

Born July 30, 1964 in Seattle, Washington

Citizenship: United States

Married, two children

### Education

1986 A.B. Mathematics University of California, Berkeley

1988 M.S. Mathematics Yale University

1989 M.Phil Mathematics Yale University

1990 Ph.D. Mathematics Yale University

Thesis Advisor: George B. Seligman

Thesis: Projective Modules over Lie Algebras of Cartan Type

### Employment

1990–91 Visiting Assistant Professor Auburn University

1991–95 Visiting Assistant Professor Northwestern University

1992–95 NSF Postdoctoral Fellow Northwestern University

1994–98 Assistant Professor Utah State University

1998–02 Associate Professor Utah State University

2001–03 Associate Professor University of Georgia

2003–10 Professor University of Georgia

2010– Distinguished Research Professor University of Georgia

### Research Interests

Representation Theory of Algebraic Groups, Quantum Groups, and Lie Superalgebras

Homological Methods in Representation Theory

Cohomology and Support Varieties for Algebraic and Finite Groups

Algebraic and Geometric Methods in Lie Theory

### Visiting Research Positions (with funding)

April 1993 University of Virginia

April 1995 University of Virginia

July 1998 Aarhus University, Denmark

June–July 2002 Visiting Professor, Osaka City University, Japan

Jan–June 2003 EPSRC Research Fellow, Oxford University, England

May 2004 Institute for Mathematical Sciences, University of Virginia

June 2005 Ecole Polytechnique Federale, Lausanne, Switzerland

Jan–June 2006 Visiting Professor, University of Virginia

March 2008 General Member, Mathematical Sciences Research Institute, Berkeley, CA

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July 2009	East China Normal University, Shanghai, China
July 2009	Peking University, Beijing, China
Jan–June 2010	Visiting Professor, University of Sydney, Australia
March–June 2010	University of New South Wales, Sydney, Australia
April 2010	University of Melbourne, Australia
July 2013	Morningside Institute, Beijing, China
May–June 2014	Centre de Recherches Mathématiques (CRM), Montreal, Canada
Feb–March 2015	Mittag-Leffler Institute, Stockholm, Sweden
Feb–March 2018	General Member, Mathematical Sciences Research Institute, Berkeley, CA
Jan 2020	Visiting Professor, SUSTech Mathematical Institute, Shenzhen, China

### Individual Research Grants: Principal Investigator

1. National Science Foundation Grant DMS–9206284, Mathematical Sciences Postdoctoral Research Fellowship, 1992–95, \$75,000
2. National Science Foundation Grant DMS–9500715, *Cohomology and Representation Theory of Algebraic Groups and Lie Algebras*, 1995–98, \$59,050
3. Utah State University: Faculty Research Grant, *Representation Theory of Algebraic Groups and Lie Algebras*, 1996–97, \$12,088
4. National Science Foundation Grant DMS–9800960, *Cohomology and Representation Theory: Algebraic Groups, Finite Groups and Lie Algebras*, 1998–2001, \$72,900
5. National Science Foundation Grant DMS–0136082, *Cohomology and Representation Theory: Reductive Algebraic Groups and Related Structures*, 2001–04, \$100,995
6. National Science Foundation Grant DMS–0400548, *Cohomology and Representation Theory*, 2004–07, \$118,359
7. National Science Foundation Grant DMS–0654169, *Cohomological Methods in the Representation Theory of Algebraic Groups, Quantum Groups and Superalgebras*, 2007–10, \$159,744
8. National Science Foundation Grant DMS–1002135, *Cohomology, Geometry and Representation Theory: Algebraic Groups, Quantum Groups and Lie Superalgebras*, 2010–13, \$169,976
9. National Science Foundation Grant DMS–1402271, *Representation Theory, Geometry and Cohomology in Tensor Triangulated Categories*, 2014–17, \$158,301
10. National Science Foundation Grant DMS–1701768, *Representations, Cohomology and Geometry in Tensor Triangulated Categories*, 2017–20, \$165,001
11. National Science Foundation Grant DMS–2101941, *Monoidal Triangular Categories, Representation Theory, Cohomology and Geometry*, 2021–24, \$232,374

**Other Grants:**

1. Co-Principal Investigator on National Science Foundation VIGRE Grant DMS-0089927, *Vertical Integration of Research and Educational Activities in Mathematics at the University of Georgia*, 2001-07, \$2,451,334
2. Principal Investigator on National Science Foundation VIGRE Grant DMS-0738586, *Vertical Integration of Research and Education in Mathematics at the University of Georgia*, 2008-15, \$3,819,865
3. Co-Principal Investigator on National Science Foundation Grant DMS-0852373, *Southeastern Lie Theory Workshop Series*, 2009-11, \$60,000
4. Co-Principal Investigator on National Science Foundation Grant DMS-1206255, *Southeastern Lie Theory Workshop Series*, 2012-14, \$38,750
5. Co-Principal Investigator on National Science Foundation Grant DMS-1544407, *Southeastern Lie Theory Workshop Series*, 2015-17, \$49,488
6. Co-Principal Investigator on National Science Foundation Grant DMS-1801804, *Southeastern Lie Theory Workshop Series*, 2018-19, \$49,970

**Undergraduate and Graduate Academic Honors/Awards/Recognition**

- 1986 Percy Lionel Davis Award (departmental prize), University of California, Berkeley  
 1986 Graduated with Highest Honors in Mathematics, University of California, Berkeley  
 1986- Phi Beta Kappa, University of California, Berkeley  
 1986-89 Annual Departmental Stipend Prize, Yale University  
 1986-90 Teaching Fellowship, Yale University  
 1987-90 Research Assistantship, Yale University

**University Faculty Academic Honors/Awards/Recognition**

- 1999-00 Researcher of the Year, Department of Mathematics and Statistics, Utah St. University  
 2007 Creative Research Medal, University of Georgia  
 2008 McCay Award (for distinguished research, teaching and service), Department of Mathematics, University of Georgia  
 2010 Distinguished Research Professorship, University of Georgia  
 2016 Lamar Dodd Creative Research Award, University of Georgia

**National and International Academic Honors/Awards/Recognition**

- 1987- American Mathematical Society, Member (Life Member from 2014-)
- 1992-95 National Science Foundation Postdoctoral Fellowship
- 2007 American Mathematical Society One-Hour Invited Address
- 2013- Fellow of the American Mathematical Society (Class of 2013, Inaugural Class)
- 2021- Association for Mathematical Research, Founding Member

**Administrative Experience**

- 2000–01 Chair of the Colloquium/Visitor Committee
- 2000–01 MSRI Representative for Utah St. University
- 2003–04 Chair of the Facilities Committee
- 2004 Co-Director of the University of Georgia VIGRE Program, January-April
- 2005–07 Chair of the VIGRE Grant Writing Committee
- 2008–15 Director of the University of Georgia VIGRE Program
- 2012–13 Chair of the American Mathematical Society Southeastern Section Program Committee
- 2014-15 Faculty Senate President-Elect, University of Georgia
- 2015-16 Faculty Senate President, University of Georgia
- 2018–19 Chair of the American Mathematical Society Program Committee for the National Meetings
- 2019-20 Vice Chair of the Executive Committee

**Membership on Editorial Boards**

- 2005–10 Editor for *Communications in Algebra*
- 2010– Editor for the *Journal of Pure and Applied Algebra*
- 2005–06 Editor for the Proceedings of the 2004 AMS Summer Research Institute Conference: Representations of Algebraic Groups, Quantum Groups and Lie Algebras
- 2011–12 Editor for the Proceedings of the Southeastern Lie Theory Workshop Series I (2009-11)
- 2014–15 Editor for the Proceedings of the Southeastern Lie Theory Workshop Series II (2012-14)

**Service on Departmental Committees: Utah State**

- 1995–96 Colloquium Committee, Search Committee
- 1996–97 Colloquium Committee, Search Committee, Graduate Committee
- 1997–98 Colloquium Committee, Graduate Committee
- 1998–99 Colloquium Committee, Graduate Committee
- 1999–00 Undergraduate Committee, Colloquium/Visitor Committee, Honors Committee
- 2000–01 Colloquium/Visitor Committee, Honors Committee

