Alexander Furman

Mathematics, Statistics and Computer Science
MSCS (MC 249)
University of Illinois at Chicago
851 S. Morgan Street
Chicago, IL 60607-7045

furman@uic.edu
www.math.uic.edu/∼furman

Professional Experience

2007–present	Professor, University of Illinois at Chicago
2002 – 2007	Associate Professor, University of Illinois at Chicago
1999 – 2002	Assistant Professor, University of Illinois at Chicago
1998 – 1999	L. E. Dickson Instructor of Mathematics, University of Chicago
1997 – 1998	Post Doctoral Fellow, Dynamical Systems Center, Penn State University
1996 – 1997	L. E. Dickson Instructor of Mathematics, University of Chicago

Education

1983 – 1986	**B.Sc.** in Mathematics, Computer Science (*magna cum laude*), Hebrew University
1987 – 1989	**M.Sc.** in Mathematics (*magna cum laude*), Hebrew University
1991 – 1996	**Ph.D.** in Mathematics, Hebrew University, Jerusalem.

Grants and Awards

2018–present	LAS Distinguished Professor
2016 – 2019	University Scholar
Class 2016	American Mathematical Society Fellow
August 2014	ICM Invited speaker, Seoul
2014 – 2015	Simons Foundation Fellow
2019 – 2023	BSF USA-Israel Grant 2018258
2016 – 2020	NSF Grant DMS 1611765
2012 – 2015	NSF Grant DMS 1207803
2009 – 2012	NSF Grant DMS 0905977
2009 – 2014	BSF USA-Israel Grant 2008267
2006 – 2009	NSF Grant DMS-0604611
2006 – 2009	BSF USA-Israel Grant 2004345
2001 – 2006	NSF Career Award DMS-0094542
1998 – 2001	NSF Grants DMS-9803607, DMS-9996433

Invited lectures and Plenary talks

- AMS Sectional Meeting Invited Lecture, March 2015
- Mathematical Institute of Tel-Aviv University (MINT) Lectures, January 2015
- International Congress of Mathematicians 2014, Invited Lecture, Seoul, August 2014

Publications

31. *U. Bader, A. Furman, R. Sauer*,
    Lattice envelopes,
    Duke J. Math, to appear (arXiv:1711.08410)

30. *U. Bader, A. Furman, R. Sauer*,
    An adelic arithmeticity theorem for lattices in products,
    Mathem. Zeit., to appear (arXiv:1705.08158)

29. *U. Bader, A. Furman*,
    Super-Rigidity and non-linearity for lattices in products,
    Compos. Math., to appear, (arXiv:1802.09931)

28. *U. Bader, A. Furman*,
    An extension of Margulis' super-rigidity theorem
    Dynamics, Geometry and Number Theory: the Impact of Margulis on Modern Mathematics,
    accepted, (arxiv:1810.01607)

27. *M. Cantrell, A. Furman*,
    Asymptotic shapes for ergodic families of metrics on nilpotent groups,
    Groups, Geom., Dyn., **11** (2017), no. 4, 1307 - 1345. (arXiv:1508.00244)

26. *U. Bader, A. Furman, R. Sauer*,
    On the structure and arithmeticity of lattice envelopes,
    C. R. Acad. Sci. Paris, Ser. I **353** (2015), no. 5, 409 − 413. (arXiv:1411.7332)

25. *U. Bader, A. Furman*,
    Boundaries, rigidity of representations, and Lyapunov exponents,
    Proceedings of ICM 2014, Invited Lectures, (2014), 71 − 96. (arxiv:1404.5107)

24. *U. Bader, A. Furman, A. Gorodnik, B. Weiss*,
    Rigidity of group actions on homogeneous spaces III,
    Duke Math. J. **164**, Vol 1 (2015), 115 − 155.

23. *U. Bader, A. Furman, R. Sauer*,
    Weak notions of normality and vanishing up to rank in L^2-cohomology,
    Int. Math. Res. Not. IMRN no. **12**, (2014), 3177 - 3189.

22. *U. Bader, A. Furman, R. Sauer*,
    Efficient subdivision in hyperbolic groups and applications.
    Groups Geom. Dyn. **7** (2013), no. 2, 263 - 292.

21. *U. Bader, A. Furman*,
    Boundaries, Weyl groups, and Superrigidity.
    Electron. Res. Announc. Math. Sci. **19** (2012), 41 - 48.

20. *A. Furman*,
    What is a ... stationary measure?
    Notices of the AMS **58** no. 9 (2011), 1276 − 1277.

