

Curriculum Vitae

Professor Mohammad Reza Darafsheh

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Personal

Born on 31 Aug. 1950, Abadan, Iran.

Married & have three children.



Education

1978 **Ph.D. Pure Mathematics**, University of Birmingham, England.

1975 **M.Sc. Pure Mathematics**, University of Birmingham, England.

1974 **B.Sc.** with distinction, **Pure Mathematics**, University of Tehran.

Academic Employments

2009-present Adjunct Professor, Faculty of Engineering Science, University of Tehran.

2003 Deputy Dean in Administrative and Financial Affairs, Faculty of Science, University of Tehran.

1997-present Professor of Mathematics, Department of Mathematics, University of Tehran.

1995-1998 Head of Research Group in Group Theory, Institute for Studies in Theoretical Physics and Mathematics (Research Institute in Basic Science).

1995-1999 Head, Department of Mathematics and Computer Science, University of Tehran.

1989-1995 Head of Postgraduate Studies, Department of Mathematics and computer science, University of Tehran.

1992-1997 Associate Professor of Mathematics, Department of Mathematics, University of Tehran.

1989-1992 Assistant Professor of Mathematics, Department of Mathematics, University of Tehran.

1984-1989 Assistant Professor of Mathematics, Department of Mathematics, Ahwaz University.

1983-1984 Assistant Professor of Mathematics, Abadan Institute of Technology.

1979-1980 Head, Department of Mathematics, Ahwaz University.

1978-1981 Assistant Professor of Mathematics, Department of Mathematics, Ahwaz University.

Honors

2012 Salient Researcher of the University of Tehran.

2008 Distinguished Researcher of the University of Tehran.

2008 Author of the distinguished book of the Tehran University Press, Algebra in 3 volumes.

2005-2007 Visiting Professor, University of North Carolina at Charlotte.

2003 Distinguished Professor of the University of Tehran.

2002-2008 Senior associate member of the International Abdus-Salam Center for Theoretical Physics (ICTP).

2001 Sabbatical leave awarded by the University of Tehran, (Yale University).

- 1997** Winner of basic research prize in the 10th Kharazmi international festival, Tehran, Iran.
- 1994** Sabbatical leave awarded by the University of Tehran, (Yale University).
- 1991-1997** Associate Member of the International Center for Theoretical Physics, Trieste, Italy.
- 1990** Winner of the Abdus-salam prize in Mathematics.
- 1974-1978** Scholarship awarded by Ministry of Science and Higher Education of Iran.
- 1974** Top student in B.Sc. class of 1974, University of Tehran, Tehran, Iran.

Commendation Letters

- 1996 (1375)** President of Iran for receiving the Kharazmi prize in basic science.
- 1993 (1371)** Minister of culture and higher education of Iran for authoring the book “An introduction to group theory”.
- 1992 (1371)** Chancellor of the University of Tehran for the project “t-designs with a given group of automorphism”.
- 1990 (1369)** Vice-president of Iran for receiving the Abdus-Salam prize.
- 1990 (1369)** Head of Institute for studies in Physics and Mathematics for receiving the Abdus-Salam prize.

Professional Services

- 2015-present** Treasurer of the Iranian Mathematical Society.
- 2011** Organizer and chairman of the scientific committee, 3rd Conference and Workshop on Group Theory, University of Tehran, Mar. 9-10.
- 2011** Member of the Scientific Committee, Biennial International Group Theory Conference, Univ. Teknologi Malaysia. Johor Bahru, Johor, Malaysia. 14-18 Feb.
- 2008** Organizer of the AMS special session #1035, SS#08, San Diego, CA, Jan. 6-9.
- 2003-2006** Member of the executive council of the Iranian Mathematical Society.
- 1992-present** Reviewer, Zentralblatt fur Mathematik.
- 1991-1995** Member of the national committee for mathematics Olympiads.
- 1990-1993** Responsible for student competition held by the Iranian Mathematical Society.
- 1988-1990** Member of the executive council of the Iranian Mathematical Society.
- 1985-present** Reviewer, American Mathematical Reviews.
- 1980-present** Referee for major mathematical and chemical peer-reviewed journals.
- 1980-present** Committee member for more than 20 Ph.D. student and 50 M.Sc. students.

