



## CURRICULUM VITAE KHOSRO TAJBAKHS

### PERSONAL

- Citizenship                      Iranian
- Place of Birth                     Iran
- Marital Status                    Married

### Position

- Associate Professor              2011-Now, Head, Department of pure of Mathematics, Tarbiat Modares university, Tehran, Iran
- Post-Doctoral                      2010 Chungnam National University (CNU), South Korea

### EDUCATION

- PhD in Mathematics              CNU, South Korea
- MSc in Mathematics              University of Tehran, Iran
- BSc in Mathematics              Shiraz University, Iran

### PhD Thesis

- Hyperbolicity of Homoclinic Classes via Tracing Properties. Supervisor: Keonhee Lee.

### MSc Thesis

- Compactifications, March 2002. Supervisor: Massoud Sabbaghan.

### AWARDS

- Post-Doctoral Fellowship, Bk21 (South Korea), 2010- 2010
- PhD Fellowship, Bk21 (South Korea), 2006- 2010

### VISITS

- University of Warwick, UK. July-August 2017.
- ICTP, Trieste Italy, October 2013.
- Chungnam National University, Daejeon, Korea. August 2012.
- Hanoi University of Science, Hanoi, Vietnam. October 2009.
- Hanoi University of Science, Hanoi, Vietnam. February 2007.
- Souchu University, China. January 2008.

## INTERESTS

Geometry of Dynamical Systems, Entropy of surface diffeomorphisms, Anosov endomorphisms.

## Graduate Students

- Fardin Amini, Partially Hyperbolic Sets with Positive measure, M.Sc. Thesis, Tarbiat Modares University, Tehran, 2014
- Robab Noori, Bifurcations of Random Circle Diffeomorphisms, M. Sc. Thesis, Tarbiat Modares University, Tehran, 2014
- Majid Hasanali, Shadowing for Action of Some Groups, M. Sc. Thesis, Tarbiat Modares University, Tehran, 2014
- Elham sadegh Daghighi, Diffeomorphisms with Lipschitz Shadowing Property, M. Sc. Thesis, Tarbiat Modares University, Tehran, 2014
- Nasrin Safavi, Robust Minimality of Iterated Function Systems with Two Generators, M. Sc. Thesis, Tarbiat Modares University, Tehran, 2014
- Zahra Hajirabie, Region of Instability for Area Preserving Generic Diffeomorphisms of Surfaces, M. Sc. Thesis, Tarbiat Modares University, Tehran, 2015
- Maryam Elyasi, Diffeomorphisms with Various Limit Shadowing Properties, M. Sc. Thesis, Tarbiat Modares University, Tehran, 2015
- Samira Rabiee, Iterated Function Systems, M. Sc. Thesis, Tarbiat Modares University, Tehran, 2015
- Nilofar Kiamari, Lorenz Attractors of Flip Bifurcations, M. Sc. Thesis, Tarbiat Modares University, Tehran, 2015
- Samaneh sangi, Iterated Function Systems, M. Sc. Thesis, Tarbiat Modares University, Tehran, 2015
- Ebrahim saberi, On the Question of Ergodicity for Minimal Group Actions on the Circle, M. Sc. Thesis, Tarbiat Modares University, Tehran, 2015
- Bahman Taherkhani, Transformation Semigroups with Phase Semigroups Arised from Generalized Shift, PhD Dissertation, Tarbiat Modares University, Tehran, 2016
- Shayan Alikhanloo, Topological and Ergodic Properties of Partially Hyperbolic Diffeomorphisms, M. Sc. Thesis, Tarbiat Modares University, Tehran, 2016
- Seyyed Mehdi Nemati, Ergodicity of Continuous Maps on Compact manifolds, M. Sc. Thesis, Tarbiat Modares University, Tehran, 2017
- Habibeh Pourmand,  $C^1$ -Interior Measure Expansive Diffeomorphisms, M. Sc. Thesis, Tarbiat Modares University, Tehran, 2017
- Armaghan Hajipour, *Markov* structure for zooming sets, M. Sc. Thesis, Tarbiat Modares University, Tehran, 2018
- Seyed Mohsen Moosavi, *Anosov Endomorphisms*, PhD. Dissertation, Tarbiat Modares University, Tehran, 2018
- Neda Pazooki, *Transfer Operators for Expanding maps*, M. Sc. Thesis, Tarbiat Modares University, Tehran, 2018