19. *U. Bader, A. Furman, R. Sauer*,
    Integrable measure equivalence and rigidity of hyperbolic lattices.
    Invent. Math. **194** (2013), no. 2, 313 - 379.

18. *A. Furman*,
    A survey of measured group theory
    Geometry, rigidity, and group actions, 296 − 374, Chicago Lectures in Math.,
    Univ. Chicago Press, Chicago, IL, 2011, (arXiv:0901.0678)

17. *J. Bourgain, A. Furman, E. Lindenstrauss, S. Mozes,*
    Stationary measures and equidistribution for orbits of non-Abelian semigroups on the torus,
    J. Amer. Math. Soc. **24** (2011), no. 1, 231 - 280.

16. *A. Furman, N. Monod,*
    Actions of product groups on manifolds
    Duke Math. J., **148** (2009), no. 1, 1 - 39.

15. *A. Furman,*
    Rigidity of group actions on infinite volume homogeneous spaces II,
    J. Amer. Math. Soc., **21** (2008), 479 – 512.

14. *A. Furman,*
    On Popa's Cocycle Superrigidity Theorem,
    Inter. Math. Res. Notices **2007** (2007), 1 – 46.

13. *J. Bourgain, A. Furman, E. Lindenstrauss, S. Mozes,*
    Invariant measures and stiffness for non Abelian groups of toral automorphisms,
    C. R. Acad. Sci. Paris, Ser. I **344** (2007), 737 – 742.

12. *U. Bader, A. Furman, T. Gelander, N. Monod,*
    Property (T) and rigidity for actions on Banach spaces,
    Acta Mathematica, **198** (2007), 57 – 105.

11. *A. Furman,*
    Outer automorphism groups of some ergodic equivalence relations,
    Comment. Math. Helv. **80** (2005), no. 1, 157 – 196.

10. *A. Furman,*
    On minimal strongly proximal actions of locally compact groups,
    Israel J. Math. **136** (2003), 173 – 187.

9. *A. Furman,*
   Random walks on groups and random transformations,
   Handbook of dynamical systems, Vol. 1A, 931 – 1014, North-Holland, Amsterdam, 2002.

8. *A. Furman,*
   Coarse-geometric perspective on negatively curved manifolds and groups,
   Rigidity in dynamics and geometry (Cambridge, 2000), 149 – 166, Springer, Berlin, 2002.

7. *A. Furman,*
   Mostow-Margulis rigidity with locally compact targets
   Geom. Funct. Anal. (GAFA) **11** (2001), no. 1, 30 – 59.

6. *A. Furman,*
   Smooth dynamical systems with discrete spectrum
   Appendix to the paper by R. Gunesch and A. Katok: Construction of weakly mixing diffeomorphisms preserving measurable Riemannian metric and smooth measure
   Discrete Cont. Dynam. Syst. **6** No 1, (2000), 61 – 88.

5. *A. Furman,*
   Orbit equivalence rigidity,
   Annals of Mathematics (2) **150** (1999), no. 3, 1083 – 1108.

4. *A. Furman,*
   Gromov's measure equivalence and rigidity of higher rank lattices,
   Annals of Mathematics (2) **150** (1999), no. 3, 1059 – 1081.

3. *A. Furman, Y. Shalom,*
   Sharp ergodic theorems for group actions and strong ergodicity,
   Ergod. Th. Dynam. Systems **19** (1999), no. 4, 1037 – 1061.

2. *A. Furman, B. Weiss*,
   On the ergodic properties of Cartan flows in ergodic actions of SL(2,R) and SO(n,1), Ergod. Th. Dynam. Systems **17** (1997), no. 6, 1371 – 1382.

1. *A. Furman*,
   On the multiplicative ergodic theorem for uniquely ergodic systems,
   Ann. Inst. H. Poincare Probab. Statist. **33** (1997), no. 6, 797 – 815.

Submitted

2. *U. Bader, A. Furman*,
   Margulis' super-rigidity theorem for non-lattices, (arxiv:1810.01608)

1. *U. Bader, A. Furman*,
   Some ergodic properties of metrics on hyperbolic groups, (arXiv:1707.02020)

Preprints and work in progress

1. *U. Bader, P.-E. Caprace, A. Furman, J. Lecureux*,
   Character rigidity for $\tilde{A}_2$-groups, (in preparation).

2. *U. Bader, P.-E. Caprace, A. Furman, A. Sisto*,
   Actions on non-proper hyperbolic spaces and applications, (in preparation).

