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CAREER

- Professor, UC San Diego, 2020–present.
- Associate Professor, UC San Diego, 2016–2020.
- Assistant and Associate Professor, The University of Texas at Austin, 2011–2016.
- L. E. Dickson Instructor, The University of Chicago, 2009–2011.
- Ph.D., Yale University, New Haven, CT, 2009.
- B.Sc., Sharif University of Technology, Tehran, Iran, 2002.

VISTING POSITIONS

- Member, Institute for Advanced Study, Princeton, NJ, (Fall 2019).
- Visitor, Fields Institute, Toronto, ON, Canada, (July 2018).
- von Neumann Fellow, Institute for Advanced Study, Princeton, NJ, (2015-16).
- Research Member, MSRI, Berkeley, CA, (Spring 2015).
- Visting Scholar, FIM, ETH, Zürich, Switzerland, (February 2014-August 2014)

HONORS AND AWARD

- International Congress of Mathematicians Speaker, St. Petersburg, Russia, 2022.
- Dean's Scholar, Physical Sciences, University of California, San Diego, 2016-21.
- von Neumann Fellowship, Institute for Advanced Study, 2015–16.
- Sloan Research Fellowship, 2014–2016.

RESEARCH PAPERS

Research supported in parts by the NSF and Alfred P. Sloan Research Fellowship.

- A. Mohammadi, *Finitary analysis in homogeneous spaces*, Submitted to the Proceedings of the ICM 2022.
- E. Lindenstrauss, A. Mohammadi, *Polynomial effective density in quotients of \mathbb{H}^3 and $\mathbb{H}^2 \times \mathbb{H}^2$* , Submitted.
- A. Mohammadi, K. Rafi, *Benjamini-Schramm convergence of periodic orbits*, Preprint. arXiv:2108.07010

- K. Mallahi-Karai, A. Mohammadi, A. Salehi Golsefidy, *Locally random groups*, Preprint. arXiv:2008.13645
- A. Mohammadi, H. Oh, *Isolations of geodesic planes in the frame bundle of a hyperbolic 3-manifold*, Preprint. arXiv:2002.06579
- A. Eskin, M. Mirzakhani, A. Mohammadi, *Effective counting of simple closed geodesics on hyperbolic surfaces*, JEMS, to appear.
- E. Lindenstrauss, G. Margulis, A. Mohammadi, N. Shah, *Quantitative behavior of unipotent flows and an effective avoidance principle*, Journal d'Analyse, to appear.
- A. Mohammadi, A. Salehi Golsefidy, F. Thilmany, *Diameter of homogeneous spaces: An effective account*, Preprint. arXiv:1811.06253
- C. McMullen, A. Mohammadi, H. Oh, *Geodesic planes in the convex core of an acylindrical 3-manifold*. Duke Math. Journal, to appear.
- G. Margulis, A. Mohammadi, *Arithmeticity of hyperbolic 3-manifolds containing infinitely many totally geodesic surfaces*, Ergodic Theory and Dynam. Systems, special volume in the memory of A. Katok, to appear.
- M. Einsiedler, A. Mohammadi, *Effective arguments in unipotent dynamics*, to appear in a special volume dedicated to G. Margulis, Chicago University Press.
- M. Einsiedler, E. Lindenstrauss, A. Mohammadi, *Diagonal actions in positive characteristic*. Duke Math. J. 169(1) (2020), 117–175.
- M. Einsiedler, G. Margulis, A. Mohammadi, A. Venkatesh, *Effective equidistribution and property (τ)* . J. Amer. Math. Soc., 33 (2020), 223–289.
- M. Aka, M. Einsiedler, H. Li, A. Mohammadi, *On effective equidistribution for quotients of $SL(d, \mathbb{R})$* . Israel J. of Math., 236 (2020), 365–391.
- A. Mohammadi, A. Salehi Golsefidy, *Measure rigidity for the action of semisimple groups in positive characteristic*, Geom. and Func. Anal., 28(1) (2018), 179–227.
- C. McMullen, A. Mohammadi, H. Oh, *Geodesic planes in hyperbolic 3-manifolds*. Invent. Math., 209 (2017), 425–461.
- C. McMullen, A. Mohammadi, H. Oh, *Horocycles in hyperbolic 3-manifolds*, Geom. and Func. Anal., 26(3), (2016), 961–973.
- A. Mohammadi, H. Oh, *Invariant Radon measures for unipotent flows and products of Kleinian groups*, Proc. of the AMS, 146 (2018), 1469–1479.
- G. Margulis, A. Mohammadi, H. Oh, *Closed geodesics and holonomies for Kleinian manifolds*, Geom. and Func. Anal., 24(3), (2014) 1608–1636.
- A. Mohammadi, H. Oh, *Classification of joinings for Kleinian groups*, Duke Math. J., 165(11), (2016), 2155–2223.
- A. Eskin, M. Mirzakhani, A. Mohammadi, *Isolation, equidistribution, and orbit closures for the $SL(2, \mathbb{R})$ action on Moduli space*, Ann. of Math., 182(2) (2015), 673–721.