**Service on Departmental Committees: Georgia**

- 2001- Hiring Committee [Tenure-Track and Postdoctoral Positions]
- 2002–04 Facilities Committee
- 2004–06 Executive Committee
- 2006–07 Personnel Committee
- 2007–08 Graduate Committee
- 2008-15 VIGRE Management Committee
- 2009 McCay Award Selection Committee
- 2009-10 Cantrell Lecture Series Committee
- 2009-11 Executive Committee
- 2015 McCay Award Selection Committee
- 2015-16 Cantrell Lecture Series Committee
- 2017 McCay Award Selection Committee
- 2018-19 Cantrell Lecture Series Committee
- 2018-20 Executive Committee (Secretary: 2018-19)
- 2019 McCay Award Selection Committee
- 2021 McCay Award Selection Committee

**University Service: Georgia**

- 2011–15 Office for the Vice President for Research (OVPR) Advisory Council
- 2012–13 Franklin College of Arts and Sciences Special Professorship Selection Committee
- 2013–14 Franklin College of Arts and Sciences Special Professorship Selection Committee (Chair)
- 2012–15 Member of the Franklin College of Arts and Sciences Faculty Senate (first term)
- 2012–14 Member of the Franklin College Faculty Affairs Committee
- 2015–18 Member of the Franklin College of Arts and Sciences Faculty Senate (second term)
- 2016–21 Franklin College of Arts and Sciences Special Professorship Selection Committee
- 2017–19 Chair of the Franklin College of Arts and Sciences Special Professorship Selection Committee
- 2016–19 Office for the Vice President for Research (OVPR) Research Awards Selection Committee
- 2020-22 University Program Review and Assessment Committee (PRAC)
- 2020-21 Program Review Committee for the Computer Science Department (Chair)
- 2020-21 Program Review Committee for the Entomology Department
- 2021-22 Program Review Committee for the Plant Biology Department

**National and International Service**

- 2009– Scientific Committee, Southeastern Lie Theory Network
- 2011–13 American Mathematical Society Southeastern Section Program Committee
- 2011–13 American Mathematical Society Committee on Committees
- 2014 Chair of an Invited Address Session (Algebra) at the International Congress of Mathematicians
- 2017–20 American Mathematical Society, Program Committee for the National Meetings

**Service as a Conference Organizer**

- 1994 Organizer for the Special Session on Lie Theory at the 900<sup>th</sup> AMS Meeting in Chicago, IL
- 1997 Organizer for the Minisymposium on Lie Theory, Matrix Theory and Combinatorics at the MAA meeting in Logan, UT
- 1998 Organizer for the Special Session on Representation Theory of Algebraic Groups, Quantum Groups, and Lie Algebras at the 932<sup>nd</sup> AMS Meeting in Manhattan, KS
- 2001 Organizer for the Special Session on Representation Theory of Finite and Algebraic Groups at the National AMS Meeting in New Orleans, LA
- 2002 Organizer for a Workshop on Modular Representation Theory, Korea Institute for Advanced Study, Seoul, Korea
- 2004 Organizer for the AMS Summer Research Conference: Representations of Algebraic Groups, Quantum Groups, and Lie Algebras, Snowbird, UT
- 2005 Organizer for the Special Session on Representation Theory of Lie Algebras at the National AMS Meeting in Atlanta, GA
- 2007 Organizer for the Special Session on Cohomology and Representation Theory at the National AMS Meeting in New Orleans, LA
- 2007 Organizer for the Special Session on Lie and Representation Theory at the 1030<sup>th</sup> AMS Meeting in Murfreesboro, TN
- 2008 Chair of the Organizing Committee for a Workshop on Homological Methods in Representation Theory, Mathematical Sciences Research Institute, Berkeley, CA
- 2009 Organizer for the Special Session on Representation Theory of Lie Algebras and Algebraic Groups at the National AMS Meeting in Washington D.C.
- 2010 Organizer for the VIGRE Summer School on Lie and Representation Theory (two weeks) University of Georgia, Athens, GA
- 2010 Chair of the Organizing Committee for the Workshop on Lie Theory, Homological Methods and Applications, University of Georgia, Athens, GA
- 2011 Organizer for the Special Session on Lie Algebras, Algebraic Groups and Related Topics at the National AMS Meeting in New Orleans, LA
- 2012 Organizer for the Conference on Categorification of Quantum Groups and Representation Theory, North Carolina State University, Raleigh, NC
- 2012 Organizer for the Summer School on Cohomology and Supports in Representation Theory University of Washington, Seattle, WA
- 2014 Chair of the Organizing Committee for the Conference on Representations of Lie Algebras and Superalgebras, University of Georgia, Athens, GA
- 2016 Organizer for the Special Session on Representation Theory of Algebraic Groups at the National AMS Meeting in Seattle, WA

- 2016 Organizer for the Special Session on Lie Theory, Representation Theory and Geometry at the 1117<sup>th</sup> AMS Meeting in Athens, GA
- 2017 Organizer for the Special Session on Representations of Lie Algebras at the Congress of the Americas in Montreal, Canada
- 2017 Organizer for the Special Session on Categorical Methods in Representation Theory at the 1133<sup>rd</sup> AMS Meeting in Orlando, FL
- 2018 Chair of the Organizing Committee for the RTG Summer School on Lie Theory, University of Georgia, Athens, GA
- 2018 Chair of the Organizing Committee for the Workshop on Representations of Algebraic Groups and Superalgebras, University of Georgia, Athens, GA
- 2019 Organizer for the Special Session on Homological Methods in the Representation Theory of Groups and Algebras at the Joint Vietnam-USA Mathematical Meeting, Quy Nhon City, Vietnam
- 2020 Organizer for the Workshop on Representation Theory of Algebraic and Quantum Groups, University of Virginia, Charlottesville, VA
- 2021 Organizer for the 12th Southeastern Lie Theory Workshop, College of Charleston, Charleston, SC
- 2022 Organizer for the Special Session on Representation Theory of Algebraic and Quantum Groups: A Tribute to the Work of Cline, Parshall and Scott at the 1175<sup>th</sup> AMS Meeting in Charlottesville, VA

### Other Professional Activities

- Member Phi Beta Kappa (elected 1986)
- 1991– Refereeing duties for numerous journals
- 1992–06 Reviewer for Mathematical Reviews
- 1996– Reviewer for NSA grant proposals (including service on NSA Panels)
- 1997– Reviewer for NSF grant proposals (including service on 8 NSF Proposal Review Panels)
- 2000– Reviewer for NSERC grant proposals
- 2011 Reviewer for Simons Collaboration Grants in Mathematics
- 2011 Consultant for the American Association for the Advancement of Science (AAAS)

**Service on Thesis Committees**

- 2001 Cora Neal, Utah State University, Ph.D Committee
- 2001 Russel Carlson, Utah State University, Ph.D Committee
- 2007 G. Michael Guy, University of Georgia, Ph.D Committee
- 2007 Emille K. Davie, University of Georgia, Ph.D Committee
- 2007 Philip Bergonio, University of Georgia, M.A. Committee
- 2008 Kenyon Platt, University of Georgia, Ph.D Committee
- 2009 Jeremiah Hower, University of Georgia, Ph.D Committee
- 2012 Benjamin Wyser, University of Georgia, Ph.D Committee
- 2012 Wenjing Li, University of Georgia, Ph.D Committee
- 2016 Patrick McFaddin, University of Georgia, Ph.D Committee
- 2016 Maren Turbow, University of Georgia, Ph.D Committee
- 2016 Matthew Zawodniak, University of Georgia, Ph.D Committee

**Service as a Secondary Ph.D Advisor**

- 1991–93 Joseph P. Gottman, Northwestern University, Secondary Ph.D Thesis Advisor  
Thesis: Characters on Restricted Lie Algebras
- 1993–95 Christopher P. Bendel, Northwestern University, Secondary Ph.D Thesis Advisor  
Thesis: Support Varieties for Infinitesimal Algebraic Groups
- 2010–13 Tiago Macedo, Universidade Estadual de Campinas, Co-Ph.D Thesis Advisor  
Thesis: Characters and Cohomology of Modules for Kac-Moody Algebras  
and Generalizations
- 2019-21 Kent B. Vashaw, Louisiana St. University, Secondary Ph.D Thesis Advisor  
Thesis: Noncommutative Tensor Triangular Geometry and its Applications  
to Representation Theory