Editorial experience

- 2011-present** Member of the editorial board of the “International Journal of Group Theory”.
- 2011-present** Member of the editorial board of “Transactions on Combinatorics”.
- 2008-present** Member of the editorial board of “Mathematical Sciences”, Quarterly Journal of the Azad University, Karaj Branch.
- 2008-present** Member of the editorial board of the “Italian Journal of Pure and Applied Mathematics”.
- 2007-present** Member of the editorial board of the "Scientific Journals International".
- 2002-2003** Member of the editorial board of the “Journal of Science of the University of Tehran”.
- 1997-1999** Member of the editorial board of the “Journal of Science of the University of Tehran”.
- 1996-1998** Member of the executive council of the Iranian Mathematical Society.
- 1996-2000** Editor-in-chief, “Bulletin of the Iranian Mathematical Society”.

- 1991-1996** Member of the editorial board of the "Bulletin of the Iranian Mathematical Society".
- 1988-2000** Member of the editorial board of the "Farhang va Andisheh Riazy", Iranian Mathematical Society.
- 1988-1990** Editor-in-chief, "News Letter of the Iranian Mathematical Society".
- 1984-1989** Member of the editorial board of the "Science Journal" of the University of Ahwaz.

Professional memberships

- 1983-present** Member of the Mathematical Association of America.
- 1978-present** Member of the Iranian Mathematical Society.
- 1977-present** Member of the American Mathematical Society.
- 1976-present** Member of the London Mathematical Society.

Research Interests

Q-groups, Products of groups, Locally finite groups, Association schemes, Generation of groups, Strongly regular graphs, p-Steinberg characters, Mathematical Chemistry, Topological indices of graphs, Symmetry classes of tensors, Quasi-permutation characters, Character theory of finite groups, t-designs with a given group of automorphism, Characterizing finite groups by their prime graph, Characterizing finite groups by the set of their element orders, Modular characters and decomposition matrices for linear groups, Topological indices of graphs, Binary codes obtained from designs, Automorphism group of p-groups, Caley graphs.

Research Projects for Iranian Universities

1. **Characters of the group $GL_n(2)$** , 6 months, 1363 (1984), *Ahwaz University*.
2. **Maximal 2-local subgroups of C_1** , 6 months, 1363 (1984), *Ahwaz University*.
3. **On the decomposition numbers of certain linear groups**, 12 months, 1366 (1987), *Ahwaz University*.
4. **t-designs with a given group of automorphism**, 18 months, 1368 (1989), *University of Tehran*.
5. **Irreducible characters of $SL_5(3)$** , 9 months, 1370 (1991), *University of Tehran*.
6. **Irreducible character table of the automorphism group of $SL_5(3)$** , 12 months, 1374 (1995), *University of Tehran*.
7. **Degrees of the irreducible characters of the affine group**, 18 months, 1374 (1995), *University of Tehran*.
8. **Conjugacy classes and character table of certain group**, 18 months, 1377 (1998), *University of Tehran*.
9. **The character table of the group $GL_2(q)$ when extended by a certain group of orders two**, 6 months, 1379 (2000), *University of Tehran*.
10. **Quantitative structure of the finite groups**, 18 months, 1379 (2000), *University of Tehran*.
11. **Product of groups**, 18 months, *Ministry of Science, Research and Technology, Iran*.
12. **Factorization of groups as product of Linear and symmetric groups**, 12 months, 1382 (2003), *University of Tehran*.
13. **Characterization of linear groups**, 12 months, 1383 (2004), *University of Tehran*.
14. **Characterization of simple groups by order elements or component orders**, 12 months, 1386 (2007), *University of Tehran*.

