

# PUBLICATIONS LIST

## JAMSHID MOORI

### A1. Refereed Papers

1. On certain groups associated with the smallest Fischer group, *J. of London Math. Soc.*,(2), 23(1981), 61–67. (MR 82g: 20041)
2. The automorphism group of the group  $D_4(2)$ , *J. of Algebra*, 80(1983), 216–225. (MR 84i: 20038)
3. Action tables for the Fischer group  $\bar{F}_{22}$ , *Group Theory, Proceedings of the 1987 Singapore Conference*, Walter de Gruyter, Berlin/New York, 1989, 417–435. (ISBN 0–89925–406–3). (MR 89m: 20015)
4. The true world of mathematics, *South African Journal of Science*, 88(1992), 132–136.
5. Classification of finite simple groups, *South African Journal of Science*, 89 (1993), 29–34.
6. Generating sets for  $F_{22}$  and its automorphism group, *J. of Algebra*, 159 (1993), 488–499. (MR 95c: 20025)
7. Subgroups of 3-transposition groups generated by four 3-transpositions, *Quaestiones Mathematicae*, 17 (1994), 83–94. (MR 95d: 20032)
8.  $(p, q, r)$ -Generations for the Janko groups  $J_1$  and  $J_2$ , *Nova Journal of Algebra and Geometry*, 2 (1993), 277–285.(MR 95e:20026a)
9.  $(2, 3, p)$ -Generations for the Fischer group  $F_{22}$ , *Communications in Algebra*, 22 (1994), 4597–4610. (MR 95e:20026b)
10.  $(2, 3, t)$ -Generations of the Janko group  $J_3$ , *Communications in Algebra*, 23(1995), 4427–4437. (With M S Ganief). (MR 96f:20021)
11.  $rX$ -Complementary generations for the Janko groups  $J_1$ ,  $J_2$  and  $J_3$ , *Communications in Algebra*, 24(1996), 809–820. (With M S Ganief).(MR 96k:20026)
12. On the ranks of the Fischer group  $F_{22}$ , *Mathematica Japonica*, 43(1996), 365–367. (MR 97a:20025)
13.  $(p, q, r)$ -Generations and  $nX$ -complementary generations of the sporadic groups  $HS$  and  $McL$ , *J. of Algebra*, 188(1997), 531–546. (With M S Ganief). (MR 97k:20030)
14.  $(p, q, r)$ -Generations of the smallest Conway group  $Co_3$ , *J. of Algebra*, 188(1997), 516–530. (With M S Ganief). (MR 97k:20029)

15. 2-Generations of the smallest Fischer group  $F_{22}$ , *Nova Journal of Algebra and Geometry*, 6 (1997), 127–145. (With M S Ganief). (MR 98h:20025)
16. 2-Generations of the Conway groups  $Co_2$  and  $Co_3$ , *J. of Group Theory*, 3(1998), 237–256. (With M S Ganief). (MR 99f:20025)
17. 2-Generations of the fourth Janko group  $J_4$ , *J. of Algebra*, 212 (1999), 305–322. (With M S Ganief). (MR 99m:20025)
18. The centralizer of an involutory outer automorphism of  $F_{22}$ , *Mathematica Japonica*, 49 (1999), 93–113. (With Z E Mpono). (MR2000a:20013)
19. Fischer-Clifford matrices of the group  $2^6:SP(6, 2)$ , *Quaestiones Mathematicae*, 22 (1999), 257–298. (With Z E Mpono). (MR2001a:20027)
20. Fischer-Clifford matrices and the character table of a maximal subgroup of  $Aut(F_{22})$ , *Int. J. Math. Game Theory and Algebra*, 10(2000), 1–12. (With Z E Mpono). (MR2001b:20023)
21. On the spread of the sporadic simple groups, *Communications in Algebra*, 29 (2001), 3239–3255. (With M S Ganief). (MR2002i:20025)
22. On Frattini Extensions, *Scientiae Mathematicae Japonicae on line*, 5 (2001), 121–127. *Scientiae Mathematicae Japonicae*, 55 (2002), 215–221. (With B Rodrigues). (MR2002m:20046)
23. Designs, codes and graphs from the Janko groups  $J_1$  and  $J_2$ , *J. Combin. Math. & Combin. Comput*, 40 (2002), 143–159. (With J D Key). (MR2002m:05035)
24. Fischer-Clifford matrices and character table of a maximal subgroup of  $Fi'_{24}$ , *Representation Theory*, 7 (2003), 300 – 321. (With F Ali). (MR2004i:20023)
25. On some designs and codes from primitive representations of some finite simple group, *J. Combin. Math. & Combin. Comput*, 45 (2003), 3–19. (With J D Key and B Rodrigues). (MR2004m:94094)
26. Permutation decoding for binary codes from triangular graphs, *European J. Combin*, 25 (2004), 113–123. (With J D Key and B Rodrigues). (MR2005c:94086)
27. Binary codes from graphs on triples, *Discrete Mathematics*, 282 (2004), 171–182. (With J D Key and B Rodrigues). (MR2005b:94054)
28. Fischer-Clifford matrices and character table of the group  $2^7 : Sp_6(2)$ , *Int. J. Math. Game Theory and Algebra*, 14 (2004), 101–121. (With F Ali). (MR2006e:15044)