**Service as a Major Ph.D Advisor**

- 2004–08 Bobbe J. Cooper, University of Georgia, Ph.D Thesis Advisor  
Thesis: Support Varieties of Tilting Modules
- 2005–08 Caroline B. Wright, University of Georgia, Ph.D Thesis Advisor  
Thesis: Second Cohomology Groups of Frobenius Kernels
- 2005–09 Irfan Bagci, University of Georgia, Ph.D Thesis Advisor  
Thesis: Cohomology and Support Varieties for Lie Superalgebras
- 2009–12 Nham V. Ngo, University of Georgia, Ph.D Thesis Advisor  
Thesis: Cohomology and Geometry for Frobenius Kernels of Algebraic Groups
- 2012–14 Andrew Talian, University of Georgia, Ph.D Thesis Advisor  
Thesis: Endotrivial Modules for Classical Lie Superalgebras
- 2012–15 Theresa Brons, University of Georgia, Ph.D Thesis Advisor  
Thesis: Rational and Line Bundle Cohomology for Reductive Algebraic Groups
- 2012–16 William Hardesty, University of Georgia, Ph.D Thesis Advisor  
Thesis: On Support Varieties for Algebraic Groups



- 2015–19 Ziqing Xiang, University of Georgia, Ph.D Thesis Advisor  
Thesis: Representation Theory for Schur and Hecke Algebras of Classical Type
- 2016–19 Andrew Maurer, University of Georgia, Ph.D Thesis Advisor  
Thesis: Cohomology and Support Varieties for Classical Lie Superalgebras
- 2018–22 L. Andrew Jenkins, University of Georgia, Ph.D Thesis Advisor
- 2019–22 David Galban, University of Georgia, Ph.D Thesis Advisor

**Service as a Postdoctoral Research Advisor**

- 2001–03 David Hemmer, University of Georgia, Senior Sponsoring Scientist for NSF Postdoctoral Fellow
- 2003–06 Nadia Mazza, University of Georgia, Postdoctoral Research Advisor
- 2004–07 Jonathan Kujawa, University of Georgia, Senior Sponsoring Scientist for NSF Postdoctoral Fellow
- 2008–10 Benjamin Jones, University of Georgia, Postdoctoral Research Advisor
- 2009–12 Christopher Drupieski, University of Georgia, Postdoctoral Research Advisor
- 2015–18 Paul Sobaje, University of Georgia, Postdoctoral Research Advisor
- 2017–20 Chun-Ju Lai, University of Georgia, Postdoctoral Research Advisor
- 2020–22 Arik Wilbert, University of Georgia, Postdoctoral Research Advisor

**Service as a Postdoctoral Teaching Advisor**

- 2004–05 Su-ion Ih, University of Georgia, Postdoctoral Teaching Advisor
- 2014–17 Abbey Bourdon, University of Georgia, Postdoctoral Teaching Advisor
- 2016–19 Kyle Chapman, University of Georgia, Postdoctoral Teaching Advisor
- 2019–22 Joseph Hoisington, University of Georgia, Postdoctoral Teaching Advisor

**Other Advising**

- 1995–96 Amanda Brown, Utah St. University, Senior Honors Thesis Advisor
- 1999–00 Kady Schneider, Utah St. University, Masters Thesis Advisor
- 2017–19 Nikolay Grantcharov (undergrad at U.C. Berkeley), Undergraduate Research Internship Advisor
- 2017–19 Jerry Wu (undergrad at U.C. Berkeley), Undergraduate Research Internship Advisor
- 2020–21 Nathan Wenger (undergrad at U.C. Berkeley), Graduate School Application Advisor
- 2020–21 Hank Morris (undergrad at the University of Georgia), Graduate School Application Advisor

**Lectures**

- 1989 Algebra Seminar, Yale University, May
- 1990 Algebra Seminar, Yale University, April  
Algebra Seminar, Auburn University, October  
Algebra Seminar, University of Washington, December
- 1991 Algebra Seminar, North Carolina St. University, March  
Algebra Seminar, Auburn University, April  
Algebra Seminar, University of Washington, August
- 1992 Algebra Seminar, Northwestern University, February  
Algebra Seminar, Yale University, April  
Lie Theory Seminar, University of Wisconsin, Madison, April  
Conference on the Structure and Representation Theory of Lie Algebras, Yale University, April  
Conference on Connections between Topology and Representation Theory, Northwestern University, May  
Algebra Seminar, University of Washington, August
- 1993 Midwest Group Theory Seminar, University of Chicago, March  
Colloquium, Auburn University, March  
Colloquium, University of Georgia, March  
Algebra Seminar, University of Virginia, March, April  
Colloquium, Johns Hopkins University, April  
Algebra Seminar, Yale University, April  
III International Conference on Non-associative Algebra and its Applications, University of Oviedo, Spain, July
- 1994 Algebra Seminar, University of Washington, January  
Colloquium, Kansas St. University, January  
Algebra Seminar, Kansas St. University, January  
Colloquium, Michigan St. University, February  
Series of four lectures on Representations of Algebraic Groups and Lie Algebras, Queens University, Kingston, Ontario, Canada, February  
Colloquium, Utah St. University, March  
890<sup>th</sup> AMS Meeting at Kansas St. University, Special Session on Representations of Algebraic and Quantum Groups, March  
Algebra Seminar, Northwestern University, April

- 1994 Algebra Seminar, University of Florida, April  
Contributed Talk, Canadian Mathematical Society Conference on Representations of Groups and Algebras, Banff, Canada, June  
895<sup>th</sup> AMS Meeting at Oklahoma St. University, Special Session on Representations of Algebraic Groups, October  
Lie Theory Seminar, University of Wisconsin, Madison, December
- 1995 897<sup>th</sup> AMS Meeting at San Francisco, CA, Special Session on Cohomology of Finite Groups, January  
Symposium on Lie Algebras and their Representation Theory, Invited Lectures (2), Seoul National University, Korea, January  
Algebra Seminar, Northwestern University, February  
Topology Seminar, Northwestern University, March  
Colloquium, University of Windsor, April  
Algebra Seminar, University of Virginia, April
- 1996 908<sup>th</sup> AMS Meeting in Orlando, FL, Special Session on Algebra, Cohomology and Polynomial Identities, January  
Colloquium, Kansas St. University, March  
Algebra Seminar, Northwestern University, April  
911<sup>th</sup> AMS Meeting in Baton Rouge, LA, Special Session on Representations of Finite Groups, Algebraic Groups and Lie Algebras, April  
Monster/Lie Algebra Conference at the Ohio St. University, Invited Talk, May  
Conference on Combinatorial Matrix Theory at Utah St. University, May  
AMS Summer Research Institute at Seattle, WA, Plenary Talk, July
- 1997 Colloquium, University of Wyoming (sponsored by the Rocky Mountain Consortium), March  
Representation Theory Seminar, University of Utah, March  
MAA Special Session on Lie Theory, Matrix Theory and Combinatorics, Utah St. University, April  
Algebra Seminar, Oxford University, June  
Representation Theory Seminar, Oxford University, June  
AMS Summer Research Conference at Seattle, WA, July