15. **Recognition of the special linear group over $GF(3)$** , 12 months, 1386 (2008), *University of Tehran*.
16. **Computing the topological indices of the triangle graph**, 10 months, 1388 (2009), *University of Tehran*.
17. **Characterization of groups $D_{p+1}(2)$ and $D_{p+1}(3)$ using order components**, 1388 (2009), Research Institute for Fundamental Sciences, Tabriz University, Tabriz.
18. **Power of irreducible characters**, 12 months, 1388 (2009), *University of Tehran*.
19. **Computation of the Wiener and hyper-Wiener indices of chemical graphs**, 12 months, 1388 (2009), *University of Tehran*.
20. **Computation of the topological indices of the triangle graph**, 10 months, 1388 (2009), *University of Tehran*.
21. **Powers of irreducible characters**, 6 months, 1389 (2010), *University of Tehran*.
22. **Computation of the Wiener and hyper-Wiener indices of chemical graphs**, 11 months, 1390 (2010), *University of Tehran*.
23. **G-graphs and symmetric graphs**, 12 months, 1395(2017), *ICRP*, Tehran, Iran.

Professional Lectures

1. **Some maximal subgroups of the Conway's group Co_1** , 11th Annual Iranian Mathematics Conference, 1980, Mashhad, Iran.
2. **On some characters of certain linear groups**, 15th Annual Iranian Mathematics Conference, 1984, Shiraz, Iran. MR 91a 20014.
3. Short communication presented at the *International Congress of Mathematicians*, Berkley, 1986, USA.
4. **Characters of automorphism group of a certain linear group**, 2nd National Algebra Seminar, 1987, Kashan, Iran.
5. **On commutative non-associative algebras associated with a group of automorphism of a 2-design**, 19th Annual Iranian Mathematics Conference, 1988, Rasht, Iran.
6. **Modular characters of finite groups**, 4th National Algebra Seminar, 1988, Mashhad, Iran.
7. **Moonshine for certain groups**, 6th National Algebra Seminar, 1989, Tehran, Iran.
8. Short communication presented at the *International Congress of Mathematicians*, 1990, Kyoto, Japan.
9. **Fischer matrices and character table**, 23rd Annual Iranian Mathematics Conference, 1992, Kermanshah, Iran.
10. Poster presentation at the *First European Congress of Mathematics*, 1992, Paris, France.
11. **Degree problem in finite group theory**, 24th Annual Iranian Mathematics Conference, 1993, Shahid Beheshti University, Tehran, Iran.
12. **Character tables of some group extensions**, 7th National Algebra Seminar, 1993, Hamadan, Iran.
13. **Geometric Characters of the general linear groups**, *The I.B.R. International workshops*, August 8-12, 1995, Montroduni, Italy. MR 98c:2002, Zbl. 891.20031. Invited speaker.
14. **On the p-Steinberg character of some finite simple groups**, 2nd Asian mathematics conference, Oct. 17-20, 1995, Nakhon Ratchasima University of Technology, Thailand, World Scientific publishing, River Edge, NJ, 1998, MR 99j:20018. Invited speaker.
15. **The character table of certain automorphism group**, 26th Annual Iranian Mathematics conference, 1995, Kerman, Iran. MR 1492625. (With A. R. Ashrafi)
16. **On the p-Steinberg characters of some finite simple groups**, 27th Annual Iranian Mathematics conference, 1996, Shiraz, Iran. MR 97 j: 20015, Zbl. 990.37931.