- A. Mohammadi, H. Oh, *Matrix coefficients, Counting and Primes for orbits of geometrically finite groups*, J. European Math. Soc., 17(4), (2015), 837–897.
- A. Mohammadi, *On ergodic properties of the Burger-Roblin measure*, In "Thin groups and superstrong approximation", edited by Breuillard and Oh, Math. Sci. Res. Inst. Publ. 61, Cambridge Univ. Press. Cambridge 2014.
- A. Mohammadi, H. Oh, *Ergodicity of unipotent flows and Kleinian groups*, J. of the AMS, 28, (2015), 531–577.
- A. Mohammadi, A. Salehi Golsefidy, *Translates of horospherical measures and counting problems*, American J. Math., 136(5), (2014), 1301–1346.
- D. Kelmer, A. Mohammadi, *Logarithm laws for one parameter unipotent flows*, Geom. and Func. Anal., 22(3), (2012) 756--784.
- A. Mohammadi, K. Wortman, *Finiteness properties of $\mathbf{G}(\mathbb{Z}[t])$ for groups with \mathbb{Q} -rank 2*, Geometriae Dedicata, 164, (2013), 131–137.
- B. Farb, A. Mohammadi, *The extremal symmetry of arithmetic simplicial complexes*, Adv. Math., 231(2), (2012), 843–854
- A. Mohammadi, *Special case of effective equidistribution with explicit constants*, Ergodic Theory Dynam. Systems, 32(1), (2012), 237–247.
- G. Margulis, A. Mohammadi, *Quantitative version of the Oppenheim conjecture for inhomogeneous quadratic forms*, Duke Math. J., 158(1), (2011), 121–160.
- A. Mohammadi, *Measures invariant under horospherical subgroups in positive characteristic*, J. Mod. Dynamics, 5(2), (2011), 237–254.
- M. Einsiedler, A. Mohammadi, *A joining classification and a special case of Raghunathan's conjecture in positive characteristic*, (with an appendix by Kevin Wortman), J. Anal. Math., 116, (2012), 299–334.
- A. Mohammadi, A. Salehi Golsefidy, *Discrete transitive actions on vertices of Bruhat-Tits building*, Duke Math. J., 161(3), (2012), 483–544.
- A. Mohammadi, *Unipotent flows and isotropic quadratic forms in positive characteristic*, Int. Math. Res. Not., 20, (2011) 4535–4554.
- A. Mohammadi, A. Salehi Golsefidy, *Simultaneous Diophantine approximation on non-degenerate p -adic manifolds*, Israel J. Math., 188 (2012), 231–258.
- A. Mohammadi, A. Salehi Golsefidy, *S -Arithmetic Khintchine type theorem*, Geom. and Func. Anal., 19(4), (2009), 1147–1170.
- K. U. Bux, A. Mohammadi, K. Wortman, *$\mathrm{SL}_n(\mathbb{Z}[t])$ is not FP_{n-1}* , Comm. Math. Helv., 85(1), (2010), 151–164.

