

PUBLICATIONS

Articles

1. "Transitive permutation groups of some special prime degrees", *Math. Zeit.* **168** (1979), 35-52
2. "Lie algebras, 2-graphs and permutation groups", *Bull. London Math. Soc.* **12** (1980), 29-33
3. "Transitive permutation groups of some special prime degrees, II: towards 4-transitivity", *Math. Zeit.* **175** (1980), 53-66
4. "Bounds for the orders of some transitive permutation groups", *Bull. London Math. Soc.* **14** (1982), 337-344
5. "Graphs with nilpotent adjacency matrices", *J. Graph Theory* **6** (1982), 215-218
6. "Groups fixing graphs in switching classes", *J. Austral. Math. Soc.* **33** (1982), 76-85
7. "Extensions of a theorem of Jordan on primitive permutation groups", *J. Austral. Math. Soc.* **34** (1983), 155-171
8. "On graphs whose full automorphism group is an alternating or a finite classical group", *Proc. London Math. Soc.* **47** (1983), 337-362
9. "Some applications of the classification of finite simple groups", *Irish Math. Soc.*, 1983
10. "Permutation modules for rank three unitary groups", *J. Algebra* **88** (1984), 317-329
11. "On the orders of transitive permutation groups", *Bull. London Math. Soc.* **16** (1984), 523-524
12. "On minimal degrees and base sizes of primitive permutation groups", *Arch. Math.* **43** (1984), 11-15
13. "Some recent results on finite permutation groups", in *The Rutgers Group Theory Year 1983 - 4*, (eds. D. Gorenstein et al.), Cambridge Univ. Press, 1984, pp.53-66 (with J. Saxl)
14. "On the orders of maximal subgroups of the finite classical groups", *Proc. London Math. Soc.* **50** (1985), 426-446
15. "Centralizers of semisimple elements in finite twisted groups of Lie type", *J. London Math. Soc.* **31** (1985), 48-54 (with D. Deriziotis)
16. "Permutation modules for rank three symplectic and orthogonal groups", *J. Algebra* **92** (1985), 9-15

17. "Primitive permutation groups containing an element of large prime order", *J. London Math. Soc.* **31** (1985), 237-249 (with J. Saxl)
18. "The primitive permutation groups of odd degree", *J. London Math. Soc.* **31** (1985), 250-264 (with J. Saxl)
19. "The finite primitive permutation groups of rank three", *Bull. London Math. Soc.* **18** (1986), 165-172 (with J. Saxl)
20. "Multiplicity free permutation representations of finite linear groups", *Math. Zeit.* **192** (1986), 329-337 (with N. Inglis and J. Saxl)
21. "The affine permutation groups of rank three", *Proc. London Math. Soc.* **54** (1987), 477-516
22. "The factorizations of the finite exceptional groups of Lie type", *J. Algebra* **106** (1987), 517-527 (with C. Hering and J. Saxl)
23. "Distance transitive graphs with symmetric or alternating automorphism group", *Bull. Austral. Math. Soc.* **35** (1987), 1-25 (with C. Praeger and J. Saxl)
24. "The classification of finite simple Moufang loops", *Math. Proc. Camb. Phil. Soc.* **102** (1987), 33-47
25. "On the orders of maximal subgroups of the finite exceptional groups of Lie type", *Proc. London Math. Soc.* **55** (1987), 299-330 (with J. Saxl)
26. "Permanents and immanants of Hermitian matrices", *Proc. London Math. Soc.* **55** (1987), 243-265 (with G. James)
27. "On the overgroups of irreducible subgroups of the finite classical groups", *Proc. London Math. Soc.* **55** (1987), 507-537 (with J. Saxl and G. Seitz)
28. "A classification of the maximal subgroups of the finite alternating and symmetric groups", *J. Algebra* **111** (1987), 365-383 (with C. Praeger and J. Saxl)
29. "The local maximal subgroups of the finite simple groups", *Proc. Symp. Pure Math.* **47** (1987), 455-461
30. "On maximal subgroups and maximal factorizations", *Proc. Symp. Pure Math.* **47** (1987), 449-454 (with C. Praeger and J. Saxl)
31. "A survey of the maximal subgroups of the finite simple groups", *Geom. Dedicata* **25** (1988), 375-389 (with P. Kleidman)
32. "On the O'Nan-Scott theorem for primitive permutation groups", *J. Austral. Math. Soc.* **44** (1988), 389-396 (with C. Praeger and J. Saxl)
33. "Graphs whose full automorphism group is a symmetric group", *J. Austral. Math. Soc.* **44** (1988), 46-63

