

Curriculum Vitae

Leila Khatami

Contact Information

Department of Mathematics
Union College
807 Union St.
Schenectady, NY 12308

Phone: (518) 388-8078
E-mail: khatamil@union.edu

Employment/Visiting Positions

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|---|------------------|
| Associate Professor of Mathematics, Union College | 2015 – present |
| Assistant Professor of Mathematics, Union College | 2011 – 2015 |
| Postdoctoral Associate, Northeastern University | 2008 – 2011 |
| Visiting Scholar, Harvard University | 2007 – 2008 |
| Postdoctoral fellow, ICTP, Trieste, Italy | 2004 – 2005 |
| Maître de conférences invitée, Université Paris 7 | June – July 2004 |
| Assistant Professor of Mathematics, Sharif University of Technology | 2003 – 2004 |

Education

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|---|--|
| University of Tehran, Tehran, Iran | Ph.D. in Mathematics, 2003 M.Sc. in Mathematics, 1999 |
| Sharif University of Technology, Tehran, Iran | B.Sc. in Mathematics, 1997 |

Research

Peer-Reviewed Research Publications:

1. Nilpotent matrices having a given Jordan type as maximum commuting nilpotent orbit, (with A. Iarrobino, B. Van Steirteghem, and R. Zhao), *Linear Algebra Appl.* **546** (2018), 210260.
2. The smallest part of the generic partition of the nilpotent commutator of a nilpotent matrix, *J. Pure Appl. Algebra* **218** (2014), 1496-1516.
3. The poset of the nilpotent commutator of a nilpotent matrix, *Linear Algebra Appl.* **439** (2013), no. 12, 3763–3776.
4. Bound on the Jordan type of a generic nilpotent matrix commuting with a given matrix (with A. Iarrobino), *J. Algebraic Combin.* **38** (2013), no. 4, 947–972.

5. Commuting nilpotent matrices and Artinian algebras (with R. Basili and A. Iarrobino), *J. Commut. Algebra* **2**, (2010), no. 3, 295–325.
6. Finiteness of Gorenstein injective dimension of modules (with M. Tousi and S. Yassemi), *Proc. Amer. Soc.* **137** (2009), no. 7, 2201–2207.
7. A Bass formula for Gorenstein injective dimension (with S. Yassemi), *Comm. Algebra* **35** (2007), no. 6, 1882–1889.
8. Cohen-Macaulayness of tensor products (with S. Yassemi), *Rocky Mountain J. Math.* **34** (2004), no. 1, 205–213.
9. Gorenstein injective and flat dimensions under base change (with S. Yassemi), *Comm. Algebra* **31** (2003), no. 2, 991–1005.
10. A generalization of the grade of a module (with T. Sharif and S. Yassemi), *Algebra Colloq.* **9** (2002), no. 3, 265–270.
11. Associated primes of generalized local cohomology modules (with T. Sharif and S. Yassemi), *Comm. Algebra* **30** (2002), no. 1, 327–330.
12. Grade and Gorenstein dimension (with T. Sharif and S. Yassemi), *Comm. Algebra* **29** (2001), no. 11, 5085–5094.

Preprints:

- Loci of nilpotent matrices having a given Jordan type as maximum commuting orbit, (with M. Boij, A. Iarrobino, and B. Van Steirteghem).
- Complete intersection Jordan type in height two, (with N. Altafi, R. Gondim, and A. Iarrobino).

Invited Talks:

- Lefschetz Properties in Algebra, Geometry and Combinatorics Workshop, Institut Mittag-Leffler, Djursholm, Sweden. July 2017.
- Lefschetz Properties and Artinian Algebras Workshop, Banff International Research Station, Banff, Alberta, Canada. March 2016.
- AMS-AWM Special Session on Commutative Algebra, 2016 Joint Mathematics Meetings, Seattle, Washington, USA. January 2016.
- Special Session on Commutative Algebra, AMS Eastern Sectional Meeting, Rutgers University, New Brunswick, New Jersey, USA. November 2015.
- International Conference in Homological Algebra, University of Kentucky, Lexington, KY, USA. July 2015.
- Special Session on Algebra and Representation Theory, AMS Eastern Sectional Meeting, Georgetown University, Georgetown, Washington, DC, USA. March 2015.