- 1998 932<sup>nd</sup> AMS Meeting in Manhattan, KS, Special Session on Cohomology of Finite Groups, March  
 Algebra Seminar, Northwestern University, April  
 Group Theory Seminar, University of Chicago, April  
 Lie Theory Seminar, University of Wisconsin, Madison, April  
 Representation Theory Seminar, Princeton University, May  
 Symposium on Modular Representations of Finite Groups, University of Virginia, May  
 Algebra Seminar, University of Washington, May  
 Colloquium, University of Oregon, May  
 International Conference on Representation Theory, East China Normal University, Shanghai, China, June  
 Algebra Seminar, Aarhus University, Denmark, July  
 Group Theory Seminar, University of Georgia, October  
 Colloquium, University of South Alabama, (sponsored by NSF EPSCoR program), October  
 Colloquium, Auburn University, (sponsored by NSF EPSCoR program), October  
 Algebra Seminar, University of Virginia, December
- 1999 Algebra Seminar, Yale University, March  
 U. C. Lie Theory Conference, Invited Talk, University of California, Santa Cruz, April  
 943<sup>rd</sup> AMS Meeting in Buffalo, NY, Special Session on Representation Theory of Lie Algebras, April  
 Colloquium, Kansas St. University, June  
 945<sup>th</sup> AMS Meeting in Melbourne, Australia (joint with Australian Math. Soc.) Special Session on Algebraic Groups and Related Topics, July
- 2000 Colloquium, University of California, Riverside, March  
 Group Theory Seminar, University of Chicago, April  
 953<sup>rd</sup> AMS Meeting in South Bend, IN, Special Session on Representation Theory of Groups and Related Objects, April  
 Conference on Representation Theory and Computational Algebra, University of Georgia, May  
 Conference on Cohomology of Finite Groups: Interactions and Applications, Oberwolfach, Germany, July  
 Special Topics Seminar (2 lectures), Utah St. University, October  
 Colloquium, University of Georgia, December
- 2001 962<sup>nd</sup> AMS Meeting in New Orleans, LA, Special Session on Group Cohomology with Applications to Homotopy Theory and Representation Theory, January  
 Special Topics Seminar, Utah St. University, February  
 Colloquium, University of Oregon, May  
 Algebra Seminar, University of Washington, May  
 International Conference on Representations of Algebraic and Quantum Groups, Kunming, China, July  
 Group Cohomology and Representation Theory Seminar, University of Georgia, September  
 Colloquium, University of South Alabama, October  
 Conference on Geometric and Combinatorial Representation Theory, Seoul National University, Seoul, Korea, October

- 2002 Lie Theory Seminar (5 lectures), University of Georgia, January-February, October  
 Group Cohomology and Representation Theory Seminar, University of Georgia, March  
 Algebra Seminar, University of Virginia, March  
 Conference on Lie and Jordan Algebras: their Representations and Applications, Plenary  
 Talk, Guarujá, Brazil, May  
 AMS Summer Research Conference: Groups, Representations and Cohomology, Plenary  
 Talk, South Hadley, MA, June  
 Symposium on Algebraic Groups, Invited Lectures (3), Osaka City University, Osaka, Japan,  
 June  
 980<sup>th</sup> AMS Meeting in Madison, WI, Special Session on Lie Theory, October  
 Workshop on Modular Representation Theory, Korea Institute for Advanced Study, Seoul,  
 Korea, October  
 VIGRE Seminar, University of Georgia, November
- 2003 Algebra Seminar, Oxford University, January  
 Algebra Seminar, University of Warwick, February  
 Lie Theory Seminar, University of Warwick, February  
 Representation Theory Seminar, Oxford University, February  
 Pure Maths Seminar, University of Bristol, February  
 Pure Maths Seminar, University of Leicester, March  
 Workshop of Geometric Representation and Invariant Theory, Plenary Talk, University of  
 Manchester, March  
 Conference on the Representation Theory of Finite Groups, Oberwolfach Germany, March  
 Algebra Seminar, University of Leeds, April  
 Bristol-Leicester-Oxford Colloquium, University of Leicester, April  
 Mini-Workshop on Representations of Algebraic Groups and Lie Algebras, University of  
 Birmingham, May  
 Infinite Dimensional Lie Theory Workshop, Invited Talk, Fields Institute, Toronto, Canada,  
 July  
 VIGRE Algebra Seminar, University of Georgia, September, October, November  
 Lie Theory Seminar, University of Georgia, September  
 VIGRE Seminar, University of Georgia, October  
 991<sup>th</sup> AMS Meeting in Chapel Hill, NC, Special Session on Group Cohomology in Algebra  
 and Geometry, October  
 Conference on Groups, Representations and Galois Theory, in honor of Walter Feit, Invited  
 Talk, Yale University, October  
 Group Cohomology and Representation Theory Seminar (3), University of Georgia,  
 November

- 2004 VIGRE Algebra Seminar, University of Georgia, January, February, March  
 Algebra Seminar, University of Georgia, February, April  
 Conference on Geometric Representation Theory, Invited Talk, University of Warwick, England, March  
 Conference on Lie and Jordan Algebras: their Representations and Applications II, Plenary Talk, Guaruja, Brazil, May  
 Algebra Seminar, University of Virginia, May  
 Algebra Seminar, University of Washington, July  
 Conference on Algebraic Cycles, K-theory, and Modular Representation Theory, Plenary Talk, Northwestern University, September  
 Conference on Interaction of Finite Dimensional Algebras with Other Areas of Mathematics, Banff International Research Station, Banff, Canada, September  
 Groups-Representations-Cohomology Seminar, Ohio State University, October
- 2005 1003<sup>rd</sup> AMS Meeting in Atlanta, GA, Special Session on Modular Representation Theory of Finite and Algebraic Groups, January  
 VIGRE Algebra Seminar, University of Georgia, January, February, September, October  
 Algebra Seminar (4 lectures), University of Georgia, February, October  
 International AsiaLink Conference on Algebras and Representations, Plenary Talk, Beijing Normal University, P.R. China, May  
 Series of Invited Lectures (2), Programme on Group Representation Theory, Bernoulli Centre, Ecole Polytechnique Federale de Lausanne, Switzerland, June  
 VIGRE Seminar, University of Georgia, August  
 Conference on Cohomology of Finite Groups: Interactions and Applications, Oberwolfach, Germany, September  
 1012<sup>th</sup> AMS Meeting in Eugene, OR, Special Session on Representations of Groups and Algebras, November  
 Algebra Seminar, University of Washington, November  
 1013<sup>th</sup> AMS Meeting in Taichung, Taiwan, Special Session on Lie Algebra and Representation Theory, December
- 2006 Conference on Representation Theory of Finite Groups, Oberwolfach, Germany, March  
 Algebra Seminar, University of Virginia, April  
 Geometric Methods in Representation Theory Seminar, University of North Carolina, April  
 Colloquium, Virginia Tech, April  
 1018<sup>th</sup> AMS Meeting in San Francisco, CA, Special Session on Lie Algebras and Applications, April  
 VIGRE Algebra Seminar, University of Georgia, August, September, November  
 Algebra Seminar, University of Georgia, November  
 Algebra Seminar, University of Rochester, November  
 Topology Seminar, University of Rochester, November

- 2007 1024<sup>th</sup> AMS Meeting in Davidson, NC, Special Session on Geometric and Combinatorial Methods in Representation Theory, March  
 Algebra Seminar, University of Virginia, March  
 Shoemaker Distinguished Lecture Series (3 lectures), University of Toledo, April  
 Conference on Lie Theory, Banff International Research Station, Banff, Canada, May  
 Algebra and Algebraic Geometry Seminar, University of Washington, June  
 Algebraic and Geometric Representation Theory Conference, Plenary Talk, Aarhus University, Denmark, June  
 Conference on Algebras, Representations and Applications Lie and Jordan Algebras, their Representations and Applications - III, Plenary Talk, Brazil, August  
 Conference on Group Embeddings, Banff International Research Station, Banff, Canada, September  
 Invited One-Hour Address, American Mathematical Society Fall Sectional Meeting, Murfreesboro, TN, November
- 2008 Algebra Seminar, University of Georgia, January  
 Conference on Representation Theory of Finite Dimensional Algebras, Oberwolfach, Germany, February  
 Homological Methods in Representation Theory Seminar, MSRI, Berkeley, CA, March  
 Colloquium, University of British Columbia, April  
 Algebra/Topology Seminar, University of British Columbia, April  
 Algebra Seminar, Emory University, April  
 1040<sup>th</sup> AMS-SBM Meeting in Rio de Janeiro, Brazil, Special Session on Lie Algebras and their Applications, June  
 1043<sup>rd</sup> AMS Meeting in Kalamazoo, MI, Special Session on Computation in Modular Representation Theory and Cohomology, October  
 1045<sup>th</sup> AMS-SMS Meeting in Shanghai, China, Special Session on Representations of Groups and Algebras, December
- 2009 Mini-Workshop on Support Varieties, (3 invited lectures), Oberwolfach, Germany, February  
 1048<sup>th</sup> AMS Meeting in Raleigh, NC, Special Session on Kac-Moody Algebras, Vertex Algebras, Quantum Groups, and Applications, April  
 Algebra Seminar, University of Virginia, May  
 Conference on Representation Theory and Lie Theory, Plenary Talk, Isaac Newton Institute for Mathematical Sciences, Cambridge, England, June  
 Second Summer School on Lie Theory and Representation Theory, Invited Lecture Series (6 lectures), East China Normal University, Shanghai, China, July  
 Workshop on Lie Theory and Representation Theory, Plenary Talk, East China Normal University, Shanghai, China, July  
 International Workshop on Algebraic Groups, Quantum Groups and Related Topics, Plenary Talk, Peking University, Beijing, China, July  
 International Workshop on Quantized Algebras and Physics, Invited Talk, Chern Institute of Mathematics, Nankai University, Tianjin, China, July

