

Curriculum vitae

Majid Arezoomand

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Personal:

- Birth date: May, 22, 1983
- Place of Birth: Qom, Iran
- Nationality: Iranian
- Sex: Male
- Marital Status: Married
- Children: One son and one daughter.

Education:

- Post-Doctoral, 2016-2017, Department of Mathematics, Faculty of Sciences, Isfahan University,
Research topic: On the polycirculant conjecture. (Supervisor: Prof. Alireza Abdollahi)
- Ph. D. 2010-2015, Department of Mathematical Sciences, Isfahan University of Technology, Isfahan, Iran
Thesis topic: n -Cayley digraphs over finite groups. (Supervisor: Prof. Bijan Taeri)

- M. Sc. 2005-2007, Department of Mathematical Sciences, Isfahan University of Technology, Isfahan, Iran
Thesis Topic: On the linear representations of symmetry groups of carbon nanotubes. (Supervisor: Prof. Bijan Taeri)
- B. Sc. 2001-2005, School of Mathematics, Statistics and Computer Sciences, Department of Mathematics, University of Tehran, Tehran, Iran.
Project Topic: Study on sporadic groups. (Supervisor: Prof. Mohammad Reza Darafsheh)

Research Interest:

- Group Theory, Algebraic Graph Theory, Permutation Groups.

List of publications

- (23) A.R. Abdollahi and M. Arezoomand, *Finite nilpotent groups that coincide with their 2-closures in all of their faithful permutation representations*, Journal of Algebra and Its Applications, accepted.
- (22) M. Arezoomand and B. Taeri, *Which elements of a finite group are non-vanishing*, The Bulletin of the Iranian Mathematical Society, 42(5) (2016) 1097-1106.
- (21) M. Arezoomand and B. Taeri, *Finite BCI-groups are solvable*, Int. J. Group Theory, 5(2) (2016) 1-6.
- (20) M. Arezoomand and B. Taeri, *A classification of finite groups with integral bi-Cayley graphs* Transaction on Combinatorics, 4(4) (2015) 55-61.
- (19) M. Arezoomand and B. Taeri, *On the normality of 2-Cayley digraphs*, Discrete Math. 338 (2015) 41-47.
- (18) M. Arezoomand and B. Taeri, *Isomorphisms of finite semi-Cayley graphs*, Acta Math. Sin. Eng. Ser., 31(4) (2015) 715-730.
- (17) M. Arezoomand and B. Taeri, *Schultz and Modified Schultz Indices of Generalized Hierarchical Product of Graphs*, Topics in Chemical Graph Theory, Univ. Kragujevac, Kragujevac, 2014, pp. 55-68.

- (16) M. Arezoomand and B. Taeri, *On the characteristic polynomial of n -Cayley digraphs*, Electronic Journal of Combinatorics, 20(3) (2013), P57, 1-14.
- (15) M. Arezoomand and B. Taeri, *Zagreb Indices of the Generalized Hierarchical Product of Graphs*, Commun. Math. Comput. Chem. 69(2013) 131-140.
- (14) M. Taghizadeh, M. Arezoomand and H. Gazor, *Computation of full symmetry group of $C_4C_8(R)$ nanotubes using a mathematical model*, Optoelectron. Adv. Mat. 6 (2012) 1046-1048.
- (13) M. Taghizadeh, M. Arezoomand and H. Gazor, *A new method for computing distance-based topological indices of $C_4C_8(R)$ nanotubes*, Optoelectron. Biomat. 4(4) (2012) 65-69.
- (12) M. Arezoomand and B. Taeri, *A new method for computing the Wiener index of polyhex nanotorus*, J. Comp. Theoer. NanoSci. 8(1) (2011) 2350-2355.
- (11) M. Arezoomand, *Random walks on infinite $C_4C_8(S)$ net, nanotube and nanotori*, Match Commun. Math. Comput. Chem. 65 (2011) 231-240.
- (10) M. Arezoomand and B. Taeri, *On the distance-based topological indices of polyhex nanotori*, Match Commun. Math. Comput. Chem 65(2011) 241-248.
- (9) M. Arezoomand and B. Taeri, *Applications of generalized hierarchical product of graphs in computing the szeged index of chemical graphs*, Match Commun. Math. Comput. Chem 65(2010) 591-602.
- (8) M. Arezoomand and B. Taeri, *The Full Non-rigid Group Theory of cis-tetraamminedichlorocobalt (III)*, Asian J. Chem. 21 (2) (2009), 869-878.
- (7) M. Arezoomand and B. Taeri, *The full symmetry and irreducible representations of nanotori*, Acta Cryst. A65 (2009) 249-252.
- (6) M. Arezoomand and B. Taeri, *Full Non-Rigid Group of Di-mu-oxo-bis (tetraamine manganese(II)) as a Wreath Product*, MATCH Commun. Math. Comput. Chem. 62 (2009) 275-284.