## RESEARCH

- ROBUST SPECIAL ANOSOV ENDOMORPHISMS, to appear in CKMS.
- Classification of special Anosov endomorphisms of infra-nil-manifolds, arXiv:1702.08821[math.DS]
- Topology of pre-images under Anosov endomorphisms, arXiv:1702.08167[math.DS]
- Specification properties on uniform spaces, arXiv:1703.02288[math.DS]
- On chromatic numbers of two extensions of planar graphs, to appear Acta Mathematica Vietnamica.
- Minimum edge cuts of distance-regular and strongly regular digraphs, the electronic journal of combinatorics 24(4) (2017), #P4.2
- Asymptotic measure expansive diffeomorphisms, J. Math. Anal. Appl. **435** (2016) 1682–1687
- Dynamical Systems with Specification, Journal of the Chungcheong Mathematical Society **28** (1)(2015), 103-108
- Hyperbolicity of chain transitive sets with limit shadowing, Bull. Korean Math. Soc. **51** (2014), no. 5, 1259-1267
- Decomposing hypergraphs into  $k$ -colorable hypergraphs. *Trans. Comb.* **3** (2014), no. 2, 31–33. 05C15 (05C65)
- Diffeomorphism with  $L_p$ -shadowing property, Acta mathematica Sinica, English series **27** (2011), 19 – 28
- *Hyperbolicity of  $C^1$ -stably shadowing homoclinic classes*, Trends in Mathematics, **8** (2008), 79-82.
- *The spectral characterization of graphs of index less than 2 with no  $Z_n$  as a component*, Ars Combin. **94** (2010), 135 - 145.
- *Starlike trees are determined by their Laplacian spectrum*, Linear Algebra Appl. **422** (2007), no. 2-3, 654-658.

## TALKS

- Hyperbolic Dynamical Systems, Tabriz University. Tabriz, Iran. August 2018.
- Topology of pre-images under Anosov endomorphisms, YRM 2017 Conference. Canterbury, UK. August 2017.
- Asymptotic measure expansive, ICM satellite Conference. Daejeon, South Korea, August 2014.
- Hyperbolic structure of dynamical systems
  - 2012 Workshop on Dynamical Systems & Related Topics, Chungnam National university, Daejeon, South Korea, August 23(Thu) – 24(Fri), 2012.
- Diffeomorphisms satisfying the lipschitz shadowing property,
  - Chungnam National university, Daejeon, South Korea, August 10, 2012.
- Hyperbolicity of Homoclinic classes,
  - Tarbiat Modares University, Tehran, Iran November(2010).
- Limit Average Shadowing Diffeomorphisms,
  - Korean Mathematical Society (JCMS) Conference, Chungnam National university, Daejeon, South Korea, May15, 2010.
- Shadowable Chain Transitive sets and Specific Sets for Vector Fields,
  - Korean Mathematical Society Conference, Chungnam National university, Daejeon, South Korea, April 24-25, 2010.
- $C^1$ -Generic Diffeomorphisms with Specification Property,

