



Hossein Moshtagh
Department of computer science,
University of Garmsar,
Garmsar, Iran.
P.O.Box:3588115589
Telephone: (+98) 912 631 2114
E-mails: h.moshtagh@fmgarmsar.ac.ir; hs.moshtagh@gmail.com;

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PERSONAL DATA:

Name: Hossein Moshtagh
Gender: Male
Date of Birth: 8/09/1980
Place of Birth: Garmsar, Iran.

EDUCATION:

B. Sc. Degree in Pure Mathematics: Department of Mathematics, Shahid Rajaee Teacher training University, Tehran, Iran (1999-2003).

M. Sc. Degree in Pure Mathematics: Department of Mathematics, K.N. Toosi University of Technology, Tehran, Iran (2003-2005).

Thesis Title: A characterization of finite simple groups by the degrees of vertices of their prime graph.

M. Sc. Advisor: Professor Ali Reza Moghaddamfar (Email: moghadam@kntu.ac.ir).

Ph.D Sc. Degree in Pure Mathematics: Department of Mathematics, K.N. Toosi University of Technology, Tehran, Iran (2009-2013).

Thesis Title: On table algebras and their applications to some class of association schemes;

Ph.D Sc. Advisor: Professor Amir Rahnamai Barghi (Email: rahnama@kntu.ac.ir).

Faculty member: Department of computer science, University of Garmsar.

TEACHINGS:

- (1) **K.N. Toosi University of Thechnology:** Calculus, Being Educational Assistant in Some Courses (for M. Sc students) such as Algebra, Linear Algebra, Abstract Algebra and Calculus (During the years 2003-2011).
- (2) **Payame Noor University:** Some Courses for B. Sc students such as Fundamental Mathematics, Graph Theory, Discrete Mathematics, Linear Algebra, Number Theory, Algebra(I) and Calculus (During the years 2004-2007).
- (3) **Azad University:** Calculus, Engineering Mathematics, Applied Mathematics in Management and Accounting (During the Years 2006-2016).
- (4) **University of Garmsar:** Graph Theory, Discrete Mathematics, Linear Algebra, Boolean Algebra, Calculus, Engineering Mathematics, Differential Equation (During the Years 2016-

2025).

EXPERIENCES:

Having acquaintance to the English language, the necessary mathematical softwares and to some of other suitable softwares.

• REASEARCH INTERESTS:

Association Scheme, Table Algebra, Graph Theory and Algebraic Combinatorics.

PUBLICATIONS:

• Journals:

1. **Some rank six geometries for the smallest Fischer sporadic simple group** (with A. Rahimipour) Journal of Discrete Mathematics and Its Applications (2025).
2. **Moments and asymptotic expansion of derangement polynomials in terms of Touchard polynomials**(with M. Hassani, M. Ghorbani) Notes on Number Theory and Discrete Mathematics, 30 (2024), No 4, Pages 832-842.
3. **On matrices whose elements are integers with given determinant** THE MATHEMATICAL GAZETTE (2024), pp. 521-525.
4. **Some bounds for the captive domination number of graphs**(with F. Shaveisi) Discrete Mathematics, Algorithms and Applications 16 (2024), No. 08.
5. **Properties of block derangements**(with R. Fallah-Moghaddam) Indian Journal of Pure and Applied Mathematics (2024).
6. **Some results on derangement polynomials. Comment. Math. Univ. Carolin**(with M. Hassani, M. Ghorbani), 63 (2022), No. 3, 307313.
7. **Characterization and stability of multi-Euler-Lagrange quadratic functional equations**(with A. Bodaghi A. Mousivand) J. Funct. Spaces 2022, Art. ID 3021457, 9 pp.
8. **Characterization and stability analysis of advanced multi-quadratic functional equations**(with A. Bodaghi, H. Dutta) Adv. Difference Equ. 2021, Paper No. 380, 15 pp.
9. **Janko sporadic group J_2 as automorphism group of 3-designs** (with A. Rahimipour) Discrete Math. 344 (2021), No. 2, Paper No. 112194, 5 pp.
10. **Classifying 3- and 4-designs on 28 points invariant under the group $S_6(2)$** (with A. Rahimipour) Discrete Math. Algorithms Appl. 12 (2020), No. 3, 2050031, 6 pp.
11. **Radicability condition on $\text{GLn}(\mathbf{D})$** (with R. Fallah-Moghaddam) Journal of Algebra and Its Applications, 117 (2018), No. 11, 1850203, 11 pp.
12. **A note on k -derangements** Appl. Math. E-Notes, 18 (2018), 167169.
13. **On schemes originated from Ferrero pairs** (with A. Rahnamai Barghi), Transactions on Combinatorics, 2 (2013), No. 2 19-26.
14. **A class of association schemes in which all basis relations have valency 1 or $\lambda > 2$** (with A. Rahnamai Barghi), Journal of Algebra and Its Applications, 12 (2013), No. 1.
15. **On a function related by prime numbers in arithmetic progressions** (with M. Has-