29. Fischer-Clifford matrices and character table of the group  $2^8 : SP_6(2)$ , *Int. J. Math. Game Theory and Algebra*, 14 (2004), 123–135. (With F Ali). (MR2006e:15045)
30. Some binary codes from symplectic geometry of odd characteristic, *Utilitas Mathematica*, 67 (2005), 121–128. (With J D Key and B Rodrigues). (MR2006e:94072)
31. A self-orthogonal doubly even code invariant under the  $M^cL : 2$  group, *J. Comb. Theory, Series A*, 110 (2005), 53–69. (With B Rodrigues). (MR2006a:05174)
32. The permutation actions of the symmetric groups  $S_n$  on the groups  $\mathbb{Z}_m^n$  and  $\overline{\mathbb{Z}_m^n}$ , *Quaestiones Mathematicae*, 28 (2005), 179–193. (With K Zimba). (MR2006c:20020)
33. Fischer-Clifford matrices of  $B(2, n)$ , *Quaestiones Mathematicae*, 29 (2006), 9–37. (With K Zimba). (MR2006m:20014)
34. Binary codes from graphs on triples and permutation decoding, *Ars Combinatoria*, 79 (2006), 11–19. (With J D Key and B Rodrigues).
35. On the exact spread of the sporadic simple groups, *Communications in Algebra*, 35(8) (2007), 2588–2599. (With J Bradley). (MR2008g:20029)
36. Some designs and codes invariant under the simple group  $Co_2$ , *J. of Algebra*, 316 (2007), 649–661. (With B Rodrigues). (MR2358607)
37. Fischer-Clifford matrices of the non-split group extension  $2^6.U_4(2)$ , *Quaestiones Mathematicae*, 31 (2008), 27–36. (With F Ali). (MR2008m:20013)
38. On the ranks of the Janko simple groups  $J_1, J_2, J_3$  and  $J_4$ , *Quaestiones Mathematicae*, 31 (2008), 37–44. (With F Ali). (MR2404645)
39. Correction to: "Codes, designs and graphs from the Janko groups  $J_1$  and  $J_2$ " [*J. Combin. Math. Combin. Comput.* 40 (2002), 143–159], *J. Combin. Math. Combin. Comput.* 64 (2008), 153. (MR2389074)
40. A self-orthogonal doubly even code invariant under the  $M^cL$  group, *Ars Combinatoria*, 91 (2009), 321–332. (With B Rodrigues).
41. Ternary codes from graphs on triples, *Discrete Mathematics*, 309 (2009), 4663–4681. (With J D Key and B Rodrigues).
42. Partial permutation decoding for some binary codes from graphs on triples, *Ars Combinatoria*, 91 (2009), 363–371. (With J D Key and B Rodrigues).
43. On the affine subgroup of the symplectic group, *Far East J. Math. Sci.*, to appear. (With B Rodrigues).

