

Andrew B. Maurer
Department of Mathematics
Boyd Graduate Research Studies
University of Georgia
Athens, Georgia 30602

andrew.b.maurer@gmail.com
andrewmaurer.github.io

Education

- **University of Georgia** Athens, Georgia
Mathematics, Ph.D. Candidate. 2014 – 2019
 - 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.

Preprints and Publications

- **On the Finite Generation of Relative Cohomology for Lie Superalgebras**
Accepted for publication in *Proceedings of the American Mathematical Society*.

<https://arxiv.org/abs/1711.02112>

External Talks & Presentations

- **Title TBD** Spring 2019
AMS Sectional (Special Session): Recent Advances in Lie and Related Algebras and their Representations

- **Title TBD** Fall 2018
Texas A&M Algebra Seminar
- **On the Finite Generation of Cohomology for Lie Superalgebras** Spring 2018
AMS Sectional (Special Session): Hopf Algebras, Tensor Categories, and Homological Algebra
- **On the Finite Generation of Cohomology for Lie Superalgebras** Fall 2017
AMS Sectional (Special Session): Categorical Methods in Representation Theory
- **Cohomology, Support Varieties, and Lie Superalgebras** Spring 2016
University of Colorado Boulder: Student Algebra Seminar

Internal Talks & Presentations

- **Cohomology Rings And Geometry** Summer 2018
UGA Mock AMS Conference
- **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

Conferences, Summer Schools, and Workshops Attended

- **Derived Categories Summer School** Summer 2018
Mathematical Sciences Research Institute

- **Special Session on Hopf Algebras, Tensor Categories, and Homological Algebra**
Northeastern University Spring 2018
- **Special Session on Categorical Methods in Representation Theory**
University of Central Florida Fall 2017
- **Southern Regional Algebra Conference**
University of South 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 Institute 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

Service

- **Graduate Student Organizer**
University of Georgia Department of Mathematics Graduate Student Summer Program Summer 2018
- **Co-Organizer**
Southeast Lie Theory Workshop 2018
- **Organizer**
SMARTS Seminar 2017 – 2018
- **Graduate Student Instructor**
University of Georgia Math Camp Summer 2016
- **Algebra Qualifying Exam Preparation Assistant**
UGA Department of Mathematics Summer 2016
- **Graduate Visitation Day Organizer**
UGA Department of Mathematics Spring 2016 & 2017

- **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

Teaching History

- **Math 1113:** Precalculus (two sections) Fall 2018
Instructor of Record University of Georgia
- **Math 1060:** Mathematics of Decision Making Summer 2017
Instructor of Record University of Georgia
- **Math 1113:** Precalculus Fall 2016
Instructor of Record University of Georgia
- **High School MathCamp:** Graph Theory Group Summer 2016
Lecturer University of Georgia
- **Upward Bound:** SAT / ACT Math Summer 2014
Teacher Upward Bound Summer Program
- **Math 300:** Introduction to Proofs Fall 2013 – Spring 2014
Teaching Assistant University of Massachusetts
- **Math 127 & 128:** Calculus I & II Fall 2011 – Spring 2013
Teaching Assistant University of Massachusetts
- **Math 235:** Linear Algebra Fall 2011 – Spring 2012
Supplemental Instruction Leader 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.