17. **The problem of intervals in the subgroup lattice of a finite group**, 27th Annual Iranian Mathematics conference, 1996, Shiraz, Iran. MR 1416785, Zbl. 916.20013. (With A.R. Ashrafi)
18. **The characters and conjugacy classes in the extension of the general linear group by the transpose-inverse involution**, 28th Annual Iranian Mathematics conference, 1997, Tabriz, Iran. MR 99c:20059.
19. **Conjugacy classes of $GL_2(q)^+$ and $SL_2(q)^+$** , *Groups St Andrews*, 1997, Bath, England. 30 minutes talk.
20. **The character table of the group $GL_2(q)$ when extended by a certain group of order two**, *The International Congress of Mathematicians*, August 18-27, 1998, Berlin, Germany.
21. **Character table of $GL_2(q)^+$** , *Groups Korea*, 1998, Korea. 45 minutes talk.
22. **Geometric characters of the classical groups**, 11th National Algebra Seminar, 1999, Isfahan, Iran. Invited speaker.
23. **(p,q,r)-Generations of the Conway group Co_1 for $p \geq 5$** , 31st Annual Iranian Mathematics Conference, 2000, Tehran, Iran. MR 2002c:20025, Zbl. 1013.20011. (With A.R.Ashrafi and G.A.Moghani)
24. **Factorization of finite groups**, *The International Congress of Mathematicians*, Aug. 19-29, 2002, Beijing, China.
25. **Factorization of finite groups as product of $L_2(q)$ and a symmetric group**, *ICM Satellite conference in Algebra and related topics*, Aug. 14-17, 2002, The Chinese university of Hong Kong, Hong Kong.
26. **Factorizations of finite groups**, 33rd Annual Iranian Mathematics conference, 2002, Mashhad, Iran. Invited speaker.
27. **On recognition property of the projective special linear group over $GF(3)$** , *Joint Mathematical Meeting of AMS, Special session on Groups, Representations and Character Theory*, 6-9 Jan 2008, San Diego, CA, USA. Invited speaker.
28. **Computing elements orders in the linear group**, 39th Annual Iranian Mathematics Conference, 24-27 Aug 2008, Kerman, Iran. Invited speaker.
29. **On recognition of the projective linear groups by spectrum**, *Group theory, Combinatorics and Computation at the University of Western Australia in Perth*, 5-16 Jan 2009.
30. **A rational property of irreducible characters of finite groups**, *Groups - St. Andrews 2009* in Bath, England, August 1-15.
31. **The wiener, Szeged and PI-index of the triangle graph**, 5th Asian Mathematical Conference, Kuala Lumpur, Malaysia, 22-26 June 2009.
32. **Products of groups**, 2nd group theory conference, Mashhad, Iran, 11-14 March 2010. Invited speaker.
33. **On factorization of finite groups**, ICM 2010, Hyderabad, India, 19-27 August 2010.
34. **Recognition of finite groups by spectrum**, Biennial International Group Theory Conference 2011, Univ. Tecknologi Malaysia. Johor Bahru, Johor, Malaysia. 14-18 February, 2011. Invited speaker.
35. **On products of conjugacy classes and irreducible characters in finite groups**, The 4th group theory conference of Iran, Payam Noor University of Isfahan, Isfahan, Iran, 7-9 March 2012. Invited speaker.
36. **Products of conjugacy classes**, Antalya Algebra Days, 15-20 May 2012, Ismir, Turkey.
37. **Graph Theoretical and numerical characterization of finite groups**, 43rd Annual Iranian Mathematics Conference, 27-30 August 2012, Tabriz, Iran. Invited speaker.

38. **Solvable groups with exactly two conjugacy classes of the same order**, Algorithmic problems in group theory and related areas, Sobolev Institute of Mathematics, 31 July-10 August 2012, Novosibirsk, Russia.
39. **Characterization of finite groups by graphs related to the elements order and a certain group property**, 2nd Biennial International Group Theory Conference, Dogus University, 4-8 February 2013, Istanbul, Turkey. Invited speaker.
40. **Classifying groups with exactly two conjugacy classes of the same order**, International Conference on Group Theory, 16-20 July 2013, Sobolev Institute of Mathematics, Novosibirsk, Russia.
41. **Quantitative characterization of the projective special linear group**, International conference in Groups, Group Rings and Related Topics, 27-30 Oct. 2013, UAE.
42. **Toward classifying finite groups with exactly two conjugacy classes of the same order**, ICM 2014, 13-21 August 2014, South Korea.
43. **Products of groups**, 4th Cemal Koc Algebra dayd, Middle East Technical University, Ankara, Turkey, 22-23 April 2016. Invited speaker.
44. **On edge-transitivity of Cayley graphs**, 44th Biennial International group theory conference, 23-26 January 2017. Invited speaker.

