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Published work which cites GAP

- [1] I. Abdeljaouad. Calculation of primitive invariants of finite groups. *RAIRO-INF THEOR APPL*, 33(1):59–77, 1999.
- [2] A. Abdollahi. Some Engel conditions on finite subsets of certain groups. *Houston J. Math.*, 27(3):511–522, 2001.
- [3] A. Abdollahi. Engel graph associated with a group. *J. Algebra*, 318(2):680–691, 2007.
- [4] A. Abdollahi. Commuting graphs of full matrix rings over finite fields. *Linear Algebra Appl.*, 428(11-12):2947–2954, 2008.
- [5] A. Abdollahi, M. J. Ataei, and A. M. Hassanabadi. Minimal blocking sets in $PG(n, 2)$ and covering groups by subgroups. *Comm. Algebra*, 36(2):365–380, 2008.
- [6] A. Abdollahi, M. J. Ataei, S. M. Jafarian Amiri, and A. M. Hassanabadi. Groups with a maximal irredundant 6-cover. *Comm. Algebra*, 33(9):3225–3238, 2005.
- [7] A. Abdollahi, A. Faghihi, and A. M. Hassanabadi. Minimal number of generators and minimum order of a non-abelian group whose elements commute with their endomorphic images. *Comm. Algebra*, 36(5):1976–1987, 2008.
- [8] A. Abdollahi, A. Faghihi, S. A. Linton, and E. A. O'Brien. Finite 3-groups of class 3 whose elements commute with their automorphic images. *Arch. Math. (Basel)*, 95(1):1–7, 2010.
- [9] A. Abdollahi, A. Faghihi, and A. Mohammadi Hassanabadi. 3-generator groups whose elements commute with their endomorphic images are abelian. *Comm. Algebra*, 36(10):3783–3791, 2008.
- [10] A. Abdollahi and A. M. Hassanabadi. 3-rewritable nilpotent 2-groups of class 2. *Comm. Algebra*, 33(5):1417–1425, 2005.
- [11] A. Abdollahi and A. M. Hassanabadi. Non-cyclic graph associated with a group. *J. Algebra Appl.*, 8(2):243–257, 2009.
- [12] A. Abdollahi and S. M. Jafarian Amiri. On groups with an irredundant 7-cover. *J. Pure Appl. Algebra*, 209(2):291–300, 2007.
- [13] A. Abdollahi, S. M. Jafarian Amiri, and A. M. Hassanabadi. Groups with specific number of centralizers. *Houston J. Math.*, 33(1):43–57 (electronic), 2007.
- [14] A. Abdollahi and H. Khosravi. On the right and left 4-Engel elements. *Comm. Algebra*, 38(3):933–943, 2010.

- [15] A. Abdollahi and H. Khosravi. Right 4-Engel elements of a group. *J. Algebra Appl.*, 9(5):763–769, 2010.
- [16] A. Abdollahi and E. Vatandoost. Which Cayley graphs are integral? *Electron. J. Combin.*, 16(1):Research Paper 122, 17, 2009.
- [17] A. Abdollahi and M. Zarrin. Non-nilpotent graph of a group. *Comm. Algebra*, 38(12):4390–4403, 2010.
- [18] A. A. Abduh. On the representations of subgroups of the Janko sporadic simple group J_1 . *Far East J. Math. Sci. (FJMS)*, 2(6):963–971, 2000.
- [19] O. A. AbuGhneim. On nonabelian McFarland difference sets. In *Proceedings of the Thirty-Fifth Southeastern International Conference on Combinatorics, Graph Theory and Computing*, volume 168, pages 159–175, 2004.
- [20] O. A. Abughneim. *Nonabelian McFarland and Menon-Hadamard difference sets*. ProQuest LLC, Ann Arbor, MI, 2005. Thesis (Ph.D.)—Central Michigan University.
- [21] N. Adamenko and I. Velichko. The investigation of some topologies on finite sets. *Appl. Sci.*, 8(1):8–12, 2006.
- [22] A. Adler. The Mathieu group M_{11} and the modular curve $X(11)$. *Proc. London Math. Soc. (3)*, 74(1):1–28, 1997.
- [23] A. Aguglia and A. Bonisoli. On the non-existence of a projective plane of order 15 with an A_4 -invariant oval. *Discrete Math.*, 288(1-3):1–7, 2004.
- [24] A. Aguglia and L. Giuzzi. An algorithm for constructing some maximal arcs in $PG(2, q^2)$. *Results Math.*, 52(1-2):17–33, 2008.
- [25] A. Aguglia and L. Giuzzi. Construction of a 3-dimensional MDS-code. *Contrib. Discrete Math.*, 3(1):39–46, 2008.
- [26] F. Aguiló-Gost and P. A. García-Sánchez. Factoring in embedding dimension three numerical semigroups. *Electron. J. Combin.*, 17(1):Research Paper 138, 21, 2010.
- [27] E. Aichinger. On the maximal ideals of non-zero-symmetric near-rings and of composition algebras of polynomial functions of Ω -groups. *Quaest. Math.*, 24(4):453–480, 2001.
- [28] E. Aichinger. The polynomial functions on certain semidirect products of groups. *Acta Sci. Math. (Szeged)*, 68(1-2):63–81, 2002.
- [29] A. Akhmedov and B. D. Park. Exotic smooth structures on small 4-manifolds. *Invent. Math.*, 173(1):209–223, 2008.
- [30] M. H. Albert, R. E. L. Aldred, M. D. Atkinson, C. C. Handley, D. A. Holton, and D. J. McCaughan. Sorting classes. *Electron. J. Combin.*, 12:Research Paper 31, 25 pp. (electronic), 2005.
- [31] M. H. Albert and S. A. Linton. Growing at a perfect speed. *Combin. Probab. Comput.*, 18(3):301–308, 2009.

- [32] P. P. Alejandro, R. A. Bailey, and P. J. Cameron. Association schemes and permutation groups. *Discrete Math.*, 266(1-3):47–67, 2003. The 18th British Combinatorial Conference (Brighton, 2001).
- [33] J. Alexander, R. Balasubramanian, J. Martin, K. Monahan, H. Pollatsek, and A. Sen. Ruling out $(160, 54, 18)$ difference sets in some nonabelian groups. *J. Combin. Des.*, 8(4):221–231, 2000.
- [34] F. Ali. On the ranks of O’N and Ly. *Discrete Appl. Math.*, 155(3):394–399, 2007.
- [35] F. Ali and M. A. F. Ibrahim. On the ranks of Conway group Co_1 . *Proc. Japan Acad. Ser. A Math. Sci.*, 81(6):95–98, 2005.
- [36] F. Ali and M. A. F. Ibrahim. On the ranks of the Conway groups Co_2 and Co_3 . *J. Algebra Appl.*, 4(5):557–565, 2005.
- [37] F. Ali and J. Moori. The Fischer-Clifford matrices of a maximal subgroup of Fi'_{24} . *Represent. Theory*, 7:300–321 (electronic), 2003.
- [38] F. Ali and J. Moori. Fischer-Clifford matrices of the non-split group extension $2^6 \cdot U_4(2)$. *Quaest. Math.*, 31(1):27–36, 2008.
- [39] M. H. Ali and M. Schaps. Lifting McKay graphs and relations to prime extensions. *Rocky Mountain J. Math.*, 38(2):373–393, 2008.
- [40] D. Allcock and C. Hall. Monodromy groups of Hurwitz-type problems. *Adv. Math.*, 225(1):69–80, 2010.
- [41] J. Almeida and M. Delgado. Tameness of the pseudovariety of abelian groups. *Internat. J. Algebra Comput.*, 15(2):327–338, 2005.
- [42] M. Alp. Special cases of cat^1 -groups. *Commun. Fac. Sci. Univ. Ank. Ser. A1 Math. Stat.*, 47(1-2):1–10, 1998.
- [43] M. Alp. Some results on derivation groups. *Turkish J. Math.*, 24(2):121–128, 2000.
- [44] M. Alp. Special cases of cat^1 -groups. *Algebras Groups Geom.*, 17(4):468–478, 2000.
- [45] M. Alp. Induced cat^1 -groups. *Turkish J. Math.*, 25(2):245–261, 2001.
- [46] M. Alp. Sections in GAP. *Proc. Inst. Math. Mech. Natl. Acad. Sci. Azerb.*, 14:18–26, 2006, 2001.
- [47] M. Alp. Enumeration of Whitehead groups of low order. *Internat. J. Algebra Comput.*, 12(5):645–658, 2002.
- [48] M. Alp. Enumeration of 1-truncated simplicial groups of low order. *INDIAN JOURNAL OF PURE & APPLIED MATHEMATICS*, 35(3):333–345, MAR 2004.
- [49] M. Alp. Pullbacks of crossed modules and Cat^1 -commutative algebras. *Turkish J. Math.*, 30(3):237–246, 2006.

- [50] M. Alp and S. Pak. Underlying groupoids. *Commun. Fac. Sci. Univ. Ank. Ser. A1 Math. Stat.*, 49(1-2):25–31, 2000.
- [51] M. Alp and C. D. Wensley. Enumeration of cat^1 -groups of low order. *Internat. J. Algebra Comput.*, 10(4):407–424, 2000.
- [52] S. Ambrose, M. Neunhöffer, C. E. Praeger, and C. Schneider. Generalised sifting in black-box groups. *LMS J. Comput. Math.*, 8:217–250 (electronic), 2005.
- [53] J. An, J. J. Cannon, E. A. O’Brien, and W. R. Unger. The Alperin weight conjecture and Dade’s conjecture for the simple group Fi'_{24} . *LMS J. Comput. Math.*, 11:100–145, 2008.
- [54] J. An, F. Himstedt, and S. Huang. Uno’s invariant conjecture for Steinberg’s triality groups in defining characteristic. *J. Algebra*, 316(1):79–108, 2007.
- [55] J. An, F. Himstedt, and S. Huang. Dade’s invariant conjecture for the symplectic group $\text{Sp}_4(2^n)$ and the special unitary group $\text{SU}_4(2^{2n})$ in defining characteristic. *Comm. Algebra*, 38(6):2364–2403, 2010.
- [56] J. An and G. Hiss. Restricting the Steinberg character in finite symplectic groups. *J. Group Theory*, 9(2):251–264, 2006.
- [57] J. An and S. Huang. Dade’s invariant conjecture for the general unitary group $\text{GU}_4(q^2)$ in defining characteristic. *Internat. J. Algebra Comput.*, 20(3):357–380, 2010.
- [58] J. An and E. A. O’Brien. The Alperin and Dade conjectures for the Fischer simple group Fi_{23} . *Internat. J. Algebra Comput.*, 9(6):621–670, 1999.
- [59] J. An and E. A. O’Brien. Conjectures on the character degrees of the Harada-Norton simple group HN . *Israel J. Math.*, 137:157–181, 2003.
- [60] J. An and E. A. O’Brien. The Alperin and Dade conjectures for the Conway simple group Co_1 . *Algebr. Represent. Theory*, 7(2):139–158, 2004.
- [61] J. An and E. A. O’Brien. The Alperin and Uno conjectures for the Fischer simple group Fi_{22} . *Comm. Algebra*, 33(5):1529–1557, 2005.
- [62] J. An, E. A. O’Brien, and R. A. Wilson. The Alperin weight conjecture and Dade’s conjecture for the simple group J_4 . *LMS J. Comput. Math.*, 6:119–140 (electronic), 2003.
- [63] K. Anderson and D. B. Surowski. Coxeter-petrie complexes of regular maps. *EUROPEAN JOURNAL OF COMBINATORICS*, 23(8):861–880, NOV 2002.
- [64] J. M. André. The maximum inverse subsemigroup of a near permutation semigroup. *Comm. Algebra*, 33(10):3607–3617, 2005.
- [65] N. Andruskiewitsch and F. Fantino. On pointed Hopf algebras associated with alternating and dihedral groups. *Rev. Un. Mat. Argentina*, 48(3):57–71 (2008), 2007.
- [66] N. Andruskiewitsch, F. Fantino, M. Graña, and L. Vendramin. Pointed Hopf algebras over some sporadic simple groups. *C. R. Math. Acad. Sci. Paris*, 348(11-12):605–608, 2010.

- [67] N. Andruskiewitsch, F. Fantino, M. Graña, and L. Vendramin. Finite-dimensional pointed Hopf algebras with alternating groups are trivial. *Ann. Mat. Pura Appl. (4)*, 190(2):225–245, 2011.
- [68] S. A. Annin, G. J. Sherman, and J. J. Ziebarth. Research questions for undergraduates on triple products in finite groups. *PRIMUS*, VI(1):1–7, March 1996. The periodical is on 'Problems, Resources, and Issues in Undergraduate Mathematics Studies', edited by the Department of Mathematical Sciences, United States Military Academy, West point NY 10996-9902 USA.
- [69] M. F. Anton. Homological symbols and the Quillen conjecture. *J. Pure Appl. Algebra*, 213(4):440–453, 2009.
- [70] F. Antoneli, P. H. Baptistelli, A. P. S. Dias, and M. Manoel. Invariant theory and reversible-equivariant vector fields. *J. Pure Appl. Algebra*, 213(5):649–663, 2009.
- [71] F. Antoneli, A. P. S. Dias, and P. C. Matthews. Invariants, equivariants and characters in symmetric bifurcation theory. *Proc. Roy. Soc. Edinburgh Sect. A*, 138(3):477–512, 2008.
- [72] Z. Arad, M. Muzychuk, and A. Oliver. On groups with conjugacy classes of distinct sizes. *J. Algebra*, 280(2):537–576, 2004.
- [73] I. M. Araújo. *Presentations for semigroup constructions and related computational methods*. PhD thesis, University of St Andrews, 2000.
- [74] I. M. Araújo, A. V. Kelarev, and A. Solomon. An algorithm for commutative semigroup algebras which are principal ideal rings. *Comm. Algebra*, 32(4):1237–1254, 2004.
- [75] I. M. Araújo and A. Solomon. Computing with semigroups in GAP—a tutorial. In *Semigroups (Braga, 1999)*, pages 1–18. World Sci. Publ., River Edge, NJ, 2000.
- [76] J. Araújo, P. V. Bünauf, J. D. Mitchell, and M. Neunhöffer. Computing automorphisms of semigroups. *J. Symbolic Comput.*, 45(3):373–392, 2010.
- [77] J. Araújo, M. Kinyon, and J. Konieczny. Minimal paths in the commuting graphs of semigroups. *European J. Combin.*, 32(2):178–197, 2011.
- [78] M. Araya. More mutually disjoint Steiner systems $S(5, 8, 24)$. *J. Combin. Theory Ser. A*, 102(1):201–203, 2003.
- [79] M. Araya and M. Harada. MDS codes over \mathbb{F}_9 related to the ternary Golay code. *Discrete Math.*, 282(1-3):233–237, 2004.
- [80] M. Araya, M. Harada, and H. Kharaghani. Some Hadamard matrices of order 32 and their binary codes. *J. Combin. Des.*, 12(2):142–146, 2004.
- [81] C. Archer, P. Cara, and J. Krempa. Using the Frattini subgroup and independent generating sets to study RWPri geometries. *Beiträge Algebra Geom.*, 46(1):169–177, 2005.
- [82] J. Arnaudiès and A. Valibouze. Lagrange resolvents. *J. Pure Appl. Algebra*, 117/118:23–40, 1997. Algorithms for algebra (Eindhoven, 1996).

- [83] E. Artal, J. Carmona, J. I. Cogolludo, and H. Tokunaga. Sextics with singular points in special position. *J. Knot Theory Ramifications*, 10(4):547–578, 2001.
- [84] E. Artal Bartolo. A curve of degree five with non-abelian fundamental group. *Topology Appl.*, 79(1):13–29, 1997.
- [85] E. Artal Bartolo. Fundamental group of a class of rational cuspidal curves. *Manuscripta Math.*, 93(3):273–281, 1997.
- [86] E. Artal Bartolo and J. Carmona Ruber. Zariski pairs, fundamental groups and Alexander polynomials. *J. Math. Soc. Japan*, 50(3):521–543, 1998.
- [87] E. Artal Bartolo, J. Carmona Ruber, and J. I. Cogolludo Agustín. Essential coordinate components of characteristic varieties. *Math. Proc. Cambridge Philos. Soc.*, 136(2):287–299, 2004.
- [88] E. Artal Bartolo, J. Carmona Ruber, and J. I. Cogolludo Agustín. Effective invariants of braid monodromy. *Trans. Amer. Math. Soc.*, 359(1):165–183 (electronic), 2007.
- [89] E. Artal Bartolo, J. Carmona Ruber, J. I. Cogolludo-Agustín, and M. Marco Buzunáriz. Topology and combinatorics of real line arrangements. *Compos. Math.*, 141(6):1578–1588, 2005.
- [90] M. Asaeda. Galois groups and an obstruction to principal graphs of subfactors. *Internat. J. Math.*, 18(2):191–202, 2007.
- [91] A. Ash, D. Pollack, and W. Sinnott. A_6 -extensions of \mathbb{Q} and the mod p cohomology of $\mathrm{GL}_3(\mathbb{Z})$. *J. Number Theory*, 115(1):176–196, 2005.
- [92] A. R. Ashrafi. On finite groups with a given number of centralizers. *Algebra Colloq.*, 7(2):139–146, 2000.
- [93] A. R. Ashrafi. On decomposability of finite groups. *J. Korean Math. Soc.*, 41(3):479–487, 2004.
- [94] A. R. Ashrafi. (p, q, r) -generation of the sporadic group HN. *Taiwanese J. Math.*, 10(3):613–629, 2006.
- [95] A. R. Ashrafi and G. Venkataraman. On finite groups whose every proper normal subgroup is a union of a given number of conjugacy classes. *Proc. Indian Acad. Sci. Math. Sci.*, 114(3):217–224, 2004.
- [96] B. Assmann and B. Eick. Computing polycyclic presentations for polycyclic rational matrix groups. *J. Symbolic Comput.*, 40(6):1269–1284, 2005.
- [97] B. Assmann and B. Eick. Testing polycyclicity of finitely generated rational matrix groups. *Math. Comp.*, 76(259):1669–1682 (electronic), 2007.
- [98] B. Assmann and S. Linton. Using the Mal’cev correspondence for collection in polycyclic groups. *J. Algebra*, 316(2):828–848, 2007.

