

CURRICULUM VITAE

Kyu-hwan Lee

Department of Mathematics
University of Connecticut
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I. ACADEMIC HISTORY

Education:

- Ph.D. Seoul National University, February 2001
Dissertation: Gröbner-Shirshov Bases for Associative Algebras and their Representations
Advisor: Seok-Jin Kang
- M.S. Seoul National University, February 1996
- B.S. Seoul National University, February 1994

Employment:

- 8/2005 - present: Assistant Professor
Mathematics Department, University of Connecticut, U.S.A.
- 2/2005 - 8/2005: Research Fellow
School of Mathematical Sciences, University of Nottingham, U.K.
- 7/2002 - 6/2005: Postdoctoral Research Fellow
Mathematics Department, University of Toronto, Canada
- 1/2002 - 6/2002: Visiting Assistant Professor
Mathematics Department, University of Wisconsin-Madison, U.S.A.
- 3/2001 - 2/2003: Postdoctoral Research Fellow
Global Analysis Research Center, Seoul National University, South Korea
- 9/1998 - 8/2000: Assistant
Department of Mathematics, Seoul National University, South Korea

Award and Honor

- 2005 Korean Mathematical Society Distinguished Paper Award

Research Interests: Representation Theory and Number Theory

II. SCHOLARLY WORKS

Publications:

1. S.-J. Kang, D.-I. Lee, K.-H. Lee and H. Park, *Linear algebraic approach to Grbner-Shirshov basis theory*, J. Algebra **313** (2007), 988–1004.
2. G. Benkart, S.-J. Kang and K.-H. Lee, *On the center of two parameter quantum groups*, Proc. Roy. Soc. Edinburgh Sect. A. **136** (2006), no.3, 445–472.
3. H. H. Kim and K.-H. Lee, *Spherical Hecke algebras of SL_2 over 2-dimensional local fields*, Amer. J. Math. **126** (2004), no.6, 1381–1399.
4. S.-J. Kang, I.-S. Lee, K.-H. Lee and H. Oh, *Representations of Ariki-Koike algebras and Gröbner-Shirshov bases*, Proc. London Math. Soc. (3) **89** (2004), 54-70.
5. K.-H. Lee, *Gröbner-Shirshov bases for representations of Lie algebras and Hecke algebras of type A*, Proceedings of the Third International Algebra Conference (Tainan 2002), 115-128, Kluwer Academic Publishers, Dordrecht, 2003.
6. S.-J. Kang, I.-S. Lee, K.-H. Lee, and H. Oh, *Hecke algebras, Specht modules and Gröbner-Shirshov bases*, J. Algebra **252** (2002), 258-292.
7. S.-J. Kang and K.-H. Lee, *Gröbner-Shirshov bases for irreducible sl_{n+1} -modules*, J. Algebra **232** (2000), 1–20.
8. S.-J. Kang and K.-H. Lee, *Gröbner-Shirshov bases for representation theory*, J. Korean Math. Soc. **37** (2000), 55–72.
9. L. A. Bokut, S.-J. Kang, K.-H. Lee, and P. Malcolmson, *Gröbner-Shirshov bases for Lie superalgebras and their universal enveloping algebras*, J. Algebra **217** (1999), 461–495.

Articles to Appear:

1. K.-H. Lee, *Iwahori-Hecke algebras of SL_2 over 2-dimensional local fields*, to appear in Canad. J. Math.

Articles Submitted:

1. S.-J. Kang, K.-H. Lee and E. Park, *Constant terms of certain Eisenstein series on arithmetic quotients of loop groups*, submitted.

Proceedings Edited

- Combinatorial and geometric representation theory. Edited by S.-J. Kang and K.-H. Lee. Contemporary Mathematics, **325**. *American Mathematical Society, Providence, RI*, 2003.

Conferences Organized

- Workshop on Arithmetics and Groups over 2-dimensional Schemes, Storrs, CT, U.S.A., May 2006 (Co-organizer: Ivan Fesenko).
- Combinatorial and Geometric Representation Theory, Seoul, Korea, October 2001 (Co-organizer: Seok-Jin Kang).

Presentations

- Fourth Workshop on Multiple Dirichlet Series, Stanford, CA, June 2009
- Wesleyan University, Algebra Seminar, Middle Town, CT, March 2009
- SNU-NIMS Algebra Camp, Special Lectures, Yangyang, Korea, February 2009
- American Mathematical Society Sectional Meeting, Middle Town, CT, October 2008
- Pohang University of Science and Technology, Number Theory Seminar, Pohang, Korea, September, 2008
- University of Nottingham, Number Theory Seminar, Nottingham, U.K., July 2008
- Seoul National University, Representation Theory Seminar, Seoul, Korea, May 2008
- Seoul National University, Special Lectures, Seoul, Korea, December 2007
- International Conference on Abelian Groups and Modules over Commutative Rings, Storrs, CT, June 2007
- Korean Mathematical Society Meeting, Seoul, Korea, October 2006
- Workshop on Arithmetics and Groups over 2-dimensional Schemes, Storrs, CT, May 2006
- Wesleyan University, Algebra Seminar, Middle Town, CT, April 2006
- Purdue University, Automorphic Form Seminar, West Lafayette, IN, March 2006
- Asian Symposium on Computer Mathematics (ASCM 2005), Seoul, Korea, December 2005
- Korea Institute for Advanced Study, Number Theory Seminar, Seoul, Korea, August 2005
- Seoul National University, Representation Theory Seminar, Seoul, Korea, July 2005