Publications

1983

1. **Maximal subgroups of $PSL_n(q)$, $q = p^m$, p prime, which contain a Sylow p -subgroup**, *Boll. Un. Mat. Ital. A (6)* 2 (1983), no. 3, 351-353, MR 85 j: 20048, Zbl. 532.20007.

1984

2. **Maximal subgroups of the group $GL_6(2)$** , *Bull. Malaysian Math. Soc.* 7 (1984), no. 2, 49-55. MR 86g: 20062, Zbl. 568.20044.
3. **Maximal 2-local subgroups of C_1** , *Bull. Iranian Math. Soc.* 11 (1984), no. 1-2, 1-18, MR 87a: 20011, Zbl. 592.20020

1985

4. **On some characters of $GL_n(2)$** , *J. Pure Appl. Algebra* 35 (1985), 247-252, MR 86d: 20017, Zbl. 553.20022.

1986

5. **Computing the irreducible characters of the group $GL_6(2)$** , *Math. Comp.* 46 (1986), no. 173, 301-319, MR 86k: 20005, Zbl. 619.20023.
6. **On a certain permutation character of the general linear group**, *Comm. Algebra* 14 (1986), no.7, 1343-1355, MR 87k: 20072, Zbl. 603.20038.

1987

7. **Characters of the automorphism group of the group $GL_6(2)$** , *J. Algebra* 108 (1987), no. 1, 256-268, MR 88c: 20017, Zbl. 615.20022.

1989

8. **On commutative non-associative algebras associated with a group of automorphisms of a 2-design**, *Comm. Algebra* 17 (1989), no. 8, 1885-1899, MR 90j: 17004, Zbl. 698.20002.

1992

9. **Decomposition numbers of certain linear groups**, *Bull. Iranian Math. Soc.* 18 (1992), no. 1, 9-20, MR 93c: 20078, Zbl. 767.20004.

10. The t-designs on 13 points with a primitive group of order 78 as a group of automorphism, *J. Inst. Math. Comput. Sci. Math. Ser.* 5 (1992), no. 2, 171-180, MR 1207051, Zbl. 801.05011, (With M. Rajabi Tarkhorani and S. Abbasbandi).

1994

11. An explicit isomorphism between a symplectic group and a symmetric group, *Southeast Asian Bull. Math.* 18 (1994), no. 1 (1994) 19-25, MR 95c: 20066, Zbl. 805.20010, (With M. Rajabi Tarkhorani).

1995

12. Irreducible complex characters of the full affine group, *Internat. J. Algebra Comput.* 5 (1995), no. 1, 1-5, MR 95m: 20006, Zbl. 836.20004, (With M. Rajabi Tarkhorani and A. Daneshkhah).

13. Computation of the character table of affine groups using Fischer matrices, *Groups '93 Galway/St. Andrews, Vol. 1 (Galway, 1993)*, 131-137, *London Math. Soc. Lecture Note Ser.* 211, Cambridge Univ. Press, Cambridge, 1995, MR1342786 (96j:20011), (With A. Iranmanesh).

14. The irreducible character table of the automorphism group of group $\text{PSL}_5(3)$, *Algebras Groups Geom.* 12 (1995), 339-325, MR 96i: 20009, Zbl. 848.20004, (With A.R. Ashrafi).

1996

15. On a permutation character of the group $\text{GL}_n(q)$, *J. Sci. Univ. Tehran Int. Ed.* 1 (1996), 69-75, MR 98m: 20051.

16. Construction of the character table of the hyperoctahedral group, *Riv. Mat. Pura Appl.* 17 (1996), 71-82, MR 97f: 20013, Zbl. 1008.20500, (With A. Iranmanesh).

17. p- Steinberg characters of alternating and projective special linear groups, *J. Algebra* 181 (1996), 196-206, MR 97b: 20012, Zbl. 851.20008.

1997

18. Computation of the complex characters of the group $\text{Aut}(\text{GL}_7(2))$, *Korean J. Comput. Appl. Math.* 4 (1997), no. 1, 193-210, MR 97m: 20019, Zbl. 916.20005, (With Z. Mostaghim).