- The Graduate Center, The City University of New York, NY, USA. December 2014.
- University at Albany, Albany, NY, USA, May 2014.
- Tufts University, Boston, MA, USA, December 2013.
- Siena College, Loudonville, NY, USA, December 2013.
- Northeastern University, Boston, MA, USA. February 2013.
- Workshop on Representation Theory, Homological Algebra, and Free Resolutions, MSRI, Berkeley, CA, USA. February 2013.
- Workshop on Aspects of Strong and Weak Lefschetz Properties, Honolulu, HI, USA. September 2012.
- Smith College, Northampton, MA, USA. April 2012.
- Reed College, Portland, OR, USA. December 2011.
- Special Session on Lie Algebras, Algebraic Transformations Groups and Representation Theory, AMS Western Sectional Meeting, University of Nevada, Las Vegas, USA. April 30-May 1, 2011.
- The Graduate Center, The City University of New York, NY, USA. October 2009.
- Special Session on Commutative Algebra and Applications to Algebraic Geometry, AMS Eastern Sectional Meeting, Pennsylvania State University, State College, PA, USA. October 2009.
- University of Nebraska-Lincoln, NE, USA. May 2009.
- Northeastern University, MA, USA. February 2007.
- Universität GHS-Essen, Germany. October 2005.
- Universität Osnabrück, Germany. October 2005.
- Minnowbrook Workshop on Commutative Algebra, The Minnowbrook Adirondack Conference Center (owned by Syracuse University), NY, USA. August 2005. (Supported)
- The Abdus Salam ICTP, Trieste, Italy. May 2004.
- Iran's 15th Algebra Conference, University of Guilan, Rasht, Iran. July 2003.
- Institute for Advanced Studies in Basic Sciences, Gava Zang, Zanjan, Iran. June 2003.
- Sharif University of Technology, Tehran, Iran. April 2003.
- Workshop on Homological Methods in Commutative Algebra, Institute for Studies in Theoretical Physics and Mathematics (IPM), Tehran, Iran. May 2002.

Contributed Talks:

- Combinatorial Algebra meets Algebraic Combinatorics, Fields Institute, Toronto, ON, Canada. January 2013.

Supported Workshop Attendance:

- Joint Introductory Workshop: Cluster Algebras and Commutative Algebra, MSRI, Berkeley, CA, USA. August-September 2012.
- Connections For Women: Joint Workshop on Commutative Algebra and Cluster Algebras, MSRI, Berkeley, CA, USA. August 2012.
- Components of Hilbert Schemes, American Institute of Mathematics, Palo Alto, CA, USA. July 2010.

Teaching

Union College:

- Calculus with Precalculus I, II, and III
- Calculus I
- Calculus II
- Ordinary Differential Equations
- Introduction to Logic and Set Theory
- Intermediate Topics in Mathematics
- Abstract Algebra I
- Senior thesis, Winter 2014, Fall 2014, Winter 2015, Fall 2015

Northeastern University:

- Mathematical Thinking
- Calculus for Business and Economics
- Calculus I for Science and Engineering
- Calculus I
- Calculus II and Differential Equations for Biology

Harvard University:

- Linear Algebra and Differential Equations

Sharif University of Technology:

- Introduction to Linear Algebra (for engineering students)
- Linear Algebra
- Homological algebra

University of Tehran:

- Abstract Algebra II (A course on Galois theory.)
- Abstract Algebra III (A course on Sylow's theorems and rudiments of the theory of rings and modules.)

Pre-college level:

- Talk at Math Dissemination Program, organized by the Iranian Mathematical Society for high school students, Tehran, Iran. November 2003.
- Teaching an extra-curricular math course, Farzanegan high school (National Organization for Development of Exceptional Talents), Tehran, Iran. 1993-1994.

Service

Professional Service:

Referee/Reviewer for

- Mathematical Reviews
- The American Mathematical Monthly
- Proceedings of the American Mathematical Society
- Communications in Algebra
- The Georgian Mathematical Journal
- Algebra Colloquium

Co-organizer of

- Special Session on Combinatorial Aspects of Nilpotent Orbits, AMS Eastern Sectional Meeting, AMS Eastern Sectional Meeting, Northeastern University, Boston, MA, USA. April 21-22, 2018.
- Special Session on Combinatorial Aspects of Nilpotent Orbits, AMS Eastern Sectional Meeting, Bowdoin College, Brunswick, ME, USA. September 24-25, 2016.
- Hudson River Undergraduate Mathematics Conference, Union College, Schenectady, NY, USA. April 2015.

- Union Mathematics Conference, Union College, Schenectady, NY, USA. October 19-20, 2013.
- Special Session on Commuting Matrices and the Hilbert Scheme, AMS Eastern Sectional Meeting, Boston College, Chestnut Hill, MA, USA. April 6-7, 2013.

College Service:

- Member of Tenure Review ad hoc Committee, Union College, Fall 2017.
- Division III Representative to the Library Liaison Committee, Union College, 2014-17.
- Member of Reappointment Review Committee, Union College, Fall 2016.
- Math Department Representative to Center 2 Space Committee Union College, 2014-16.
- Organizer of the Math Department Student Seminar, Union College, Winter 2015-Fall 2016.
- Junior member of The Faculty Review Board (FRB), Union College, 2013-14.
- Member of Union Interfaith Youth Core initiative, Union College, 2013-14.
- Math Department Library Liaison, Union College, 2011-15.
- Member of Search Committee for Statistics Position, Union College, 2011-12.

Languages:

Persian (native), English (fluent), French (fluent), Italian (fair), Arabic (fair in reading).