3. *U. Bader, A. Furman*,
   Boundary theory and simplicity of the Lyapunov spectrum, (in preparation).

4. *U. Bader, A. Furman*,
   Super-rigidity via Weyl groups: hyperbolic-like targets, (in preparation).

5. *U. Bader, A. Furman*,
   Stronger boundary pairs and characteristic maps, (in preparation).

6. *U. Bader, A. Furman, A.Shaker*,
   Superrigidity via Weyl groups: actions on the circle, (arXiv:math.DS/0605276)

7. *U. Bader, A. Furman*,
   Algebraic representations of ergodic actions and super-rigidity, (arxiv:1404.5107)

Mini-courses and Lecture series

- *Random and Arithmetic structures in Topology*, Locally symmetric manifolds, MSRI, 6/2019
- *Ergodic Geometry*, TIFR, Mumbai India, 3/2019
- *Rigidity phenomena via ergodic methods*, Salt Lake City, Utah, 8/2017
- *Super-rigidity*, Lunts workshop, Moscow, Russia, 7/2017
- *Analysis on groups and Measured group theory*, Northwestern, 4/2017
- *Hyperbolic geometry and Dynamics*, HSE, Moscow, 5/2016
- *Geometric Group Theory*, Amenability and Property (T), MSRI, 6/2015
- *Non Commutative Geometry and Operator Algebras*, Measure Equivalence, Vanderbilt, 7/2015
- *Boundaries and Ergodic Geometry*, Lyapunov exponents, Notre Dame, 3/2015
- *Geometric and Analytic Group Theory*, Superrigidity via Weyl, Ventotene, Italy, 9/2013
- *Summer school on Homogeneous Dynamics*, Ergodic Theory, KIAS, Seoul, 8/2013

- *Minerva summer school on flows on homogeneous spaces*, Technion, Haifa, 9/2012
- *Von Neumann algebras and ergodic theory of group actions*, IHP, Paris, 7/2011
- *Lectures on rigidity*, Ecole Polytechnique, Paris, 3/2008
- *Groups and Dynamics*, Les Diablerets, Switzerland, 3/2008
- *Midrasha Mathematicae*, Mini course, Hebrew University, Jerusalem, 12/2008
- *Rigidity School*, Fukuoka, Japan, 6/2007

Conference talks and Colloquia

- Ohio State U, *Math Dept Colloquium*, Columbus OH, April 2019
- Vanderbilt U, *Math Dept Colloquium*, Nashville TN, February 2019
- Boundaries of topological groups with applications to Lyapounov exponents, symmetric spaces, and C*-algebras, TSIMF, Sanya, December 2018
- Bar-Ilan University, *Algebra, Geometry, Dynamics, and Applications*, Israel, 6/2018
- AMS Special Session on *Interaction between geometry, group theory and dynamics*, Nashville, 4/2018
- American Institute of Mathematics, *Classification of group von Neumann algebras*, 1/2018
- Queen Mary University of London, *Classical and quantum motion in disordered environment*, 12/2017
- Texas A&M University, *Ergodic theory and operator algebras*, 6/2017
- IUPUI, *Midwest Dynamical Systems*, 10/2017
- *Wasatch Topology Conference*, Utah, 8/2016
- Ben Gurion University, *Conference on Polish groups*, Sde Boker, Israel, 5/2016
- Penn State University, *Center for Dynamics and Geometry Colloquium*, 11/ 2015
- UC San Diego, *Colloquium*, San Diego, CA, 11/2015
- UIC, *Atkin Memorial Workshop*, Chicago, 5/2015
- Indiana University, *Colloquium*, Bloomington, 2/2015
- Stanford University, *Colloquium*, Palo Alto, 1/2015
- Northwestern University, *Colloquium*, Evanston, 1/2015
- Yale, *Colloquium*, New Haven, CT, 3/2014
- Vanderbilt, *Colloquium*, Nashville, TN, 2/2014
- *Homogeneous Dynamics, Unipotent flows, and applications*, Jerusalem, Israel, 10/2013
- UIUC, *Colloquium*, Urbana-Champaign, IL, 10/2012
- The Hebrew University, *Colloquium*, Jerusalem, 6/2012
- *Bloomington Geometry Workshop*, Indiana University, Bloomington, IN, 4/2012
- *Geometric Groups on the Gulf Coast*, Pensacola, FL, 4/2012
- McGill and Universite de Montreal, *Colloquium*, Montreal, 11/2011
- IHP, *Geometric and measured group theory*, Paris, 7/2011
- Ben Gurion University, *Ergodic Theorems, Group Actions and Applications*, Israel, 5/2011
- Northwestern University, *Discrete Methods in Ergodic Theory*, Evanston, 2/2011
- AMS, *Special session on rigidity*, Notre Dame, November 2010