1998

19. Some Conjugacy classes in groups associated with the general linear groups, *Algebras Groups Geom.* 15 (1998), 183-199, MR 2000b: 20058, Zbl. 0995.20027.

20. Affine subgroups of the classical groups and their character degrees, *J. Sci. I. R. Iran* 9 (1998), no. 2, 181-186, MR 2000g: 20096.

21. On the dimensions of cyclic symmetry classes of tensors, *J. Algebra* 205 (1998), 317-325, MR 99g: 15040, Zbl. 924.20005, (With M.R. Pournaki).

1999

22. H_v-rings of fractions, *Ital. J. Pure Appl. Math.* 5 (1999), 25-34, MR 2000j: 16077, (With B. Davvaz).

23. Dual properties in table algebras, *Ital. J. Pure Appl. Math.* 6 (1999), 73-80, MR 2002c: 20022, Zbl. 0964.20004, (With A. Rahnamaei Barghi).

24. Composition series in C-algebras, *Algebra Colloq.* 6 (1999), no. 2, 125-132, MR 1805731, Zbl. 1019.20003, (With A. Rahnamaei Barghi).

25. Equivalence classes of matrices in $\text{GL}_2(q)$ and $\text{SL}_2(q)$, *Korean J. Comput. Appl. Math.* 6 (1999), no. 2, 331-344, MR 2000e: 20074, Zbl. 929.20038, (With F. Nowroozi Larki).

26. Orthogonal basis of the symmetry classes of tensors associated with the direct product of permutation groups, *Pure Math. Appl.* 10 (1999), no. 3, 241-248, MR 2001f: 15030, Zbl. 0954.20011, (With N.S. Poursalavati).

2000

27. **Towards a classification of integral table algebras of degree five**, *Beiträge Algebra. Geom.* 41 (2000), no. 1, 33-47, MR 2002b: 20018, Zbl. 0964.20005, (With A. Rahnamaei Barghi).
28. **On the orthogonal basis of the symmetry classes of tensors associated with the dicyclic group**, *Linear and Multilinear Algebra* 47 (2000), 137-149, MR 2001a: 20025, Zbl. 0964.20006, (With M.R. Pournaki).
29. **Computation of the dimensions of symmetry classes of tensors associated with the finite two dimensional projective special linear group**, *Appl. Algebra Engrg. Comm. Comput.* 10 (2000), no.3, 237-250, MR 2001i: 20102, (With M.R. Pournaki).
30. **The character table of the group $GL_2(q)$ when extended by an automorphism of order two**, *Korean J. Comput. Appl. Math.* 7 (2000), no. 3, 643-654, MR 2002g:20013, Zbl. 0979.20009, (With F. Nowroozi Larki).
31. **A characterization of some finite groups by their elements order**, *Algebra Colloq.* 7 (2000), no.4, 467-476, MR 2002i:20023, Zbl. 0969.20010, (With A.R. Moghaddamfar).
32. **(2,p,q)-generations of the Conway's group Co_1** , *Kumamoto J. Math.* 13 (2000), 1-20, MR 2001e: 20016, Zbl. 949.20012, (With A.R. Ashrafi).
33. **Non-vanishing and orthogonal basis of symmetry classes of tensors**, *Southeast Asian Bull. Math.* 24 (2000), no. 4, 525-531, MR 2001j: 15017, Zbl. 0979.20015, (With M.R. Pournaki).
34. **On some permutation character of the finite symplectic group**, *Hadronic J.* 23 (2000), no. 4, 425-438, MR 2001k: 20022, Zbl. 1009.20015.
35. **Some results on the orthogonal basis of a symmetry class of tensors**, *Pure Math. Appl.* 11 (2000), no. 1, 33-41, MR 2002a: 20018, Zbl. 0973.20009, (With N.S. Poursalavati).
36. **A characterization of groups related to the linear groups $PSL(n,2)$, $n=5,6,7,8$** , *Pure Math. Appl.* 11 (2000), no. 4, 629-637, MR 2002m:20040, Zbl. 1017.20006, (With A.R. Moghaddamfar).
37. **A note on Cayley-Hamilton theorem for generalized matrix function**, *Pure Math. Appl.* 11 (2000), no. 4, 553-557, MR 2002j:15037, Zbl. 0994.15032, (With K. Mallahi and M.R. Pournaki).
- 2001**
38. **Charaterization of the groups $PSL_5(2)$, $PSL_6(2)$ and $PSL_7(2)$** , *Comm. Algebra* 29 (2001), no. 1, 465-475, MR 2002c:20033, Zbl. 0989.20018. Corrigendum: *Comm. Algebra* 31 (2003), no. 9, 4651-4633, MR 2004e:20037, (With A. R. Moghaddamfar).
39. **The rational character table and quasi-permutation representations of the group $PGL(2,q)$** , *Ital. J. Pure Appl. Math.* 11 (2001), 19-28, MR 2004g:20019, (With H. Behraves, A. Daneshkhah, M. Ghrobany).
40. **Quasi-permutation representation of the group $GL_2(q)$** , *J. Algebra* 243 (2001), 142-167, MR 2002g:20027, Zbl. 1014.20003, (With M. Ghorbany, A. Daneshkhah and H. Behraves).
41. **A quantitative characterization of the alternating group A_p** , *J. Southwest China Normal University* 26 (2001), no. 2, 125-128, MR 2002b:20020, (With A.R. Moghaddamfar).
42. **Factorization of groups involving symmetric and alternating groups**, *Int. J. Math. Math. Sci.* 27 (2001), no. 3, 161-167, MR 2002i:20032, Zbl. 01751236, (With G. R. Rezaeezadeh).
43. **(p,q,r)-generations of the Conways' group Co_1 for odd p**, *Kumamoto J. Math.* 14 (2001), 1-20, MR 2002d:20020, Zbl. 0980.20007, (With A.R. Ashrafi and G.A. Moghani).
44. **On the existence of the orthogonal basis of a symmetry classes of tensors associated with certain groups**, *SUT J. Math.* 37 (2001), no. 1, 1-17, MR 2002j:15038, Zbl. 0999.20006, (With N.S. Poursalavati).
45. **A characterization of some symmetric and linear groups**, *Algebras Groups Geom.* 18 (2001), no.3, 281-299, MR 2002j:20045, (With A.R. Moghaddamfar and A.R. Zokayi).