sani), Octogon Mathematical Magazine, 18 (2010), No. 2.

16. **A remark on a sum involving the prime counting function** (with M. Hassani), Applicable Analysis and Discrete Mathematics, Vol. 2 (2008), 51-55.

• **Conferences and Seminars:**

1. 54th annual Iraninan Mthematics Conference Iran University of Science and Technology, August 23–25 (2023), Zanzan University,
“Stirling transform of r -derangement numbers”.
2. The third national congress on mathematics and statistics, Gonbad Kavous University, February 24 (2022), Gonbad Kavous, Iran,
“Graph of derangements”.
3. The third national congress on Mathematics and statistics, Gonbad Kavous University, February 24 (2022), Gonbad Kavous, Iran,
“on matrices whose elements are integers with given determinant”.
4. 7 International conference on combinatorics, cryptography, computer science and computation, Iran University of Science and Technology, November 16–17 (2022), Thehran, Iran,
“Some remarks on regular p -table algebra”.
5. 5 International conference on combinatorics, cryptography, computer science and computation, Iran University of Science and Technology, March 4–5 (2021), Thehran, Iran,
“New self-orthogonal design from the group J_2 ”.
6. 5 International conference on combinatorics, cryptography, computer science and computation, Iran University of Science and Technology, March 4–5 (2021), Thehran, Iran,
“A subclass of 2-derangements”.
7. 4 International conference on combinatorics, cryptography, computer science and computation Iraninan Mthematics Conference Iran University of Science and Technology, November 20–21 (2019), Thehran, Iran,
“New 4-Designs Having $S_6(2)$ as an Automorphisem group”.
8. 48th annual Iraninan Mthematics Conference Iran University of Science and Technology, August 23–26 (2018), Thehran, Iran,
“Locally finite maximal subgroup of subnormal subgroup of $GL_n(D)$ ”.
9. 48th annual Iraninan Mthematics Conference Iran University of Science and Technology, August 23–26 (2018) Thehran, Iran,
“A subclass of derangements”.
10. 48th annual Iraninan Mthematics Conference Iran University of Science and Technology, August 23–26 (2018) Thehran, Iran,
“Q-ferrero pair scheme”.
11. 10th Iraninan Group theory Conference, Kharazmi Univesity, January 24–26 (2018), Karaj, Iran,
“Frattini Subgroup Of $GL_n(D)$ over real closed fields ”.
12. 10th Iraninan Group theory Conference, Kharazmi Univesity, January 24–26 (2018), Karaj, Iran,
“Divisible modulo its torsion group field ”.
13. 10th conference in Graph and algebraic combinatorics Yazd Univesity, January 17–18 (2018), Yazd, Iran,
“A class of regular association p-schemes ”.

14. 48th annual Iraninan Mthematics Conference Bu-ali sina Univesity, August 22–25 (2018), Hamedan, Iran,
“Some remarks on regular association schemes of order p^2q ”.
15. 48th annual Iraninan Mthematics Conference Bu-ali sina Univesity, August 22–25 (2018), Hamedan, Iran,
“m-th root in $GL_n(F)$ ”.
16. The eight Conference on Algebraic Combinatorics, May, 12–13, (2015), Imam Khomeini International Univesity, Gazvin, Iran,
“On spectral of complete p -scheme”.
17. The Fourth Algebraic Combinatorics Conference, November, 2–3, (2011), Buali Sina Univesity, Hamadan, Iran,
“A class of Schurian association schemes”.
18. The Second Conference on Algebraic Combinatorics, May, 12–13, (2010), Ferdosi Univesity, Mashhad, Iran,
“A class of homogeneous association schemes of class three”.