- [99] A. Aubert, J. Michel, and R. Rouquier. Correspondance de Howe pour les groupes réductifs sur les corps finis. *Duke Math. J.*, 83(2):353–397, 1996.
- [100] S. V. Ault. Symmetric homology of algebras. *Algebr. Geom. Topol.*, 10(4):2343–2408, 2010.
- [101] M. Avitabile, G. Jurman, and S. Mattarei. The structure of thin Lie algebras with characteristic two. *Internat. J. Algebra Comput.*, 20(6):731–768, 2010.
- [102] M. Avitabile and S. Mattarei. Thin Lie algebras with diamonds of finite and infinite type. *J. Algebra*, 293(1):34–64, 2005.
- [103] A. Azad and C. E. Praeger. Maximal subsets of pairwise noncommuting elements of three-dimensional general linear groups. *Bull. Aust. Math. Soc.*, 80(1):91–104, 2009.
- [104] L. Babai. Randomization in group algorithms: conceptual questions. In *Groups and computation, II (New Brunswick, NJ, 1995)*, volume 28 of *DIMACS Ser. Discrete Math. Theoret. Comput. Sci.*, pages 1–17. Amer. Math. Soc., Providence, RI, 1997.
- [105] L. Babai and I. Pak. Strong bias of group generators: an obstacle to the “product replacement algorithm”. In *Proceedings of the Eleventh Annual ACM-SIAM Symposium on Discrete Algorithms (San Francisco, CA, 2000)*, pages 627–635, New York, 2000. ACM.
- [106] A. Bächle and W. Kimmerle. On torsion subgroups in integral group rings of finite groups. *J. Algebra*, 326:34–46, 2011.
- [107] M. R. Bacon, L. Kappe, and R. F. Morse. On the nonabelian tensor square of a 2-Engel group. *Arch. Math. (Basel)*, 69(5):353–364, 1997.
- [108] L. Bader, D. Ghinelli, and T. Penttila. On monomial flocks. *European J. Combin.*, 22(4):447–454, 2001.
- [109] C. Bagiński and A. Konovalov. On 2-groups of almost maximal class. *Publ. Math. Debrecen*, 65(1-2):97–131, 2004.
- [110] C. Bagiński and A. Konovalov. The modular isomorphism problem for finite p -groups with a cyclic subgroup of index p^2 . In *Groups St. Andrews 2005. Vol. 1*, volume 339 of *London Math. Soc. Lecture Note Ser.*, pages 186–193. Cambridge Univ. Press, Cambridge, 2007.
- [111] G. D. Bailey. Coherence and enumeration of tilings of 3-zonotopes. *Discrete Comput. Geom.*, 22(1):119–147, 1999.
- [112] R. A. Bailey, P. J. Cameron, and R. Connelly. Sudoku, gerechte designs, resolutions, affine space, spreads, reguli, and Hamming codes. *Amer. Math. Monthly*, 115(5):383–404, 2008.
- [113] R. A. Bailey, P. J. Cameron, P. Dobcsányi, J. P. Morgan, and L. H. Soicher. Designs on the web. *Discrete Math.*, 306(23):3014–3027, 2006.
- [114] R. F. Bailey. Uncoverings-by-bases for base-transitive permutation groups. *Des. Codes Cryptogr.*, 41(2):153–176, 2006.
- [115] R. F. Bailey. Error-correcting codes from permutation groups. *Discrete Math.*, 309(13):4253–4265, 2009.

- [116] R. F. Bailey and J. P. Dixon. Distance enumerators for permutation groups. *Comm. Algebra*, 35(10):3045–3051, 2007.
- [117] R. F. Bailey and B. Stevens. Hamiltonian decompositions of complete k -uniform hypergraphs. *Discrete Math.*, 310(22):3088–3095, 2010.
- [118] M. D. Baker. Link complements and the Bianchi modular groups. *Trans. Amer. Math. Soc.*, 353(8):3229–3246, 2001.
- [119] A. Ballester-Bolinches and R. Esteban-Romero. On a question of Beidleman and Robinson. *Comm. Algebra*, 30(12):5757–5770, 2002.
- [120] B. Ballinger, G. Blekherman, H. Cohn, N. Giansiracusa, E. Kelly, and A. Schürmann. Experimental study of energy-minimizing point configurations on spheres. *Experiment. Math.*, 18(3):257–283, 2009.
- [121] Z. Balogh. Further results on a filtered multiplicative basis of group algebras. *Math. Commun.*, 12(2):229–238, 2007.
- [122] Z. Balogh and Y. Li. On the derived length of the group of units of a group algebra. *J. Algebra Appl.*, 6(6):991–999, 2007.
- [123] J. Bamberg and T. Penttila. Overgroups of cyclic Sylow subgroups of linear groups. *Comm. Algebra*, 36(7):2503–2543, 2008.
- [124] D. C. Banks, S. A. Linton, and P. K. Stockmeyer. Counting cases in subitope algorithms. *IEEE TRANSACTIONS ON VISUALIZATION AND COMPUTER GRAPHICS*, 10(4):371–384, JUL–AUG 2004.
- [125] P. Bantay. Permutation orbifolds and their applications. In *Vertex operator algebras in mathematics and physics (Toronto, ON, 2000)*, volume 39 of *Fields Inst. Commun.*, pages 13–23. Amer. Math. Soc., Providence, RI, 2003.
- [126] V. G. Bardakov and A. Y. Vesnin. On a generalization of Fibonacci groups. *Algebra Logika*, 42(2):131–160, 255, 2003.
- [127] M. K. Bardoe. The universal embedding for the involution geometry of the Suzuki sporadic simple group. *J. Algebra*, 186(2):447–460, 1996.
- [128] M. K. Bardoe. The universal embedding for the $U_4(3)$ involution geometry. *J. Algebra*, 186(2):368–383, 1996.
- [129] M. K. Bardoe. The universal embedding for the involution geometry of Co_1 . *J. Algebra*, 217(2):555–572, 1999.
- [130] A. Barg. Complexity issues in coding theory. In *Handbook of coding theory, Vol. I, II*, pages 649–754. North-Holland, Amsterdam, 1998.
- [131] J. W. Barnes, B. W. Colletti, and D. L. Neuway. Using group theory and transition matrices to study a class of metaheuristic neighborhoods. *European J. Oper. Res.*, 138(3):531–544, 2002.

- [132] R. W. Barraclough. The character table of a group of shape $(2 \times 2 \cdot G):2$. *LMS J. Comput. Math.*, 13:82–89, 2010.
- [133] R. W. Barraclough and R. A. Wilson. The character table of a maximal subgroup of the Monster. *LMS J. Comput. Math.*, 10:161–175, 2007.
- [134] F. Barry, D. MacHale, and A. Ní Shé. Some supersolvability conditions for finite groups. *Math. Proc. R. Ir. Acad.*, 106A(2):163–177, 2006.
- [135] L. Bartholdi. Lamps, factorizations, and finite fields. *Amer. Math. Monthly*, 107(5):429–436, 2000.
- [136] L. Bartholdi. Endomorphic presentations of branch groups. *J. Algebra*, 268(2):419–443, 2003.
- [137] L. Bartholdi. The 2-dimension series of the just-nonsolvable BSV group. *New Zealand J. Math.*, 33(1):17–23, 2004.
- [138] L. Bartholdi. Lie algebras and growth in branch groups. *Pacific J. Math.*, 218(2):241–282, 2005.
- [139] L. Bartholdi. Branch rings, thinned rings, tree enveloping rings. *Israel J. Math.*, 154:93–139, 2006.
- [140] L. Bartholdi and M. R. Bush. Maximal unramified 3-extensions of imaginary quadratic fields and $SL_2(\mathbb{Z}_3)$. *J. Number Theory*, 124(1):159–166, 2007.
- [141] L. Bartholdi and P. de la Harpe. Representation zeta functions of wreath products with finite groups. *Groups Geom. Dyn.*, 4(2):209–249, 2010.
- [142] L. Bartholdi, B. Enriquez, P. Etingof, and E. Rains. Groups and Lie algebras corresponding to the Yang-Baxter equations. *J. Algebra*, 305(2):742–764, 2006.
- [143] L. Bartholdi and S. N. Sidki. The automorphism tower of groups acting on rooted trees. *Trans. Amer. Math. Soc.*, 358(1):329–358 (electronic), 2006.
- [144] E. A. Bartolo, J. C. Ruber, and J. I. C. Agustin. Essential coordinate components of characteristic varieties. *MATHEMATICAL PROCEEDINGS OF THE CAMBRIDGE PHILOSOPHICAL SOCIETY*, 136:287–299, MAR 2004.
- [145] C. Bates, D. Bundy, S. Hart, and P. Rowley. Commuting involution graphs for sporadic simple groups. *J. Algebra*, 316(2):849–868, 2007.
- [146] C. Bates and P. Rowley. Involutions in Conway’s largest simple group. *LMS J. Comput. Math.*, 7:337–351 (electronic), 2004.
- [147] C. Bates and P. Rowley. Centralizers of real elements in finite groups. *Arch. Math. (Basel)*, 85(6):485–489, 2005.
- [148] C. Bates and P. Rowley. Normalizers of p -subgroups in finite groups. *Arch. Math. (Basel)*, 92(1):7–13, 2009.

- [149] N. Bauermeister. Automorphismen von Steinersystemen $S(t, t + 2, v)$. Diplomarbeit, Universität Hannover, STRING-NOT-KNOWN: jan 2002.
- [150] B. Baumeister, C. Haase, B. Nill, and A. Paffenholz. On permutation polytopes. *Adv. Math.*, 222(2):431–452, 2009.
- [151] G. Baumslag, S. Cleary, and G. Havas. Experimenting with infinite groups. I. *Experiment. Math.*, 13(4):495–502, 2004.
- [152] K. Baur and J. Draisma. Higher secant varieties of the minimal adjoint orbit. *J. Algebra*, 280(2):743–761, 2004.
- [153] K. Baur, J. Draisma, and W. A. de Graaf. Secant dimensions of minimal orbits: computations and conjectures. *Experiment. Math.*, 16(2):239–250, 2007.
- [154] R. Beals. Algorithms for matrix groups and the Tits alternative. *J. Comput. System Sci.*, 58(2):260–279, 1999. 36th IEEE Symposium on the Foundations of Computer Science (Milwaukee, WI, 1995).
- [155] R. Beals. Improved algorithms for the Tits alternative. In *Groups and computation, III (Columbus, OH, 1999)*, volume 8 of *Ohio State Univ. Math. Res. Inst. Publ.*, pages 63–77. de Gruyter, Berlin, 2001.
- [156] R. Beals and L. Babai. Las Vegas algorithms for matrix groups. In *34th Annual Symposium on Foundations of Computer Science (Palo Alto, CA, 1993)*, pages 427–436. IEEE Comput. Soc. Press, Los Alamitos, CA, 1993.
- [157] R. Beals, C. R. Leedham-Green, A. C. Niemeyer, C. E. Praeger, and A. Seress. Constructive recognition of finite alternating and symmetric groups acting as matrix groups on their natural permutation modules. *J. Algebra*, 292(1):4–46, 2005.
- [158] P. E. Becker. Investigation of solvable $(120, 35, 10)$ difference sets. *J. Combin. Des.*, 13(2):79–107, 2005.
- [159] K. I. Beidar, W. Ke, and H. Kiechle. Circularity of finite groups without fixed points. *Monatsh. Math.*, 144(4):265–273, 2005.
- [160] K. I. Beidar, W. Ke, and H. Kiechle. Automorphisms of certain design groups. II. *J. Algebra*, 313(2):672–686, 2007.
- [161] J. C. Beidleman and M. F. Ragland. The intersection map of subgroups and certain classes of finite groups. *Ric. Mat.*, 56(2):217–227, 2007.
- [162] P. D. Beites, A. P. Nicolás, A. P. Pozhidaev, and P. Saraiva. On identities of a ternary quaternion algebra. *Comm. Algebra*, 39(3):830–842, 2011.
- [163] A. Beltrán and M. J. Felipe. Finite groups with a disconnected p -regular conjugacy class graph. *Comm. Algebra*, 32(9):3503–3516, 2004.
- [164] A. Benini and F. Morini. Partially balanced incomplete block designs from weakly divisible nearrings. *Discrete Math.*, 301(1):34–45, 2005.

- [165] C. D. Bennett and S. Shpectorov. A new proof of a theorem of Phan. *J. Group Theory*, 7(3):287–310, 2004.
- [166] A. Bereczky. Maximal overgroups of Singer elements in classical groups. *J. Algebra*, 234(1):187–206, 2000.
- [167] J. Berenbom, J. Fendel, G. T. Gilbert, and R. L. Hatcher. Sliding piece puzzles with oriented tiles. *Discrete Math.*, 175(1-3):23–33, 1997.
- [168] C. Bergman and G. Slutzki. Computational complexity of generators and nongenerators in algebra. *Internat. J. Algebra Comput.*, 12(5):719–735, 2002.
- [169] H. Besche. Die Berechnung von Charaktergraden und Charakteren endlicher auflösbarer Gruppen im Computeralgebrasystem GAP. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1992.
- [170] H. U. Besche and B. Eick. The groups of order at most 1000 except 512 and 768. *J. Symbolic Comput.*, 27(4):405–413, 1999.
- [171] H. U. Besche and B. Eick. The groups of order $q^n \cdot p$. *Comm. Algebra*, 29(4):1759–1772, 2001.
- [172] H. U. Besche, B. Eick, and E. A. O’Brien. The groups of order at most 2000. *Electron. Res. Announc. Amer. Math. Soc.*, 7:1–4, 2001.
- [173] H. U. Besche, B. Eick, and E. A. O’Brien. A millennium project: constructing small groups. *Internat. J. Algebra Comput.*, 12(5):623–644, 2002.
- [174] C. Bessenrodt and C. Behns. On the Durfee size of Kronecker products of characters of the symmetric group and its double covers. *J. Algebra*, 280(1):132–144, 2004.
- [175] C. Bessenrodt and A. S. Kleshchev. Irreducible tensor products over alternating groups. *J. Algebra*, 228(2):536–550, 2000.
- [176] C. Bessenrodt, G. Malle, and J. B. Olsson. Separating characters by blocks. *J. London Math. Soc. (2)*, 73(2):493–505, 2006.
- [177] D. Bessis. Sur le corps de définition d’un groupe de réflexions complexe. *Comm. Algebra*, 25(8):2703–2716, 1997.
- [178] D. Bessis. The dual braid monoid. *Ann. Sci. École Norm. Sup. (4)*, 36(5):647–683, 2003.
- [179] D. Bessis and J. Michel. Explicit presentations for exceptional braid groups. *Experiment. Math.*, 13(3):257–266, 2004.
- [180] A. Betten, A. Delandtsheer, M. Law, A. C. Niemeyer, C. E. Praeger, and S. Zhou. Finite line-transitive linear spaces: theory and search strategies. *Acta Math. Sin. (Engl. Ser.)*, 25(9):1399–1436, 2009.
- [181] C. Bhattacharya and K. W. Smith. Factoring $(16, 6, 2)$ Hadamard difference sets. *Electron. J. Combin.*, 15(1):Research Paper 112, 16, 2008.

- [182] B. Bhattacharyya. Group actions on graphs related to Krishnan-Sunder subfactors. *Trans. Amer. Math. Soc.*, 355(2):433–463 (electronic), 2003.
- [183] J. N. S. Bidwell. Automorphisms of direct products of finite groups. II. *Arch. Math. (Basel)*, 91(2):111–121, 2008.
- [184] J. N. S. Bidwell and M. J. Curran. The automorphism group of a split metacyclic p -group. *Arch. Math. (Basel)*, 87(6):488–497, 2006.
- [185] J. N. S. Bidwell and M. J. Curran. Corrigendum to “The automorphism group of a split metacyclic p -group”. [Arch. Math. 87 (2006) 488–497] [see 2283679]. *Arch. Math. (Basel)*, 92(1):14–18, 2009.
- [186] J. N. S. Bidwell and M. J. Curran. Automorphisms of finite abelian groups. *Math. Proc. R. Ir. Acad.*, 110A(1):57–71, 2010.
- [187] T. Bilgin, N. Gorentas, and I. G. Kelebek. Characterization of central units of $\mathbb{Z}A_n$. *J. Korean Math. Soc.*, 47(6):1239–1252, 2010.
- [188] L. J. Billera, H. Thomas, and S. van Willigenburg. Decomposable compositions, symmetric quasisymmetric functions and equality of ribbon Schur functions. *Adv. Math.*, 204(1):204–240, 2006.
- [189] F. Binder and P. Mayr. Algorithms for finite near-rings and their N -groups. *J. Symbolic Comput.*, 32(1-2):23–38, 2001. Computer algebra and mechanized reasoning (St. Andrews, 2000).
- [190] T. Bischofs. Collectoren im Programmsystem GAP. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, June 1989.
- [191] C. Bisi and F. Polizzi. On proper polynomial maps of \mathbb{C}^2 . *J. Geom. Anal.*, 20(1):72–89, 2010.
- [192] A. Björner and F. H. Lutz. Simplicial manifolds, bistellar flips and a 16-vertex triangulation of the Poincaré homology 3-sphere. *Experiment. Math.*, 9(2):275–289, 2000.
- [193] P. F. Blanchard. Exceptional group ring automorphisms for groups of order 96. *Comm. Algebra*, 29(11):4823–4830, 2001.
- [194] F. M. Bleher. Tensor products and a conjecture of Zassenhaus. *Arch. Math. (Basel)*, 64(4):289–298, 1995.
- [195] F. M. Bleher. Finite groups of Lie type of small rank. *Pacific J. Math.*, 187(2):215–239, 1999.
- [196] F. M. Bleher, M. Geck, and W. Kimmerle. Automorphisms of generic Iwahori-Hecke algebras and integral group rings of finite Coxeter groups. *J. Algebra*, 197(2):615–655, 1997.
- [197] F. M. Bleher, G. Hiss, and W. Kimmerle. Autoequivalences of blocks and a conjecture of Zassenhaus. *J. Pure Appl. Algebra*, 103(1):23–43, 1995.