- National Mathematics Summer School, Peking University, Beijing, China, July  
 International Workshop on Lie Algebras and Related Topics, Plenary Talk, National Institute for Mathematical Sciences, Daejeon, Korea, October  
 Algebra Seminar, University of Georgia, October  
 Algebra and Algebraic Geometry Seminar, University of Washington, December
- 2010 Algebra Seminar (2), University of Sydney, March  
 Algebra Seminar, University of Melbourne, April  
 Colloquium, University of New South Wales, June  
 Fifth International Conference on Representation Theory, Plenary Talk, Xian, China, August  
 VIGRE Algebra Seminar (2), University of Georgia, August-September  
 1062<sup>nd</sup> AMS Meeting in Syracuse, NY, Special Session on Lie Algebras and Representation Theory, October  
 Algebra Seminar, University of Georgia, November  
 Taipei Conference on Representation Theory, Plenary Talk, Academia Sinica, Taipei, Taiwan  
 December
- 2011 U.C. Lie Theory Workshop, Louisiana State University, February  
 Colloquium, University of Virginia, March  
 Mini-workshop on Modular Representations of Symmetric Groups and Related Objects, Oberwolfach, Germany, April  
 1074<sup>th</sup> AMS Meeting in Lincoln, NE, Special Session on Quantum Groups and Representation Theory, October  
 Colloquium, Baylor University, October  
 Colloquium, University of Texas, Arlington, October  
 1075<sup>th</sup> AMS Meeting in Salt Lake City, UT, Special Session on Noncommutative Geometry and Algebra, October  
 Southwest Group Theory Day 2011, University of Arizona, November
- 2012 1077<sup>th</sup> AMS Meeting in Boston, MA, Special Session on Linear Algebraic Groups: their Arithmetic, Geometry and Representations, January  
 Colloquium, University of Southern California, February  
 1079<sup>th</sup> AMS Meeting in Tampa, FL, Special Session on Representations of Algebraic Groups and Related Structures, March  
 Conference on the Representation Theory of Finite Groups, Oberwolfach Germany, March  
 Workshop on Cohomology Bounds and Growth Rates, American Institute for Mathematics, Palo Alto, CA, Extemporaneous Talks, June  
 Conference on Cohomology and Supports in Representation Theory, University of Washington, Plenary Talk, July  
 Conference on Lie Algebras and Applications, Plenary Talk, Uppsala University, Sweden, September  
 1085<sup>th</sup> AMS Meeting in Tucson, AZ, Special Session on Representations of Groups and Algebras, October  
 Algebra Seminar, University of Georgia, November



- 2013 Algebra Seminar, University of Texas at Arlington, February  
 Colloquium, College of Charleston, March  
 Colloquium, University of Oregon, April  
 III International Symposium on Groups, Algebras and Related Topics, Peking University,  
 Invited Talk, June  
 International Conference on Representation Theory VI, Zhangjiajie, China, Plenary  
 Talk, June  
 Algebra Seminar (2), Morningside Institute, Beijing, China, July  
 Colloquium, Chinese Academy of Sciences, Beijing, China, July  
 Congress of the Americas, Special Session on Lie Representation Theory, Guanajuato,  
 Mexico, August  
 Algebra Seminar, University of Georgia, August
- 2014 Algebra Seminar (2), University of Georgia, January, February  
 Joint Mathematics Meetings for the AMS and MAA, MAA Invited Paper Session, The  
 Unreasonable Effectiveness of Modern Mathematics, Baltimore, MD, January  
 Algebra and Algebraic Geometry Pre-Seminar, University of Washington, February  
 Algebra and Algebraic Geometry Seminar, University of Washington, February  
 1097<sup>th</sup> AMS Meeting in Knoxville, TN, Special Session on Geometric and Combinatorial  
 Methods in Lie Theory, March  
 Geometric Methods in Representation Theory Seminar, University of North Carolina, March  
 Conference on Representations of Algebraic Groups, Invited Talk, University of Lyon,  
 France, July  
 ICM 2014 Satellite Conference on Representation Theory and Related Topics, Invited  
 Talk, Daegu, South Korea, August  
 Conference on Representations of Algebraic Groups and Related Objects, Plenary Talk,  
 Friedrich-Schiller Universitat, Jena, Germany, September  
 Algebra Seminar, University of Georgia, September  
 Algebra, Geometry, Combinatorics Day (ALGECOM11), Plenary Talk, DePaul University,  
 Chicago, IL, October  
 1105<sup>th</sup> AMS Meeting in Greensboro, NC, Special Session on Exceptional Groups in Physics,  
 Algebra and Geometry, November
- 2015 USA-Mexico Conference in Representation Theory and Non-Commutative Algebra, Plenary  
 Talk, Instituto de Matematicas, UNAM, Mexico, January  
 Invited Seminar Speaker, Mittag-Leffler Institute, Stockholm, Sweden, February  
 Southwestern Group Theory Day, Invited Talk, University of Arizona, March  
 Conference on Cohomology of Finite Groups: Interactions and Applications, Oberwolfach,  
 Germany, May

- 2016 Joint Mathematics Meetings, AMS Special Session on Geometric and Categorical Methods in Representation Theory, Seattle, WA, January  
 Conference on Vertex Algebras and Quantum Groups, Banff International Research Station, Banff, Canada, Invited Talk, February  
 Algebra Seminar, DePaul University, Chicago, IL, March  
 Workshop on Sheaves and Modular Representations of Reductive Groups, American Institute for Mathematics, San Jose, CA, Invited Talk, March  
 Oberseminar, University of Georgia, May  
 Southeastern Lie Theory Workshop IX, University of Virginia, Plenary Talk, May  
 Conference on Triangulated Categories and Applications, Banff International Research Station, Banff, Canada, Invited Talk, June  
 PIMS Workshop on Geometric and Topological Aspects of the Representation Theory of Finite Groups, Vancouver, Canada, Plenary Talk, August  
 Workshop on Endo-p-Permutation Modules in the Representation Theory of Finite Groups, Bernoulli Centre, EPFL, Lausanne, Switzerland, Plenary Talk, September  
 Algebra Seminar, University of Georgia, September  
 1124<sup>th</sup> AMS Meeting in Raleigh, NC, Special Session on Representation Theory of Lie Algebras, Quantum Groups and Related Structures, November
- 2017 Joint Mathematics Meetings, AMS Special Session on Group Representations and Cohomology, Atlanta, GA, January  
 Colloquium, Auburn University, February  
 Algebra Seminar, University of Georgia, February  
 Algebra and Algebraic Geometry Seminar, University of Washington, May  
 Congress of the Americas, Special Session on Cohomology of Groups, Montreal, Canada, July  
 Satellite Workshop on Representation Theory, Plenary Talk, University of Laval, Quebec City, Canada, July  
 1132<sup>nd</sup> AMS Meeting in Buffalo, NY, Special Session on Recent Advancements in Representation Theory, September  
 Colloquium, Georgia Southern University, October
- 2018 Group Representation Theory and Applications Seminar, MSRI, Berkeley, CA, February  
 Algebra Seminar, University of Georgia, April  
 1139<sup>th</sup> AMS Meeting in Boston, MA, Special Session on Hopf Algebras, Tensor Categories, and Homological Algebra, April  
 Algebra and Representation Theory Seminar, University of Stuttgart, Germany, July  
 Conference on Algebraic Representation Theory, Plenary Talk, University of Stuttgart, Germany, July  
 ICM 2018 Satellite Conference on Algebras, Representations and Applications, Plenary Talk Cusco, Peru, August  
 Pure Math Seminar, University of South Alabama, October  
 Algebra Seminar, University of Georgia, November  
 Colloquium, University of Reno, Nevada, November  
 Algebra and Algebraic Geometry Seminar, University of Washington, December