34. "On the 2-closures of primitive permutation groups", *J. London Math. Soc.* **37** (1988), 241-252 (with C. Praeger and J. Saxl)
35. "Smoothly approximated ω -categorical structures", *Proc. London Math. Soc.* **59** (1989), 439-463 (with W. Kantor and H. Macpherson)
36. "On a theorem of Feit and Tits", *Proc. Amer. Math. Soc.* **107** (1989), 315-322 (with P. Kleidman)
37. "Maximal subgroups of exceptional groups of Lie type, finite and algebraic", *Geom. Dedicata* **36** (1990), 353-387 (with G. Seitz)
38. "Finite linear spaces with flag-transitive automorphism groups", *Geom. Dedicata* **36** (1990), 89-94 (with F. Buekenhout, A. Delandtsheer, J. Doyen, J. Saxl and P. Kleidman)
39. "Minimal degrees of primitive permutation groups, with an application to monodromy groups of Riemann surfaces", *Proc. London Math. Soc.* **63** (1991), 266-314 (with J. Saxl)
40. "On point stabilizers in primitive permutation groups", *Commun. in Alg.* **19** (1991), 2777-2786 (with J. Saxl)
41. "On exponents of almost simple groups and an application to the restricted Burnside problem", *Math. Zeit.* **208** (1991), 401-409 (with M. Aschbacher and P. Kleidman)
42. "Maximal subgroups of finite simple groups and their automorphism groups", *Contemp. Math.* **131** (1992), 243-259 (with J. Saxl)
43. "The local maximal subgroups of exceptional groups of Lie type, finite and algebraic", *Proc. London Math. Soc.* **64** (1992), 21-48 (with A. Cohen, J. Saxl and G. Seitz)
44. "Subgroups of maximal rank in finite exceptional groups of Lie type", *Proc. London Math. Soc.* **65** (1992), 297-325 (with J. Saxl and G. Seitz)
45. "Relation algebras and permutation groups", *J. London Math. Soc.* **45** (1992), 433-445 (with C. Praeger)
46. "Generators for finite simple groups, with applications to linear groups", *Quarterly J. Math.* **43** (1992), 441-458 (with J. Hall and G. Seitz)
47. "Affine distance transitive groups with symmetric or alternating point stabilizer", *Europ. J. Comb.* **13** (1992), 489-501 (with C. Praeger)
48. "Subgroups generated by root elements in groups of Lie type", *Annals of Math.* **139** (1994), 293-361 (with G. Seitz)
49. "The probability of generating a finite simple group", *Geom. Dedicata* **56** (1995), 103-113 (with A. Shalev)

50. "Subgroups of exceptional groups", in *Groups of Lie type and their geometries* (eds. W. Kantor and L. di Martino), London Math. Soc. Lecture Note Series **207**, Cambridge Univ. Press, 1995, pp.151-156 (with G. Seitz)
51. "Subgroups of simple algebraic groups and of related finite and locally finite groups of Lie type", *Finite and locally finite groups* (eds. B. Hartley et al.), NATO ASI Series C, Vol 471, Kluwer, 1995, pp. 71-96.
52. "Subgroups of large rank in groups of Lie type", *Proc. London Math. Soc.* **72** (1996), 425-457 (with J. Saxl and D. Testerman)
53. "Factorizations of simple algebraic groups", *Trans. Amer. Math. Soc.* **348** (1996), 799-822 (with J. Saxl and G. Seitz)
54. "Characterization of classical groups by orbit sizes on the natural module", *Proc. Amer. Math. Soc.* **124** (1996), 2961-2966
55. "Simple groups, probabilistic methods, and a conjecture of Kantor and Lubotzky", *J. Algebra* **184** (1996), 31-57 (with A. Shalev)
56. "Classical groups, probabilistic methods and the (2, 3)-generation problem", *Annals of Math.* **144** (1996), 77-125 (with A. Shalev)
57. "Maximal subgroups of symmetric groups", *J. Comb. Theory, Series A* **75** (1996), 341-352 (with A. Shalev)
58. "Regular orbits of linear groups", *J. Algebra* **184** (1996), 1136-1142.
59. "On factorizations of almost simple groups", *J. Algebra* **185** (1996), 409-419 (with C. Praeger and J. Saxl)
60. "On the genus of a finite classical group", *Bull. London Math. Soc.* **29** (1997), 159-164 (with C. Purvis)
61. "Modules for algebraic groups with finitely many orbits on subspaces", *J. Algebra* **196** (1997), 211-250 (with R. Guralnick, H. Macpherson and G. Seitz)
62. "Upper bounds for the number of conjugacy classes of a finite group", *J. Algebra* **198** (1997), 538-562 (with L. Pyber)
63. "On the subgroup structure of exceptional groups of Lie type", *Trans. Amer. Math. Soc.* **350** (1998), 3409-3482 (with G. Seitz)
64. "Regular orbits and the $k(GV)$ -problem", in *Groups and Geometries* (ed. L. di Martino et al.), Trends in Mathematics, Birkhäuser, 1998, pp.145-148
65. "Probabilistic methods in the generation of finite simple groups", in *The Atlas ten years on* (eds. R. Curtis and R. Wilson), London Math. Soc. Lecture Note Series **249**, Cambridge Univ. Press, 1998, pp. 163-173 (with A. Shalev)