46. On the set of order elements of $G=PSL(3,q)$ when extended by a subgroup of $Out(G)$, *Algebras Groups Geom.* 18 (2001), no. 4, 473-484, MR 2002j:20033, (With N.S. Karamzadeh).

2002

47. Quasi-permutation representation of the groups $SU(3,q^2)$, and $PSU(3,q^2)$, *Southeast Asian Bull. Math.* 26 (2002), 395-406, MR 2004k:20018, Zbl. 1033.20010, (With M. Ghorbany).

48. Quasi-Permutation representation of the groups $SL(3,q)$ and $PSL(3,q)$, *Iran. J. Sci. Technol. Trans. A Sci.* 26 (2002), no. A1, 145-154, Zbl. 1006.20003, (With M. Ghorbani).

49. A characterization of groups $PSL(3,q)$ by their element orders for certain q , *Korean J. Comput. Appl. Math.* 9 (2002), no. 2, 409-421, MR 2003a:20024, Zbl. 1008.20010, (With N.S. Karamzadeh).

50. Product of the symmetric group with the alternating group on seven letters, *Quasigroups Related Systems* 9 (2002), 33-44, MR 2003j:20031, Zbl. 1036.20025.

2003

51. Groups which are the product of S_6 and a simple group, *Algebra Colloq.* 10 (2003), no. 2, 195-204, MR 2004e:20035, Zbl 1038-20013, (With G.R. Rezaeezadeh and G.L. Walls).

52. (p,q,r) -generations of the sporadic group $O'N$, *Groups St. Andrews 2001 in Oxford. Vol. I*, 101--109, *London Math. Soc. Lecture Note Ser.* 304, Cambridge Univ. Press, Cambridge, 2003, MR 2004m:20034, Zbl 1047.20012, (With A.R. Ashrafi and G.A. Moghani).