INVITED TALKS

- September, *Number Theory Down Under 9*, Plenary Lecture, Virtual Conference, Sydney, Australia.

- August 2021, *Discrete Groups, Geometry and Arithmetic*, Virtual Conference in honor of M. S. Raghunathan's 80th birthday, TIFR, India.
- June 2021, *CMI-HIMR Dynamics and Geometry Online Summer School*, 5 lectures, Virtual Summer School, Bristol, UK
- June 2020, *Lattice Point Distributions and Homogeneous Dynamics*, Virtual Workshop, ICERM.
- June 2020, *Midwest Dynamics and Group Actions Seminar*, Virtual Seminar.
- February 2020, *Geometry Seminar*, University of California, Berkeley, CA.
- January 2020, *Geometry Seminar*, Caltech, Pasadena, CA.
- November 2019, *Number Theory Seminar*, Rutgers, New Brunswick, NJ.
- November 2019, *Number Theory Seminar*, CUNY, New York City, NY.
- October 2019, *Colloquium*, Yale University, New Haven, CT.
- October 2019, *Dynamics, Geometry and Combinatorics*, EPFL, Lausanne, Switzerland.
- December 2018, *Colloquium*, Yale University, New Haven, CT.
- October 2018, *Colloquium*, Ohio State University, OH.
- July 2018, *Dynamics: Topology and Numbers*, Max Plank Institute, Bonn, Germany.
- May 2018, *The Mathematical Legacy of Maryam Mirzakhani*, Stanford University, CA.
- May 2018, *Thin Groups in Number Theory, Geometry and Topology*, Rice University, TX.
- January 2018, *New Methods for Zimmer's Conjecture*, IPAM, Los Angeles, CA.
- April 2016, *Number Theory Seminar*, University of California, San Diego, CA.
- July 2016, *Mini Course on Homogeneous Dynamics, School on Algebraic, Geometric and Probabilistic Aspect of Dynamical Systems and Control Theory*, Trieste, Italy.
- June 2016, *Dynamics, Geometry and Number Theory*, Conference in Honor of G. Margulis' 70th Birthday, Paris, France.
- April 2016, *Special Dynamics Seminar*, University of California, San Diego, CA.
- March 2016, *Workshop on Thin Groups and Super Approximation*, IAS, Princeton, NJ.
- February 2016, *Analysis and PDE Seminar*, University of California Los Angeles, CA.
- January 2016, *Informal Geometry & Topology Seminar*, Stanford University, CA.
- January 2016, *Special Dynamics Seminar*, University of California, Berkeley, CA.
- October 2015, *Colloquium*, Wesleyan University, CT.
- October 2015, *Dynamics of Group Actions Seminar*, Yale University, New Haven, CT.
- September 2015, *RTG Working Seminar on Geometry, Dynamics and Topology*, University of Michigan, Ann Arbor, MI.
- September 2015, *Colloquium*, University of Michigan, Ann Arbor, MI.
- May 2015, *Advances in Homogeneous Dynamics*, MSRI, Berkeley, CA.
- March 2015, *Dynamics of Group Actions Seminar*, Yale University, New Haven, CT.
- Feb 2015, *MSRI's Introductory Workshop: Geometric and Arithmetic Aspects of Homogeneous Dynamics*, two lectures, Berkeley, CA.
- Nov 2014, *Dynamical Systems Seminar*, Pennsylvania State University, State College, PA.
- July 2014, *Program on Interactions between Dynamics of Group Actions and Number Theory*, Isaac Newton Institute, Cambridge, UK.
- March 2014, *Workshop on Flat surfaces and dynamics on moduli spaces*, MFO, Oberwolfach-Walke, Germany.
- Feb 2014, *Geometry Seminar*, ETH, Zürich, Switzerland.
- Oct 2013, *Colloquium*, University of North Texas, Denton, TX.
- July 2013, *Summer School on Homogeneous dynamics*, KIAS, Seoul, South Korea.