44. Some ternary codes invariant under the simple group  $M^cL : 2$ , *Ars Combinatoria*, to appear. (With B Rodrigues).
45. Some designs and codes invariant under the Higman-Sims group, *Utilitas Mathematica*, to appear. (With B Rodrigues).

## 1 A2. Papers Submitted

1. Fischer-Clifford matrices and character table of a maximal subgroup of  $Fi_{24}$ . (With F Ali).
2. Fischer-Clifford matrices and character table of a subgroup of  $Fi_{22}$ . (With F Ali).
3. Fischer-Clifford matrices of  $B(m, n)$ . (With K Zimba).
4. Fischer-Clifford matrices of the group  $B_S(m, n)$ . (With K Zimba).
5. Fischer-Clifford matrices of the group  $B_Q(m, n)$ . (With K Zimba).
6. Some irreducible codes invariant under the Janko group,  $J_1$  or  $J_2$ . (With J D Key).
7. A group of the form  $2^7 : S_8$  in  $\overline{Fi}_{22}$ . (With Z Mpono and T Seretlo).

## 2 A3. Papers in Preparation

1. Ternary codes invariant under the simple group  $Co_2$ . (With B Rodrigues).
2. Permutation decoding for ternary codes from graphs on triples. (With J D Key and B Rodrigues).
3. Non-binary codes associated with triangular graphs and permutation decoding. (With J D Key and B Rodrigues).

## B. Book

1. Mathematical Inequalities, *Argunon Publ. Co.*, **1971**, Iran.

## C. Conference Papers

1. On the groups  $S^+$  and  $S^-$ , *Proceedings of the 8th National Mathematics Conference*, Tehran, Iran, **1977**, p.250.
2. Finite simple groups, *1st Algebra Conference, Iranian Mathematical Society*, Ahwaz, Iran, **1977**. **Main Speaker**.

3. On the group  $\bar{F}_{22}$ , *Short Communications, ICM*, Helsinki, Finland, **1978**, p.21.
4. Steiner triple systems, *Combinatorial and Incidence Geometry*, Passo Della Mendolla, Italy, **1982. Invited Address.**
5. Subgroups of 3-transposition groups, *Working Conference on 2-Generator Groups*, Birmingham, England, **1983. Invited Address.**
6. Subgroups of 3-transposition groups, *26th Annual Congress of the South African Mathematical Society, Notices*, 15/4(**1983**), p.159.
7. Steiner triple systems with an automorphism of type  $[3, (v-3)/2]$ , *27th Annual Congress of the South African Mathematical Society, Notices*, 16/4(**1984**), p.228. This paper was also presented to the *Group Theory Conference*, St Andrews, Scotland, **1985.**
8. On the ordinary representations of the symmetric groups, *28th Annual Congress of the South African Mathematical Society*, Unisa, **1985.**
9. Action tables for the Fischer group  $\bar{F}_{22}$ , *Group Theory, Proceedings of the 1987 Singapore Conference, Walter de Gruyter*, Berlin/New York, **1989**, 417–435.
10. Generating sets for  $F_{22}$  and its automorphism group, *33rd Annual Congress of the South African Mathematical Society*, Mmabatho, Bophutatswana, Notices 22/3 (**1990**), p.216.
11. CAS and CAYLEY systems for finite groups, *33rd Annual Congress of the South African Mathematical Society*, Mmabatho, Bophutatswana, Notices 22/3 (**1990**), p.215.
12. Automorphisms of Steiner triple systems, *3rd Natal-KwaZulu Mathematics Conference*, Pietermaritzburg, **1991.**
13. Generating sets for  $F_{22}$  and its automorphism group, *Warwick Algebra Symposium*, University of Warwick, Coventry, England, **1991.**
14. Classification of finite simple groups, *23rd Annual Iranian Mathematics Conference (AIMC23)*, Bakhtaran, Iran, **1992. Main Speaker.**
15. Subgroups of 3-transposition groups, *23rd Annual Iranian Mathematics Conference (AIMC23)*, Bakhtaran, Iran, **1992.**
16. Subgroups of 3-transposition groups generated by four 3-transpositions, *4th Natal-KwaZulu Mathematics Conference*, Durban-Westville, **1992.**
17. Generating triples for the sporadic groups  $J_1$ ,  $J_2$  and  $F_{22}$ , *35th Annual Congress of the South African Mathematical Society*, Cape Town, **1992.**

