

RESUME

Personal ID:

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Date of Birth : February 1, 1979
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Experience:

Associate Professor, Department of Mathematics, University of Isfahan, 2019-Present.
Assistant Professor, Department of Mathematics, University of Isfahan, 2010-2019.

Research Interests:

- ☐ Algebraic Combinatorics
- ☐ Permutation Codes

Publications:

Journal Paper:

- ☐ (with Ilia Ponomarenko; A. Rahnamai Barghi) On cyclotomic schemes over finite near-fields, J. Algebraic Combin. 27 (2008) 173-185.
- ☐ (with A. Rahnamai Barghi) Standard character condition for table algebras, Electronic Journal of Combinatorics, Electron. J. Combin. 17 (2010), #R113.
- ☐ (with A. Rahnamai Barghi) Burnside-Brauer Theorem in Table Algebras, Electron. J. Combin. 18 (2011), #P204.
- ☐ On the characters of nilpotent association schemes, Discrete Math. 313 (2013) 1112–1118.
- ☐ On the Multiplicities of Characters in Table Algebras, Canad. Math. Bull. Vol. 57 (2), (2014) 231–239.
- ☐ On association schemes with commutative thin thin residue, Transactions on Combinatorics Vol. 3 No. 3 (2014) 35-41.

- A class of imprimitive association schemes, *Comm. in Algebra*, 44(9) (2016), 3692-3704.
- Association schemes with at most two nonlinear irreducible characters, *Acta Mathematica Sinica, English Series*, Vol. 35, No. 4, (2019) 481–493.
- On association schemes with multiplicities 1 or prime p , *Comm. in Algebra*, Vol. 46, No. 5 (2018), 2179–2193
- On the wedge product of table algebras and applications to association schemes, submitted. (2015) (<http://arxiv.org/abs/1508.05604>).
- Irreducible representations of wedge products of table algebras and applications to association schemes (2015). (<http://arxiv.org/abs/1509.06046>).
- Camina Triples and the Wedge Product of Association Schemes, *Bulletin of the Iranian Mathematical Society*, (2019). <https://doi.org/10.1007/s41980-019-00212-8>
- On the association schemes with the thin radical series, *Journal of Algebra and Its Applications*, (2019), DOI: 10.1142/S0219498819500713.
- A note on good permutation codes from Reed–Solomon codes, *Designs, Codes and Cryptography*, (2019), <https://doi.org/10.1007/s10623-019-00621-0>.
- Schurity of the wedge product of association schemes and generalized wreath product of permutation groups, *Discrete Math.* (2019).
- On the irreducible characters of Camina triples, *Journal of mathematical researches*, In Persian, (2019)
- (with A Herman, H Memarzadeh) [The generalized X-join of Cayley graphs](#) A Herman, J Bagherian, H Memarzadeh arXiv preprint arXiv:2203.07819
- (With A Abdollahi, F Jafari, M Khatami, F Parvaresh, R Sobhani) [New table of Bounds on Permutation Codes under Kendall \$\tau\$ -Metric](#), 10th Iran Workshop on Communication and Information Theory (IWCIT), 1-3 (2022)
- (With A Abdollahi, M Khatami, Z Shahbazi, R Sobhani) [A conjecture of Cameron and Kiyota on sharp characters with prescribed values](#), *Communications in Algebra* 50 (6), 2731-2739 (2022)
- (With A Abdollahi, F Jafari, M Khatami, F Parvaresh, R Sobhani) [New Bounds on the Size of Permutation Codes With Minimum Kendall -distance of Three](#), arXiv preprint arXiv:2206.10193 (2022)
- (With F Jafari, A Abdollahi, J Bagherian, M Khatami, R Sobhani) [Equidistant permutation group codes](#), *Designs, Codes and Cryptography* 90 (12), 2841-2859 (2022)
- (A Abdollahi, M Ebrahimi, FM Garmsiri, M Khatami,) [Groups with Sharp Character of Type \$\{-1, 1, 3\}\$](#) , *Bulletin of the Iranian Mathematical Society* 48 (6), 3809-3821 (2022)
- (With A Abdollahi, M Ebrahimi, M Khatami, Z Shahbazi, R Sobhani) [On sharp characters of type \$\{-1, 0, 2\}\$](#) , *Czechoslovak Mathematical Journal* 72 (4), 1081-1087, (2022)
- (With A Abdollahi, J Bagherian, M Ebrahimi, FM Garmsiri, M Khatami), [Groups with sharp non-linear irreducible characters](#), *Communications in Algebra* 51 (3), 1011-1019 (2023)