- [198] W. Bley and R. Boltje. Cohomological Mackey functors in number theory. *J. Number Theory*, 105(1):1–37, 2004.
- [199] R. D. Blyth and R. F. Morse. Computing the nonabelian tensor squares of polycyclic groups. *J. Algebra*, 321(8):2139–2148, 2009.
- [200] R. D. Blyth, R. F. Morse, and J. L. Redden. On computing the non-abelian tensor squares of the free 2-Engel groups. *Proc. Edinb. Math. Soc. (2)*, 47(2):305–323, 2004.
- [201] R. Bocklandt. Graded Calabi Yau algebras of dimension 3. *J. Pure Appl. Algebra*, 212(1):14–32, 2008.
- [202] B. D. Boe. Geometry of the Jantzen region in Lusztig’s conjecture. *Math. Comp.*, 70(235):1265–1280, 2001.
- [203] B. D. Boe and W. Graham. A lookup conjecture for rational smoothness. *Amer. J. Math.*, 125(2):317–356, 2003.
- [204] M. Bogaerts. New upper bounds for the size of permutation codes via linear programming. *Electron. J. Combin.*, 17(1):Research Paper 135, 9, 2010.
- [205] J. Bohli, R. Steinwandt, M. I. González Vasco, and C. Martínez. Weak keys in MST_1 . *Des. Codes Cryptogr.*, 37(3):509–524, 2005.
- [206] J. Bokowski, A. Guedes de Oliviera, U. Thiemann, and A. Veloso da Costa. On the cube problem of Las Vergnas. *Geom. Dedicata*, 63(1):25–43, 1996.
- [207] A. Bonisoli and G. Korchmáros. Irreducible collineation groups fixing a hyperoval. *J. Algebra*, 252(2):431–448, 2002.
- [208] A. Bonisoli and D. Labbate. One-factorizations of complete graphs with vertex-regular automorphism groups. *J. Combin. Des.*, 10(1):1–16, 2002.
- [209] A. Bonisoli and G. Rinaldi. Primitive collineation groups of ovals with a fixed point. *European J. Combin.*, 24(7):797–807, 2003.
- [210] C. Bonnafé. On the character ring of a finite group. In *Algèbre et théorie des nombres. Années 2003–2006*, Publ. Math. Univ. Franche-Comté Besançon Algèbr. Theor. Nr., pages 5–23. Lab. Math. Besançon, Besançon, 2006.
- [211] O. Bonten. *Über Kommutatoren in endlichen einfachen Gruppen*. PhD thesis, RWTH, Aachen, 1993.
- [212] S. Bonvicini. Frattini-based starters in 2-groups. *Discrete Math.*, 308(2-3):380–381, 2008.
- [213] S. Bonvicini and B. Ruini. Symmetric bowtie decompositions of the complete graph. *Electron. J. Combin.*, 17(1):Research Paper 101, 19, 2010.
- [214] A. R. Booker. Artin’s conjecture, Turing’s method, and the Riemann hypothesis. *Experiment. Math.*, 15(4):385–407, 2006.

- [215] M. A. Borges-Trenard, M. Borges-Quintana, J. A. Castellanos-Garzón, and E. Martínez-Moro. The symmetric group given by a Gröbner basis. *J. Pure Appl. Algebra*, 207(1):149–154, 2006.
- [216] M. A. Borges Trenard and H. Pérez Rosés. Characterizing the normal forms of a finitely presented monoid. In *Fourth Italian-Latin American Conference on Applied and Industrial Mathematics (Havana, 2001)*, pages 294–300. Inst. Cybern. Math. Phys., Havana, 2001.
- [217] M. A. Borges-Trenard and H. Pérez-Rosés. Enumerating words in finitely presented monoids. *Investigación Oper.*, 22(1):62–66, 2001. 4th International Conference on Operations Research (Havana, 2000).
- [218] A. Borovik and J. Burdges. A new trichotomy theorem for groups of finite Morley rank. *J. Lond. Math. Soc. (2)*, 77(1):1–14, 2008.
- [219] A. V. Borovik. Orthogonal and symplectic black box groups, revisited. math.GR/0110234, 2002.
- [220] A. Bovdi and L. Erdei. Unitary units in modular group algebras of 2-groups. *Comm. Algebra*, 28(2):625–630, 2000.
- [221] V. Bovdi and M. Hertweck. Zassenhaus conjecture for central extensions of S_5 . *J. Group Theory*, 11(1):63–74, 2008.
- [222] V. Bovdi, C. Höfert, and W. Kimmerle. On the first Zassenhaus conjecture for integral group rings. *Publ. Math. Debrecen*, 65(3-4):291–303, 2004.
- [223] V. Bovdi and A. Konovalov. Wreath products in unit groups of modular group algebras of some finite 2-groups. In *A Conference in Honor of Albert Bovdi's 70th Birthday. Abstracts. Debrecen, Hungary, November 18–23*, pages 26–27, 2005.
- [224] V. Bovdi and A. Konovalov. Integral group ring of the first Mathieu simple group. In *Groups St. Andrews 2005. Vol. 1*, volume 339 of *London Math. Soc. Lecture Note Ser.*, pages 237–245. Cambridge Univ. Press, Cambridge, 2007.
- [225] V. A. Bovdi, E. Jespers, and A. B. Konovalov. Torsion units in integral group rings of Janko simple groups. *Math. Comp.*, 80(273):593–615, 2011.
- [226] V. A. Bovdi and A. B. Konovalov. Integral group ring of the Mathieu simple group M_{23} . *Comm. Algebra*, 36(7):2670–2680, 2008.
- [227] V. A. Bovdi and A. B. Konovalov. Integral group ring of Rudvalis simple group. *Ukrain. Mat. Zh.*, 61(1):3–13, 2009.
- [228] V. A. Bovdi and A. B. Konovalov. Torsion units in integral group ring of Higman-Sims simple group. *Studia Sci. Math. Hungar.*, 47(1):1–11, 2010.
- [229] V. A. Bovdi, A. B. Konovalov, and S. Linton. Torsion units in integral group ring of the Mathieu simple group M_{22} . *LMS J. Comput. Math.*, 11:28–39, 2008.

- [230] V. A. Bovdi, A. B. Konovalov, and E. d. N. Marcos. Integral group ring of the Suzuki sporadic simple group. *Publ. Math. Debrecen*, 72(3-4):487–503, 2008.
- [231] V. A. Bovdi, A. B. Konovalov, and S. Siciliano. Integral group ring of the Mathieu simple group M_{12} . *Rend. Circ. Mat. Palermo (2)*, 56(1):125–136, 2007.
- [232] S. Boyd, P. Diaconis, P. Parrilo, and L. Xiao. Fastest mixing Markov chain on graphs with symmetries. *SIAM J. Optim.*, 20(2):792–819, 2009.
- [233] N. Boyko, A. Konovalov, and E. Shepel. Wreath products in the unit group of the modular group algebra of the group $g(32,15)$. In *Actual problems of mathematics and computer science. 2nd regional scientific conference of young researchers. Zaporozhye, Ukraine, April 22–23, 2004*, pages 32–33, 2004.
- [234] Y. Boyko, A. Konovalov, and A. Gnezdovsky. Investigation of linearly independent subgroups of unit groups of modular group algebras of finite 2-groups. In *Actual problems of mathematics and computer science. 2nd regional scientific conference of young researchers. Zaporozhye, Ukraine, April 22–23, 2004*, pages 24–25, 2004.
- [235] S. BraiĆ. Primitive symmetric designs with at most 255 points. *Glas. Mat. Ser. III*, 45(65)(2):291–305, 2010.
- [236] S. BraiĆ, A. Golemac, J. Mandić, and T. Vučićić. Graphs and symmetric designs corresponding to difference sets in groups of order 96. *Glas. Mat. Ser. III*, 45(65)(1):1–14, 2010.
- [237] S. BraiĆ, A. Golemac, J. Mandić, and T. Vučićić. Primitive symmetric designs with prime power number of points. *J. Combin. Des.*, 18(2):141–154, 2010.
- [238] S. Bratus and I. Pak. Fast constructive recognition of a black box group isomorphic to S_n or A_n using Goldbach’s conjecture. *J. Symbolic Comput.*, 29(1):33–57, 2000.
- [239] J. Bray, C. Parker, and P. Rowley. Cayley type graphs and cubic graphs of large girth. *Discrete Math.*, 214(1-3):113–121, 2000.
- [240] J. N. Bray and R. T. Curtis. Double coset enumeration of symmetrically generated groups. *J. Group Theory*, 7(2):167–185, 2004.
- [241] J. N. Bray, I. A. I. Suleiman, P. G. Walsh, and R. A. Wilson. Generating maximal subgroups of sporadic simple groups. *Comm. Algebra*, 29(3):1325–1337, 2001.
- [242] A. Breda d’Azevedo and R. Duarte. Bipartite-uniform hypermaps on the sphere. *Electron. J. Combin.*, 14(1):Research Paper 5, 20, 2007.
- [243] A. Breda D’Azevedo and G. A. Jones. Totally chiral maps and hypermaps of small genus. *J. Algebra*, 322(11):3971–3996, 2009.
- [244] K. Bremke. The decomposition numbers of Hecke algebras of type F_4 with unequal parameters. *Manuscripta Math.*, 83(3-4):331–346, 1994.
- [245] K. Bremke and G. Malle. Reduced words and a length function for $G(e, 1, n)$. *Indag. Math. (N.S.)*, 8(4):453–469, 1997.

- [246] A. Bretto, A. Faisant, and L. Gillibert. G -graphs: a new representation of groups. *J. Symbolic Comput.*, 42(5):549–560, 2007.
- [247] T. Breuer. Potenzabbildungen, Untergruppenfusionen, Tafel-Automorphismen. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, April 1991.
- [248] T. Breuer. Subgroups of J_4 inducing the same permutation character. *Comm. Algebra*, 23(9):3173–3176, 1995.
- [249] T. Breuer. Integral bases for subfields of cyclotomic fields. *Appl. Algebra Engrg. Comm. Comput.*, 8(4):279–289, 1997.
- [250] T. Breuer. Computing possible class fusions from character tables. *Comm. Algebra*, 27(6):2733–2748, 1999.
- [251] T. Breuer. *Characters and automorphism groups of compact Riemann surfaces*, volume 280 of *London Mathematical Society Lecture Note Series*. Cambridge University Press, Cambridge, 2000.
- [252] T. Breuer, R. M. Guralnick, and W. M. Kantor. Probabilistic generation of finite simple groups. II. *J. Algebra*, 320(2):443–494, 2008.
- [253] T. Breuer, L. Héthelyi, E. Horváth, B. Külshammer, and J. Murray. Cartan invariants and central ideals of group algebras. *J. Algebra*, 296(1):177–195, 2006.
- [254] T. Breuer and E. Horváth. On block induction. *J. Algebra*, 242(1):213–224, 2001.
- [255] T. Breuer and K. Lux. The multiplicity-free permutation characters of the sporadic simple groups and their automorphism groups. *Comm. Algebra*, 24(7):2293–2316, 1996.
- [256] T. Breuer and G. Pfeiffer. Finding possible permutation characters. *J. Symbolic Comput.*, 26(3):343–354, 1998.
- [257] T. Britz and C. G. Rutherford. Covering radii are not matroid invariants. *Discrete Math.*, 296(1):117–120, 2005.
- [258] O. Broche, E. Jespers, and M. Ruiz. Antisymmetric elements in group rings with an orientation morphism. *Forum Math.*, 21(3):427–454, 2009.
- [259] M. J. Brookes, C. M. Campbell, and E. F. Robertson. Efficiency and direct products of groups. In *Groups—Korea '94 (Pusan)*, pages 25–33. de Gruyter, Berlin, 1995.
- [260] P. Brooksbank, H. Qin, E. Robertson, and A. Seress. On Dowling geometries of infinite groups. *J. Combin. Theory Ser. A*, 108(1):155–158, 2004.
- [261] P. A. Brooksbank. A constructive recognition algorithm for the matrix group $\Omega(d, q)$. In *Groups and computation, III (Columbus, OH, 1999)*, volume 8 of *Ohio State Univ. Math. Res. Inst. Publ.*, pages 79–93. de Gruyter, Berlin, 2001.
- [262] P. A. Brooksbank. Constructive recognition of classical groups in their natural representation. *J. Symbolic Comput.*, 35(2):195–239, 2003.

- [263] P. A. Brooksbank. Fast constructive recognition of black-box unitary groups. *LMS J. Comput. Math.*, 6:162–197, 2003.
- [264] P. A. Brooksbank. Fast constructive recognition of black box symplectic groups. *J. Algebra*, 320(2):885–909, 2008.
- [265] S. A. Broughton and A. Wootton. Finite abelian subgroups of the mapping class group. *Algebr. Geom. Topol.*, 7:1651–1697, 2007.
- [266] A. E. Brouwer, J. H. Koolen, and M. H. Klin. A root graph that is locally the line graph of the Petersen graph. *Discrete Math.*, 264(1-3):13–24, 2003. The 2000 *Com²MaC* Conference on Association Schemes, Codes and Designs (Pohang).
- [267] A. E. Brouwer, J. H. Koolen, and R. J. Riebeeck. A new distance-regular graph associated to the Mathieu group M_{10} . *J. Algebraic Combin.*, 8(2):153–156, 1998.
- [268] K. S. Brown. The coset poset and probabilistic zeta function of a finite group. *J. Algebra*, 225(2):989–1012, 2000.
- [269] R. Brown, N. Ghani, A. Heyworth, and C. D. Wensley. String rewriting for double coset systems. *J. Symbolic Comput.*, 41(5):573–590, 2006.
- [270] R. Brown and C. D. Wensley. On finite induced crossed modules, and the homotopy 2-type of mapping cones. *Theory Appl. Categ.*, 1:No. 3, 54–70 (electronic), 1995.
- [271] R. Brown and C. D. Wensley. Computation and homotopical applications of induced crossed modules. *J. Symbolic Comput.*, 35(1):59–72, 2003.
- [272] H. Brückner. *Algorithmen für endliche auflösbare Gruppen und Anwendungen*. PhD thesis, RWTH, Aachen, 1998.
- [273] O. Brunat. On Lusztig’s conjecture for connected and disconnected exceptional groups. *J. Algebra*, 316(1):303–325, 2007.
- [274] O. Brunat. Basic sets in defining characteristic for general linear groups of small rank. *J. Pure Appl. Algebra*, 213(5):698–710, 2009.
- [275] O. Brunat. On the inductive McKay condition in the defining characteristic. *Math. Z.*, 263(2):411–424, 2009.
- [276] O. Brunat and J. Gramain. A basic set for the alternating group. *J. Reine Angew. Math.*, 641:177–202, 2010.
- [277] J. Brundan and S. M. Goodwin. Good grading polytopes. *Proc. Lond. Math. Soc. (3)*, 94(1):155–180, 2007.
- [278] J. Brundan and A. S. Kleshchev. Representations of the symmetric group which are irreducible over subgroups. *J. Reine Angew. Math.*, 530:145–190, 2001.
- [279] F. Brunk and S. Huczynska. Some Erdős-Ko-Rado theorems for injections. *European J. Combin.*, 31(3):839–860, 2010.

