

# Meisam Soleimani Malekan

Date of birth 21 September 83. Marital status I am married and have four children.

## Positions

- 2023–2024 Assistant professor, Department of Mathematics, Faculty of Science, Shahid Rajaee Teacher Training University, Tehran, Iran.
- 2023–Now **Resident Researcher, School of Mathematics**, *Institute for Research in Fundamental Sciences (IPM)*, Tehran, Iran.
- 2020–2023 Non-Resident Researcher, School of Mathematics, Institute for Research in Fundamental Sciences (IPM), Tehran, Iran.
- 2021–2022 Postdoctoral Researcher, Faculty of Mathematical and Statistical Sciences, Department of Pure Mathematics, *University of Isfahan*, Isfahan, Iran.
- 2018–2019 Postdoctoral Researcher, Faculty of Mathematical and Statistical Sciences, Department of Pure Mathematics, *University of Isfahan*, Isfahan, Iran.

# Professional Experience

August **Editor-in-Chief**, ROSHD MAGAZINE *(Math Education)*, Office of Educational 2024–present Publications and Technology, Educational Research and Planning Organization. Ministry of Education, Tehran, Iran.

2024–present **Faculty Advisor**, MATHEMATICAL SCIENTIFIC ASSOCIATION, Department of Mathematics.

Shahid Rajaee Teacher Training University, Tehran, Iran.

- December Member of , THE SUPERVISORY COMMITTEE FOR UNIVERSITY PUBLICATIONS, 2024– Vice-Presidency of Cultural and Social Affairs.
- December Shahid Rajaee Teacher Training University, Tehran, Iran. 2025

Department of Mathematics, Faculty of Science, Shahid Rajaee Teacher Training University. Tehran, 16785-136, Iran. ☎ (098) 21-22970005 (2523) ⊠ m.soleimani@sru.ac.ir, msmalekan@gmail.com • 🖀 sru.ac.ir/msmalekan 1/7

#### Degrees

- 2012–2017 PhD student in Harmonic Analysis, Faculty of Mathematical and Statistical Sciences, Department of Pure Mathematics, University of Isfahan, Isfahan, Iran, GPA 18.69/20.
- 2007–2010 M.Sc. student in Pure Mathematics, Department of Mathematical Sciences, Sharif University of Technology, Tehran, Iran, GPA – 18.33/20 via 26 units.
- 2002–2007 **B.Sc. student in Pure Mathematics, Department of Mathematical Sciences**, *Sharif University of Technology*, Tehran, Iran, *GPA 15.1/20 via 142 units*.

### Research Experience

Master Thesis **A Study on Nuclear** C\*-**Algebra**, Under Supervision of Professor Hamid Reza Farhadi, SHARIF UNIVERSITY OF TECHNOLOGY, Tehran, Iran.

PhD Thesis Algebraic Structures Related to Configuration in Abstract Harmonic Analysis, Under Supervision of Professor Ali Rejali & Professor Masoud Amini, UNIVERSITY OF ISFAHAN, Isfahan, Iran.

**Zero divisors of the group algebra of a torsion-free group**, UNIVERSITY OF ISFAHAN, Isfahan, Iran.

December 2018–December 2019

Military Optimization of the Parameters of the Tactical Guidance for a Missile Based Service on the Metaheuristic Algorithms, Department of Mathematics, Center of Basic

Research Science, KHATAM OL ANBIA-PBU-UNIVERSITY, Tehran, Iran.

Project August 2019–May 2021

**Investigating a Conjecture in Profinite Groups**, School of Mathematics, INSTITUTE FOR RESEARCH IN FUNDAMENTAL SCIENCES (IPM), Tehran, Iran. March 2020–March 2021

**Gaps in Equational Probabilities**, School of Mathematics, INSTITUTE FOR RESEARCH IN FUNDAMENTAL SCIENCES (IPM), Tehran, Iran. March 2021–March 2022

**Compactly Generated Simple Groups**, School of Mathematics, INSTITUTE FOR RESEARCH IN FUNDAMENTAL SCIENCES (IPM), Tehran, Iran. March 2022–March 2023

**Studying BSE Properties of Tensor Product of Banach Algebras**, School of *Mathematics*, INSTITUTE FOR RESEARCH IN FUNDAMENTAL SCIENCES (IPM), Tehran, Iran.