- (With H Memarzadeh) [Generalized X-join of graphs and their automorphisms](#), ARS MATHEMATICA CONTEMPORANEA, (2023)
- (With A Abdollahi, J Bagherian, F Jafari, M Khatami, F Parvaresh, R Sobhani) [New upper bounds on the size of permutation codes under Kendall -metric](#), Cryptography and Communications, 1-13, (2023)

Conference Paper:

- The First KHansar Conference on Mathematical Sciences: Combinatorics and its Applications Faculty of Khansar, Khansar, Iran, 2012.
- Fourth Group Theory Conference of Iran, On the Characters of a Table Algebras and its quotient, Payam Noor University of Isfahan, Iran, 2012.
- Third Algebraic Combinatoics Conference of Iran, On the character table of nilpotent association schemes, Isfahan University, 2011.
- Group Theory Conference, Character products for table algebras, Ferdowsi University of Mashhad, 2010.
- 41th Iranian Mathematical Conference, Krein Condition For The Existence Of Strongly Regular Graphs, Uromia University. 2009.
- 40th Iranian Mathematical Conference, Isomorphism of cyclotomic schemes over finite algebras, Sharif University, 2008.
- 38th Iranian Mathematical Conference, Standard character for non-commutative table algebras, Zanjan University, 30 August to 2 September 2007, Zanjan –Iran.
- 38th Iranian Mathematical Conference, Character products for non-commutative table algebras, Zanjan University, 30 August to 2 September 2007, Zanjan -Iran..
- 12th Conference of the International Linear Algebra Society (ILAS), A note on Cyclotomic schemes over Near-Fields, University of Regina, Saskatchewan, Canada, 26-29 June 2005.
- School on Grobner Basis and applications, (IASBS), Zanjan, 9-12 July 2005.
- 16th seminar on Algebra, Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan, 17-19 November 2004.
- Combinatorics Seminar, the Institute for Advanced Studies in Basic Sciences, (IASBS), Zanjan, March 6-7, 2003.
- The Educational Workshop on the Theory of Free Presentation of Groups and the algebraic software GAP (Group, Algorithm, Programming), (IASBS), Zanjan, 9-12 August 2003.

Thesis & Dissertations Supervised:

PhD. Thesis

- (with R. Sobhani) Hamidreza Mahmoodi, On the constacyclic codes over some finite rings. (2018)

Msc. Thesis

- Nafiseh Mirdehghan Abakzari, Generalization of Sylow theorems for table algebras, fusions rule algebras, and hypergroups. (2010)
- Yousef Zargar, Finite groups to elements no irreducible character vanishes. (2010)
- Elham Azangoyan, Directed strongly regular graphs obtains from coherent algebras. (2011)
- (with R. Sobhani) Masoud Majdi, The binary codes over strongly regular graphs. (2011)
- (with Dr. A. Mohammadi Hasssanabadi) Faeiz salehzadeh, B. H. Neumanns question on ensuring commutativity of finite groups. (2012)
- (with R. Sobhani) Anahita Bandeh Bahman, Existence of self dual permutation codes over finite fields. (2012)
- (with R. Sobhani) Yaser Roghani Emarat, Bounds for codes over finite Frobenous rings wiyh homogenous weights. (2013)
- (with R. Sobhani) Mahboubeh Torabi, Codes from characters of finite elementary abelian groups. (2013)
- (with A. Mohammadi Hasssanabadi) Arezo Behashtipour, On the maximal non-commuting sets in extra special p-groups. (2014)
- (with R. Sobhani) Somayeh Zamani, On the structure of quasicyclic codes as an generalization of cyclic codes. (2015)
- Zahra Asghari, On the union of proper closed subsets in table algebras. (2015)
- Parvin Zilab, The basis and metric dimension of association schems. (2016)
- Elnaz Mohamadi, Distance regular graphs. (2016)
- Maryam Asadi, On the decomposition of complete graphs into strongly regular graphs. (2016)
- Fatemeh Namjo, Association schemes, design and permutation groups. (2017)
- Abozar Ghasemi, The theory of cyclic codes and a generalization to additive codes. (2017)
- Fatemeh Fatemi, A Schur–Zassenhaus Theorem for association schemes. (2018)
- Salehpour, Schur rings and association schemes, (2019)

Courses Taught:

a) Undergraduate Level

1. Calculus 1, 2
2. Linear algebra and matrix theory
3. Fundamental of algebra
4. Algebra
5. Graph theory
6. Differential equations

b) Graduate Level

□ M.Sc. Level:

1. Advanced algebra
2. Finite groups
3. Character theory of finite groups
4. Algebraic graph theory

□ Ph.D. Level:

1. Permutation groups
2. Character theory of finite groups
3. Algebraic graph theory
4. Special topics in combinatorics