- [280] E. Bujalance, F. J. Cirre, and G. Gromadzki. Groups of automorphisms of cyclic trigonal Riemann surfaces. *J. Algebra*, 322(4):1086–1103, 2009.
- [281] S. Bulygin and R. Pellikaan. Bounded distance decoding of linear error-correcting codes with Gröbner bases. *J. Symbolic Comput.*, 44(12):1626–1643, 2009.
- [282] S. V. Bulygin. Generalized Hermitian codes over $\text{GF}(2^r)$. *IEEE Trans. Inform. Theory*, 52(10):4664–4669, 2006.
- [283] D. Bundy and S. Hart. The case of equality in the Livingstone-Wagner theorem. *J. Algebraic Combin.*, 29(2):215–227, 2009.
- [284] D. Burde, B. Eick, and W. de Graaf. Computing faithful representations for nilpotent Lie algebras. *J. Algebra*, 322(3):602–612, 2009.
- [285] T. C. Burness. Fixed point ratios in actions in finite classical groups. II. *J. Algebra*, 309(1):80–138, 2007.
- [286] T. C. Burness. Fixed point ratios in actions of finite classical groups. I. *J. Algebra*, 309(1):69–79, 2007.
- [287] T. C. Burness. Fixed point ratios in actions of finite classical groups. III. *J. Algebra*, 314(2):693–748, 2007.
- [288] T. C. Burness. Fixed point ratios in actions of finite classical groups. IV. *J. Algebra*, 314(2):749–788, 2007.
- [289] L. T. Butler. Positive-entropy integrable systems and the Toda lattice, II. *Math. Proc. Cambridge Philos. Soc.*, 149(3):491–538, 2010.
- [290] F. Calegari and N. M. Dunfield. Automorphic forms and rational homology 3-spheres. *Geom. Topol.*, 10:295–329 (electronic), 2006.
- [291] P. J. Callahan, J. C. Dean, and J. R. Weeks. The simplest hyperbolic knots. *J. Knot Theory Ramifications*, 8(3):279–297, 1999.
- [292] P. Cameron. Partitions and permutations. Preprint, 2002.
- [293] P. Cameron, J. Cilleruelo, and O. Serra. On monochromatic solutions of equations in groups. *Rev. Mat. Iberoam.*, 23(1):385–395, 2007.
- [294] P. Cameron, T. Prellberg, and D. Stark. Asymptotics for incidence matrix classes. *Electron. J. Combin.*, 13(1):Research Paper 85, 19, 2006.
- [295] P. J. Cameron. *Permutation groups*, volume 45 of *London Mathematical Society Student Texts*. Cambridge University Press, Cambridge, 1999.
- [296] P. J. Cameron. Coherent configurations, association schemes and permutation groups. In *Groups, combinatorics & geometry (Durham, 2001)*, pages 55–71. World Sci. Publ., River Edge, NJ, 2003.
- [297] P. J. Cameron. Partitions and permutations. *Discrete Math.*, 291(1-3):45–54, 2005.

- [298] P. J. Cameron. Root systems and optimal block designs. *Michigan Math. J.*, 58(1):181–194, 2009.
- [299] P. J. Cameron and P. Cara. Independent generating sets and geometries for symmetric groups. *J. Algebra*, 258(2):641–650, 2002.
- [300] P. J. Cameron, D. A. Gewurz, and F. Merola. Product action. *Discrete Math.*, 308(2-3):386–394, 2008.
- [301] P. J. Cameron and D. Ghinelli. Tubes of even order and flat $\pi.C_2$ geometries. *Geom. Dedicata*, 55(3):265–278, 1995.
- [302] P. J. Cameron and P. A. Kazanidis. Cores of symmetric graphs. *J. Aust. Math. Soc.*, 85(2):145–154, 2008.
- [303] P. J. Cameron and C. Y. Ku. Intersecting families of permutations. *European J. Combin.*, 24(7):881–890, 2003.
- [304] P. J. Cameron and T. W. Müller. A descent principle in modular subgroup arithmetic. *J. Pure Appl. Algebra*, 203(1-3):189–203, 2005.
- [305] P. J. Cameron and A. Rudvalis. A design and a geometry for the group Fi_{22} . *Des. Codes Cryptogr.*, 44(1-3):11–14, 2007.
- [306] P. J. Cameron and L. H. Soicher. Block intersection polynomials. *Bull. Lond. Math. Soc.*, 39(4):559–564, 2007.
- [307] P. J. Cameron and I. M. Wanless. Covering radius for sets of permutations. *Discrete Math.*, 293(1-3):91–109, 2005.
- [308] A. R. Camina and R. D. Camina. Recognising nilpotent groups. *J. Algebra*, 300(1):16–24, 2006.
- [309] A. R. Camina and F. Spiezia. Sporadic groups and automorphisms of linear spaces. *J. Combin. Des.*, 8(5):353–362, 2000.
- [310] C. Campbell, G. Havas, S. Linton, and E. Robertson. Symmetric presentations and orthogonal groups. In *The atlas of finite groups: ten years on (Birmingham, 1995)*, volume 249 of *London Math. Soc. Lecture Note Ser.*, pages 1–10. Cambridge Univ. Press, Cambridge, 1998.
- [311] C. M. Campbell and P. P. Campbell. On the minimal length of semigroup presentations. *Novi Sad J. Math.*, 34(2):17–26, 2004.
- [312] C. M. Campbell and P. P. Campbell. The Fibonacci length of certain centro-polyhedral groups. *J. Appl. Math. Comput.*, 19(1-2):231–240, 2005.
- [313] C. M. Campbell, P. P. Campbell, H. Doostie, and E. F. Robertson. Fibonacci lengths for certain metacyclic groups. *Algebra Colloq.*, 11(2):215–222, 2004.

- [314] C. M. Campbell, P. P. Campbell, H. Doostie, and E. F. Robertson. On the Fibonacci length of powers of dihedral groups. In *Applications of Fibonacci numbers. Vol. 9*, pages 69–85. Kluwer Acad. Publ., Dordrecht, 2004.
- [315] C. M. Campbell, P. P. Campbell, B. T. K. Hopson, and E. F. Robertson. On the efficiency of direct powers of $\mathrm{PGL}(2, p)$. In *Recent advances in group theory and low-dimensional topology (Pusan, 2000)*, volume 27 of *Res. Exp. Math.*, pages 27–34. Heldermann, Lemgo, 2003.
- [316] C. M. Campbell, G. Havas, A. Hulpke, and E. F. Robertson. Efficient simple groups. *Comm. Algebra*, 30(2):971–975, 2002.
- [317] C. M. Campbell, G. Havas, A. Hulpke, and E. F. Robertson. Efficient simple groups. *Comm. Algebra*, 30(9):4613–4619, 2002.
- [318] C. M. Campbell, G. Havas, A. Hulpke, and E. F. Robertson. Efficient simple groups. *Comm. Algebra*, 31(10):5191–5197, 2003.
- [319] C. M. Campbell, G. Havas, C. Ramsay, and E. F. Robertson. Nice efficient presentations for all small simple groups and their covers. *LMS J. Comput. Math.*, 7:266–283 (electronic), 2004.
- [320] C. M. Campbell, G. Havas, C. Ramsay, and E. F. Robertson. On the efficiency of the simple groups of order less than a million and their covers. *Experiment. Math.*, 16(3):347–358, 2007.
- [321] P. S. Campbell. Steinberg characters for Chevalley groups over finite local rings. *J. Algebra*, 313(2):486–530, 2007.
- [322] P. S. Campbell and M. Nevins. Branching rules for ramified principal series representations of $\mathrm{GL}(3)$ over a p -adic field. *Canad. J. Math.*, 62(1):34–51, 2010.
- [323] J. J. Cannon, B. Eick, and C. R. Leedham-Green. Special polycyclic generating sequences for finite soluble groups. *J. Symbolic Comput.*, 38(5):1445–1460, 2004.
- [324] J. J. Cannon and D. F. Holt. Automorphism group computation and isomorphism testing in finite groups. *J. Symbolic Comput.*, 35(3):241–267, 2003.
- [325] J. J. Cannon and D. F. Holt. The transitive permutation groups of degree 32. *Experiment. Math.*, 17(3):307–314, 2008.
- [326] W. Cao. Smith normal form of augmented degree matrix and its applications. *Linear Algebra Appl.*, 431(10):1778–1784, 2009.
- [327] O. Caprotti and M. Oostdijk. Formal and efficient primality proofs by use of computer algebra oracles. *J. Symbolic Comput.*, 32(1-2):55–70, 2001. Computer algebra and mechanized reasoning (St. Andrews, 2000).
- [328] A. Caranti. Presenting the graded Lie algebra associated to the Nottingham group. *J. Algebra*, 198(1):266–289, 1997.
- [329] A. Caranti, F. Dalla Volta, and M. Sala. An application of the O’Nan-Scott theorem to the group generated by the round functions of an AES-like cipher. *Des. Codes Cryptogr.*, 52(3):293–301, 2009.

- [330] A. Caranti and G. Jurman. Quotients of maximal class of thin Lie algebras. The odd characteristic case. *Comm. Algebra*, 27(12):5741–5748, 1999.
- [331] A. Caranti and S. Mattarei. Nottingham Lie algebras with diamonds of finite type. *Internat. J. Algebra Comput.*, 14(1):35–67, 2004.
- [332] A. Caranti, S. Mattarei, and M. F. Newman. Graded Lie algebras of maximal class. *Trans. Amer. Math. Soc.*, 349(10):4021–4051, 1997.
- [333] G. Cardona. On the number of curves of genus 2 over a finite field. *Finite Fields Appl.*, 9(4):505–526, 2003.
- [334] G. Cardona. Representations of G_k -groups and twists of the genus two curve $y^2 = x^5 - x$. *J. Algebra*, 303(2):707–721, 2006.
- [335] W. Carlip and M. Mincheva. Symmetry of iteration graphs. *Czechoslovak Math. J.*, 58(133)(1):131–145, 2008.
- [336] W. Carlip and L. Somer. Primitive Lucas d -pseudoprimes and Carmichael-Lucas numbers. *Colloq. Math.*, 108(1):73–92, 2007.
- [337] J. F. Carlson and G. Matthews. Generators and relations for matrix algebras. *J. Algebra*, 300(1):134–159, 2006.
- [338] J. F. Carlson, M. Neunhöffer, and C. M. Roney-Dougal. A polynomial-time reduction algorithm for groups of semilinear or subfield class. *J. Algebra*, 322(3):613–637, 2009.
- [339] S. Carnahan and L. Childs. Counting Hopf Galois structures on non-abelian Galois field extensions. *J. Algebra*, 218(1):81–92, 1999.
- [340] G. Carnovale and F. Polizzi. The classification of surfaces with $p_g = q = 1$ isogenous to a product of curves. *Adv. Geom.*, 9(2):233–256, 2009.
- [341] C. Carrara. (Finite) presentations of the Albert-Frank-Shalev Lie algebras. *Boll. Unione Mat. Ital. Sez. B Artic. Ric. Mat. (8)*, 4(2):391–427, 2001.
- [342] M. R. Casali and P. Cristofori. A catalogue of orientable 3-manifolds triangulated by 30 colored tetrahedra. *J. Knot Theory Ramifications*, 17(5):579–599, 2008.
- [343] B. Casselman. Computation in Coxeter groups. I. Multiplication. *Electron. J. Combin.*, 9(1):Research Paper 25, 22 pp. (electronic), 2002.
- [344] D. A. Catalano, M. D. E. Conder, S. F. Du, Y. S. Kwon, R. Nedela, and S. Wilson. Classification of regular embeddings of n -dimensional cubes. *J. Algebraic Combin.*, 33(2):215–238, 2011.
- [345] F. Catanese and S. Rollenske. Double Kodaira fibrations. *J. Reine Angew. Math.*, 628:205–233, 2009.
- [346] F. Celler. Kohomologie und Normalisatoren in GAP. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1992.

- [347] F. Celler. *Konstruktive Erkennungsalgorithmen klassischer Gruppen in GAP*. PhD thesis, RWTH, Aachen, 1997.
- [348] F. Celler and C. R. Leedham-Green. Calculating the order of an invertible matrix. In *Groups and computation, II (New Brunswick, NJ, 1995)*, volume 28 of *DIMACS Ser. Discrete Math. Theoret. Comput. Sci.*, pages 55–60. Amer. Math. Soc., Providence, RI, 1997.
- [349] F. Celler, C. R. Leedham-Green, S. H. Murray, A. C. Niemeyer, and E. A. O’Brien. Generating random elements of a finite group. *Comm. Algebra*, 23(13):4931–4948, 1995.
- [350] F. Celler, J. Neubüser, and C. R. B. Wright. Some remarks on the computation of complements and normalizers in soluble groups. *Acta Appl. Math.*, 21(1-2):57–76, 1990.
- [351] S. T. Chapman, P. A. García-Sánchez, and D. Llena. The catenary and tame degree of numerical monoids. *Forum Math.*, 21(1):117–129, 2009.
- [352] S. T. Chapman, P. A. García-Sánchez, D. Llena, V. Ponomarenko, and J. C. Rosales. The catenary and tame degree in finitely generated commutative cancellative monoids. *Manuscripta Math.*, 120(3):253–264, 2006.
- [353] S. T. Chapman, P. A. García-Sánchez, D. Llena, and J. C. Rosales. Presentations of finitely generated cancellative commutative monoids and nonnegative solutions of systems of linear equations. *Discrete Appl. Math.*, 154(14):1947–1959, 2006.
- [354] C. Charnes and U. Dempwolff. The translation planes of order 49 and their automorphism groups. *Math. Comp.*, 67(223):1207–1224, 1998.
- [355] C. Charnes and J. Pieprzyk. Attacking the SL_2 hashing scheme. In *Advances in cryptology—ASIACRYPT ’94 (Wollongong, 1994)*, volume 917 of *Lecture Notes in Comput. Sci.*, pages 322–330. Springer, Berlin, 1995.
- [356] C. Charnes, M. Rötteler, and T. Beth. Homogeneous bent functions, invariants, and designs. *Des. Codes Cryptogr.*, 26(1-3):139–154, 2002. In honour of Ronald C. Mullin.
- [357] H. Chen and G. Hiss. Projective summands in tensor products of simple modules of finite dimensional Hopf algebras. *Comm. Algebra*, 32(11):4247–4264, 2004.
- [358] W. Y. C. Chen and D. C. Torney. Equivalence classes of matchings and lattice-square designs. *Discrete Appl. Math.*, 145(3):349–357, 2005.
- [359] A. Chermak, B. Oliver, and S. Shpectorov. The linking systems of the Solomon 2-local finite groups are simply connected. *Proc. Lond. Math. Soc. (3)*, 97(1):209–238, 2008.
- [360] A. A. Chesnokov and W. H. Haemers. Regularity and the generalized adjacency spectra of graphs. *Linear Algebra Appl.*, 416(2-3):1033–1037, 2006.
- [361] H. Chu, S. Hu, M. Kang, and B. E. Kunyavskii. Noether’s problem and the unramified Brauer group for groups of order 64. *Int. Math. Res. Not. IMRN*, (12):2329–2366, 2010.
- [362] K. S. Chua. Extremal modular lattices, McKay Thompson series, quadratic iterations, and new series for π . *Experiment. Math.*, 14(3):343–357, 2005.

- [363] K. S. Chua, M. L. Lang, and Y. Yang. On Rademacher’s conjecture: congruence subgroups of genus zero of the modular group. *J. Algebra*, 277(1):408–428, 2004.
- [364] S. Cicalò and W. A. de Graaf. Non-associative Gröbner bases, finitely-presented Lie rings and the Engel condition. II. *J. Symbolic Comput.*, 44(7):786–800, 2009.
- [365] C. Cid and T. Schulz. Computation of five- and six-dimensional Bieberbach groups. *Experiment. Math.*, 10(1):109–115, 2001.
- [366] A. Claesson, C. D. Godsil, and D. G. Wagner. A permutation group determined by an ordered set. *Discrete Math.*, 269(1-3):273–279, 2003.
- [367] A. Cohen, S. Murray, M. Pollet, and V. Sorge. Certifying solutions to permutation group problems. In *AUTOMATED DEDUCTION - CADE-19*, pages 258–273, 2003.
- [368] A. M. Cohen, H. Cuypers, and R. Gramlich. Local recognition of non-incident point-hyperplane graphs. *Combinatorica*, 25(3):271–296, 2005.
- [369] A. M. Cohen, H. Cuypers, and H. Sterk. *Algebra interactive!* Springer-Verlag, Berlin, 1999. Learning algebra in an exciting way, With 1 CD-ROM (Windows, LINUX and UNIX).
- [370] A. M. Cohen, W. A. de Graaf, and L. Rónyai. Computations in finite-dimensional Lie algebras. *Discrete Math. Theor. Comput. Sci.*, 1(1):129–138, 1997. Lie computations (Marseille, 1994).
- [371] A. M. Cohen, D. A. H. Gijssbers, and D. B. Wales. BMW algebras of simply laced type. *J. Algebra*, 286(1):107–153, 2005.
- [372] A. M. Cohen, R. L. Griess Jr., and B. Lissner. The group $L(2, 61)$ embeds in the Lie group of type E_8 . *Comm. Algebra*, 21(6):1889–1907, 1993.
- [373] A. M. Cohen, K. Magaard, and S. Shpectorov. Affine distance-transitive graphs: the cross characteristic case. *European J. Combin.*, 20(5):351–373, 1999.
- [374] A. M. Cohen, S. H. Murray, and D. E. Taylor. Computing in groups of Lie type. *Math. Comp.*, 73(247):1477–1498 (electronic), 2004.
- [375] A. M. Cohen and D. Roozmond. Computing Chevalley bases in small characteristics. *J. Algebra*, 322(3):703–721, 2009.
- [376] A. M. Cohen, A. Steinbach, R. Ushirobira, and D. Wales. Lie algebras generated by extremal elements. *J. Algebra*, 236(1):122–154, 2001.
- [377] A. R. Cohen and S. H. Murray. An automated proof theory approach to computation with permutation group, 2002. Lecture notes for the Calculemus Autumn School, Pisa, 23 Sep–4 Oct 2002).
- [378] H. Cohen. *A course in computational algebraic number theory*, volume 138 of *Graduate Texts in Mathematics*. Springer-Verlag, Berlin, 1993.
- [379] B. Colletti, J. Barnes, and D. S. A note on characterizing the k -opt neighborhood via group theory. *J HEURISTICS*, 5(1):47–51, 1999.