- Northwestern University, *Midwest Dynamics Conference*, Evanston, 10/2010
- AMS, *Special Session on Rigidity in von Neumann Algebras and Ergodic Theory*, UCLA, 10/2010
- UIC, *Workshop in Dynamics*, Chicago, 5/2010
- Technion, *Colloquium*, Haifa, Israel, 12/2009
- *Affine Isometric Actions of Discrete Groups*, Ascona, Switzerland, 6/2009
- UCLA, *Ergodic Theory and von Neumann Algebras*, 3/2009
- Ohio State U, *Equidistribution on homogeneous spaces*, Columbus, OH, 6/2008
- Brandeis-Harvard-MIT-Northeastern, *Colloquium*, Boston, 2/2008
- Hebrew University, *Colloquium*, Jerusalem, 12/2007
- UC Irvine, *Colloquium*, Irvine, 12/2007
- Caltech, *Colloquium*, Los Angeles, 11/2007
- UCLA, *Colloquium*, Los Angeles, 11/2007
- USC, *Colloquium*, Los Angeles, 11/2007
- Yale, *Colloquium* , New Haven, 10/2007
- U Chicago, *Geometry, Rigidity, and Group Actions*,
  (in honor of Robert J. Zimmer's 60th Birthday), Chicago, 9/2007
- Moscow Independent University, "*Globus*", 5/2007
- *von Neumann Algebras and Ergodic Theory*, UCLA, 3/2007
- IHP, *Groupoids in operator algebras and Noncommutative Geometry*, IHP, Paris, 2/2007
- AMS, Joint Meeting, New Orleans, 1/2007
- Tel-Aviv University, *Colloquium*, 1/2007
- Texas A& M, *SUMIRFAS*, 8/2006
- *Beyond Amenability: groups, actions, and operator algebras*, UCLA, 5/2006
- BIRS (Banff, Canada), *Rigidity, Group Actions and Dynamics* , 7/2005
- NCGOA (Vanderbilt), *Non commutative Geometry and Operator Algebras*, 5/2005
- AMS *2005 Spring Central Section Meeting*, 4/2005
- Universite de Lille, *Analysis and Geometry on Random Structures*, 5/2004
- Washington U (St Louis), *Midwest Geometry*, 6/2003
- Moscow Independent University, "*Globus*", 12/2004
- Vanderbilt, *Non commutative Geometry seminar*, 11/2004
- Indiana, *Colloquium*, 2/2003
- UCLA, *Colloquium*, 2/2003
- Rutgers, *Colloquium*, 10/2002
- ENS Lyon, *Seminaire de mathematiques pures*, 7/2002
- ETHZ (Zurich), *Advances in Rigidity Theory*, 6/2002
- MFO (Oberwolfach), *Geometrization of Kazhdan's property (T)*, 7/2001
- ESI, *Random Walks and Geometry*, Viena, 7/2001
- IMU Conference on Dynamics, Jerusalem,
  celebrating Benjamin Weiss' 60-th birthday, 6/2001
- MFO (Oberwolfach), *Geometric Rigidity and Hyperbolic Dynamics*, 2/2001

- Tufts University, *Colloquium*, 9/2001
- Neuchatel (Switzerland), *Special colloquium* , 5/2001
- Newton Institute (Cambridge, UK), *Rigidity in Dynamics and Geometry*, 3/2000
- Penn State, *Workshop on Dynamical Systems and Related Topics*, 10/1999
- UIC, *Colloquim*, 2/1999
- Paris VI, *Rigidity, Representations and Ergodic Theory*, 6/1998
- Stanford, *Special Colloquium*, 3/1998
- Penn State, *Workshop on Dynamical Systems and Related Topics*, 10/1997
- University of Rennes, *Conference on Actions of Groups and Probability*, 7/1997
- Technion (Haifa, Israel), *Conference on Modern Ergodic Theorems*, 3/1997
- Ben Gurion U, *Colloquium*, Beer Sheva, Israel, 3/1997
- Penn State, *Workshop on Dynamical Systems and Related Topics*, 10/1996
- TIFR, *International Colloquium on Ergodic Theory and Lie Groups*, Mumbai, India, 12/1995
- Penn State, *Workshop on Dynamical Systems and Related Topics*, 10/1995
- Hebrew University, *Workshop on Lie Groups and Ergodic Theory*, Jerusalem, 5/1995