66. "Introduction to the subgroup structure of algebraic groups", in *Representations of reductive groups* (eds. R.W. Carter and M. Geck), Cambridge Univ. Press, 1998, pp.129-149.
67. "Subgroups of exceptional groups", in *Algebraic groups and their representations* (eds. R. Carter and J. Saxl), NATO ASI Series C, Vol 471, Kluwer, 1998, pp.275-290.
68. "On the subgroup structure of classical groups", *Invent. Math.* **134** (1998), 427-453 (with G.M. Seitz)
69. "On the diameter of a Cayley graph of a simple group of Lie type based on a conjugacy class", *J. Comb. Theory, Series A* **83** (1998), 118-137 (with R. Lawther)
70. "The classification of finite linear spaces with flag-transitive automorphism group of affine type", *J. Comb. Theory, Series A* **84** (1998), 196-235
71. "Subgroups of simple algebraic groups containing elements of fundamental subgroups", *Math. Proc. Camb. Phil. Soc.* **126** (1999), 461-479 (with G. Seitz)
72. "Simple groups, permutation groups, and probability", *J. Amer. Math. Soc.* **12** (1999), 497-520 (with A. Shalev)
73. "Random generation of finite simple groups", *J. Algebra* **219** (1999), 345-355 (with R. Guralnick, J. Saxl and A. Shalev)
74. "On finite subgroups of exceptional algebraic groups", *J. reine angew. Math.* **515** (1999), 25-72 (with G.M. Seitz)
75. "Transitive subgroups of primitive permutation groups", *J. Algebra* **234** (2000), 291-361 (with C.E. Praeger and J. Saxl)
76. "Finite linear groups and bounded generation", *Duke Math. J.* **107** (2001), 159-171 (with L. Pyber)
77. "Diameters of finite simple groups: sharp bounds and applications", *Annals of Math.* **154** (2001), 383-406 (with A. Shalev)
78. "Random (r, s) -generation of finite classical groups", *Bull. London Math. Soc.* **34** (2002), 185-188 (with A. Shalev)
79. "Primitive permutation groups with a common suborbit, and edge-transitive graphs", *Proc. London Math. Soc.* **84** (2002), 405-438 (with C.E. Praeger and J. Saxl)
80. "Fixed point ratios in actions of finite exceptional groups of Lie type", *Pacific J. Math.* **205** (2002), 393-464 (with R. Lawther and G. Seitz)
81. "Fixed point spaces in actions of exceptional algebraic groups", *Pacific J. Math.* **205** (2002), 339-391 (with R. Lawther and G. Seitz)
82. "Bases of primitive linear groups", *J. Algebra* **252** (2002), 95-113 (with A. Shalev)