- (5) M. Arezoomand and B. Taeri, *A mathematical model for $TUC_4C_8(S)$ nanotubes and their symmetry groups*, J. Geom. Phys. 59 (2009) 1168-1174.
- (4) M. Arezoomand and B. Taeri, *Full non-rigid group of 2,3,5,6-Tetramethylepyrazine as wreath product*, J. Appl. Math. Informatics 27 (2009), 915 - 931.
- (3) M. Arezoomand, *Energy and Laplacian spectrum of $C_4C_8(S)$ nanotori and nanotube*, Digest journal of nanomaterials and biostructures, 4(6) (2009) 899-905.
- (2) M. Arezoomand, *On the distance based topological indices of fullerene and fullerenyl anions having dendrimer units*, Digest journal of nanomaterials and biostructures, 4(4) (2009) 713-722.
- (1) M. Arezoomand and B. Taeri, *The Full Non-Rigid Group Theory for TBA (Tert-Butyl Alcohol)* J. Iranian Chem. Soc. 5 (3) (2008) 514-518.

Conference papers

- Eigenvalues and eigenvectors of finite n -Cayley digraphs over arbitrary groups, Ph.D summer school in Discrete Mathematics, Rogla, Slovenia, 2013.
- Bipartite semi-Cayley graphs over finite simple non-abelian groups, The 6th Algebraic Combinatorics conference of Iran, Univesity of Mazandaran, Babolsar, Iran, 2013.
- On the semiregular actions and linear representation theory of finite groups, 23th Iranian Algebra Seminar, Faculty of Computer and Mathematics, Khansar, Iran, 2013.

In preparation papers

- On the polycirculant conjecture, a survey. (Joint with A. R. Abdollahi and P. Spiga)
- *Non-normal p -bicirculants, p a prime.*
- *Finite groups admitting connected integral bi-Cayley graphs of small degree.*

- *Laplacian and signless Laplacian polynomials of n -Cayley digraphs*

Awards and honours

- Reviewer of American Mathematical Reviews, since March of 2014.
- Non-resident researcher of School of Mathematics, IPM (Institute for research in fundamental sciences), since 2016.
- Top thesis and top graduate among all 2015 graduates of Isfahan University of Technology.
- First grade Phd student among all 2010 Ph.D students of department of mathematical sciences of Isfahan University of technology.
- Best researcher among all of invited teachers of Majlesi branch of Islamic Azad University (2009).
- Selecting as Top 25 hottest articles of Journal of Geometry and Physics, July to September 2009.
- Financial support of M. Sc. thesis by Iranian nanotechnology initiative council (2007).

Projects

- Symmetry Groups and structural properties of the graph of $C_4C_8(R)$ nanotubes and nanotori, Islamic Azad University, Majlesi branch, 2009-2010.
- Which finite groups are BCI -groups, School of Mathematics, IPM, since 2016.

Referee for

- Turkish Journal of Mathematics
- Journal of Discrete Mathematics
- International Journal of Group Theory

Software skills

GAP, Mathematica, XePersian, Latex.