Sciences Research Institute

Summer 2016
- **Southeastern Lie Theory Workshop**
University of Virginia

Summer 2016
- **Hodge Theory in Combinatorics Mini-Conference**
Georgia Institute of Technology

Spring 2016
- **Georgia Algebraic Geometry Symposium**
Georgia Intstitute of Technology

Fall 2015
- **Discrete Mathematics and Algorithms**
Clemson University Mini-Conference

Fall 2015
- **Georgia Algebraic Geometry Symposium**
University of Georgia

Fall 2014
- **Algebraic Geometry Northeastern Series**
University of Pennsylvania

Fall 2014

Teaching History

- **Math 1060:** Mathematics of decision making
Instructor of record
Summer 2017
University of Georgia
- **Math 1113:** Precalculus
Instructor of record
Fall 2016
University of Georgia
- **High School MathCamp:** Graph Theory Group
Lecturer
Summer 2016
University of Georgia
- **Upward Bound:** SAT / ACT Math
Teacher
Summer 2014
Upward Bound Summer Program
- **Math 300:** Introduction to Proofs
Teaching Assistant
Fall 2013 – Spring 2014
University of Massachusetts
- **Math 127 & 128:** Calculus I & II
Teaching Assistant
Fall 2011 – Spring 2013
University of Massachusetts
- **Math 235:** Linear Algebra
Supplemental Instruction Leader
Fall 2011 – Spring 2012
University of Massachusetts

Computer Skills

- **General Programming:** Java and Python.
- **Mathematical Programming:** Sage, Pari/GP, Magma, R, and Julia, SciPy stack.
- **Scripting Languages:** Perl, bash.
- **Markup:** \LaTeX , org-mode, and HTML.
- **Operating Systems:** Linux, Windows, Mac OS.