Seminar talks

- Weizmann Institute, Groups and Geometry seminar, Rehovot, Israel, 7/2018
- University of Chicago, Chicagoland Action Now rotating workshop, 11/2016
- Weizmann Institute, Geometry seminar, Rehovot, Israel, 12/2015
- Penn State University, Geometry Seminar, 11/2015
- Yale University, Geometry Seminar, 10/2015
- Yale University, Group theory Seminar, 3/2014
- Vanderbilt University, Joint Subfactors and Group Theory Seminar, 2/2014
- University of Chicago, Dynamics Seminar, November 2013
- UIC, Geometry/Topology/Dynamics Seminar, October 2013
- UIUC, Group Theory seminar, Urbana-Champaign, IL, October 2012
- Ben Gurion University, Action Now Seminar, Beer Sheva, June 2012
- Ben Gurion University, Action Now Seminar, Beer Sheva, December 2011
- The Technion, Analysis Seminar, Haifa, December 2011
- U Chicago, Geometry/Topology Seminar, Chicago, February 2011
- The Technion, Special seminar talk, Haifa, Israel, December 2010
- Steklov Mathematical Institute, Dynamics Seminar, Moscow, Russia, December 2010
- McGill U, Analysis Seminar, Montreal, Canada, November 2009
- Northwestern University, Dynamical Systems Seminar, Evanston, October 2009
- Vanderbilt, Topology and Group Theory Seminar, Nashville, October 2009
- Tel Aviv U, Geometry and Dynamics Seminar, Tel-Aviv, Israel, December 2008
- McGill U, joint Analysis and Groups Seminar, Montreal, Canada, November 2008

- Hebrew U, Group Actions Seminar, Jerusalem, Israel, December 2007
- Technion, Actions Now: rotating seminar, Haifa, December 2007
- Ohio State U, Ergodic Theory Seminar, Columbus, November 2007
- Brown, Group actions Seminar, October 2007
- Brown, Geometry, Topology Seminar, October 2007
- U Chicago, Geometry, Topology Seminar, October 2007
- Yale, Group Actions: Dynamics, Geometry, Invariants, New Haven, October 2007
- Hebrew University Lie Groups Seminar , Jerusalem, Israel, June 2007
- U Chicago, Global Dynamics Seminar , April 2007
- Michigan Geometry Seminar, Ann Arbor, March 2007
- Hebrew University Ergodic Theory Seminar, Jerusalem, January 2007
- Hebrew University Lie Groups Seminar, Jerusalem, January 2007
- IAS Lie Groups, Representations and Discrete Mathematics, Princeton, April 2006
- UCLA, Functional Analysis Seminar, Los Angeles, March 2006
- U Chicago, Topology/Geometry Seminar, Chicago, April 2005
- Northwestern U, Dynamics Seminar, Evanston, March 2005
- UIUC, Differential geometry Seminar, Urbana-Champaign, October 2003
- UCLA, Functional Analysis Seminar, Los Angeles, February 2003
- Michigan Lie Groups and Dynamics Seminar, Ann Arbor, March 2002
- Michigan, Geometry Seminar, Ann Arbor, March 2002
- Tufts-Brandeis-MIT, Dynamical Systems seminar, September 2001
- Princeton, Ergodic theory and Statistical Mechanics Seminar, April 2001
- Hebrew U (Jerusalem), Lie groups seminar , January 2001
- Yale, Geometry and Dynamics Seminar, November 2000
- Northwestern, Geometry and Dynamics seminar, November 2000
- Hebrew U (Jerusalem), Lie groups seminar, November 2000
- Max Plank (Leipzig), Geometry seminar, July 2000
- Hebrew U (Jerusalem), Lie groups seminar, December 1999
- Institute Fourier (Grenoble), Geometry seminar, July 1999
- ETH (Zurich), Geometry and group theory seminar, July 1999
- Hebrew U (Jerusalem), Ergodic Theory seminar, July 1999
- Michigan U (Ann Arbor), Geometry seminar, April 1999
- Michigan U (Ann Arbor), Lie groupos and Dynamics seminar, April 1999
- Bielefeld U (Germany), Group Theory Seminar, September 1998
- U Chicago, Topology/Geometry Seminar, April 1998
- Berkeley, Special talk, March 1998
- UIUC (Urbana-Champaign), Analysis Seminar, February 1997
- UIC, Geometry/Topology/Dynamics Seminar, December 1996
- Northwestern (Evanston), Dynamical Systems Seminar, October 1996

