

Curriculum Vita of George McNinch

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Personal data

Date of birth 31 January, 1968.

Citizenship United States of America

Higher Education

1996 Ph.D. in Mathematics, University of Oregon (Eugene, OR). **Advisor:** Gary M. Seitz.

1990 B.S. in Mathematics and Physics, Samford University (Birmingham Alabama).

Academic Employment

2006 – present Associate Professor, Tufts University.

2004 – 2006 Assistant Professor, Tufts University (Medford, MA).

1996 – 2004 Assistant Professor, University of Notre Dame (South Bend, IN).

1990 – 1996 Graduate Teaching Fellow, University of Oregon (Eugene, OR).

Grants and Awards

2004 – 2008 Principal investigator, National Science Foundation Grant DMS04 37482.

1999 – 2002 Principal investigator, National Science Foundation Grant DMS99 70301.

Service and professional memberships

2006 – 2007 Chaired the search committee for “Algebraic Groups” 3-year position, Tufts Univ. math department.

Sept 2006 Served as international expert member on the Ph.D. committee of Anne Lund Christophersen at Århus Universitet, Denmark.

March 2006 Organizer for a special session on *Algebraic Groups*, AMS sectional meeting, April 2006, University of New Hampshire (Durham).

2004 – present Served on the graduate committee of Tufts University mathematics department .

2005 – present Pre-major advising, Tufts University, graduating classes of 2008 and 2009.

2005 – 2010 Tufts University committee on Undergraduate Admissions and Financial Aid.

April 2000 Organizer for a special session on *Representations of Groups and Related Objects*, AMS sectional meeting, April 2000, University of Notre Dame (South Bend IN).

1997 – present Referee and review work (Math Reviews, NSF, NSA, Mathematics journals)

1996 – present Member of the American Mathematical Society.

Invited Lectures and workshops

May-June 2007 Invited speaker, Banff International Research Station for Mathematical Innovation and Discovery workshop *Algebraic Lie theory*.

May 2007 Invited participant, Oberwolfach workshop on *Algebraic Groups*.

Jan 2007 Invited speaker, Special Session on “Cohomology and Rep-

- resentation Theory”, AMS national meeting, New Orleans LA.
- Sept 2006 Everytopic mathematics seminar, Brandeis University.
- Sept 2006 Algebra seminar speaker, Århus Universitet, Denmark.
- Jun 2006 Geometry - Algebra - Singularities - Combinatorics Seminar speaker, Northeastern University.
- Nov 2005 Algebra seminar speaker, University of Massachusetts, Amherst.
- Oct 2005 Tufts University mathematics department colloquium speaker.
- June 2005 Invited speaker and visiting professor, Conference on Algebraic Groups and Finite Subgroups at the Centre Interfacultaire Bernoulli, École Polytechnique Fédérale de Lausanne, Switzerland.
- Jan 2005 Tufts University mathematics department colloquium speaker.
- Jan 2005 Invited speaker, special session on *Modular Representation Theory of Finite and Algebraic Groups*, AMS national meeting, Atlanta GA.
- July 2004 Invited speaker, AMS Summer Research Conference on *Representations of Algebraic Groups, Quantum Groups, and Lie Algebras*, Snowbird Utah.
- April 2004 Automorphic forms – representation theory seminar speaker, Purdue University.
- Mar 2004 Invited speaker, conference on *Groups and Representations*, University of Oregon, Eugene.
- Jan 2004 Group Theory and Lie Theory Seminar speaker, University of Michigan, Ann Arbor.
- Nov 2003 Colloquium speaker, Wayne State University, Detroit Michigan.
- May 2003 Invited speaker, meeting on *Algebraic Groups, Lie Algebras and their Representations*, University of Birmingham, UK.

- Mar 2003 Invited speaker, *Workshop on Geometric Representation and Invariant Theory*, London Math Society Regional Meeting, University of Manchester, UK.
- Feb 2003 Lie Theory Seminar speaker, University of Wisconsin at Madison.
- Feb 2003 Lie Groups Seminar speaker, Massachusetts Institute of Technology.
- May 2002 Algebra Seminar speaker, EPFL, Lausanne, Switzerland.
- Mar 2002 Algebra Seminar speaker, University of Massachusetts-Amherst.
- Jun 2001 Invited speaker, meeting on *Algebraic Groups*, Bielefeld, Germany.
- Mar 2001 Invited participant, Oberwolfach workshop on *Algebraic Groups*.
- Oct 2000 Algebra Seminar speaker, Aarhus University, Aarhus, Denmark.
- Mar 2000 Algebra Seminar speaker, Wayne State University, Detroit Michigan.
- Oct 1999 Algebra Seminar speaker, University of Wisconsin at Madison.
- Jun 1999 Algebra seminar speaker, California Institute of Technology.
- May 1999 Invited speaker, special session on Representation Theory and Geometry, Canadian Math Society meeting, St. John's, Newfoundland.
- Jul 1998 Seminar speaker during the research period on Algebraic Representation Theory, Aarhus University, Denmark.
- May 1998 Speaker at the CBMS meeting on "Blocks of finite reductive groups, Deligne-Lusztig varieties, and complex reflection groups," University of North Texas.
- Mar 1998 Invited speaker, Special session on Representations of Al-