- [380] S. Colton. Automated conjecture making in number theory using HR, Otter and Maple. *J. Symbolic Comput.*, 39(5):593–615, 2005.
- [381] M. Conder. Hexagon-free subgraphs of hypercubes. *J. Graph Theory*, 17(4):477–479, 1993.
- [382] M. Conder. Regular maps with small parameters. *J. Austral. Math. Soc. Ser. A*, 57(1):103–112, 1994.
- [383] M. Conder, G. Exoo, and R. Jajcay. On the limitations of the use of solvable groups in Cayley graph cage constructions. *European J. Combin.*, 31(7):1819–1828, 2010.
- [384] M. Conder, C. Maclachlan, S. Todorovic Vasiljevic, and S. Wilson. Bounds for the number of automorphisms of a compact non-orientable surface. *J. London Math. Soc. (2)*, 68(1):65–82, 2003.
- [385] M. D. E. Conder and C. G. Walker. The infinitude of 7-arc-transitive graphs. *J. Algebra*, 208(2):619–629, 1998.
- [386] J. H. Conway and T. Hsu. Quilts and T -systems. *J. Algebra*, 174(3):856–908, 1995.
- [387] J. H. Conway, A. Hulpke, and J. McKay. On transitive permutation groups. *LMS J. Comput. Math.*, 1:1–8 (electronic), 1998.
- [388] G. Cooperman. GAP/MPI: Facilitating parallelism. In *Groups and computation, II (New Brunswick, NJ, 1995)*, pages 69–84. Amer. Math. Soc., Providence, RI, 1997.
- [389] G. Cooperman. Parallel GAP: mature interactive parallel computing. In *Groups and computation, III (Columbus, OH, 1999)*, volume 8 of *Ohio State Univ. Math. Res. Inst. Publ.*, pages 123–138. de Gruyter, Berlin, 2001.
- [390] G. Cooperman and L. Finkelstein. A random base change algorithm for permutation groups. *J. Symbolic Comput.*, 17(6):513–528, 1994.
- [391] G. Cooperman and G. Havas. Practical parallel coset enumeration. *LECT NOTES CONTR INF*, 226:15–27, 1997.
- [392] G. Cooperman, G. Hiss, K. Lux, and J. Müller. The Brauer tree of the principal 19-block of the sporadic simple Thompson group. *Experiment. Math.*, 6(4):293–300, 1997.
- [393] G. D. Cooperman, W. Lempken, G. O. Michler, and M. Weller. A new existence proof of Janko’s simple group J_4 . In *Computational methods for representations of groups and algebras (Essen, 1997)*, volume 173 of *Progr. Math.*, pages 161–175. Birkhäuser, Basel, 1999.
- [394] E. Cordeiro and M. Delgado. Computing relative abelian kernels of finite monoids. *J. Algebra*, 303(2):642–654, 2006.
- [395] E. Cordeiro, M. Delgado, and V. H. Fernandes. Relative abelian kernels of some classes of transformation monoids. *Bull. Austral. Math. Soc.*, 73(3):375–404, 2006.
- [396] G. Cornelissen and F. Kato. Mumford curves with maximal automorphism group. II. Lamé type groups in genus 5–8. *Geom. Dedicata*, 102:127–142, 2003.

- [397] G. Cornelissen, F. Kato, and A. Kontogeorgis. Discontinuous groups in positive characteristic and automorphisms of Mumford curves. *Math. Ann.*, 320(1):55–85, 2001.
- [398] T. Cortadellas and S. Zarzuela. Apery and micro-invariants of a one-dimensional Cohen-Macaulay local ring and invariants of its tangent cone. *J. Algebra*, 328:94–113, 2011.
- [399] A. Cossidente and O. H. King. On caps and cap partitions of Galois projective spaces. *European J. Combin.*, 19(7):787–799, 1998.
- [400] G. Cousineau. Tilings as a programming exercise. *Theoret. Comput. Sci.*, 281(1-2):207–217, 2002. Selected papers in honour of Maurice Nivat.
- [401] H. Coutts. *Topics in Computational Group Theory: Primitive permutation groups and matrix group normalisers*. PhD thesis, University of St Andrews, 2010.
- [402] D. Crnković and D. Held. Some Menon designs having $U(3, 3)$ as an automorphism group. *Illinois J. Math.*, 47(1-2):129–139, 2003. Special issue in honor of Reinhold Baer (1902–1979).
- [403] D. Crnković, V. Mikulić, and B. G. Rodrigues. Some strongly regular graphs and self-orthogonal codes from the unitary group $U_4(3)$. *Glas. Mat. Ser. III*, 45(65)(2):307–323, 2010.
- [404] D. Crnković, S. Rukavina, and M. Schmidt. A classification of all symmetric block designs of order nine with an automorphism of order six. *J. Combin. Des.*, 14(4):301–312, 2006.
- [405] M. J. Curran. The automorphism group of a split metacyclic 2-group. *Arch. Math. (Basel)*, 89(1):10–23, 2007.
- [406] M. J. Curran and R. J. Higgs. On minimal orders of groups with odd order automorphism groups. *Comm. Algebra*, 39(1):199–208, 2011.
- [407] M. J. Curran and D. J. McCaughan. Central automorphisms that are almost inner. *Comm. Algebra*, 29(5):2081–2087, 2001.
- [408] E. Curtin. Cubic Cayley graphs with small diameter. *Discrete Math. Theor. Comput. Sci.*, 4(2):123–131 (electronic), 2001.
- [409] G. Cutolo. On a question about automorphisms of finite p -groups. *J. Group Theory*, 9(2):231–250, 2006.
- [410] G. Cutolo, E. I. Khukhro, J. C. Lennox, J. Wiegold, S. Rinauro, and H. Smith. Finite core- p p -groups. *J. Algebra*, 188(2):701–719, 1997.
- [411] G. Cutolo, H. Smith, and J. Wiegold. On core-2 groups. *J. Algebra*, 237(2):813–841, 2001.
- [412] A. Cutting. *Todd-Coxeter Methods for inverse monoids*. PhD thesis, University of St Andrews, 2000.
- [413] H. Cuypers. The geometry of k -transvection groups. *J. Algebra*, 300(2):455–471, 2006.

- [414] H. Cuypers, L. H. Soicher, and H. Sterk. The small Mathieu groups. In *Some tapas of computer algebra*, volume 4 of *Algorithms Comput. Math.*, pages 323–337. Springer, Berlin, 1999.
- [415] H. Cuypers, L. H. Soicher, and H. Sterk. Working with finite groups. In *Some tapas of computer algebra*, volume 4 of *Algorithms Comput. Math.*, pages 184–207. Springer, Berlin, 1999.
- [416] V. Dabbaghian and J. D. Dixon. Computing matrix representations. *Math. Comp.*, 79(271):1801–1810, 2010.
- [417] V. Dabbaghian-Abdoly. *An algorithm to construct representations of finite groups*. ProQuest LLC, Ann Arbor, MI, 2003. Thesis (Ph.D.)—Carleton University (Canada).
- [418] V. Dabbaghian-Abdoly. An algorithm for constructing representations of finite groups. *J. Symbolic Comput.*, 39(6):671–688, 2005.
- [419] V. Dabbaghian-Abdoly. Constructing representations of finite simple groups and covers. *Canad. J. Math.*, 58(1):23–38, 2006.
- [420] V. Dabbaghian-Abdoly. Constructing representations of the finite symplectic group $\mathrm{Sp}(4, q)$. *J. Algebra*, 303(2):618–625, 2006.
- [421] V. Dabbaghian-Abdoly. Characters of some finite groups of Lie type with a restriction containing a linear character once. *J. Algebra*, 309(2):543–558, 2007.
- [422] V. Dabbaghian-Abdoly. Constructing representations of higher degrees of finite simple groups and covers. *Math. Comp.*, 76(259):1661–1668, 2007.
- [423] M. Daberkow, C. Fieker, J. Klüners, M. Pohst, K. Roegner, M. Schörnig, and K. Wildanger. KANT V4. *J. Symbolic Comput.*, 24(3-4):267–283, 1997. Computational algebra and number theory (London, 1993).
- [424] M. K. Dabkowski, S. Jablan, N. A. Khan, and R. K. Sahi. On 4-move equivalence classes of knots and links of two components. *J. Knot Theory Ramifications*, 20(1):47–90, 2011.
- [425] P. Dai Pra, P. Louis, and I. Minelli. Monotonicity and complete monotonicity for continuous-time Markov chains. *C. R. Math. Acad. Sci. Paris*, 342(12):965–970, 2006.
- [426] P. Dai Pra, P. Louis, and I. G. Minelli. Realizable monotonicity for continuous-time Markov processes. *Stochastic Process. Appl.*, 120(6):959–982, 2010.
- [427] F. Dalla Volta, L. Di Martino, and A. Previtali. On minimally irreducible groups of degree the product of two primes. *J. Group Theory*, 6(1):11–56, 2003.
- [428] F. Dalla Volta and A. Lucchini. The smallest group with non-zero presentation rank. *J. Group Theory*, 2(2):147–155, 1999.
- [429] F. Dalla Volta, A. Lucchini, and F. Morini. Some remarks on the probability of generating an almost simple group. *Glasg. Math. J.*, 45(2):281–291, 2003.

- [430] D. Daly and P. Vojtěchovský. Enumeration of nilpotent loops via cohomology. *J. Algebra*, 322(11):4080–4098, 2009.
- [431] M. R. Darafsheh. Designs from the group $\text{PSL}_2(q)$, q even. *Des. Codes Cryptogr.*, 39(3):311–316, 2006.
- [432] M. R. Darafsheh. On the recognition of the simple groups $L_7(3)$ and $L_8(3)$ by the spectrum. *Internat. J. Algebra Comput.*, 18(5):925–933, 2008.
- [433] M. R. Darafsheh, A. R. Ashrafi, and M. Khademi. Some designs related to group actions. *Ars Combin.*, 86:65–75, 2008.
- [434] M. R. Darafsheh, A. R. Ashrafi, and G. A. Moghani. nX -complementary generations of the sporadic group Co_1 . *Acta Math. Vietnam.*, 29(1):57–75, 2004.
- [435] M. R. Darafsheh, Y. Farjami, and A. Mahmiani. Recognition of the linear groups over the binary field by the set of their element orders. *Acta Math. Vietnam.*, 33(1):27–38, 2008.
- [436] J. H. Davenport. Equality in computer algebra and beyond. *J. Symbolic Comput.*, 34(4):259–270, 2002. Integrated reasoning and algebra systems (Siena, 2001).
- [437] J. De Beule, P. Govaerts, A. Hallez, and L. Storme. Tight sets, weighted m -covers, weighted m -ovoids, and minihypers. *Des. Codes Cryptogr.*, 50(2):187–201, 2009.
- [438] J. De Beule, A. Hoogewijs, and L. Storme. On the size of minimal blocking sets of $Q(4, q)$, for $q = 5, 7$. *SIGSAM Bull.*, 38(3):67–84, 2004.
- [439] J. De Beule and K. Metsch. The maximum size of a partial spread in $H(5, q^2)$ is $q^3 + 1$. *J. Combin. Theory Ser. A*, 114(4):761–768, 2007.
- [440] J. De Beule and L. Storme. The two smallest minimal blocking sets of $Q(2n, 3)$, $n \geq 3$. *Bull. Belg. Math. Soc. Simon Stevin*, 12(5):735–742, 2005.
- [441] J. De Beule and L. Storme. Blocking all generators of $Q^+(2n + 1, 3)$, $n \geq 4$. *Des. Codes Cryptogr.*, 39(3):323–333, 2006.
- [442] B. De Bruyn and S. Shpectorov. The hyperplanes of the $U_4(3)$ near hexagon. *Graphs Combin.*, 26(5):647–671, 2010.
- [443] W. De Graaf, G. Ivanyos, and L. Rónyai. Computing Cartan subalgebras of Lie algebras. *Appl. Algebra Engrg. Comm. Comput.*, 7(5):339–349, 1996.
- [444] W. A. de Graaf. Constructing faithful matrix representations of Lie algebras. In *Proceedings of the 1997 International Symposium on Symbolic and Algebraic Computation (Kihei, HI)*, pages 54–59 (electronic), New York, 1997. ACM.
- [445] W. A. de Graaf. Using Cartan subalgebras to calculate nilradicals and Levi subalgebras of Lie algebras. *J. Pure Appl. Algebra*, 139(1-3):25–39, 1999. Effective methods in algebraic geometry (Saint-Malo, 1998).
- [446] W. A. de Graaf. *Lie algebras: theory and algorithms*, volume 56 of *North-Holland Mathematical Library*. North-Holland Publishing Co., Amsterdam, 2000.

- [447] W. A. de Graaf. Computing with quantized enveloping algebras: PBW-type bases, highest-weight modules and R -matrices. *J. Symbolic Comput.*, 32(5):475–490, 2001.
- [448] W. A. de Graaf. Constructing representations of split semisimple Lie algebras. *J. Pure Appl. Algebra*, 164(1-2):87–107, 2001. Effective methods in algebraic geometry (Bath, 2000).
- [449] W. A. de Graaf. Constructing canonical bases of quantized enveloping algebras. *Experiment. Math.*, 11(2):161–170, 2002.
- [450] W. A. de Graaf. An algorithm to compute the canonical basis of an irreducible module over a quantized enveloping algebra. *LMS J. Comput. Math.*, 6:105–118 (electronic), 2003.
- [451] W. A. de Graaf. Constructing homomorphisms between Verma modules. *J. Lie Theory*, 15(2):415–428, 2005.
- [452] W. A. de Graaf. Classification of 6-dimensional nilpotent Lie algebras over fields of characteristic not 2. *J. Algebra*, 309(2):640–653, 2007.
- [453] W. A. de Graaf. Computing representatives of nilpotent orbits of θ -groups. *J. Symbolic Comput.*, 46(4):438–458, 2011.
- [454] W. A. de Graaf. Constructing semisimple subalgebras of semisimple Lie algebras. *J. Algebra*, 325:416–430, 2011.
- [455] W. A. de Graaf and A. Elashvili. Induced nilpotent orbits of the simple Lie algebras of exceptional type. *Georgian Math. J.*, 16(2):257–278, 2009.
- [456] W. A. de Graaf and W. Nickel. Constructing faithful representations of finitely-generated torsion-free nilpotent groups. *J. Symbolic Comput.*, 33(1):31–41, 2002.
- [457] W. A. de Graaf and A. Pavan. Constructing arithmetic subgroups of unipotent groups. *J. Algebra*, 322(11):3950–3970, 2009.
- [458] W. A. de Graaf and J. Wisliceny. Constructing bases of finitely presented Lie algebras using Gröbner bases in free algebras. In *Proceedings of the 1999 International Symposium on Symbolic and Algebraic Computation (Vancouver, BC)*, pages 37–43 (electronic), New York, 1999. ACM.
- [459] E. de Klerk, J. Maharry, D. V. Pasechnik, R. B. Richter, and G. Salazar. Improved bounds for the crossing numbers of $K_{m,n}$ and K_n . *SIAM J. Discrete Math.*, 20(1):189–202 (electronic), 2006.
- [460] E. de Klerk and R. Sotirov. Exploiting group symmetry in semidefinite programming relaxations of the quadratic assignment problem. *Math. Program.*, 122(2, Ser. A):225–246, 2010.
- [461] A. Degtyarev. Fundamental groups of symmetric sextics. *J. Math. Kyoto Univ.*, 48(4):765–792, 2008.
- [462] A. Degtyarev. Plane sextics via dessins d’enfants. *Geom. Topol.*, 14(1):393–433, 2010.

- [463] A. Degtyarev. Plane sextics with a type E_8 singular point. *Tohoku Math. J. (2)*, 62(3):329–355, 2010.
- [464] K. Dekimpe and B. Eick. Computational aspects of group extensions and their applications in topology. *Experiment. Math.*, 11(2):183–200, 2002.
- [465] A. Del Padrone and C. Mazza. Schur finiteness and nilpotency. *C. R. Math. Acad. Sci. Paris*, 341(5):283–286, 2005.
- [466] M. Delgado. Commutative images of rational languages and the abelian kernel of a monoid. *Theor. Inform. Appl.*, 35(5):419–435, 2001.
- [467] M. Delgado and V. H. Fernandes. Abelian kernels of some monoids of injective partial transformations and an application. *Semigroup Forum*, 61(3):435–452, 2000.
- [468] M. Delgado and V. H. Fernandes. Abelian kernels of monoids of order-preserving maps and of some of its extensions. *Semigroup Forum*, 68(3):335–356, 2004.
- [469] M. Delgado and V. H. Fernandes. Solvable monoids with commuting idempotents. *Internat. J. Algebra Comput.*, 15(3):547–570, 2005.
- [470] M. Delgado, P. A. García-Sánchez, J. C. Rosales, and J. M. Urbano-Blanco. Systems of proportionally modular Diophantine inequalities. *Semigroup Forum*, 76(3):469–488, 2008.
- [471] M. Delgado and P. Héam. A polynomial time algorithm to compute the abelian kernel of a finite monoid. *Semigroup Forum*, 67(1):97–110, 2003.
- [472] M. Delgado and J. C. Rosales. On the Frobenius number of a proportionally modular Diophantine inequality. *Port. Math. (N.S.)*, 63(4):415–425, 2006.
- [473] O. Delgado Friedrichs and D. H. Huson. Tiling space by Platonic solids. I. *Discrete Comput. Geom.*, 21(2):299–315, 1999.
- [474] O. Delgado Friedrichs and D. H. Huson. 4-regular vertex-transitive tilings of E^3 . *Discrete Comput. Geom.*, 24(2-3):279–292, 2000. The Branko Grünbaum birthday issue.
- [475] U. Dempwolff. Automorphisms and equivalence of bent functions and of difference sets in elementary abelian 2-groups. *Comm. Algebra*, 34(3):1077–1131, 2006.
- [476] R. Dentzer. On geometric embedding problems and semiabelian groups. *Manuscripta Math.*, 86(2):199–216, 1995.
- [477] D. Deriziotis, T. P. McDonough, and C. A. Pallikaros. On root subsystems and involutions in S_n . *Glasg. Math. J.*, 52(2):357–369, 2010.
- [478] L. Descalço and N. Ruškuc. Subsemigroups of the bicyclic monoid. *Internat. J. Algebra Comput.*, 15(1):37–57, 2005.
- [479] A. S. Detinko. A new GAP group library for irreducible maximal solvable subgroups of prime degree classical groups. *Zap. Nauchn. Sem. S.-Peterburg. Otdel. Mat. Inst. Steklov. (POMI)*, 258(Teor. Predst. Din. Sist. Komb. i Algoritm. Metody. 4):71–81, 355–356, 1999.