18. Generations of finite simple groups by sets of involutions of minimal size, *Proceedings of the 5th Natal-KwaZulu Mathematics Conference*, University of Zululand, **1993**, 77–82.
19.  $(2,3,p)$ -Generations for the Fischer group  $F_{22}$ , *Groups 93*, University College, Galway, Ireland, **1993**.
20. Clifford-Fischer matrices and group extensions, *6th Natal-KwaZulu Mathematics Conference*, Technikon Natal, Durban, **1994**.
21. Representations of group extensions, *37th Annual Congress of the South African Mathematical Society*, UPE, **1994**.
22. Fischer matrices for the maximal subgroups of the sporadic simple groups  $J_1$  and  $J_2$ , *899th Meeting, American Mathematical Society*, University of Central Florida, Orlando, USA, **1995**.
23. On the ranks of the Fischer group  $F_{22}$ , *900th Meeting, American Mathematical Society*, DePaul University, Chicago, USA, **1995**.
24. On the ranks of the Fischer group  $F_{22}$ , *Algebra Symposium*, Institute for Experimental Mathematics, Essen, Germany, **1995**. **Invited Address**.
25. The MeatAxe and generations of finite simple groups, *38th Annual Congress of the South African Mathematical Society*, UDW, **1995**.
26. Presentations of group extensions, *8th Natal-KwaZulu Mathematics Conference*, University of Natal, Pietermaritzburg, **1996**.
27. Complementary generations of the Janko groups  $J_1, J_2$  and  $J_3$ , *AMS Summer Research Institute on Cohomology Representations and Actions of Finite Groups*, University of Washington, Seattle, **1996**.
28. Fischer-Clifford matrices and projective representations, *39th Annual Congress of the South African Mathematical Society*, UWC, **1996**.
29. On the affine subgroups of the symplectic groups, *9th Natal-KwaZulu Mathematics Conference*, University of Durban-Westville, **1997**.
30. Clifford-Fischer matrices and representations of group extensions, *Joint Mathematics Conference (South African and American Mathematical Societies)*, University of Pretoria, South Africa, **1997**.
31.  $(p, q, r)$ -Generations and  $nX$ -complementary generations of the sporadic groups  $HS$  and  $McL$ , *Groups St Andrews, Bath*, **1997**.
32. Permutation representations, *10th Natal-KwaZulu Mathematics Conference*, University of Zululand, **1998**.
33. On the ranks of Janko groups  $J_1, J_2$  and  $J_3$ , *41st Annual Congress of the South African Mathematical Society*, RAU, **1998**.

34. Generalized symmetric group, *11th Natal-KwaZulu Mathematics Conference*, University of Natal, Durban, **1999**.
35. On the spread of the sporadic simple groups, Workshop on Computation in Group Theory and Geometry, University of Warwick, **1999**.
36. Probabilistic methods in the generation of finite simple groups, *12th Natal-KwaZulu Mathematics Conference*, University of Natal, Pietermaritzburg, **2000**.
37. Probabilistic generation and spread of finite simple groups, *43<sup>rd</sup> Annual Congress of the South African Mathematical Society*, UNISA, **2000**.
38. Clifford–Fischer matrices and representations of group extensions, *Joint Meeting of the American and Hong Kong Mathematical Societies*, Hong Kong University of Science and Technology, Hong Kong, **2000**. **Invited Address** (Special Session on Representation Theory).
39. Clifford–Fischer theory and representations of group extensions, *Joint Mathematics Meetings of the American Mathematical Society and Mathematical association of America*, New Orleans, USA, **2001**.
40. Finite simple groups: A short history, classification and recent developments, *44<sup>th</sup> Annual Congress of the South African Mathematical Society*, UDW, Durban, South Africa, November **2001**. **Plenary address**.
41. Codes, designs and graphs from the Janko groups, *Joint Mathematics Meetings of the American Mathematical Society and Mathematical association of America*, San Diego, USA, **2002**.
42. Designs and codes from finite groups, *14th Natal-KwaZulu Mathematics Conference*, University of Natal, Durban, May **2002**.
43. The nature of mathematics, *Eighth Meeting of the Association for Mathematics Education of South Africa (AMESA-KZN)*, St Anne’s Diocesan College, Hilton, South Africa, March **2002**. **Plenary address**.
44. Binary codes from graphs on triples, *45<sup>th</sup> Annual Congress of the South African Mathematical Society*, Stellenbosch, South Africa, November **2002**.
45. Binary codes from graphs on triples, *3rd Pythagorean Conference*, Faliraki, Rhodes (Greece), June **2003**.
46. Permutation Decoding, *16th Natal-KwaZulu Mathematics Conference*, Durban Institute of Technology, Durban, South Africa, May **2004**.
47. Clifford-Fischer Matrices, *11th Conference of the International Linear Algebra Society*, Coimbra, Portugal, July **2004**. (Mini-Symposium on Group Representations).

