

# Meisam Soleimani Malekan

Date of birth 21 September 83.

Marital status I am married and have four children.

#### Positions

2023-Now **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.

## 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.

## PhD Thesis

Title Algebraic Structures Related to Configuration in Abstract Harmonic Analysis

Supervisors Professor Ali Rejali & Professor Masoud Amini

Mark Excellent (19.97/20)

No. 130, Moallem dead-end, Meisam alley, Imam Reza alley, Dastgerd street, Zobahan highway Isfahan, Iran

# Masters Thesis

Title A Study on Nuclear  $C^*$ -Algebra

Supervisor Professor Hamid Reza Farhadi

# Military service research project

Title Optimization of the Parameters of the Tactical Guidance for a Missile Based on the Metaheuristic Algorithms

Done in **Department of Mathematics, Center of Basic Science**, Khatam ol Anbia-PBU-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

#### 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.
- 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.
- 3 W. Z. KACZOR, M. T. NOWAK, **Problems in Mathematical Analysis III; Integration**, AMS, 2000, To be published by **IUP**(Iran University Press)

#### **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 and A. Abdollahi, A Necessary Condition for Zero Divisors in Complex Group Algebra of Torsion-free Groups, *To appear in Iranian Journal of Mathematical Sciences and Informatics*.
- 11 A. ABDOLLAHI AND M. SOLEIMANI MALEKAN, Nilpotent probability of compact groups, *J. Algebra* **631**(2023) pp. 136–147.

## Submitted Papers

- 1 M. SOLEIMANI MALEKAN, Configuration sets; the right place for ping-pong arguments.
- 2 M. SOLEIMANI MALEKAN, Nilpotent profinite groups largely satisfy a word.

#### Membership

2017-2018 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.
- No. 130, Moallem dead-end, Meisam alley, Imam Reza alley, Dastgerd street, Zobahan highway Isfahan, Iran

- 2021-2022 **Postdoctoral fellowship**, by Iran National Science Foundation (INSF), Tehran, Iran.
- 2018-2019 (Chamran) Postdoctoral fellowship, BY IRANIAN NATIONAL ELITE FOUNDATION, Tehran, Iran.
- 2013–2016 **3-year fellowship**, BY MINISTRY OF SCIENCE, RESEARCH AND TECHNOLOGY, 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.
  - 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 (Undergraduate)

MATHEMATICAL ANALYSIS

Precalculus

SINGLE-VARIABLE CALCULUS

Multi-variable Calculus

ORDINARY DIFFERENTIAL EQUATIONS

LINEAR ALGEBRA AND ITS APPLICATIONS

# Languages

Persian Mother-tongue

English Intermediate Conversationally fluent

Arabic Intermediate 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