

# Curriculum Vitae

Leila Khatami

## Contact Information

Department of Mathematics  
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## Employment/Visiting Positions

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

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. The smallest part of the generic partition of the nilpotent commutator of a nilpotent matrix, *J. Pure Appl. Algebra* **218** (2014), 1496-1516.
2. The poset of the nilpotent commutator of a nilpotent matrix, *Linear Algebra Appl.* **439** (2013), no. 12, 3763–3776.
3. 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.
4. Commuting nilpotent matrices and Artinian algebras (with R. Basili and A. Iarrobino), *J. Commut. Algebra* **2**, (2010), no. 3, 295–325.

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

Preprints:

- Nilpotent matrices having a given Jordan type as maximum commuting nilpotent orbit, (with A. Iarrobino, B. Van Steirteghem, and R. Zhao), *Preprint, 2014*. [arXiv:1409.2192 \[math.RA\]](https://arxiv.org/abs/1409.2192).
- Loci of nilpotent matrices having a given Jordan type as maximum commuting orbit, (with M. Boij, A. Iarrobino, and B. Van Steirteghem), *In preparation*.

Invited Talks:

- 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, Fall 2015.
- Calculus I, Fall 2011, Fall 2013, Winter 2014, Fall 2014.
- Calculus II, Winter 2012.
- Ordinary Differential Equations, Spring 2013, Winter 2015.
- Introduction to Logic and Set Theory, Winter 2012, Winter 2014, Winter 2015, Spring 2015.
- Abstract Algebra I, Spring 2012, Spring 2014, Spring 2015.
- Senior thesis, Winter 2014, Fall 2014, Winter 2015, Fall 2015.

### Northeastern University:

- Mathematical Thinking, Fall 2007.
- Calculus for Business and Economics, Spring 2008, Fall 2008, Spring 2009, Fall 2009, Spring 2010.
- Calculus I for Science and Engineering, Fall 2010.
- Calculus I, Spring 2008.
- Calculus II and Differential Equations for Biology, Spring 2009.

### Harvard University:

- Linear Algebra and Differential Equations, Fall 2007.

Sharif University of Technology:

- Introduction to Linear Algebra (for engineering students), Fall 2003.
- Linear Algebra, Spring 2003.
- Homological algebra, Fall 2003.

University of Tehran:

- Abstract Algebra II, Spring 2000. (A course on Galois theory.)
- Abstract Algebra III, Spring 2001, Spring 2002. (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
- Proceedings of the American Mathematical Society
- Communications in Algebra
- The Georgian Mathematical Journal
- Algebra Colloquium

Co-organizer of

- 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:

- Math Department Representative to Center 2 Space Committee Union College, 2014-present.
- Division III Library Liaison, Union College, 2014-present.
- Organizer of the Math Department Student Seminar, Union College, Winter 2015-present.
- 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).