- 2019 Taipei Conference on Representation Theory, Plenary Talk, Academia Sinica, Taipei, Taiwan  
January  
Colloquium, College of Charleston, January  
Colloquium, Louisiana St. University, February  
1146<sup>th</sup> AMS Meeting in Auburn, AL, Special Session on Geometric Methods in Representation Theory, March  
Lie Theory Seminar, Rutgers University, March  
Topology Seminar, University of Rochester, April  
1148<sup>th</sup> AMS Meeting in Hartford, CT, Special Session on Quantum Algebras and Related Topics, April  
Vietnam-USA Joint Mathematical Meeting, Special Session on Groups, Representations and Applications, Quy Nhon, Vietnam, June  
International Conference on Representation Theory VIII, Plenary Talk, Harbin, China, July  
Algebra Seminar, University of Georgia, November  
Algebra and Discrete Mathematics Seminar, University of California, Davis, December
- 2020 Conference Lie and Jordan Algebras, their Representations and Applications, Plenary Talk, Chengdu, China, January  
Mathematics Seminar, SUSTech Mathematical Institute, January  
Conference on Cohomology of Finite Groups: Interactions and Applications, Oberwolfach, Germany, August  
1162<sup>nd</sup> AMS Meeting in Salt Lake City, UT (virtual), Special Session on Geometry and Representation Theory of Quantum Algebras and Related Topics, October  
Pure Math Day, Plenary Talk, Georgia Southern University, November  
LieJor Online Seminar, Algebras, Representations and Applications, University of Sao Paulo, Brazil, December
- 2021 The RepNet Virtual Seminar, The International Centre for Mathematical Sciences, Edinburgh, Scotland, February  
Quantum Groups Seminar, University of Copenhagen, Copenhagen, Denmark, February  
Algebra Seminar, University of Georgia, March  
1165<sup>th</sup> AMS Meeting in Providence, RI (virtual), Special Session on Hopf Algebras, Tensor Categories and Related Homological Methods, March  
Groups, Arithmetic, and Algebraic Geometry Seminar, EPFL, Lausanne, Switzerland, May  
Algebra Seminar, University of Georgia, September  
1173<sup>th</sup> AMS Meeting in Mobile, AL, Special Session on Cohomology, Representation Theory, and Lie Theory, November

**Teaching Experience, Courses Taught**

Berkeley: 1984–86 Calculus of One Variable (tutor/reader)

Yale: 1986–87 115a Calculus of One Variable (problem session)  
 1987–88 222b Linear Algebra (discussion section)  
 1988–89 115b Calculus of One Variable  
 1989–90 115a Calculus of One Variable  
 115b Calculus of One Variable

Auburn: 1990-91 161 Analytic Geometry and Calculus  
 266 (2) Introduction to Linear Algebra  
 264 Analytic Geometry and Calculus  
 265 Linear Differential Equations  
 331 Introduction to Abstract Algebra

Northwestern: 1991–92 B14–2 Calculus  
 C37 Introduction to Modern Algebra  
 B15 Multiple Integration and Vector Calculus  
 B17 Sequences and Series, Linear Algebra  
 C34 Linear Algebra and its Applications  
 1992–93 D84 Lie Algebras  
 E11–2 Seminar: Representation Theory of Algebraic Groups  
 and Lie Algebras  
 1993–94: C37 Introduction to Modern Algebra  
 1994–95: B14–2 Calculus  
 B14–1 Calculus

Utah State: 1995–96 531 Introduction to Group Theory  
 532 Introduction to Ring Theory  
 533 Galois Theory  
 731 Lie Algebras  
 732 Representations of Finite Groups  
 1996–97 220 Calculus  
 221 Calculus  
 631 Graduate Algebra  
 632 Graduate Algebra  
 633 Graduate Algebra

	1997–98	531	Introduction to Group Theory
		532	Introduction to Ring Theory
		731	Representation Theory of Groups
		732	Representation Theory of Lie Algebras
	1998–99	6310	Graduate Algebra
		6320	Graduate Algebra
		1220H	Honors Calculus
	1999–00	1100	Calculus
		4310	Modern Algebra
		5320	Modern Algebra
		7320	Representation Theory
	2000–01	6310	Graduate Algebra
		2270	Linear Algebra
		6320	Graduate Algebra
		1100	Calculus
Georgia:	2001–02	2200 (2)	Calculus
		2210	Calculus
		2700	Differential Equations
	2002–03	2200	Calculus
		8000	Graduate Algebra
	2003–04	2200	Calculus
		4000/6000	Modern Algebra and Geometry I
		4010/6010	Modern Algebra and Geometry II
		8010	Graduate Algebra
		8850	Algebra VIGRE Research Group
	2004–05	3200	Introduction to Higher Mathematics
		8190	Representation Theory of Algebraic Groups
		8850	Algebra VIGRE Research Group
	2005–06	2210	Calculus
		2310H	Honors Calculus
		8850	Algebra VIGRE Research Group
	2006–07	2200 (2)	Calculus
		2210	Calculus
		8030	Representation Theory
		8850	Algebra VIGRE Research Group
	2007–08	2200	Calculus
		2700	Differential Equations
		8030	Homological Algebra/Commutative Rings
		8850	Algebra VIGRE Research Group
	2008–09	2250 (2)	Calculus (for Scientists and Engineers)
	2009–10	2200	Calculus
		8190	Representation Theory of Algebraic Groups
		8850	Algebra VIGRE Research Group

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2010-11	4000/6000	Modern Algebra and Geometry I
	4010/6010	Modern Algebra and Geometry II
	8850	Algebra VIGRE Research Group
2011-12	8000/8005	Graduate Algebra
2012-13	2200	Calculus
	8190	Representation Theory of Algebraic Groups
2013-14	2250	Calculus (for Scientists and Engineers)
	3000	Linear Algebra
2014-15	3000	Linear Algebra
	8190	Representation Theory of Algebraic Groups
2015-16	3000	Linear Algebra
	8000/8005	Graduate Algebra
2016-17	2260	Calculus (for Scientists and Engineers)
	3300	Applied Linear Algebra
	8850	Algebra Vertical Research Group
2017-18	3300	Applied Linear Algebra
	8080	Lie Algebras
2018-19	3300 (2)	Applied Linear Algebra
2019-20	8000/8005	Graduate Algebra
	2260	Calculus (for Scientists and Engineers)
2020-21	8190	Representation Theory of Algebraic Groups
	3300	Applied Linear Algebra
2021-22	2260	Calculus (for Scientists and Engineers)
	3300	Applied Linear Algebra
.	8030	Cohomology and Representation Theory