- [480] A. S. Detinko and D. L. Flannery. Classification of nilpotent primitive linear groups over finite fields. *Glasg. Math. J.*, 46(3):585–594, 2004.
- [481] A. S. Detinko and D. L. Flannery. Algorithms for computing with nilpotent matrix groups over infinite domains. *J. Symbolic Comput.*, 43(1):8–26, 2008.
- [482] A. S. Detinko and D. L. Flannery. On deciding finiteness of matrix groups. *J. Symbolic Comput.*, 44(8):1037–1043, 2009.
- [483] A. S. Detinko, D. L. Flannery, and E. A. O’Brien. Deciding finiteness of matrix groups in positive characteristic. *J. Algebra*, 322(11):4151–4160, 2009.
- [484] O. Deveci, E. Karaduman, and C. M. Campbell. The periods of k -nacci sequences in centropolyhedral groups and related groups. *Ars Combin.*, 97A:193–210, 2010.
- [485] D. Dèvenport. Galois groups and the factorization of polynomials. *Programmirovanië*, (1):43–58, 1997.
- [486] M. Deza and M. Dutour. Zigzag structures of simple two-faced polyhedra. *Combin. Probab. Comput.*, 14(1-2):31–57, 2005.
- [487] L. Di Martino, M. A. Pellegrini, and T. Weigel. Minimal irreducibility and the unipotent characters of groups of type B_m and C_m . *J. Algebra Appl.*, 8(3):413–451, 2009.
- [488] L. Di Martino and N. Vavilov. $(2, 3)$ -generation of $SL(n, q)$. I. Cases $n = 5, 6, 7$. *Comm. Algebra*, 22(4):1321–1347, 1994.
- [489] L. Di Martino and N. Vavilov. $(2, 3)$ -generation of $SL(n, q)$. II. Cases $n \geq 8$. *Comm. Algebra*, 24(2):487–515, 1996.
- [490] L. Di Martino and A. E. Zalesskii. Eigenvalues of unipotent elements in cross-characteristic representations of finite classical groups. *J. Algebra*, 319(7):2668–2722, 2008.
- [491] H. Dietrich and B. Eick. On the groups of cube-free order. *J. Algebra*, 292(1):122–137, 2005.
- [492] J. D. Dixon. Groups with a Cayley graph isomorphic to a hypercube. *Bull. Austral. Math. Soc.*, 55(3):385–393, 1997.
- [493] J. D. Dixon. Permutation representations and rational irreducibility. *Bull. Austral. Math. Soc.*, 71(3):493–503, 2005.
- [494] J. D. Dixon. Generating random elements in finite groups. *Electron. J. Combin.*, 15(1):Research Paper 94, 13, 2008.
- [495] J. D. Dixon and A. R. Barghi. Degree homogeneous subgroups. *Canad. Math. Bull.*, 48(1):41–49, 2005.
- [496] J. D. Dixon and A. Rahnamai Barghi. Irreducible characters which are zero on only one conjugacy class. *Proc. Amer. Math. Soc.*, 135(1):41–45 (electronic), 2007.
- [497] J. D. Dixon and A. E. Zalesski. Finite imprimitive linear groups of prime degree. *J. Algebra*, 276(1):340–370, 2004.

- [498] P. Dobcsányi, D. A. Preece, and L. H. Soicher. On balanced incomplete-block designs with repeated blocks. *European J. Combin.*, 28(7):1955–1970, 2007.
- [499] S. Dolfi. Orbits of permutation groups on the power set. *Arch. Math. (Basel)*, 75(5):321–327, 2000.
- [500] S. Dolfi. Large orbits in coprime actions of solvable groups. *Trans. Amer. Math. Soc.*, 360(1):135–152 (electronic), 2008.
- [501] S. Dolfi, M. Herzog, and E. Jabara. Finite groups whose noncentral commuting elements have centralizers of equal size. *Bull. Aust. Math. Soc.*, 82(2):293–304, 2010.
- [502] S. Dolfi, A. Moretó, and G. Navarro. The groups with exactly one class of size a multiple of p . *J. Group Theory*, 12(2):219–234, 2009.
- [503] S. Dolfi, G. Navarro, and P. H. Tiep. Primes dividing the degrees of the real characters. *Math. Z.*, 259(4):755–774, 2008.
- [504] A. F. Donaldson and A. Miller. Automatic symmetry detection for model checking using computational group theory. In *FM*, pages 481–496, 2005.
- [505] A. F. Donaldson and A. Miller. Exact and approximate strategies for symmetry reduction in model checking. In *FM*, pages 541–556, 2006.
- [506] A. F. Donaldson and A. Miller. Symmetry reduction for probabilistic model checking using generic representatives. In *AVTA*, pages 9–23, 2006.
- [507] A. F. Donaldson and A. Miller. Extending symmetry reduction techniques to a realistic model of computation. *Electr. Notes Theor. Comput. Sci.*, 185:63–76, 2007.
- [508] A. F. Donaldson, A. Miller, and M. Calder. Finding symmetry in models of concurrent systems by static channel diagram analysis. *Electr. Notes Theor. Comput. Sci.*, 128(6):161–177, 2005.
- [509] A. F. Donaldson, A. Miller, and M. Calder. Spin-to-grape: A tool for analysing symmetry in promela models. *Electr. Notes Theor. Comput. Sci.*, 139(1):3–23, 2005.
- [510] C. Dong, R. L. Griess Jr., and G. Höhn. Framed vertex operator algebras, codes and the Moonshine module. *Comm. Math. Phys.*, 193(2):407–448, 1998.
- [511] J. Draisma. Recognizing the symmetry type of O.D.E.s. *J. Pure Appl. Algebra*, 164(1-2):109–128, 2001. *Effective methods in algebraic geometry (Bath, 2000)*.
- [512] J. Draisma. On a conjecture of Sophus Lie. In *Differential equations and the Stokes phenomenon*, pages 65–87. World Sci. Publ., River Edge, NJ, 2002.
- [513] J. Draisma. Constructing Lie algebras of first order differential operators. *J. Symbolic Comput.*, 36(5):685–698, 2003.
- [514] J. Draisma. Small maximal spaces of non-invertible matrices. *Bull. London Math. Soc.*, 38(5):764–776, 2006.

- [515] A. Drápal and P. Vojtěchovský. Moufang loops that share associator and three quarters of their multiplication tables. *Rocky Mountain J. Math.*, 36(2):425–455, 2006.
- [516] A. Drápal and P. Vojtěchovský. Explicit constructions of loops with commuting inner mappings. *European J. Combin.*, 29(7):1662–1681, 2008.
- [517] B. Dubrovin, S. Liu, and Y. Zhang. Frobenius manifolds and central invariants for the Drinfeld-Sokolov biHamiltonian structures. *Adv. Math.*, 219(3):780–837, 2008.
- [518] J. Dumas, B. D. Saunders, and G. Villard. On efficient sparse integer matrix Smith normal form computations. *J. Symbolic Comput.*, 32(1-2):71–99, 2001. Computer algebra and mechanized reasoning (St. Andrews, 2000).
- [519] D. M. Duncan, T. R. Hoffman, and J. P. Solazzo. Equiangular tight frames and fourth root Seidel matrices. *Linear Algebra Appl.*, 432(11):2816–2823, 2010.
- [520] N. M. Dunfield and W. P. Thurston. The virtual Haken conjecture: experiments and examples. *Geom. Topol.*, 7:399–441, 2003.
- [521] M. Dutour. The six-dimensional Delaunay polytopes. *European J. Combin.*, 25(4):535–548, 2004.
- [522] M. Dutour and M. Deza. Goldberg-Coxeter construction for 3- and 4-valent plane graphs. *Electron. J. Combin.*, 11(1):Research Paper 20, 49 pp. (electronic), 2004.
- [523] M. Dutour, R. Erdahl, and K. Rybnikov. Perfect Delaunay polytopes in low dimensions. *Integers*, 7:A39, 49, 2007.
- [524] M. Dutour Sikirić and G. Ellis. Wythoff polytopes and low-dimensional homology of Mathieu groups. *J. Algebra*, 322(11):4143–4150, 2009.
- [525] M. Dutour Sikirić, Y. Itoh, and A. Poyarkov. Cube packings, second moment and holes. *European J. Combin.*, 28(3):715–725, 2007.
- [526] M. Dutour Sikirić, A. Schürmann, and F. Vallentin. The contact polytope of the Leech lattice. *Discrete Comput. Geom.*, 44(4):904–911, 2010.
- [527] A. Dzhumadi'daev and P. Zusmanovich. Commutative 2-cocycles on Lie algebras. *J. Algebra*, 324(4):732–748, 2010.
- [528] M. Edjvet and A. Juhász. Equations of length 4 and one-relator products. *Math. Proc. Cambridge Philos. Soc.*, 129(2):217–229, 2000.
- [529] M. Edjvet and A. Juhász. One-relator quotients of free products of cyclic groups. *Comm. Algebra*, 28(2):883–902, 2000.
- [530] M. Edjvet and R. M. Thomas. The groups $(l, m|n, k)$. *J. Pure Appl. Algebra*, 114(2):175–208, 1997.
- [531] M. Edjvet and G. Williams. The cyclically presented groups with relators $x_i x_{i+k} x_{i+l}$. *Groups Geom. Dyn.*, 4(4):759–775, 2010.

- [532] A. L. Edmonds. The partition problem for equifacetal simplices. *Beiträge Algebra Geom.*, 50(1):195–213, 2009.
- [533] F. Effenberger and W. Kühnel. Hamiltonian submanifolds of regular polytopes. *Discrete Comput. Geom.*, 43(2):242–262, 2010.
- [534] S. Egner and T. Beth. How to play M_{13} ? *Des. Codes Cryptogr.*, 16(3):243–247, 1999.
- [535] S. Egner, J. Johnson, D. Padua, M. Püschel, and J. Xiong. Automatic derivation and implementation of signal processing algorithms. *SIGSAM Bulletin*, 35(2):1–19, 2001.
- [536] S. Egner and M. Püschel. Solving puzzles related to permutation groups. In O. Gloor, editor, *ISSAC 98: Proceedings of the 1998 International Symposium on Symbolic and Algebraic Computation, August 13–15, 1998, University of Rostock, Germany*, pages 186–193, New York, NY 10036, USA, 1998. ACM Press.
- [537] S. Egner and M. Püschel. Automatic generation of fast discrete signal transforms. *IEEE Trans. Signal Process.*, 49(9):1992–2002, 2001.
- [538] S. Egner and M. Püschel. Symmetry-based matrix factorization. *J. Symbolic Comput.*, 37(2):157–186, 2004.
- [539] S. Egner, M. Püschel, and T. Beth. Decomposing a permutation into a conjugated tensor product. In *Proceedings of the 1997 International Symposium on Symbolic and Algebraic Computation (Kihei, HI)*, pages 101–108 (electronic), New York, 1997. ACM.
- [540] A. Egri-Nagy. *Algebraic Hierarchical Decomposition of Finite State Automata - A Computational Approach*. PhD thesis, University of Hertfordshire, 2005.
- [541] A. Egri-Nagy and C. L. Nehaniv. Algebraic hierarchical decomposition of finite state automata: Comparison of implementations for krohn-rhodes theory. In *Implementation and Application of Automata*, volume 3317 of *Lecture Notes in Computer Science*, pages 315–316. Springer, 2005.
- [542] B. Eick. *Spezielle PAG-Systeme im Computeralgebrasystem GAP*. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1993.
- [543] B. Eick. *Charakterisierung und Konstruktion von Frattinigruppen mit Anwendungen in der Konstruktion endlicher Gruppen*. PhD thesis, RWTH, Aachen, 1996.
- [544] B. Eick. The converse of a theorem of W. Gaschütz on Frattini subgroups. *Math. Z.*, 224(1):103–111, 1997.
- [545] B. Eick. Special presentations for finite soluble groups and computing (pre-)Frattini subgroups. In *Groups and computation, II (New Brunswick, NJ, 1995)*, volume 28 of *DIMACS Ser. Discrete Math. Theoret. Comput. Sci.*, pages 101–112. Amer. Math. Soc., Providence, RI, 1997.
- [546] B. Eick. *Algorithms for polycyclic groups*. Habilitationsschrift, University of Kassel, 2001.

- [547] B. Eick. Computing with infinite polycyclic groups. In *Groups and computation, III (Columbus, OH, 1999)*, volume 8 of *Ohio State Univ. Math. Res. Inst. Publ.*, pages 139–154. de Gruyter, Berlin, 2001.
- [548] B. Eick. On the Fitting subgroup of a polycyclic-by-finite group and its applications. *J. Algebra*, 242(1):176–187, 2001.
- [549] B. Eick. Orbit-stabilizer problems and computing normalizers for polycyclic groups. *J. Symbolic Comput.*, 34(1):1–19, 2002.
- [550] B. Eick. Computing the automorphism group of a solvable Lie algebra. *Linear Algebra Appl.*, 382:195–209, 2004.
- [551] B. Eick. Computational group theory. *Jahresber. Deutsch. Math.-Verein.*, 107(3):155–170, 2005.
- [552] B. Eick. Determination of the uniserial space groups with a given coclass. *J. London Math. Soc. (2)*, 71(3):622–642, 2005.
- [553] B. Eick. Automorphism groups of 2-groups. *J. Algebra*, 300(1):91–101, 2006.
- [554] B. Eick. Computing automorphism groups and testing isomorphisms for modular group algebras. *J. Algebra*, 320(11):3895–3910, 2008.
- [555] B. Eick. Schur multipliers of finite p -groups with fixed coclass. *Israel J. Math.*, 166:157–166, 2008.
- [556] B. Eick. Schur multipliers of infinite pro- p -groups with finite coclass. *Israel J. Math.*, 166:147–156, 2008.
- [557] B. Eick. Computing p -groups with trivial Schur multiplier. *J. Algebra*, 322(3):741–751, 2009.
- [558] B. Eick and D. Feichtenschlager. Constructing CF groups by coclass. *Experiment. Math.*, 18(2):205–211, 2009.
- [559] B. Eick, F. Gähler, and W. Nickel. Computing maximal subgroups and Wyckoff positions of space groups. *Acta Cryst. Sect. A*, 53(4):467–474, 1997.
- [560] B. Eick and B. Höfling. The solvable primitive permutation groups of degree at most 6560. *LMS J. Comput. Math.*, 6:29–39 (electronic), 2003.
- [561] B. Eick and A. Hulpke. Computing the maximal subgroups of a permutation group. I. In *Groups and computation, III (Columbus, OH, 1999)*, volume 8 of *Ohio State Univ. Math. Res. Inst. Publ.*, pages 155–168. de Gruyter, Berlin, 2001.
- [562] B. Eick, C. R. Leedham-Green, and E. A. O’Brien. Constructing automorphism groups of p -groups. *Comm. Algebra*, 30(5):2271–2295, 2002.
- [563] B. Eick and J. Müller. On p -groups forming Brauer pairs. *J. Algebra*, 304(1):286–303, 2006.

- [564] B. Eick, M. F. Newman, and E. A. O'Brien. The class-breadth conjecture revisited. *J. Algebra*, 300(1):384–393, 2006.
- [565] B. Eick and W. Nickel. Computing the Schur multiplier and the nonabelian tensor square of a polycyclic group. *J. Algebra*, 320(2):927–944, 2008.
- [566] B. Eick and E. A. O'Brien. Enumerating p -groups. *J. Austral. Math. Soc. Ser. A*, 67(2):191–205, 1999. Group theory.
- [567] B. Eick and E. A. O'Brien. The groups of order 512. In *Algorithmic algebra and number theory (Heidelberg, 1997)*, pages 379–380. Springer, Berlin, 1999.
- [568] B. Eick and G. Ostheimer. On the orbit-stabilizer problem for integral matrix actions of polycyclic groups. *Math. Comp.*, 72(243):1511–1529 (electronic), 2003.
- [569] B. Eick and C. R. B. Wright. Computing subgroups by exhibition in finite solvable groups. *J. Symbolic Comput.*, 33(2):129–143, 2002.
- [570] M. Eisermann. *Knotengruppen-Darstellungen und Invarianten von endlichem Typ*. Bonner Mathematische Schriften [Bonn Mathematical Publications], 327. Universität Bonn Mathematisches Institut, Bonn, 2000. Dissertation, Rheinische Friedrich-Wilhelms-Universität Bonn, Bonn, 2000.
- [571] M. Eisermann. Knot colouring polynomials. *Pacific J. Math.*, 231(2):305–336, 2007.
- [572] S. El-Zanati, O. Heden, G. Seelinger, P. Sissokho, L. Spence, and C. Vanden Eynden. Partitions of the 8-dimensional vector space over $\text{GF}(2)$. *J. Combin. Des.*, 18(6):462–474, 2010.
- [573] P. Elbaz-Vincent, H. Gangl, and C. Soulé. Quelques calculs de la cohomologie de $\text{GL}_N(\mathbb{Z})$ et de la K -théorie de \mathbb{Z} . *C. R. Math. Acad. Sci. Paris*, 335(4):321–324, 2002.
- [574] M. Elder, J. McCammond, and J. Meier. Combinatorial conditions that imply word-hyperbolicity for 3-manifolds. *Topology*, 42(6):1241–1259, 2003.
- [575] G. Ellis. Computing group resolutions. *J. Symbolic Comput.*, 38(3):1077–1118, 2004.
- [576] G. Ellis and A. McDermott. Tensor products of prime-power groups. *J. Pure Appl. Algebra*, 132(2):119–128, 1998.
- [577] G. Ellis and R. Mikhailov. A colimit of classifying spaces. *Adv. Math.*, 223(6):2097–2113, 2010.
- [578] G. Ellis and E. Sköldbberg. The $K(\pi, 1)$ conjecture for a class of Artin groups. *Comment. Math. Helv.*, 85(2):409–415, 2010.
- [579] G. Ellis and P. Smith. Computing group cohomology rings from the Lyndon-Hochschild-Serre spectral sequence. *J. Symbolic Comput.*, 46(4):360–370, 2011.
- [580] G. Ellis and G. Williams. On the cohomology of generalized triangle groups. *Comment. Math. Helv.*, 80(3):571–591, 2005.