48. On the Exact Spread of Finite Simple Groups, *47<sup>th</sup> Annual Congress of the South African Mathematical Society*, North-West University, Potchefstroom, South Africa, November **2004**.
49. Primitive Permutation Groups, *17th Natal-KwaZulu Mathematics Conference*, University of Zululand, South Africa, May **2005**.
50. Codes, designs and graphs from finite simple groups, *20th British Combinatorial Conference*, Durham, UK July **2005**.
51. Codes, designs and graphs from finite simple groups, *Groups St Andrews 2005*, St Andrews, Scotland, 30 July–6 August **2005**.
52. On the exact spread of sporadic simple groups, *ICM Madrid 2006*, Madrid, Spain, 22–30 August **2006**.
53. Some designs and codes invariant under the simple group  $Co_2$ , *21st British Combinatorial Conference*, Reading, UK July **2007**.
54. Leech lattice, Conway group  $Co_2$  and associated binary codes, *50<sup>th</sup> Annual Congress of the South African Mathematical Society*, University of Cape Town, South Africa, November **2007**.
55. Clifford–Fischer theory applied to split and non-split group extensions, *AMS Special Session on Groups, Representations and Character Theory, Joint Mathematics Meetings of the American Mathematical Society and Mathematical association of America*, San Diego, USA, 6–9, **2008**. **Invited address.**
56. Codes and irreducible modules invariant under Janko groups  $J_1$  and  $J_2$ , *Combinatorics 2008*, Costermano (VR), Italy, 23–28 June **2008**.
57. Leech lattice, Conway group  $Co_2$  and associated binary codes, *International Conference on Modules and Representation Theory*, Cluj-Napoca, Romania, 7–12 July **2008**.
58. On the McKay’s Conjecture, *51st Annual Congress of the South African Mathematical Society*, University of the KwaZulu-Natal, Durban, South Africa, November **2008**.

### 3 D. Other Publications

1. Action tables for the Fischer group  $\bar{F}_{22}$ , *Warwick Notes*, Mathematics Institute, University of Warwick, **1987**.
2. From al-jabr wal mughabeleh to the classification of finite simple groups
  - (a) *Inaugural Lecture Series*, University of Bophuthatswana, **1989**.



- (b) *Notices of the South African Mathematical Society*, 22/1(1991), 13–26.
- 3. The true world of mathematics, *Inaugural Lecture, University of Natal Press*, 1990. (ISBN 0–86980–757–9).
- 4. On the spread of the sporadic simple groups, *Warwick preprints* 15/ 1999, Mathematics Institute, University of Warwick.
- 5. Finite simple groups: A short history, classification and recent developments, *Notices of the South African Mathematical Society*, 33/1(2002), 41–67. (MR2003h:20022)

## E. Dissertations

- 1. On the groups  $SP(4, 3)$  and  $PSP(4, 3)$ , *M.Sc. Thesis*, University of Birmingham, England, 1973.
- 2. On the groups  $G^+$  and  $G^-$  of the forms  $2^{10}M_{22}$  and  $2^{10}\bar{M}_{22}$ , *Ph.D. Thesis*, University of Birmingham, England, 1975.