- Technion (Haifa), Geometry Seminar, October 1995
- Stanford, Ergodic Theory Seminar, October 1995
- U Chicago, Geometry/Topology Seminar, October 1995

University and Department Service

- Advisory Committee (elected), 2017-2019, Chair 2017 - 2018
- Hiring Committee, 2017 - 2018, 2018 - 2019
- Distinguished Lecture Series Committee, 2017 - 2019
- Salary Committee, 2018
- Admissions, Fellowships, Assistantships, Chair, 2015 2017
- Advisory Committee (elected), 2005 2007, 2011 - 2013
- Calculus Committee, 2009 2010, Chair Fall 2010, 2012 2013
- Colloquium Committee, 2003 - 2004, 2005 - 2006
- Director of Graduate Studies, 2015 2017
- Doctor of Arts Subcommittee, Ex-Officio, 2015 2017
- Faculty Search Committee, 2009 2010, 2011 2012, Chair 2013 - 2014
- Research Assistant Professor Search Committee, 2000 2001, Chair 2005 2006, 2008 - 2009, Chair 2012 - 2013.
- Graduate Student Colloquium, Coordinator, 2005 2006
- Graduate Studies Committee, Chair, 2015 present
- Student Awards Committee, 2003 2004, Chair 2004 2005, Chair 2006 2007, 2008 2010, 2011 2012, 2015 present
- 300 Level Math Curriculum, 2011 2012, Chair 2012 2013
- Undergraduate Math Club Committee, Coordinator, 2000 - 2001
- Undergraduate Studies Committee, 2009 2010
- Visitors Committee, Chair 2009 2010, 2010 2011
- University Senate, 2006 - 2007

Professional Service Activities

- *Journal of Modern Dynamics*, Associate Editor, 2018 – 2022.
- *Journal of Topology and Analysis*, Associate Editor, 2018 – 2022.
- *Canadian Journal of Mathematics*, Associate Editor, 2017 – 2021.
- *Canadian Mathematical Bulletin*, Associate Editor, 2017 – 2021.
- Semester long Thematic Program *Random and Arithmetic structures in Topology*, MSRI, Fall 2020 (Organizer).
- Member of the Lie group Session Committee for International Congress of Mathematicians 2018.
- Workshop on *Boundaries of topological groups, C*-algebras, symmetric spaces, and Lyapounov exponents* at the Tsinghua Sanya International Mathematics Forum (TSIMF), China, 2018 (Organizer).
- Oberwolfach meeting on *Groups, Dynamics, and Approximation*, 2019 (Organizer).

- MSRI summer school *Random and Arithmetic structures in Topology*, July 2019 (Organizer and Lecturer).
- CAN – Chicagoland rotating seminar on Groups, Geometry and Dynamics, February 2017, February 2018 (Organizer).
- Oberwolfach Arbeitsgemeinschaft on *Superrigidity*, April 2014 (Organizer).
- *Midwest Dynamics* conference, March 2012 (Organizer).
- *UIC-MOP* (Math Olympiad Project/Math Outreach Program) an enrichment and problem solving program aimed at gifted Chicago school kids, 2012–present. (Organizer and Instructor).
- Referee for peer review journals: Annals of Mathematics, Publications Mathematiques de l'IHES, Journal of American Mathematical Society, Inventiones Mathematicae, Geometry and Functional Analysis, Journal of European Mathematical Society, Publications of London Mathematical Society, Ergodic Theory and Dynamical Systems, Israel Journal of Mathematics, Advances in Mathematics, Crelle's Journal, Journal of Topology and Analysis, Studia Mathematica, Izvestia Mathematics,
- NSF Panels: multiple times.
- Grant reviewer for French, Swiss, Canadian, Israeli agencies.
- Thesis Defense Committees: 6 times as an internal member, 5 as an external member.

Graduate Students Advised

- Talia Fernos, 2006 PhD. Associate Professor at University of North Carolina at Greensboro.
- Ali Shaker (tragically passed away September 2005).
- Natalie McGathey, 2011 PhD. Associate Professor at Prairie State College, IL.
- Michael Cantrell, 2016 PhD. MSRI Fall 2016. Now data analyst at Uptake LCD.
- Vladimir Finkelshtein, 2017 PhD. Post Doc at Univ of Göttingen 2017 – 2019.
- Robert Kozma, current.
- Samuel Dodds, current.