53. (p,q,r) -generation and nx -complementary generations of the sporadic group Ly , *Kumamoto J. Math.* 16 (2003), 13-25, MR 2004e:20023, Zbl 1046.20018, (With A.R. Ashrafi and G.A. Moghani).

54. Classification of minimal PN-groups, *JP journal of Algebra Number Theory Appl.* 3 (2003), no. 3, 211-218, MR 2004g:20024, (With A.R. Moghaddamfar and A.R. Zokayi).

55. Generating pairs for the sporadic group Ru , *J. Appl. Math. Comput.* 12 (2003), no. 1-2, 143-154, MR 2004b:20026, Zbl 1063.20034, (With A.R. Ashrafi).

56. On some permutation modules of the general linear groups, *Algebras Groups Geom.* 20 (2003), no. 2, 125-140, MR 2004f:20019, Zbl 1046.20033, (With M. Khademi).

2004

57. nx -complementary generations of the sporadic group He , *Ital. J. Pure Appl. Math.* 16 (2004), 145-154, MR 2005g:20030, (With G.A. Moghani).

58. nx -complementary generations of the sporadic group $O'N$, *Southeast Asian Bull. Math.* 28 (2004), no. 6, 1011-1019, MR 2005i:20020, (With A.R. Ashrafi and G.A. Moghani).

59. On characterizability of the automorphism groups by their element orders, *Acta Math. Sin. (Engl. Ser.)* 20 (2004), no. 4, 653-662, MR 2005g:20043, Zbl 1071.20029 (With A.R. Moghaddamfar and A.R. Zokayi).

60. Finite groups which factors as product of an alternating group and a simple group, *Comm. Algebra* 32 (2004), no. 2, 637-647.

61. A recognition of simple groups $PSL(3,q)$ by their element orders, *Acta Math. Sci. Ser. B Engl. Ed.* 24 (2004), no. 1, 45-51, MR 2036061, Zbl 1064.20016, (With A.R. Moghaddamfar and A.R. Zokayi).

62. A family of finite simple groups which are 2-recognizable by their elements order, *Comm. Algebra* 32 (2004), no. 11, 4507-4513, MR 2005g:20029, (With A.R. Moghaddamfar).

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19. **M. Davoudi**, Non-commuting graphs of groups, Science and Research branch, Azad University, Tehran, 1388 (2010).
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28. **M. Sajadi**, Characterization of almost simple groups by order and the degrees of vertices of prime graph, University of Shahr-e-Kord, 2013.
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31. **V. Ahmadi**, Zagreb indices and co-indices of graphs, University of Shahid Chamran, Ahwaz, 2016.
32. **M. Jahandideh**, Some properties of non-commuting graphs, University of Shahid Chamran, Ahwaz, 2016.

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5. **T. Koochakpoor**, The first cohomology of some linear groups over fields of characteristic 2, University of Tehran, 1371 (1992).
6. **H. R. Navidi Ghaziani**, The automorphism group of block designs, University of Tehran, 1371 (1992).
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10. **A. A. Hasanzadeh**, Carter subgroups in projective special linear groups, Sharif University of Technology, 1371 (1992).
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14. **H. Harizavi**, Product of l-transvections in symplectic groups, University of Tarbiat Modarres, 1371 (1993).
15. **K. Tavakolli**, Commutators in alternating and symplectic groups, Sharif University of Technology, 1371 (1993).
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20. **B. Atashi**, Groups which are the product of two simple groups, University of Tehran, 1375 (1996).
21. **A. G. Mahmiani**, Groups with sign structure and their anti automorphisms, University of Tehran, 1375 (1996).
22. **M. M . Mohammadi**, Maximal subgroups of $PSP_{2n}(F)$ containing root subgroups, University of Tehran, 1375 (1996).
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31. **H. Shahverdi Tarkhorani**, The automorphism group of the classical Lie algebras, University of Tehran, 1385 (2006).
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63. **F. Haji**, Properties of antipodal graphs, University of Tehran, 1395(2016).