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EMPLOYMENT

August 2008 – Present **Visiting Assistant Professor**
 Brigham Young University

August 2001 – May 2008 **Teaching Assistant**
 University of Georgia

August 1998 – May 2001 **Teaching Assistant**
 Utah State University

EDUCATION

May 2008 **Ph.D.** in Mathematics
University of Georgia, Athens, GA
Thesis: Classifying the Representation Type of Infinitesimal Blocks of Category O_S
Thesis Advisor: Brian D. Boe

May 2006 **M.A.** in Mathematics
University of Georgia, Athens, GA

May 2001 **M.S.** in Mathematics
Utah State University, Logan, UT

May 1999 **B.A.** in Mathematics
Utah State University, Logan, UT

RESEARCH

Research Interests

Representation Theory of Lie Algebras

- Parabolic Category O_S .
- Representation Type of Algebras.

Refereed Publications

- University of Georgia VIGRE Algebra Group, On Kostant's Theorem for Lie algebra cohomology, submitted 2007 to Lhasa Conference Proceedings to be published in Contemporary Math.
- University of Georgia VIGRE Algebra Group, Support varieties for Weyl modules over bad primes, J. Alg. **312** Issue 2 (2007), 602–633.
- University of Georgia VIGRE Algebra Group, Varieties for Nilpotent Matrices over Simple Lie Algebras II: Bad Primes, J. Algebra **292**, (2005), 65-99.
- University of Georgia VIGRE Algebra Group, Varieties for Nilpotent Matrices over Simple Lie Algebras I: Good Primes, J. Algebra **280**, (2004), 719-737.

Thesis and Non-Refereed Publications

- Platt, K. J., 2008. Classifying the Representation Type of Infinitesimal Blocks of Category O_S . *Ph.D. Dissertation, University of Georgia.*
- Platt, K. J., 2001. Heteroclinic Orbits for a Periodic Hamiltonian System. *Masters Report, Utah State University.*

Publications in Progress

- Platt, K. J., Representation type of blocks of \mathcal{O}_S in types F_4 and G_2 , submitted 2007 to J. Alg., Computational Algebra Section.
- University of Georgia VIGRE Algebra Group, Cohomology of Quantum Groups: An Analog of Kostant's Theorem.
- Cooper, B. J., Platt, K. J., Nilpotent Orbit Theory and Infinitesimal Blocks of Category \mathcal{O}_S .

Vertical Integration of Research and Education (VIGRE) Research Groups

- 2005–08 Lie Algebra Cohomology
Advisors: Dr. Brian Boe, Dr. Lenny Chastkofsky, Dr. Daniel Nakano
- 2004–05 Support Varieties for Modules over the Symmetric Group
Advisors: Dr. David Benson, Dr. Brian Boe, Dr. Daniel Nakano
- 2003–04 Nilpotent Orbits of Semisimple Lie Algebras
Advisors: Dr. David Benson, Dr. Brian Boe, Dr. Daniel Nakano
- 2003 Symmetric Group
Advisor: Dr. David Hemmer
- 2002 n -Pointed Curves
Advisor: Dr. Valery Alexeev
- 2001 Flag Varieties
Advisor: Dr. William Graham

TEACHING**Visiting Assistant Professor at Brigham Young University**

- Honors Calculus I (Fall 2008)

Teaching Assistant at University of Georgia

- Calculus I for Scientists and Engineers (Summer 2007, Spring 2008)
- Differential Calculus (Fall 2002, Spring 2003, Fall 2004, Spring 2005, Summer 2006, Fall 2006, Fall 2007)
- Differential Calculus Lab (Fall 2002, Fall 2004, Spring 2005, Fall 2006, Spring 2007)

Teaching Assistant at Utah State University

- Trigonometry (Spring 2000, Spring 2001)
- College Algebra (Fall 1999, Fall 2000)
- Intermediate Algebra (Fall 1998)

ACADEMIC HONORS AND PROFESSIONAL ACTIVITIES

- 2008 Outstanding Teaching Assistant Award, University of Georgia
- 2006–07 Teaching Assistantship, University of Georgia
- 2001–06 VIGRE Fellowship Assistantship, University of Georgia
- 1999–07 Member, American Mathematical Society
- 2003 Co-organizer of the Summer Graduate Student Seminar, University of Georgia

TALKS**Conference Talks**

- March 2007 1024th AMS Meeting in Davidson NC, Special Session on Geometric and Combinatorial Methods in Representation Theory
Representation Type of Infinitesimal Blocks of Category \mathcal{O}_S
- May 2006 Graduate Student Research Conference on Algebra and Representation Theory at Kansas State University
Non-Empty Blocks of Category \mathcal{O}_S

Other Talks

- February 2008 Doctoral Defense, University of Georgia,
Classifying the Representation Type of Infinitesimal Blocks of Category \mathcal{O}_S
- February 2008 Colloquium, University of Texas, Pan American,
Finding Non-Zero Infinitesimal Blocks of Category \mathcal{O}_S
- February 2008 Colloquium, Brigham Young University,
Finding Non-Zero Infinitesimal Blocks of Category \mathcal{O}_S
- October 2007 Algebra Seminar, University of Georgia,
Non-empty Blocks of Parabolic Category \mathcal{O}_S
- February 2007 Algebra Seminar, University of Georgia,
Semisimple Infinitesimal Blocks of Category \mathcal{O}_S
- September 2006 Algebra VIGRE Group
An Introduction to Category \mathcal{O}_S
- February 2006 Graduate Student Seminar, University of Georgia
A Bird's-eye view of Category \mathcal{O}_S
- November 2005 Oral Exam Presentation, University of Georgia
Representation Type of Regular Blocks of Category \mathcal{O}_S
- July 2003 Graduate Student Seminar, University of Georgia
Pickin' up good vibrations: Molecular vibration and representation theory
- April 2003 Algebra Seminar, University of Georgia,
Cohomology Rings of Finite Groups
- March 2003 Algebra VIGRE Group, University of Georgia,
Degrees of the Irreducible Representations of the Symmetric Groups
- October 2002 Algebra Seminar, University of Georgia,
Blocks of Modular Representations
- April 2002 Algebra Seminar, University of Georgia,
More on Representations of the Symmetric Group
- December 2001 Algebra Seminar, University of Georgia,
Representations of the Symmetric Group
- May 2001 Masters Report, Utah State University,
Heteroclinic Orbits for a Periodic Hamiltonian System

COMPUTER SKILLS

- **Programming Languages:** Java, C++, GAP, Magma, HTML.
- **Applications:** L^AT_EX, MAPLE, Word, Excel, WeBWorK and others.