Khashayar Sartipi

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Research Interests

- Algebraic K-Theory, Kasparov K-theory, C^*-Categories, Complex Geometry

Education

- **Ph.D.** student in **Mathematics**   Aug 2013-July 2019
  - Department of **M**athematics, **C**omputer **S**ciences and **S**tatistics,
    University of **I**llinois at **C**hicago, Chicago, Illinois
  - Thesis Title: Paschke Category, K-homology, and the Riemann-Roch Transformation
  - Advisor: Prof. Henri Gillet

- **B.Sc** in **Mathematics**   Sep 2009-2013
  - Department of Mathematical Sciences
    Sharif University of Technology, Tehran, Iran
  - Dissertation Title: Generalized Gauss Bonnet Theorem
  - Supervisor: Prof. Amir Jafari

Selected Honors and Awards

- **Third Prize**, **I**nternational **M**athematical **C**ompetition,   Summer 2012
  Blagoevgrad, Bulgaria
- **Gold Medal**, Iran Mathematics Olympiad for University Students,   Spring 2012
  Zanjan, Iran
- **Grant** for Undergraduate Studies, National Elite Foundation,   2009-2013
  Tehran, Iran
- **Gold Medal**, National Mathematics Olympiad,   Summer 2008
  Tehran, Iran
- **Silver Medal**, National Mathematics Olympiad,   Summer 2007
  Tehran, Iran

Publications and Preprints

- **K. Sartipi**, (Submitted to Annals of K-Theory)
  Paschke Categories, K-homology, and the Riemann-Roch Transformation

Presentations

- *Paschke Categories, K-homology and the Riemann-Roch transformation*
  - Algebra Seminar   Feb 2019
    Department of Mathematics, Rutgers University, New Brunswick, New Jersey
  - Algebra Seminar   Jan 2019
    Department of Mathematics, Temple University, Philadelphia, Pennsylvania
  - GroupoidFest 2018   Nov 2018
    Department of Mathematics, University of Illinois at Chicago, Chicago, Illinois
  - Non-Commutative Geometry Seminar   Sep 2018
    Department of Mathematics, Penn State University, State College, Pennsylvania
  - ICM 2018 K-Theory Conference   Jul 2018
    Universidad de Buenos Aires, Buenos Aires, Argentina

- *On Zero-Sum Flows in Hypergraphs*   Sep 2012
  ICTP-IPM Workshop and Conference in Combinatorics and Graph Theory, Trieste, Italy
- Talks at Graduate Student Seminars
  Department of Mathematics, University of Illinois at Chicago, Chicago, Illinois

  - *Sheaves of C^*-algebras*   Mar 2017
  - *Brown-Gersten Spectral Sequence for G-theory*   Mar 2017
  - *G-Theory and Nisnevich Descent*   Feb 2017
  - *Complex Oriented Cohomology Theories*   Feb 2016
  - *K-Theory of Finite Fields*   Nov 2015

	– *Bounded Cohomology and Milnor-Sullivan Theorem*	Mar 2015
	– *From Morse Theory to Bott Periodicity*	Oct 2014
	– *Novikov Compact Leaf Theorem*	Mar 2014

- Talks at Sharif University of Technology, Tehran, Iran

– *Probability Theory*, Topics in Analysis	Dec 2012
– *Group Connectivity*, Topics in Graph Theory	May 2012
– *Sieve Theory*, Analytic Number Theory,	Dec 2011

Workshops and Seminars

- *ICM 2018 K-Theory Conference*   July 2018
  Universidad de Buenos Aires, Buenos Aires, Argentina
  Universidad Nacional de La Plata, La Plata, Argentina
- *Vitamin K1*   Mar 2018
  University of Illinois at Chicago, Chicago, Illinois
- *K-theory and Related Fields*   Jul 2017
  Hausdorff Research Institute for Mathematics, Bonn, Germany
- *Topology Festival*   May 2017
  Cornell University, Ithaca, New York
- *Workshop on the Geometry and Physics of Higgs bundles*   Oct 2016
  University of Illinois at Chicago
- *Midwest Topology Seminar*   Feb 2016
  Northwestern University, Chicago, Illinois
- *Midwest Topology Seminar*   Oct 2015
  Wayne State University, Detroit, Michigan
- *K-theory, Future Directions*   May 2015
  Ohio State University, Colombus, Ohio
- *Midwest Algebraic Geometry Seminar*   Apr 2015
  University of Illinois at Chicago, Chicago, Illinois
- *Graduate Student Topology and Geometry Conference*   Mar 2015
  University of Illinois at Urbana-Champaign, Urbana, Illinois
- *Midwest Algebraic Topology Seminar*   Feb 2015
  University of Illinois at Chicago, Chicago, Illinois
- *Frontiers of Mathematics*   Dec 2012
  Sharif University of Technology, Tehran, Iran
- *One Day Seminar of Algebra Day* in Algebra   Oct 2012
  Isfahan Math House, Isfahan, Iran
- *ICTP-IPM Workshop and Conference in Combinatorics and Graph Theory*   Sep 2012
  ICTP, Trieste, Italy
- *One Day Seminar in Graph Theory*   May 2012
  IPM, Tehran, Iran

Tutorial Experiences

- **Instructor** at **A**rt **of** **P**roblem **S**olving   2019-2020
  AoPS Academy Carmel Valley, San Diego, California

- **Instructor** for **S**ummer **E**nrichment **W**orkshop
  Department of Mathematics, University of Illinois at Chicago, Chicago, Illinois

– Intermediate Algebra	Summer 2018
– Intermediate Algebra	Summer 2017
– Intermediate Algebra	Summer 2014

- **Teaching Assistant**
  Department of Mathematics, University of Illinois at Chicago, Chicago, Illinois

– Special Topics in Mathematics (M194)	Summer 2019

- Calculus 3 (M210)   Spring 2019
- Applied Linear Algebra (M310)   Spring 2019
- Intermediate Algebra (M090)   Fall 2018
- Applied Linear Algebra (M310)   Spring 2018
- Applied Linear Algebra (M310)   Fall 2017
- Precalculus (M121)   Spring 2017
- Calculus 1 (M180)   Fall 2016
- Calculus 3 (M210)   Summer 2016
- Precalculus (M121)   Spring 2016
- Precalculus (M121)   Fall 2015
- Precalculus (M121)   Summer 2015
- Precalculus (M121)   Spring 2015
- Calculus 3 (M210)   Fall 2014
- Intermediate Algebra (M090)   Fall 2014
- Linear Algebra (M125)   Spring 2013
- Linear Algebra (M125)   Fall 2013

- **Teaching Assistant**, Department of Mathematical Sciences,
Sharif University of Technology, Tehran, Iran

  - Combinatorics and Applications   Fall 2012
  - Mathematical Analysis   Spring 2012
  - Mathematical Analysis   Fall 2011

- **Tutoring** Mathematical Olympiad materials

  - University of Illinois at Chicago, Chicago, Illinois   2013-2019
  - For top high school students in Iran   2007-2012