

CONTACT

INFORMATION

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PERSONAL

INFORMATION

Birth: *March 7st, 1991, Kermanshah, Iran*
Citizenship: *Iranian*
Marital status: *Single*
Languages: *Farsi (Native), English (intermediate)*

EDUCATION

Tarbiat Modares University, Tehran, Iran

PHD. Department of Mathematics Sciences

- September 2015 - July 2023
- Major in Pure Mathematics
- Minor in Number Theory
- Advisor: Ali Rajaei

Sharif University of Technology, Tehran, Iran

M.Sc. Department of Mathematics Sciences

- September 2013 - September 2015
- Major in Pure Mathematics
- Minor in Central Simple Algebras
- Advisor: Mohammad Mahdavi-Hezavehi

Razi University, Kermanshah, Iran

B.Sc. Department of Basic Sciences

- September 2009 - September 2013
- Pure Mathematics

RESEARCH

INTEREST

- Algebraic Number Theory
 - Class group of number fields
 - Pólya group and Ostrowski quotient of (extensions of) number fields
 - Perfectoid fields
 - Local and global class field theory and their applications
- Arithmetic Geometry
 - Elliptic curves
 - Modular forms
 - Modularity
 - Perfectoid spaces

- Publications
 1. BRZ exact sequence and cohomology of units of \mathbf{Z}_p -extensions, with Ali Rajaei and Reza Taleb, in preparation
 2. Perfectoid completions of algebraic extensions of local fields, with Kiran Kedlaya, preprint
 3. On S-Ostrowski quotient and its applications, with Abbas Maarefparvar, preprint
 4. Solvable extensions of number fields ramified at only one prime are Ostrowski, with Ali Rajaei, submitted
 5. Gauss genus theory and Pólya group of number fields, with Ali Rajaei, submitted
 6. Pólya dihedral fields with positive proportion (in Persian), with Ali Rajaei, submitted
 7. On the structure of ideals in a family of skew polynomial rings, with Reza Dastbasteh, Hai Q. Dinh, and Hamed Mousavi, *J. Algebra Appl.* (2023)
 8. Ostrowski quotients for finite extensions of number fields, with Ali Rajaei and Abbas Maarefparvar, *Pacific Journal of Math.* **321** (2022), No. 2, 415–429.
 9. Pólya class field, genus field, and Galois cohomology, with Ali Rajaei (in Persian), AIMC-53 2022
 10. Some applications of the main exact sequence of S-relative Pólya groups, with Ali Rajaei and Abbas Maarefparvar (in Persian), AIMC-52 2022
 11. A new approach to relativization of pólya group of number fields, with Ali Rajaei (in Persian), AIMC-52 2021
 12. Some applications of the main exact sequence of relative Pólya groups, with Ali Rajaei (in Persian), AIMC-52 2021
- Presentations
 - Introduction to p-adic numbers and the Theory of Local Fields and their Application in Number Theory, AmirKabir University, Tehran, Iran, Summer 2021
- Research Experience
 - Referee of a paper in the journal *Designs, Codes and Cryptography*, 2023
 - Participation and give talks in "Long Course in Arithmetic Geometry at IPM", 2017-2023
 - Participation and give most of talks in "Elliptic Curves Webinar at IPM", 2021
 - Organizer and lecturer of informal study group on "Lubin-Tate formal groups and Local Class field Theory", 2021
 - Participation in *Elliptic curves and the special values of L-functions (ONLINE)*, ICTS, August 02-07, 2021
 - Online Reading Group and Seminars in Galois Representations. [[Link to the page](#)]
 - Proposing a Problem in "The Nonarchimedean Scottish Book", problem number 38, [[Link to the page](#)]
 - Participation in "5th Conference of Frontiers in Mathematical Sciences" at School of Mathematics of IPM, Tehran, Iran, July 11-13, 2017
 - Participation in "Spring School on Analytic Number Theory" at School of Mathematics of IPM, Tehran, Iran, May 24-31, 2016
 - Participation in the one Year Program "the Special Year on Langlands Program" at School of Mathematics of IPM, Tehran, Iran, September 2015 to August 2016. (7 graduate courses with 22 credits in total.)

AWARDS &
ACTIVITIES

- Selected in final competition of daneshpajuhan javan Olympiad
- Selected for 17th National mathematics Olympiad
- 3rd place in Mathematics Olympiad for University student 8th Region of Iran, Razi University , Kermanshah , Iran , 2012

EXTRA
ACTIVITIES

- Hiking , Self-Study

REFERENCES

- Dr. M. Ahmadzadeh Raji (mraji@razi.ac.ir), Assistant Professor, School of Mathematics, Razi University, Kermanshah, Iran.
- Dr. M. Mahdavi Hezavehi (mahdavih@sharif.ir), Professor, Department of Mathematical Sciences, Sharif University of Technology, Tehran, Iran.
- Dr. A. Rajaei (alirajaei@modares.ac.ir), Assistant Professor, Department of Mathematical Sciences, Tarbiat Modares University, Tehran, Iran.