- Joint meeting of the Korean Mathematical Society and the American Mathematical Society, Seoul, Korea, December 16 - 20, 2009.
- International Workshop on Differential and Difference Equations: Theory, Numerics and Applications, Hanoi and Halong, Hanoi University of Science, Hanoi, Vietnam October, 29 – 31, 2009.
- NIMS Hot Topics Workshop on Measurable and Topological Dynamical Systems in Asia, Ajou University, Suwon, Korea, June 18-20, 2009.
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- Hyperbolicity of  $C^1$ -stably Shadowing Homoclinic classes,
  - International Workshop on Dynamical Systems and Related Topics, Chungnam National University, Daejeon, Korea, August 19-22, 2008.
- $C^1$ -Persistently Inverse Shadowable Diffeomorphisms,
  - The Korean Mathematical Society workshop, Daejeon, Korea , March 2008.
  - Workshop on Dynamical Systems & Related Fields, Ajou University, Suwon, Korea, February 18-19, 2008.
  - Joint Seminar on Dynamical Systems, Soochow University, Soochow, China, January 21-24, 2008.
- $\Omega$ -Stability of Diffeomorphisms with Various Shadowing on Non-Wandering sets,
  - 2007 CNU Workshop on Nonlinear Analysis and Its Application, Chungnam National University, Daejeon , Korea, August 24-25, 2007.
- $\Omega$ -Stability of Diffeomorphisms with Inverse Shadowing on Non-Wandering sets,
  - 2007 VNU and CNU workshop on Analysis, Differential Equations, and Dynamical Systems, Hanoi University Of Science, Hanoi, Vietnam. February 02-03, 2007.

## CONFERENCES

- TMU-ICTP School & conference in dynamical systems and ergodic theory, 15-20 May 2018, Tehran, Iran.(Share with ICTP)
- School on ergodic theory & dynamical systems, 13-17 February 2017, TMU, Tehran, Iran.
- Workshop on Geometry and dynamical systems, 27-28 February 2016, Tarbiat Modares University, Tehran Iran.
- ICTP, 2016, School on Algebraic, Geometric and Probabilistic Aspect of Dynamical Systems and Control Theory- Trieste, Italy.
- ICTP, 2015, School and Conference on Ergodic theory and Dynamical systems- Trieste, Italy.
- ICM 2014 Korea, 13 August-21 August 2014, Seoul, Korea.
- ICTP-SISSA-Moscow School on Geometry and Dynamics, The Abdus Salam International Centre for Theoretical Physics, 3 June-14 June 2013, Miramare - Trieste, Italy.
- Korean Mathematical Society (JCMS branch), Chungnam National university, Daejeon, South Korea, May 15, 2010.
- Korean Mathematical Society Conference, Chungnam National university, Daejeon , South Korea, April 24-25, 2010.
- Joint meeting of the Korean Mathematical Society and the American Mathematical society, Seoul, Korea, December 16 - 20, 2009.
- International Workshop on Differential and Difference Equations: Theory, Numerics and Applications, , Hanoi and Halong, Hanoi University of Science, Hanoi, Vietnam, October 29 - 31, 2009.
- NIMS Hot Topics Workshop on Measurable and Topological Dynamical Systems in Asia, Ajou University, Suwon, Korea, June 18-20, 2009.
- International Workshop on Dynamical Systems and Related Topics, Chungnam National University, Daejeon, Korea, August 19-22, 2008.
- Korean Mathematical Society Conference, Korean Advanced Institute of Science and Technology(KAIST), Daejeon , South Korea, October 20-21, 2007.

- 2007 CNU Workshop on Nonlinear Analysis and Its Application, Chungnam National University, Daejeon, South Korea, August 24-25, 2007.
- The 60th Anniversary of the Korean Mathematical Society, Seoul National University, Seoul, Korea, October 27-29, 2006.
- International Workshop on Dynamical Systems and Related Topics, Pusan National University, Busan, South Korea, August 03-05, 2006.
- Korean Mathematical Society Conference, Busan, April 2006.
- International Workshop on Computer Vision, IPM, Tehran, Iran, April 26-30, 2004.
- International Workshop on Combinatorics, Linear Algebra and Graph Coloring, IPM, Tehran, Iran August 9-14, 2003.

### Organizer:

- TMU-ICTP School & conference in dynamical systems and ergodic theory, 15-20 May 2018, Tehran, Iran.(Share with ICTP)
- School on ergodic theory & dynamical systems, 13-17 February 2017, TMU, Tehran, Iran.
- Workshop on Geometry and dynamical systems, 27-28 February 2016, Tarbiat Modares University, Tehran Iran.
- Short Communications, **SC09-13, 2014, ICM, Korea**

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