- May 2013, *Algebra Seminar*, Northwestern University, Evanston, IL.
- May 2013, *Rice dynamics meetings*, Rice University, Houston, TX.
- March 2013, *Conference on Equidistribution in Number Theory and Dynamics*, FIM, Zürich, Switzerland.
- Jan 2013, *Lie Theory Workshop*, University of California San Diego, San Diego, CA.
- Sep 2012, *Colloquium*, Rice University, Houston, TX.
- Sep 2011, *Conference on Dynamics on Homogeneous Spaces and Number Theory*, Ohio State University, Columbus, OH.
- March 2011, *Group Actions, Dynamics and Geometry Seminar*, Brown University, Providence, RI.
- Jan 2011, *Dynamical Systems Seminar*, Northwestern University, Evanston, IL.
- Dec 2010, *Algebra, Number Theory and Combinatorics*, University of Texas at Austin, Austin, TX.
- Nov 2010, *Cornell Dynamical Systems Seminar*, Cornell University, Ithaca, NY.
- Nov 2010, *Joint Number Theory/Dynamics Seminar*, University of Illinois at Chicago, Chicago, IL
- Nov 2010, *Special Session on Arithmetic, Groups and Geometry*, 2010 Fall Central Section Meeting, Notre Dame, IN.
- Nov 2010, *Special Session on Rigidity*, 2010 Fall Central Section Meeting, Notre Dame, IN.
- Oct 2010, *Number Theory Seminar*, University of Illinois at Urbana-Champaign, Urbana, IL.
- April 2010, *Number Theory Seminar*, University of Chicago, Chicago, IL.
- March 2010, *Algebra Seminar*, Indiana University, Bloomington, IN.
- February 2010, *Dynamics of Group Actions Seminar*, Yale University, New Haven, CT.
- January 2010, *Geometry Topology Seminar*, University of Chicago, Chicago, IL.
- December 2009, *Wasatch Topology Conference*, Park City, UT.
- November 2009, *Group Actions Seminar*, Princeton University, Princeton, NJ.
- September 2009, *Dynamics Seminar*, University of Texas at Austin, Austin, TX.
- March 2009, *Topology and Geometric Group Theory Seminar*, Cornell University, Ithaca, NY.
- January 2009, *Colloquium*, University of Iowa, Iowa City, IA.
- December 2008, *Geometry Seminar*, University of Michigan, Ann Arbor, MI.
- June 2008, *Conference on Equidistribution on Homogeneous Spaces*, Ohio State University, Columbus, OH.
- May 2008, *Ergodic Theory Seminar*, Ohio State University, Columbus, OH.
- March 2008, *Group Actions Seminar*, Princeton University, Princeton, NJ.
- November 2007, *Dynamics of Group Actions Seminar*, Yale University, New Haven, CT.
- October 2007, *Ergodic Theory Seminar*, Ohio State University, Columbus, OH.
- October 2007, *Group Action Seminar*, Brown University, Providence, RI.
- December 2006, *Dynamics of Group Actions Seminar*, Yale University, New Haven, CT.

POSTDOCTORAL FELLOWS MENTORED

- Anthony Sanchez, UCSD, 2021-present.
- Nattalie Tamam, UCSD, 2018-2021.
- Han Li, UT Austin, 2014.

GRADUATE STUDENTS

- Jacqueline Warren, UCSD, June 2021.
- Taylor McAdam, UT Austin and UCSD, June 2019.
- Kathryn Dabbs, UT Austin, July 2017.