- Canadian Mathematical Society Meeting, Waterloo, ON, Canada, June 2005
- University of Nottingham, Number Theory Seminar, Nottingham, U.K., May 2005
- University of York, Conference on Representation Theory, Heslington, U.K., May 2005
- Queen's University, Algebraic Geometry Seminar, Kingston, Canada, March 2005
- King's College, London Number Theory Seminar, London, U.K., February 2005
- University of Connecticut, Colloquium, Storrs, CT, January 2005
- American Mathematical Society National Meeting, Atlanta, GA, January 2005
- Meeting on Higher Dimensional Langlands Correspondence, Chicago, IL, October 2004.
- University of Toronto, Number Theory/Representation Theory Seminar, Toronto, Canada, November 2003
- International Conference on Lie Algebras and Related Topics, Seoul, Korea, October 2003
- University of Nottingham, Number Theory Seminar, Nottingham, U.K., August 2003
- University of Wisconsin-Madison, Lie Theory Seminar, Madison, WI, April 2002
- Combinatorial and Geometric Representation Theory, Seoul, Korea, October 2001
- Third Tainan International Algebra Workshop, Tainan, Taiwan, June 2001
- Indiana University, Algebra Seminar, Bloomington, IN, June 2000
- Workshop on Combinatorial Algebra, MSRI, Berkeley, CA, January 2000
- Korea Institute for Advanced Study, Algebra Seminar, Seoul, Korea, July 1999
- American Mathematical Society Sectional Meeting, Buffalo, NY, April 1999

III. TEACHING

Ph.D. Students

- Jonathan Axtell, University of Connecticut, 2009
 Current Position: Assistant Professor in Residence
 University of Connecticut—Waterbury
- Philip Lombardo, University of Connecticut, Current
- Benjamin Salisbury, University of Connecticut, Current

Courses Taught

- University of Connecticut

- 2009-2010: Honors Calculus I (Math1151)
Topics in Algebra (Math5020-001): *Class Field Theory*
- 2008-2009: Calculus II (Math1132)
Abstract Algebra I (Math5210)
Abstract Algebra II (Math5211)
- 2007-2008: Topics in Algebra (Math321-001): *Commutative Algebra*
Topics in Algebra (Math321-002): *Geometric Representation Theory*
Topics in Algebra (Math321-001): *Automorphic Representations*
- 2006-2007: Elementary Differential Equations (Math211Q)
Abstract Algebra I (Math315)
Abstract Algebra II (Math316)
- 2005-2006: Calculus I (Math115)
Linear Algebra (Math215)
Topics in Algebra (Math321): *Modular forms and L-functions*

- University of Toronto

- 2004-2005: Calculus I (MAT194)
Introduction to Number Theory (MAT315)
- 2003-2004: Groups and Symmetry (MAT301)
Ordinary Differential Equations (APM288)
Linear Algebra II (MAT224)
- 2002-2003: Ordinary Differential Equations (APM288)
Linear Algebra I (MAT223)

- University of Wisconsin-Madison

- Spring 2002: Elementary Matrix and Linear Algebra (Math340)

IV. PROFESSIONAL SERVICES

Department Committees

- Library Committee, Chair, 2008-present
- Colloquium Committee, Chair 2008-present
- Graduate Program Committee, 2007-present
- Hiring Priorities Plan Committee, 2008
- Hiring Screening Committee, 2007-2008
- Mathematics Major Committee, 2005-2008
- Undergraduate Program Committee, 2005-2007
- Post-doc Hiring Subcommittee, 2007

Student Organizations

- Dollar Difference, Advisor, 2009-present

Outside University

- Refereeing papers:
 - Bulletin of the Korean Mathematical Society, 2009
 - Proceedings of London Mathematical Society, 2008
 - Asian-European Journal of Mathematics, 2008
 - Linear Algebra and its Applications, 2007, 2008
 - Journal of Korean Mathematical Society, 2007
 - American Journal of Mathematics, 2006
 - Journal of Symbolic Computation, 2006
- Reviewer for *Mathematical Reviews*, 2005-present

Membership

- American Mathematical Society, 2004-present.
- Korean Mathematical Society, 2005-present.