1. Brauer-type reciprocity over a class of graded associative algebras (with R. Holmes), *J. Algebra* **144** (1991), 117–126.
2. Projective modules over Lie algebras of Cartan type, *Memoirs Amer. Math. Soc.* **98** no. 470 (1992).
3. Filtrations for periodic modules over restricted Lie algebras, *Indag. Math.* **3** no. 1 (1992), 59–68.
4. Block degeneracy and Cartan invariants for Lie algebras of Cartan type (with R. Holmes), *J. Algebra* **161** (1993), 155–170.
5. Homomorphisms inducing isomorphisms in Lie algebra cohomology, *J. Pure Appl. Algebra* **90** (1993), 49–54.
6. On the cohomology of the Witt algebra:  $W(1,1)$ , Proc. III International Conference on Non-associative algebra and its applications (ed. S. Gonzales), Kluwer (1994).
7. A bound for the complexity of  $G_rT$ -modules, *Proc. Amer. Math. Soc.* **123** (2) (1995), 335–341.
8. On the vanishing of extensions of modules over reduced enveloping algebras (with J. Carlson and K. Peters), *Math. Annalen* **302** (1995), 541–560.
9. Algebraic group techniques in the representation and cohomology theory of Lie algebras of Cartan type (with Z. Lin), *J. Algebra* **179** (1996), 852–888.
10. Infinitesimal Schur algebras (with S. Doty and K. Peters), *Proc. London Math. Soc.* **72** (3) (1996), 588–612.
11. On the construction of indecomposable modules over restricted enveloping algebras (with R. D. Pollack), *J. Pure Appl. Algebra* **90** (1996), 61–73.
12. Complexity and support varieties for finite-dimensional algebras, *Cont. Math.* **194** (1996), 201–218.
13. Polynomial representations of Frobenius kernels of  $GL_2$ , (with S. Doty and K. Peters), *Cont. Math.* **194** (1996), 57–67.
14. Representations of Hopf algebras arising from Lie algebras of Cartan type (with Z. Lin), *J. Algebra* **189** (1997), 529–567.
15. Infinitesimal Schur algebras of finite representation type (with S. Doty and K. Peters), *Quart. J. Math. Oxford* (2) **48** (1997), 323–345.
16. Varieties for  $G_rT$ -modules, *Proc. of Symposia in Pure Mathematics* **63** (1998), 441–451.
17. Representation theory of the Witt algebra (with J. Feldvoss), *J. Algebra* **203** (1998), 447–469.

18. Good filtrations for Hopf algebras arising from Lie algebras of Cartan type (with Z. Lin), *J. Pure and Appl. Algebra* 127 (1998), 231–256.
19. Semisimplicity of Schur algebras, (with S. Doty), *Math. Proc. Cambridge Phil. Soc.* 124 no. 1 (1998), 15–20.
20. Support varieties for the Steenrod algebra (with J. Palmieri), *Math. Zeit.* 227 no. 4 (1998), 663–684.
21. Representation theory of Lie algebras of Cartan type, *The Monster and Lie Algebras: Proceedings of a Special Research Quarter at The Ohio St. University*, (ed. J. Ferrar, K. Harada), de Gruyter (1998), 235–252.
22. Complexes and vanishing of cohomology for group schemes (with C. Bendel), *J. Algebra* 214 (1999), 668–713.
23. Complexity for modules over finite Chevalley groups and classical Lie algebras (with Z. Lin), *Inventiones Math.* 138 (1999), 85–101.
24. Representation type for Schur algebras (with S. Doty, K. Erdmann, and S. Martin), *Math. Zeit.* 232 (1999), 137–182.
25. Extensions of modules over Hopf algebras arising from Lie algebras of Cartan type (with Z. Lin), *Algebras and Representation Theory* 3 (2000), 43–80.
26. Blocks of finite representation type in reduced enveloping algebras of classical Lie algebras (with R. D. Pollack), *J. London Math. Soc.* 61 (2000), 374–394.
27. Some recent developments in the representation theory of general linear and symmetric groups, *Representations and Quantizations*, Proceedings of the International Conference on Representation Theory (Shanghai, China), Springer-Verlag, 2000, 357–374.
28. Relating the cohomology of the general linear group and the symmetric group (with S. Doty), *Modular Representation Theory of Finite Groups*, Proceedings of a Symposium at the University of Virginia, Walter de Gruyter, 2001, 175–187.
29. On comparing the cohomology of algebraic groups, finite Chevalley groups and Frobenius kernels (with C. Bendel and C. Pillen), *J. Pure and Appl. Algebra* 163 (2001), 119–146.
30. Representation type for the blocks of Category  $\mathcal{O}$  (with V. Futorny and R. D. Pollack), *Quart. J. Math. Oxford* 52 (2001), 285–305.
31. On comparing the cohomology of general linear groups and symmetric groups (with A. S. Kleshchev), *Pacific J. Math.* 201 (2001), 339–355.
32. Representation type of quantum Schur algebras (with K. Erdmann), *Transactions of AMS* 353 (2001), 4729–4756.
33. Representation type of Hecke algebras (with K. Erdmann), *Transactions of AMS* 354 (2002), 275–285.



34. Support varieties for algebraic groups (with B. Parshall and D. Vella), *J. Reine Angew. Math.* 547 (2002), 15–49.
35. Extensions for finite Chevalley groups II (with C. Bendel and C. Pillen), *Transactions of AMS* 354 (2002), 4421–4454.
36. Support varieties of modules for symmetric groups (with D. Hemmer), *J. Algebra* 254 (2002), 422–440.
37. The restricted nullcone (with J. Carlson, Z. Lin and B. Parshall), *Cont. Math.* 325 (2003), 51–75.
38. The nucleus for restricted Lie algebras (with D. Benson), *Proc. Amer. Math. Soc.* 131 (2003), 3395–3405.
39. Extensions for Frobenius kernels (with C. Bendel and C. Pillen), *J. Algebra* 272 (2004), 476–511.
40. Extensions of modules over Schur algebras, symmetric groups, and Hecke algebras (with S. Doty and K. Erdmann), *Algebras and Representation Theory* 7 (2004), 67–100.
41. Extensions for finite Chevalley groups I (with C. Bendel and C. Pillen), *Advances in Math.* 183 (2004), 380–408.
42. Specht filtrations for Hecke algebras of type A (with D. Hemmer), *J. London Math. Soc.* 69 (2004), 623–638.
43. Varieties of nilpotent elements for simple Lie algebras I: Good Primes, (with the UGA VIGRE Algebra Group), *J. Algebra* 280 (2004), 719–737.
44. Nilpotent elements and support varieties for simple Lie algebras, *Resenhas* 6 no. 2/3 (2004), 281–290.
45. Extensions for finite groups of Lie type: Twisted Groups (with C. Bendel and C. Pillen), *Finite Groups 2003* (held at the University of Florida), de Gruyter, New York, 2004, 29–46.
46. Representation type of the blocks of Category  $\mathcal{O}_S$  (with B. Boe), *Advances in Math.* 196 (2005), 193–256.
47. Varieties of nilpotent elements for simple Lie algebras II: Bad Primes, (with the UGA VIGRE Algebra Group), *J. Algebra* 292 (2005), 65–99.
48. On the realization of orbit closures as support varieties (with T. Tanisaki), *J. Pure and Applied Algebra* 206 (2006), 66–82.
49. Representation type for Schur superalgebras (with D. Hemmer and J. Kujawa), *J. of Group Theory* 9 (2006), 283–306.
50. Endotrivial groups for finite Chevalley groups (with J. Carlson and N. Mazza), *J. Reine Angew. Math.* 595 (2006), 93–120.

51. Extensions for finite groups of Lie type II: Filtering the truncated induction functor (with C. Bendel and C. Pillen), *Cont. Math.* **413** (2006), 1–23.
52. On the cohomology of Specht modules (with D. Hemmer), *J. Algebra* **306** (2006), 191–200.
53. Second cohomology for Frobenius kernels and related structures (with C. Bendel and C. Pillen), *Advances in Math.* **209** (2007), 162–197.
54. Support varieties for Weyl modules over bad primes (with the UGA VIGRE Algebra Group), *J. Algebra* **312** (2007), 602–633.
55. Projective modules for Chevalley groups and Frobenius kernels (with Z. Lin), *Bulletin of the London Math. Soc.* **39** (2007), 1019–1028.
56. Category  $\mathcal{O}$  for the Virasoro algebra: Cohomology and Koszulity (with B. Boe and E. Wiesner), *Pacific J. Math.* **234** (2008), 1–21.
57. Support varieties for modules over Chevalley groups and classical Lie algebras (with J. Carlson and Z. Lin), *Transactions of AMS* **360** (2008), 1879–1906.
58. Endotrivial modules for the symmetric group (with J. Carlson and N. Mazza), *Proceedings of the Edinburgh Math. Soc.* **51** (2008), 1–22.
59. Cohomology and support varieties for the Lie superalgebra  $W(n)$  (with I. Bagci and J. Kujawa), *International Math. Research Notices*, doi:10.1093/imrn/rnn115, (2008).
60. Cohomology and support varieties for Lie superalgebras II (with B. Boe and J. Kujawa), *Proceedings of the London Math. Soc.*, **98** (2009), 19–44.
61. On Kostant’s theorem for Lie algebra cohomology (with the UGA VIGRE Algebra Group), *Cont. Math.*, **478** (2009), 39–60.
62.  $\text{Ext}^1$ -quivers for the Witt algebra  $W(1,1)$  (with B. Boe and E. Wiesner), *J. Algebra*, **322** (2009), 1548–1564.
63. An analog of Kostant’s theorem for the cohomology of quantum groups (with the UGA VIGRE Algebra Group), *Proceedings of the AMS*, **138** (2010), 85–99.
64. On the cohomology of Young modules for the symmetric group (with F. Cohen and D. Hemmer), *Advances in Math.*, **224** (2010), 1419–1461.
65. Cohomology and support varieties for Lie superalgebras (with B. Boe and J. Kujawa), *Transactions of the AMS*, **362** (2010), 6551–6590.
66. Complexity and module varieties for classical Lie superalgebras (with B. Boe and J. Kujawa), *International Math. Research Notices*, (2011), No. 3, 696–724.
67. Endotrivial modules for finite group schemes (with J. Carlson), *J. Reine Angew. Math.*, **653** (2011), 149–178.