March 2023–March 2024

**Stock Index Forecasting Using the Discrete Wavelet Transform**, School of *Mathematics*, INSTITUTE FOR RESEARCH IN FUNDAMENTAL SCIENCES (IPM), Tehran, Iran. March 2025–Now

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## **Conference** lectures

- February, Plenary lecture at the 16th Iranian International Group Theory Conference,
   2024 About compact groups largely satisfying a word equation, Shahid Rajaee Teacher
   Training University, Tehran, Iran.
- November, **Speaker at Scientific Pathway Seminar Series**, *Planetary Motion and Vector* 2024 *Functions: A Journey into Kepler's World*, Shahid Rajaee Teacher Training University, Tehran, Iran.

## **Research Interests**

- KAPLANSKY ZERO DIVISOR CONJECTURE, UNIT CONJECTURE AND ATIYAH CONJECTURE
- HARMONIC ANALYSIS
- CONFIGURATION OF GROUPS
- Arens Regularity of Banach Algebras
- Operator Algebras
- LOCALLY COMPACT QUANTUM GROUPS
- PROFINITE GROUPS
- TOTALLY DISCONNECTED LOCALLY COMPACT GROUPS
- Compact groups with positive measure subsets defined by group words

# Publication

#### Books(in persian)

- 1 M. SOLEIMANI MALEKAN, Lectures on Amenability, to be published by IUP(Iran University Press).
- 2 M. SOLEIMANI MALEKAN, **Theorems and Problems in Functional Analysis**, in preparation

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## Translation (English to Persian)

1 W. Z. KACZOR, M. T. NOWAK, Problems in Mathematical Analysis I; Real numbers, Sequences and Series, AMS, 1996, Published by IUP(Iran University Press), ISBN:978-964-01-1514-5. *Click on the image to explore and purchase this book online.* 



2 W. Z. KACZOR, M. T. NOWAK, Problems in Mathematical Analysis II; Continuity and Differentiation, AMS, 1998, Published by IUP(Iran University Press), ISBN:978-964-01-1559-6. Click on the image to explore and purchase this book online.



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#### Papers

- 1 A. REJALI AND M. SOLEIMANI MALEKAN, Configuration Equivalence is not Equivalent to Isomorphism, *Internat. J. Algebra Comput.* **27(8)** (2017), 1073–1085.
- 2 A. REJALI AND M. SOLEIMANI MALEKAN, Solubility of groups can be characterized by configuration, *New York J. Math.* **23** (2017), 1427–1445.
- 3 M. SOLEIMANI MALEKAN AND A. REJALI, Two-sided configuration equivalence and isomorphism, *J. Algebra Appl.*, **19(10)** (2020), 2050189 (13 pages).
- 4 M. SOLEIMANI MALEKAN, A. ABDOLLAHI AND M. EBRAHIMI, Compact groups with many elements of bounded order, *J. Group Theory*, **23(6)** (2020), 991–998, https://doi.org/10.1515/jgth-2020-0045
- 5 R. BAYAT TAJVAR, M. SOLEIMANI MALEKAN, A. SALEHI SHAYGAN, Optimizing the Parameters of the Missile Tactical Guidance Law based on the Heuristic Gravitational Search Algorithm, *Journal of Aeronautical Engineering*, **21(2)**, Winter and Spring 2021, 29–35.
- 6 A. ABDOLLAHI AND M. SOLEIMANI MALEKAN, Commuting Probability of Compact Groups, *Bull. Aust. Math. Soc.*, (2021) 1-5. https://doi.org/10.1017/S0004972721000472.
- 7 A. ABDOLLAHI AND M. SOLEIMANI MALEKAN, Compact groups with a set of positive Haar measure satisfying a nilpotent law, *Math. Proc. Camb. Phil.* Soc.(2021)1-4. https://doi.org/10.1017/S0305004121000542.
- 8 M. MEISAMI, A. REJALI, M. SOLEIMANI MALEKAN AND A. YOUSOFZADEH, Locally Finite Groups and Configurations, *J. Group Theory.* (2021) pp. 000010151520200178. https://doi.org/10.1515/jgth-2020-0178
- 9 A. ABDOLLAHI AND M. SOLEIMANI MALEKAN, Profinite groups with many elements of bounded order, *Adv. Group Theory Appl.* **13**(2022) pp. 71–81.
- 10 M. SOLEIMANI MALEKAN, Mamikon's Sweeping Tangent Theorem, *Mathematical Culture and Thought* **42(1)**(2023) pp. 129–163. https://doi.org/10.30504/mct.2022.1331.1928