- [581] G. Entz and H. Pahlings. The Dade conjecture for the McLaughlin group. In *Groups St. Andrews 1997 in Bath, I*, volume 260 of *London Math. Soc. Lecture Note Ser.*, pages 253–266. Cambridge Univ. Press, Cambridge, 1999.
- [582] S. Estrada, J. R. García-Rozas, J. Peralta, and E. Sánchez-García. Group convolutional codes. *Adv. Math. Commun.*, 2(1):83–94, 2008.
- [583] S. Evans-Riley, M. F. Newman, and C. Schneider. On the soluble length of groups with prime-power order. *Bull. Austral. Math. Soc.*, 59(2):343–346, 1999.
- [584] G. Exoo. Voltage graphs, group presentations and cages. *Electron. J. Combin.*, 11(1):Note 2, 7 pp. (electronic), 2004.
- [585] G. Exoo and R. Jajcay. On the girth of voltage graph lifts. *European J. Combin.*, 32(4):554–562, 2011.
- [586] X. Fang, X. Ma, and J. Wang. On locally primitive Cayley graphs of finite simple groups. *J. Combin. Theory Ser. A*, 118(3):1039–1051, 2011.
- [587] X. G. Fang, L. J. Jia, and J. Wang. On the automorphism groups of symmetric graphs admitting an almost simple group. *European J. Combin.*, 29(6):1467–1472, 2008.
- [588] X. G. Fang, C. H. Li, and J. Wang. Finite vertex primitive 2-arc regular graphs. *J. Algebraic Combin.*, 25(2):125–140, 2007.
- [589] A. Feldman. Properties of subgroups of solvable groups that imply they are normally embedded. *Glasg. Math. J.*, 45(1):45–52, 2003.
- [590] A. D. Feldman and A. Dasgupta. An intersection property of Sylow 2-subgroups in non-solvable groups. *Math. Proc. Cambridge Philos. Soc.*, 122(2):261–268, 1997.
- [591] V. Felsch, D. L. Johnson, J. Neubüser, and S. V. Tsaranov. The structure of certain Coxeter groups. In *Groups '93 Galway/St. Andrews, Vol. 1 (Galway, 1993)*, volume 211 of *London Math. Soc. Lecture Note Ser.*, pages 177–190. Cambridge Univ. Press, Cambridge, 1995.
- [592] B. Feng, A. Hanany, Y. He, and N. Prezas. Discrete torsion, covering groups and quiver diagrams. *J. High Energy Phys.*, (4):Paper 37, 27, 2001.
- [593] B. Feng, A. Hanany, Y. He, and N. Prezas. Discrete torsion, non-abelian orbifolds and the Schur multiplier. *J. High Energy Phys.*, (1):Paper 33, 25, 2001.
- [594] B. Feng, A. Hanany, Y. He, and N. Prezas. Discrete torsion, non-abelian orbifolds and the Schur multiplier. In *Horizons in world physics. Vol. 245*, volume 245 of *Horiz. World Phys.*, pages 27–44. Nova Sci. Publ., New York, 2004.
- [595] V. H. Fernandes. The monoid of all injective orientation preserving partial transformations on a finite chain. *Comm. Algebra*, 28(7):3401–3426, 2000.
- [596] V. H. Fernandes. The monoid of all injective order preserving partial transformations on a finite chain. *Semigroup Forum*, 62(2):178–204, 2001.

- [597] V. H. Fernandes, G. M. S. Gomes, and M. M. Jesus. Presentations for some monoids of partial transformations on a finite chain. *Comm. Algebra*, 33(2):587–604, 2005.
- [598] G. A. Fernández-Alcober and L. Legarreta. Conjugacy classes of non-normal subgroups in finite nilpotent groups. *J. Group Theory*, 11(3):381–397, 2008.
- [599] G. A. Fernández-Alcober and A. Moretó. Groups with two extreme character degrees and their normal subgroups. *Trans. Amer. Math. Soc.*, 353(6):2171–2192 (electronic), 2001.
- [600] G. A. Fernández-Alcober and R. T. Shepherd. On the order of p -groups of abundance zero. *J. Algebra*, 201(2):392–400, 1998.
- [601] P. Fernandez-Ferreiros and M. A. Gomez-Molleda. Deciding the nilpotency of the Galois group by computing elements in the centre. *Math. Comp.*, 73(248):2043–2060, 2004.
- [602] D. L. Ferrario. Equivariant deformations of manifolds and real representations. *Pacific J. Math.*, 196(2):353–368, 2000.
- [603] D. L. Ferrario. Self homotopy equivalences of equivariant spheres. In *Groups of homotopy self-equivalences and related topics (Gargnano, 1999)*, volume 274 of *Contemp. Math.*, pages 105–131. Amer. Math. Soc., Providence, RI, 2001.
- [604] D. L. Ferrario and S. Terracini. On the existence of collisionless equivariant minimizers for the classical n -body problem. *Invent. Math.*, 155(2):305–362, 2004.
- [605] N. C. Fiala and W. H. Haemers. 5-chromatic strongly regular graphs. *Discrete Math.*, 306(23):3083–3096, 2006.
- [606] F. Fiedler, M. H. Klin, and M. Muzychuk. Small vertex-transitive directed strongly regular graphs. *Discrete Math.*, 255(1-3):87–115, 2002. Combinatorics '98 (Palermo).
- [607] C. Fieker and J. Klüners. Minimal discriminants for fields with small Frobenius groups as Galois groups. *J. Number Theory*, 99(2):318–337, 2003.
- [608] J. E. Fields, P. Gaborit, W. C. Huffman, and V. Pless. On the classification of extremal even formally self-dual codes. *Des. Codes Cryptogr.*, 18(1-3):125–148, 1999. Designs and codes—a memorial tribute to Ed Assmus.
- [609] J. E. Fields, P. Gaborit, W. C. Huffman, and V. Pless. On the classification of extremal even formally self-dual codes of lengths 20 and 22. *Discrete Appl. Math.*, 111(1-2):75–86, 2001.
- [610] J. Fitzgerald, I. J. Hayes, and A. Tarlecki. Fm 2005: Formal methods, international symposium of formal methods europe, newcastle, uk, july 18-22, 2005, proceedings. In *FM*, volume 3582 of *Lecture Notes in Computer Science*, 2005.
- [611] D. L. Flannery and E. A. O'Brien. Computing 2-cocycles for central extensions and relative difference sets. *Comm. Algebra*, 28(4):1939–1955, 2000.
- [612] D. L. Flannery and E. A. O'Brien. Linear groups of small degree over finite fields. *Internat. J. Algebra Comput.*, 15(3):467–502, 2005.

- [613] P. Fleischmann, G. O. Michler, P. Roelse, J. Rosenboom, R. Staszewski, C. Wagner, and M. Weller. *Linear algebra over small finite fields on parallel machines*, volume 23 of *Vorlesungen aus dem Fachbereich Mathematik der Universität GH Essen [Lecture Notes in Mathematics at the University of Essen]*. Universität Essen Fachbereich Mathematik, Essen, 1995.
- [614] T. Foguel and M. Kinyon. Uniquely 2-divisible Bol loops. *J. Algebra Appl.*, 9(4):591–601, 2010.
- [615] E. Formanek, W. Lee, I. Sysoeva, and M. Vazirani. The irreducible complex representations of the braid group on n strings of degree $\leq n$. *J. Algebra Appl.*, 2(3):317–333, 2003.
- [616] S. Fouladi, A. R. Jamali, and R. Orfi. Some 3-generator, 3-relation finite 2-groups. *Comm. Algebra*, 37(1):40–46, 2009.
- [617] R. Fowler and G. Röhrle. Spherical nilpotent orbits in positive characteristic. *Pacific J. Math.*, 237(2):241–286, 2008.
- [618] A. Francis. Centralizers of Iwahori-Hecke algebras. II. The general case. *Algebra Colloq.*, 10(1):95–100, 2003.
- [619] E. Freitag and R. Salvati Manni. The Burkhardt group and modular forms. *Transform. Groups*, 9(1):25–45, 2004.
- [620] S. Freyre, M. Graña, and L. Vendramin. On Nichols algebras over $SL(2, \mathbb{F}_q)$ and $GL(2, \mathbb{F}_q)$. *J. Math. Phys.*, 48(12):123513, 11, 2007.
- [621] S. Freyre, M. Graña, and L. Vendramin. On Nichols algebras over $PGL(2, q)$ and $PSL(2, q)$. *J. Algebra Appl.*, 9(2):195–208, 2010.
- [622] M. E. Frías-Armenta, V. Neumann-Lara, and M. A. Pizaña. Dismantlings and iterated clique graphs. *Discrete Math.*, 282(1-3):263–265, 2004.
- [623] O. D. Friedrichs. *Euclidicity criteria for three-dimensional branched triangulations*. PhD thesis, Universität Bielefeld, 1994.
- [624] H. Fripertinger. The cycle index of the symmetry group of the fullerene C_{60} . *Match*, (33):121–138, 1996.
- [625] H. Fripertinger. Enumeration of semilinear isometry classes of linear codes. *proc. of the conference on Algebraic Combinatorics and Applications, Designs and Codes*, pages 100–122, 2005.
- [626] H. Fripertinger. Enumeration of the semilinear isometry classes of linear codes. *Bayreuth. Math. Schr.*, (74):100–122, 2005.
- [627] D. Frohardt, R. Guralnick, and K. Magaard. Genus 0 actions of groups of Lie rank 1. In *Arithmetic fundamental groups and noncommutative algebra (Berkeley, CA, 1999)*, volume 70 of *Proc. Sympos. Pure Math.*, pages 449–483. Amer. Math. Soc., Providence, RI, 2002.

- [628] M. Fuchs. Erkennungsalgorithmen für Gruppen, implementiert in GAP. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, June 1996.
- [629] F. Gähler. *Computer checking of the subgroup data*, volume A1 of *International Tables for Crystallography*, pages 27–28. Kluwer Academic Publishers, 2006. Published for the International Union of Crystallography.
- [630] J. A. Gallian. *Contemporary Abstract Algebra*. Houghton-Mifflin, fifth edition, 2002.
- [631] S. Ganief and J. Moori. (p, q, r) -generations and nX -complementary generations of the sporadic groups HS and McL. *J. Algebra*, 188(2):531–546, 1997.
- [632] S. Ganief and J. Moori. $(2, 3, t)$ -generations for the Janko group J_3 . *Comm. Algebra*, 23(12):4427–4437, 1995.
- [633] S. Ganief and J. Moori. (p, q, r) -generations of the smallest Conway group Co_3 . *J. Algebra*, 188(2):516–530, 1997.
- [634] S. Ganief and J. Moori. Generating pairs for the Conway groups Co_2 and Co_3 . *J. Group Theory*, 1(3):237–256, 1998.
- [635] S. Ganief and J. Moori. 2-generations of the fourth Janko group J_4 . *J. Algebra*, 212(1):305–322, 1999.
- [636] S. Ganief and J. Moori. On the spread of the sporadic simple groups. *Comm. Algebra*, 29(8):3239–3255, 2001.
- [637] D. Garber, M. Teicher, and U. Vishne. π_1 -classification of real arrangements with up to eight lines. *Topology*, 42(1):265–289, 2003.
- [638] P. A. García-Sánchez and I. Ojeda. Uniquely presented finitely generated commutative monoids. *Pacific J. Math.*, 248(1):91–105, 2010.
- [639] M. Garonzi and A. Maróti. Covering certain wreath products with proper subgroups. *J. Group Theory*, 14(1):103–125, 2011.
- [640] D. Garrison and L. Kappe. On some subnormality conditions in metabelian groups. In *Computational group theory and the theory of groups*, volume 470 of *Contemp. Math.*, pages 89–103. Amer. Math. Soc., Providence, RI, 2008.
- [641] D. J. Garrison. *Subnormality conditions in metabelian groups*. ProQuest LLC, Ann Arbor, MI, 1995. Thesis (Ph.D.)—State University of New York at Binghamton.
- [642] K. Gatermann and P. A. Parrilo. Symmetry groups, semidefinite programs, and sums of squares. *J. Pure Appl. Algebra*, 192(1-3):95–128, 2004.
- [643] N. Gavioli, L. Legarreta, C. Sica, and M. Tota. On the number of conjugacy classes of normalisers in a finite p -group. *Bull. Austral. Math. Soc.*, 73(2):219–230, 2006.
- [644] N. Gavioli, V. Monti, and C. M. Scoppola. Soluble normally constrained pro- p -groups. *J. Group Theory*, 10(3):321–345, 2007.

- [645] V. Gebhardt. Efficient collection in infinite polycyclic groups. *J. Symbolic Comput.*, 34(3):213–228, 2002.
- [646] V. Gebhardt. A new approach to the conjugacy problem in Garside groups. *J. Algebra*, 292(1):282–302, 2005.
- [647] V. Gebhardt and J. González-Meneses. Solving the conjugacy problem in Garside groups by cyclic sliding. *J. Symbolic Comput.*, 45(6):629–656, 2010.
- [648] M. Geck. Brauer trees of Hecke algebras. *Comm. Algebra*, 20(10):2937–2973, 1992.
- [649] M. Geck. The decomposition numbers of the Hecke algebra of type E_6^* . *Math. Comp.*, 61(204):889–899, 1993.
- [650] M. Geck. On the character values of Iwahori-Hecke algebras of exceptional type. *Proc. London Math. Soc. (3)*, 68(1):51–76, 1994.
- [651] M. Geck. *Beiträge zur Darstellungstheorie von Iwahori-Hecke-Algebren*. Number 11 in Aachener Beiträge zur Mathematik. Verlag der Augustinus Buchhandlung, Aachen, 1995. Habilitationsschrift.
- [652] M. Geck. Representations of Hecke algebras at roots of unity. *Astérisque*, (252):Exp. No. 836, 3, 33–55, 1998. Séminaire Bourbaki. Vol. 1997/98.
- [653] M. Geck, G. Hiss, F. Lübeck, G. Malle, and G. Pfeiffer. CHEVIE—a system for computing and processing generic character tables. *Appl. Algebra Engrg. Comm. Comput.*, 7(3):175–210, 1996. Computational methods in Lie theory (Essen, 1994).
- [654] M. Geck, G. Hiss, and G. Malle. Cuspidal unipotent Brauer characters. *J. Algebra*, 168(1):182–220, 1994.
- [655] M. Geck, G. Hiss, and G. Malle. Towards a classification of the irreducible representations in non-describing characteristic of a finite group of Lie type. *Math. Z.*, 221(3):353–386, 1996.
- [656] M. Geck and S. Kim. Bases for the Bruhat-Chevalley order on all finite Coxeter groups. *J. Algebra*, 197(1):278–310, 1997.
- [657] M. Geck, S. Kim, and G. Pfeiffer. Minimal length elements in twisted conjugacy classes of finite Coxeter groups. *J. Algebra*, 229(2):570–600, 2000.
- [658] M. Geck and K. Lux. The decomposition numbers of the Hecke algebra of type F_4 . *Manuscripta Math.*, 70(3):285–306, 1991.
- [659] M. Geck and G. Malle. On special pieces in the unipotent variety. *Experiment. Math.*, 8(3):281–290, 1999.
- [660] M. Geck and J. Michel. “Good” elements of finite Coxeter groups and representations of Iwahori-Hecke algebras. *Proc. London Math. Soc. (3)*, 74(2):275–305, 1997.
- [661] M. Geck and G. Pfeiffer. Unipotent characters of the Chevalley groups $D_4(q)$, q odd. *Manuscripta Math.*, 76(3-4):281–304, 1992.