83. “Variations on a theme of Steinberg”, *J. Algebra* **260** (2003), 261-297 (with G. Seitz)
84. “A survey of maximal subgroups of exceptional groups of Lie type”, in *Groups, Combinatorics and Geometry: Durham, 2001*, World Scientific, 2003 (with G. Seitz)
85. “Bases of primitive permutation groups”, in *Groups, Combinatorics and Geometry: Durham, 2001*, World Scientific, 2003 (with A. Shalev)
86. “Residual properties of the modular group and other free products”, *J. Algebra* **268** (2003), 264-285 (with A. Shalev)
87. “Residual properties of free products of finite groups”, *J. Algebra* **268** (2003), 286-289 (with A. Shalev)
88. “The number of homomorphisms from a finite group to a general linear group”, *Communications in Algebra* **32** (2004), 657-661 (with A. Shalev)
89. “Fuchsian groups, coverings of Riemann surfaces, subgroup growth, random quotients and random walks”, *J. Algebra* **276** (2004), 552-601 (with A. Shalev)
90. “Subgroups of exceptional algebraic groups which are irreducible on an adjoint or minimal module”, *J. Group Theory* **7** (2004), no. 3, 347-372 (with G.M. Seitz)
91. “Irreducible subgroups of algebraic groups”, *Quarterly J. Math* **55** (2004), 47-55 (with D.M. Testerman)
92. “Character degrees and random walks in finite groups of Lie type”, *Proc. London Math. Soc.* **90** (2005), 61-86 (with A. Shalev)
93. “Fuchsian groups, finite simple groups and representation varieties”, *Invent. Math.* **159** (2005), 317-367 (with A. Shalev)
94. “Maximal subgroups of large rank in exceptional groups of Lie type”, *J. London Math. Soc.* **71** (2005), 345–361 (with G. Seitz)
95. “On conjugacy classes of maximal subgroups of finite simple groups, and a related zeta function”, *Duke Math. J.* **128** (2005), 541–557 (with B. Martin and A. Shalev)
96. Three articles: “The insolubility of the quintic”; “The classification of finite simple groups”; “Permutation groups”, in the *Princeton Companion to Mathematics* (ed. W.T. Gowers), Princeton University Press, 2008.
97. “On a conjecture of G.E. Wall”, *J. Algebra* **317** (2007), 184–197 (with A. Shalev)
98. “Finding the characteristic of a group of Lie type”, *J. London Math. Soc.* **75** (2007), 741–754 (with E. O’Brien)
99. “The sparsity of dimensions of irreducible representations of finite simple groups”, *Bull. London Math. Soc.* **39** (2007), 467–472 (with A. Shalev)
100. “Short Two-Variable Identities for Finite Groups”, *J. Group Theory* **11** (2008), 675-690 (with D. Cargo, W. de Launey and R. Stafford)

- 101. “Base sizes for simple groups and a conjecture of Cameron”, *Proc. London Math. Soc.* **98** (2009), 116–162 (with T. Burness and A. Shalev)
- 102. “Groups of Lie type as products of SL_2 subgroups”, *J. Algebra*, to appear
- 103. “Primitive permutation groups of bounded orbital diameter”, *Proc. London Math. Soc.*, to appear (with H.D. Macpherson and K. Tent)
- 104. “The Ore Conjecture”, *J. European Math. Soc.*, to appear (with E. O’Brien, A. Shalev, P. Tiep)

Memoirs

- 105. “The maximal factorizations of the finite simple groups and their automorphism groups”, *Memoirs Amer. Math. Soc.* **86** (1990), 1-151 (with C. Praeger and J. Saxl)
- 106. “Reductive subgroups of exceptional algebraic groups”, *Memoirs Amer. Math. Soc.* **121** (1996), No. 580, 1-111 (with G. Seitz)
- 107. “The maximal subgroups of positive dimension in exceptional algebraic groups”, *Memoirs Amer. Math. Soc.* **169** (2004), no. 802, vi+227 pp. (with G.M. Seitz)
- 108. “On regular subgroups of primitive permutation groups”, *Mem. Amer. Math. Soc.*, to appear (with C. Praeger and J. Saxl)

Books

- 109. *The subgroup structure of the finite classical groups*, London Math. Soc. Lecture Note Series No. 129, Cambridge Univ. Press, 1990, 303pp. (with P. Kleidman)
- 110. *Groups, geometry and combinatorics*, London Math. Soc. Lecture Note Series No. 169, Cambridge Univ. Press, 1992, 540pp. (editor, with J. Saxl)
- 111. *Representations and characters of groups*, Cambridge Univ. Press, 1993, 419pp. (with G. James); Second Edition, 2001
- 112. *A concise introduction to Pure Mathematics*, Chapman and Hall/CRC Press, 2000; Second Edition, 2005
- 113. *Groups, Combinatorics and Geometry: Durham, 2001*, World Scientific, 2003 (editor, with A. Ivanov and J. Saxl)

Lecture Notes

114. *Some aspects of the representation theory of finite groups of Lie type*, Lecture Notes, Math. Institute, Oxford 1978 (notes based on lectures by R. Carter)

Theses

115. *Primitive permutation groups: a problem of Wielandt*, Oxford M.Sc. Thesis, 1977
116. *Finite permutation groups*, Oxford D. Phil. Thesis, 1979