- gebraic Groups at the AMS Sectional Meeting, Manhattan, KS.
- Nov 1998 Invited speaker at the joint IUPUI – Indiana University – University of Illinois Champaign-Urbana Algebra Day conference.
- June 1997 Speaker at the NATO Advanced Study Institute on “Representation Theory of Algebraic Groups and Related Finite Groups” at the Isaac Newton Institute for Mathematical Sciences, Cambridge, UK.
- Nov 1996 Colloquium speaker at the University of North Texas, Denton, Texas.

Publications (refereed):

- [1] George J. McNinch, *The centralizer of a nilpotent section*, Nagoya J. Math, to appear. arXiv:math.RT/0605626.
- [2] George J. McNinch and Donna M. Testerman, *Completely reducible $SL(2)$ -homomorphisms*, Transactions of the AMS (to appear). arXiv:math.RT/0510377.
- [3] George J. McNinch, *Completely reducible Lie subalgebras*, Transformation Groups **12** (2007), 127–135. arXiv:math.RT/0509590.
- [4] ———, *On the centralizer of the sum of commuting nilpotent elements*, Journal of Pure and Applied Algebra (Volume in honor of E. Friedlander’s 60th birthday) **206** (2006), 123–140. arXiv:math.RT/0412283.
- [5] ———, *Optimal SL_2 -homomorphisms*, Commentarii Mathematici Helvetici **80** (2005), 391–426. arXiv:math.RT/0309385.
- [6] ———, *Nilpotent orbits over ground fields of good characteristic*, Mathematische Annalen **329** (2004), 49–85. arXiv:math.RT/0209151.
- [7] George J. McNinch and Eric Sommers, *Component groups of unipotent centralizers in good characteristic*, Journal of Algebra (Volume in honor of R. Steinberg’s 80th birthday) **260** (2003), 323–337. arXiv:math.RT/0204275.
- [8] George J. McNinch, *Sub-principal homomorphisms in positive characteristic*, Mathematische Zeitschrift **244** (2003), 433–455. arXiv:math.RT/0108140.
- [9] ———, *Faithful representations of $SL(2)$ over truncated Witt vectors*, Journal of Algebra **26** (2003), 606–618. arXiv:math.RT/0007056.
- [10] ———, *Abelian Unipotent Subgroups of Reductive Groups*, Journal of Pure and Applied Algebra (2002), 269–300. arXiv:math.RT/0007056.

- [11] ———, *The second cohomology of small irreducible modules for simple algebraic groups*, Pacific Journal of Mathematics (2002), 459–472. arXiv:math.RT/0006105.
- [12] ———, *Semisimplicity of exterior powers of simple representations of groups*, Journal of Algebra **225** (2000), 646–666.
- [13] ———, *Filtrations and positive characteristic Howe duality*, Mathematische Zeitschrift **235** (2000), 651–685.
- [14] ———, *Semisimple modules for finite groups of Lie type*, Journal of the London Math Society **60** (1999), 771–792.
- [15] ———, *Dimensional criteria for semisimplicity of representations*, Proceedings of the London Mathematical Society **76** (1998), 95–149.

Other publications (preprints, notes, and surveys)

- [1] George J. McNinch, *The centralizer of a subgroup of multiplicative type*. manuscript in preparation, summer 2007.
- [2] George J. McNinch and Donna M. Testerman, *Nilpotent centralizers and Springer’s isomorphisms*. manuscript in preparation, summer 2007.
- [3] George J. McNinch, *Adjoint Jordan blocks*, available at arXiv:math.RT/0207001. preprint 2002.
- [4] ———, *Semisimplicity in positive characteristic*, Representation Theory of Algebraic Groups and Related Finite Groups, 1998.

Medford, MA, August 8, 2007