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- 11 M. SOLEIMANI MALEKAN AND A. ABDOLLAHI, A Necessary Condition for Zero Divisors in Complex Group Algebra of Torsion-free Groups, *IJMSI* 19(2) (2024), 189–194. https://doi.org/10.61186/ijmsi.19.2.189
- 12 A. ABDOLLAHI AND M. SOLEIMANI MALEKAN, Nilpotent probability of compact groups, *J. Algebra* **631**(2023) pp. 136–147.
- 13 A. REJALI, M. MEISAMI, M. SOLEIMANI MALEKAN AND A. YOUSOFZADEH, Amenability of group actions characterized by configuration equations, *Bull. Belg. Math. Soc. Simon Stevin.* **31(4)** (2024) pp. 434–445. https://doi.org/10.36045/j.bbms.231115a.
- 14 M. SOLEIMANI MALEKAN, About nilpotent profinite groups largely satisfying a word equation, *Adv. Group Theory Appl.* To be appeared.
- 15 M. SOLEIMANI MALEKAN, Configuration sets; a right place for ping-pong arguments, J. Disc. Math. Appl., 9(3) (2024) pp. 193–204. https://doi.org/ 10.22061/jdma.2024.11140.1079
- 16 M. SOLEIMANI MALEKAN, On characterizations of the image of the Gelfand transform of some Banach algebras of vector-valued functions, *J. Anal.* (2025) https://doi.org/10.1007/s41478-025-00887-9
- 17 M. SOLEIMANI MALEKAN AND A. ABDOLLAHI, A generalization of the Chermak–Delgado theorem to compact groups, *J. Algebra Appl.*, (2025), https://doi.org/10.1142/S0219498826501604.

Submitted Papers

## Membership

- 2017–2018 Member of Iranian Mathematical Society, Tehran, Iran.
- 2024–Now Member of Iranian Mathematical Society, Tehran, Iran.

# Honors and Awards

- 2022 Shahid Shahriari Award (Admission to scientific institutes), BY IRANIAN NATIONAL ELITE FOUNDATION, Tehran, Iran.
- 2021-2022 **Postdoctoral fellowship**, BY IRAN NATIONAL SCIENCE FOUNDATION (INSF), Tehran, Iran.
- 2018-2019 (Chamran) Postdoctoral fellowship, BY IRANIAN NATIONAL ELITE FOUNDA-TION, Tehran, Iran.
- 2013–2016 Brilliant talent scholarship, BY MINISTRY OF SCIENCE, RESEARCH AND TECH-NOLOGY, Tehran, Iran.
  - 2013 First rank in PhD entrance exam in all accepted university.
- 2013–2014 Distinguished Teacher, MINISTRY OF EDUCATION, Isfahan, Iran.
  - 2006 Silver medal in 12<sup>th</sup> International Scientific Olympiad (Mathematics), Tehran, Iran.
  - 2006 Bronze Medal in 12<sup>th</sup> National Mathematics Olympiad, Tehran, Iran.

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- 2006 7<sup>th</sup> rank among almost 7000 participants of national entrance exam for entering graduate degree.
- 2006–2008 **2-year scholarship**, BY EXCEPTIONAL TALENTS ORGANIZATION, Sharif University of Technology, Tehran, Iran.
- 2006–2008 2-year scholarship, BY IRANIAN NATIONAL ELITE FOUNDATION, Tehran, Iran.

## Teaching Experience

Graduate ALGEBRAIC TOPOLOGY

Undergraduate MATHEMATICAL ANALYSIS I, II Precalculus SINGLE-VARIABLE CALCULUS Multi-variable Calculus **ORDINARY DIFFERENTIAL EQUATIONS** LINEAR ALGEBRA AND ITS APPLICATIONS

# Languages

Persian Mother-tongue English Intermediate Arabic Intermediate

Conversationally fluent Conversationally fluent

#### References

- A. Abdollahi Department of Pure Mathematics, University of Isfahan a.abdollahi@math.ui.ac.ir A. Rejali Department of Pure Mathematics, University of Isfahan Rejali@sci.ui.ac.ir
- H. R. Farhadi Department of Mathematical Sciences, Sharif university of technology hfarhadi2002@yahoo.com

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