68. Detecting cohomology for Lie superalgebras (with G. Lehrer, R. Zhang), *Advances in Math.*, 228 (2011), 2098-2115.
69. On the vanishing ranges for the cohomology of finite groups of Lie type (with C. Bendel and C. Pillen), *International Math. Research Notices*, doi:10.1093/imrn/rnr30, (2011).
70. On the support varieties for Demazure modules (with B. Jones), *J. Australian Math. Soc.*, 91 (2011), 343-363.
71. Endotrivial modules for finite group schemes II (with J. Carlson), *Bulletin of the Institute of Mathematics Academia Sinica*, 7 (2012), 271-289.
72. Differentiating Weyl's generic dimension formula with applications to support varieties, (with C. Drupieski and B. Parshall), *Advances in Math.*, 229 (2012), 2656-2668 .
73. Second cohomology for finite groups of Lie type (with UGA VIGRE Algebra Group), *J. Algebra*, 360 (2012), 21-52.
74. Cohomology for infinitesimal unipotent algebraic and quantum groups (with C. Drupieski and N. Ngo), *Transformation Groups*, 17 (2012), 393-416.
75. Cohomology of algebraic groups, finite groups, and Lie algebras: Interactions and Connections, *Lie Theory and Representation Theory*, Survey of Modern Mathematics Volume II (edited by N. Hu, B. Shu, J.P. Wang), International Press, 2012, pp. 151-176.
76. On the vanishing ranges for the cohomology of finite groups of Lie type II (with C. Bendel and C. Pillen), *Proc. of the Symposia of Pure Mathematics*, 86 (2012), 25-73.
77. Complexity for modules over the classical Lie superalgebra  $\mathfrak{gl}(m|n)$  (with B. Boe and J. Kujawa), *Compositio Math.*, 148 (2012), 1561-1592.
78. First cohomology of finite groups of Lie type: simple modules with small dominant weights (with the UGA VIGRE Algebra Group), *Transactions of the AMS*, 365 (2013), 1025-1050.
79. Cohomology for quantum groups via the geometry of the nullcone (with C. Bendel, B. Parshall and C. Pillen), *Memoirs of the AMS*, 229, no. 1077, (2014).
80. Extensions for finite Chevalley groups III: Rational and Generic Cohomology (with C. Bendel and C. Pillen), *Advances in Math.*, 262 (2014), 484-519.
81. On the structure of cohomology rings of  $p$ -nilpotent Lie algebras (with J. Carlson), *Transformation Groups*, 19 (2014), 721-734.
82. Bounding the dimension of rational cohomology groups (with C. Bendel, B. Boe, C. Drupieski, B. Parshall, C. Pillen, and C. Wright), *Current Developments and Retrospectives in Lie Theory: Algebraic Methods*, Developments in Mathematics (edited by G. Mason, I. Penkov, J.A. Wolf), Springer-Verlag, 2014, 51-69.
83. Endotrivial modules for the general linear group in a non-defining characteristic (with J. Carlson and N. Mazza), *Math. Zeitschrift*, 278 (2014), 901-925.

84. On good  $(p, r)$  filtrations for rational  $G$ -modules (with T. Kildetoft), *J. Algebra*, **423** (2015), 702-725.
85. Bounding extensions for finite Chevalley groups and Frobenius kernels (with C. Bendel, B. Parshall, C. Pillen, L. Scott, and D. Stewart), *Algebras and Representation Theory*, **18**, (2015), 739-760.
86. Endotrivial modules for finite groups of Lie type  $A$  in the non-defining characteristic (with J. Carlson and N. Mazza), *Math. Zeitschrift*, **282** (2016), 1-24.
87. Bilinear and quadratic forms for rational modules of split reductive groups (with S. Garibaldi), *Canadian J. Math.*, **68** (2016), 395-421.
88. The Lie module and its complexity (with F. Cohen and D. Hemmer), *Bulletin of the London Math. Soc.*, **48** (2016), 109-114.
89. Third cohomology for Frobenius kernels and related structures (with C. Bendel, C. Pillen), *Proc. of the Symposia of Pure Mathematics*, **92** (2016), 81-118.
90. Globally irreducible Weyl modules (with S. Garibaldi and R. Guralnick), *J. Algebra*, **477** (2017), 69-87.
91. Tensor triangular geometry for Lie superalgebras (with B. Boe and J. Kujawa), *Advances in Math.*, **314** (2017), 228-277.
92. On the existence of mock injectives for algebraic groups (with W. Hardesty and P. Sobaje), *Bulletin of the London Math. Soc.*, **49** (2017), 806-817.
93. Globally irreducible Weyl modules for quantum groups (with S. Garibaldi and R. Guralnick), *Springer Proceedings in Mathematics and Statistics (Geometric and Topological Aspects of the Representation Theory of Finite Groups)*, Springer-Verlag International Publishing, **242** (2018), 313-336.
94. Support varieties for Hecke algebras (with Z. Xiang), *Homology, Homotopy and Applications*, **21(2)** (2019), 1-24.
95. On tensoring with the Steinberg module (with C. Bendel, C. Pillen and P. Sobaje), *Transformation Groups*, **25(4)** (2020), 981-1008.
96. Counterexamples to the Tilting and  $(p, r)$ -Filtration Conjectures (with C. Bendel, C. Pillen and P. Sobaje), *J. Reine Angew. Math*, **767** (2020), 193-202.
97. On  $q$ -Schur algebras corresponding to Hecke algebras of type B (with C.J. Lai and Z. Xiang), *Transformation Groups*, (2020), <https://doi.org/10.1007/s00031-020-09628-7>
98. On BBW parabolics for simple classical Lie superalgebras (with D. Grantcharov, N. Grantcharov, and J. Wu), *Advances in Math.*, **381** (2021), 107647.

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99. Noncommutative tensor triangular geometry and the tensor product property for support maps (with K. Vashaw and M. Yakimov), *International Math. Research Notices*, (2021), rnab221.
  100. The nilpotent cone for classical Lie superalgebras (with L.A. Jenkins), *Proceedings of the AMS*, **149** (2021), 5065-5080.
  101. On non-commutative tensor triangular geometry (with K. Vashaw and M. Yakimov), to appear in the *American J. Math.*.
  102. On torsion-free endotrivial modules for finite groups of Lie type (with J. Carlson, J. Grodal, and N. Mazza), submitted.
  103. On Donkin's Tilting Module Conjecture I: Low rank verifications (with C. Bendel, C. Pillen and P. Sobaje), submitted.
  104. On Donkin's Tilting Module Conjecture II: Counterexamples (with C. Bendel, C. Pillen and P. Sobaje), submitted.
  105. Tensor triangular geometry for quantum groups (with B. Boe and J. Kujawa), submitted.
  106. On the spectrum and support theory for finite tensor categories (with K. Vashaw and M. Yakimov), preprint.
  107. Realizing rings of regular functions through quantum group cohomology (with Z. Lin), preprint.
  108. Extensions for generalized loop algebras (with B. Boe, C. Drupieski, T. Macedo), preprint.