- [662] M. Geck and G. Pfeiffer. On the irreducible characters of Hecke algebras. *Adv. Math.*, 102(1):79–94, 1993.
- [663] K. Geissler and J. Klüners. Galois group computation for rational polynomials. *J. Symbolic Comput.*, 30(6):653–674, 2000. Algorithmic methods in Galois theory.
- [664] I. P. Gent, W. Harvey, T. Kelsey, and S. Linton. Generic sbdd using computational group theory. In *PRINCIPLES AND PRACTICE OF CONSTRAINT PROGRAMMING - CP 2003*, pages 333–347, 2003.
- [665] N. Ghani and A. Heyworth. A rewriting alternative to reidemeister-schreier. In *REWRITING TECHNIQUES AND APPLICATIONS*, pages 452–466, 2003.
- [666] N. D. Gilbert and M. Samman. Endomorphism seminear-rings of Brandt semigroups. *Comm. Algebra*, 38(11):4028–4041, 2010.
- [667] J. Gildea. The structure of the unit group of the group algebra of Pauli’s group over any field of characteristic 2. *Internat. J. Algebra Comput.*, 20(5):721–729, 2010.
- [668] M. K. Gilson and K. K. Irikura. Symmetry numbers for rigid, flexible, and fluxional molecules: Theory and applications. *J. Phys. Chem. B.*, (114):16304–16317, 2010.
- [669] J. Ginsburg and B. Sands. On the number of elements dominated by a subgroup. *Ars Combin.*, 74:103–127, 2005.
- [670] V. Ginzburg. Principal nilpotent pairs in a semisimple Lie algebra. I. *Invent. Math.*, 140(3):511–561, 2000.
- [671] E. Girondo. Multiply quasiplatonic Riemann surfaces. *Experiment. Math.*, 12(4):463–475, 2003.
- [672] M. Giudici. New constructions of groups without semiregular subgroups. *Comm. Algebra*, 35(9):2719–2730, 2007.
- [673] M. Giudici and S. Hart. Small maximal sum-free sets. *Electron. J. Combin.*, 16(1):Research Paper 59, 17, 2009.
- [674] M. Giudici, C. H. Li, C. E. Praeger, A. Seress, and V. I. Trofimov. On limit graphs of finite vertex-primitive graphs. *J. Combin. Theory Ser. A*, 114(1):110–134, 2007.
- [675] S. P. Glasby and C. E. Praeger. Towards an efficient Meat-Axe algorithm using f -cyclic matrices: the density of unicyclic matrices in $M(n, q)$. *J. Algebra*, 322(3):766–790, 2009.
- [676] D. Gluck and K. Magaard. Base sizes and regular orbits for coprime affine permutation groups. *J. London Math. Soc. (2)*, 58(3):603–618, 1998.
- [677] D. Gluck and K. Magaard. Cross-characteristic character and fixed point space ratios for groups of Lie type. *J. Algebra*, 204(1):188–201, 1998.
- [678] D. Gluck, K. Magaard, U. Riese, and P. Schmid. The solution of the $k(GV)$ -problem. *J. Algebra*, 279(2):694–719, 2004.

- [679] C. Godsil and K. Meagher. A new proof of the Erdős-Ko-Rado theorem for intersecting families of permutations. *European J. Combin.*, 30(2):404–414, 2009.
- [680] C. Godsil and K. Meagher. Multiplicity-free permutation representations of the symmetric group. *Ann. Comb.*, 13(4):463–490, 2010.
- [681] A. Golemac and T. Vučićić. New difference sets in nonabelian groups of order 100. *J. Combin. Des.*, 9(6):424–434, 2001.
- [682] A. Golemac, T. Vučićić, and J. Mandić. One $(96, 20, 4)$ -symmetric design and related non-abelian difference sets. *Des. Codes Cryptogr.*, 37(1):5–13, 2005.
- [683] H. W. Gollan and G. O. Michler. Construction of a 45,694-dimensional simple module of Lyons’ sporadic group over $\text{GF}(2)$. *Linear Algebra Appl.*, 256:185–197, 1997.
- [684] G. M. S. Gomes, H. Sezinando, and J. Pin. Presentations of the Schützenberger product of n groups. *Comm. Algebra*, 34(4):1213–1235, 2006.
- [685] S. Goodwin. Algorithmic testing for dense orbits of Borel subgroups. *J. Pure Appl. Algebra*, 197(1-3):171–181, 2005.
- [686] S. Goodwin and G. Röhrle. Finite orbit modules for parabolic subgroups of exceptional groups. *Indag. Math. (N.S.)*, 15(2):189–207, 2004.
- [687] S. M. Goodwin. Relative Springer isomorphisms. *J. Algebra*, 290(1):266–281, 2005.
- [688] S. M. Goodwin and G. Röhrle. Calculating conjugacy classes in Sylow p -subgroups of finite Chevalley groups. *J. Algebra*, 321(11):3321–3334, 2009.
- [689] S. M. Goodwin, G. Röhrle, and G. Uibly. On 1-dimensional representations of finite W -algebras associated to simple Lie algebras of exceptional type. *LMS J. Comput. Math.*, 13:357–369, 2010.
- [690] P. Govaerts, D. Jungnickel, L. Storme, and J. A. Thas. Some new maximal sets of mutually orthogonal Latin squares. In *Proceedings of the Conference on Finite Geometries (Oberwolfach, 2001)*, volume 29, pages 141–147, 2003.
- [691] J. Grabowski, J. Grell, and L. Zlatina. Space models of molecules based on interatomic distances and point symmetry group. *Match*, (34):123–155, 1996.
- [692] J. E. Grabowski. Examples of quantum cluster algebras associated to partial flag varieties. *J. Pure Appl. Algebra*, 215(7):1582–1595, 2011.
- [693] A. Gracia-Saz and K. C. H. Mackenzie. Duality functors for triple vector bundles. *Lett. Math. Phys.*, 90(1-3):175–200, 2009.
- [694] P. Graczyk, G. Letac, and H. Massam. The complex Wishart distribution and the symmetric group. *Ann. Statist.*, 31(1):287–309, 2003.
- [695] S. Graf and W. Zhang. Automated technology for verification and analysis, 4th international symposium, atva 2006, beijing, china, october 23-26, 2006. In *ATVA*, volume 4218 of *Lecture Notes in Computer Science*, 2006.

- [696] R. Gramlich. *On graphs, geometries, and groups of Lie type*. ProQuest LLC, Ann Arbor, MI, 2002. Thesis (Dr.)—Technische Universiteit Eindhoven (The Netherlands).
- [697] R. Gramlich, C. Hoffman, W. Nickel, and S. Shpectorov. Even-dimensional orthogonal groups as amalgams of unitary groups. *J. Algebra*, 284(1):141–173, 2005.
- [698] R. Gramlich, M. Horn, and W. Nickel. The complete Phan-type theorem for $\mathrm{Sp}(2n, q)$. *J. Group Theory*, 9(5):603–626, 2006.
- [699] R. Gramlich, M. Horn, and W. Nickel. Odd-dimensional orthogonal groups as amalgams of unitary groups. II. Machine computations. *J. Algebra*, 316(2):591–607, 2007.
- [700] D. J. Green, L. Héthelyi, and M. Lilienthal. On Oliver’s p -group conjecture. *Algebra Number Theory*, 2(8):969–977, 2008.
- [701] D. J. Green, L. Héthelyi, and N. Mazza. On Oliver’s p -group conjecture. II. *Math. Ann.*, 347(1):111–122, 2010.
- [702] D. J. Green and S. A. King. The computation of the cohomology rings of all groups of order 128. *J. Algebra*, 325:352–363, 2011.
- [703] E. L. Green, L. S. Heath, and C. A. Struble. Constructing endomorphism rings via duals. In *Proceedings of the 2000 International Symposium on Symbolic and Algebraic Computation (St. Andrews)*, pages 129–136 (electronic), New York, 2000. ACM.
- [704] E. L. Green, L. S. Heath, and C. A. Struble. Constructing homomorphism spaces and endomorphism rings. *J. Symbolic Comput.*, 32(1-2):101–117, 2001. Computer algebra and mechanized reasoning (St. Andrews, 2000).
- [705] C. Greenhill. An algorithm for recognising the exterior square of a matrix. *Linear and Multilinear Algebra*, 46(3):213–244, 1999.
- [706] C. Greenhill. An algorithm for recognising the exterior square of a multiset. *LMS J. Comput. Math.*, 3:96–116 (electronic), 2000.
- [707] C. S. Greenhill. Theoretical and experimental comparison of efficiency of finite field extensions. *J. Symbolic Comput.*, 20(4):419–429, 1995.
- [708] D. Grier. Exploring the peaks of s_n . Undergraduate senior thesis, Cornell, May 2002.
- [709] A. N. Grishkov and A. V. Zavarnitsine. Lagrange’s theorem for Moufang loops. *Math. Proc. Cambridge Philos. Soc.*, 139(1):41–57, 2005.
- [710] R. P. Grizzard. On nonprojective block components of Lefschetz characters for sporadic geometries. *Comm. Algebra*, 37(12):4489–4502, 2009.
- [711] G. Gromadzki, A. Weaver, and A. Wootton. On gonality of Riemann surfaces. *Geom. Dedicata*, 149:1–14, 2010.
- [712] D. Gross, K. Audenaert, and J. Eisert. Evenly distributed unitaries: on the structure of unitary designs. *J. Math. Phys.*, 48(5):052104, 22, 2007.

- [713] R. Grosse-Kunstleve. Algorithms for deriving crystallographic space-group information. *ACTA CRYSTALLOGR A*, 55(2):383–395, 1999.
- [714] L. C. Grove. *Groups and characters*. Pure and Applied Mathematics (New York). John Wiley & Sons Inc., New York, 1997. A Wiley-Interscience Publication.
- [715] D. Groves. A note on nonidentical Lie relators. *J. Algebra*, 211(1):15–25, 1999.
- [716] H. G. Grundman and T. L. Smith. Galois realizability of a central C_4 -extension of D_8 . *J. Algebra*, 322(10):3492–3498, 2009.
- [717] H. G. Grundman and T. L. Smith. Galois realizability of groups of order 64. *Cent. Eur. J. Math.*, 8(5):846–854, 2010.
- [718] H. G. Grundman and T. L. Smith. Realizability and automatic realizability of Galois groups of order 32. *Cent. Eur. J. Math.*, 8(2):244–260, 2010.
- [719] H. G. Grundman and G. L. Stewart. Galois realizability of non-split group extensions of C_2 by $(C_2)^r \times (C_4)^s \times (D_4)^t$. *J. Algebra*, 272(2):425–434, 2004.
- [720] N. D. Gupta and V. D. Mazurov. On groups with small orders of elements. *Bull. Austral. Math. Soc.*, 60(2):197–205, 1999.
- [721] R. Guralnick and K. Magaard. On the minimal degree of a primitive permutation group. *J. Algebra*, 207(1):127–145, 1998.
- [722] R. Guralnick, T. Penttila, C. E. Praeger, and J. Saxl. Linear groups with orders having certain large prime divisors. *Proc. London Math. Soc. (3)*, 78(1):167–214, 1999.
- [723] R. M. Guralnick and W. M. Kantor. Probabilistic generation of finite simple groups. *J. Algebra*, 234(2):743–792, 2000. Special issue in honor of Helmut Wielandt.
- [724] R. M. Guralnick and D. Perkinson. Permutation polytopes and indecomposable elements in permutation groups. *J. Combin. Theory Ser. A*, 113(7):1243–1256, 2006.
- [725] R. M. Guralnick and P. H. Tiep. Decompositions of small tensor powers and Larsen’s conjecture. *Represent. Theory*, 9:138–208 (electronic), 2005.
- [726] H. Haanpää and P. Kaski. The near resolvable 2-(13, 4, 3) designs and thirteen-player whist tournaments. *Des. Codes Cryptogr.*, 35(3):271–285, 2005.
- [727] H. Haanpää and P. R. J. Östergård. Classification of whist tournaments with up to 12 players. *Discrete Appl. Math.*, 129(2-3):399–407, 2003.
- [728] W. H. Haemers and E. Kuijken. The Hermitian two-graph and its code. *Linear Algebra Appl.*, 356:79–93, 2002. Special issue on algebraic graph theory (Edinburgh, 2001).
- [729] W. H. Haemers and E. Spence. Enumeration of cospectral graphs. *European J. Combin.*, 25(2):199–211, 2004.
- [730] M. Hagedorn. Schnitte und erzeugnisse rationaler matrixgruppen. Diplomarbeit, Lehrstuhl B für Mathematik, RWTH, Aachen, 1997.

- [731] J. I. Hall and L. H. Soicher. Presentations of some 3-transposition groups. *Comm. Algebra*, 23(7):2517–2559, 1995.
- [732] S. Haller. Entwicklung und Implementierung eines Algorithmus zur Berechnung von Kommutatoren unipotenter Elemente in Chevalley-Gruppen. Diplomarbeit, Arbeitsgruppe Algebra, Mathematisches Institut, Justus-Liebig Universität Gießen, Gießen, Germany, April 2000.
- [733] A. Hanaki and I. Miyamoto. Classification of association schemes with 16 and 17 vertices. *Kyushu J. Math.*, 52(2):383–395, 1998.
- [734] A. Hanany and Y. He. A monograph on the classification of the discrete subgroups of $SU(4)$. *J. High Energy Phys.*, (2):Paper 27, 12, 2001.
- [735] J. M. Harris. The Kauffman bracket skein module of surgery on a $(2, 2b)$ torus link. *Pacific J. Math.*, 245(1):119–140, 2010.
- [736] M. I. Hartley. Quotients of some finite universal locally projective polytopes. *Discrete Comput. Geom.*, 29(3):435–443, 2003.
- [737] M. I. Hartley. Locally projective polytopes of type $\{4, 3, \dots, 3, p\}$. *J. Algebra*, 290(2):322–336, 2005.
- [738] M. I. Hartley. Simpler tests for semisparsely subgroups. *Ann. Comb.*, 10(3):343–352, 2006.
- [739] M. I. Hartley. An exploration of locally projective polytopes. *Combinatorica*, 28(3):299–314, 2008.
- [740] M. I. Hartley. Covers \mathcal{P} for abstract regular polytopes \mathcal{Q} such that $\mathcal{Q} = \mathcal{P}/\mathbf{Z}_p^k$. *Discrete Comput. Geom.*, 44(4):844–859, 2010.
- [741] M. I. Hartley and A. Hulpke. Polytopes derived from sporadic simple groups. *Contrib. Discrete Math.*, 5(2):106–118, 2010.
- [742] M. I. Hartley and D. Leemans. Quotients of a universal locally projective polytope of type $\{5, 3, 5\}$. *Math. Z.*, 247(4):663–674, 2004.
- [743] M. I. Hartley and D. Leemans. On locally spherical polytopes of type $\{5, 3, 5\}$. *Discrete Math.*, 309(1):247–254, 2009.
- [744] N. M. Hassan. *Dade’s Conjecture*. PhD thesis, ELTE, Budapest, 1998.
- [745] N. M. Hassan and E. Horváth. Some remarks on Dade’s conjecture. *Math. Pannon.*, 9(2):181–194, 1998.
- [746] N. M. Hassan and E. Horváth. Dade’s conjecture for the simple Higman-Sims group. In *Groups St. Andrews 1997 in Bath, I*, volume 260 of *London Math. Soc. Lecture Note Ser.*, pages 329–345. Cambridge Univ. Press, Cambridge, 1999.
- [747] T. Hausel, E. Makai Jr., and A. Szűcs. Inscribing cubes and covering by rhombic dodecahedra via equivariant topology. *Mathematika*, 47(1-2):371–397 (2002), 2000.

- [748] G. Havas and D. F. Holt. On Coxeter's families of group presentations. *J. Algebra*, 324(5):1076–1082, 2010.
- [749] G. Havas, D. F. Holt, P. E. Kenne, and S. Rees. Some challenging group presentations. *J. Austral. Math. Soc. Ser. A*, 67(2):206–213, 1999. Group theory.
- [750] G. Havas, C. R. Leedham-Green, E. A. O'Brien, and M. C. Slattery. Certain Roman and flock generalized quadrangles have nonisomorphic elation groups. *Adv. Geom.*, 6(3):389–395, 2006.
- [751] G. Havas, C. R. Leedham-Green, E. A. O'Brien, and M. C. Slattery. Computing with elation groups. In *Finite geometries, groups, and computation*, pages 95–102. Walter de Gruyter GmbH & Co. KG, Berlin, 2006.
- [752] G. Havas and J. X. Lian. A new problem in string searching. In *Algorithms and Computation*, volume 834 of *Lecture Notes in Computer Science*, pages 660–668. Springer, 1994.
- [753] G. Havas, B. S. Majewski, and K. R. Matthews. Extended GCD and Hermite normal form algorithms via lattice basis reduction. *Experiment. Math.*, 7(2):125–136, 1998.
- [754] G. Havas, M. F. Newman, A. C. Niemeyer, and C. C. Sims. Groups with exponent six. *Comm. Algebra*, 27(8):3619–3638, 1999.
- [755] G. Havas, M. F. Newman, A. C. Niemeyer, and C. C. Sims. Computing in groups with exponent six. In *Computational and geometric aspects of modern algebra (Edinburgh, 1998)*, volume 275 of *London Math. Soc. Lecture Note Ser.*, pages 87–100. Cambridge Univ. Press, Cambridge, 2000.
- [756] G. Havas, M. F. Newman, and E. A. O'Brien. Groups of deficiency zero. In *Geometric and computational perspectives on infinite groups (Minneapolis, MN and New Brunswick, NJ, 1994)*, volume 25 of *DIMACS Ser. Discrete Math. Theoret. Comput. Sci.*, pages 53–67. Amer. Math. Soc., Providence, RI, 1996.
- [757] G. Havas, M. F. Newman, and E. A. O'Brien. On the efficiency of some finite groups. *Comm. Algebra*, 32(2):649–656, 2004.
- [758] G. Havas and M. Ollila. Application of substring searching methods to group presentations. In *Proceedings of the Sixteenth Australian Computer Science Conference (ACSC-16) (Brisbane, 1993)*, volume 15, pages 587–593, 1993.
- [759] G. Havas and C. Ramsay. Short balanced presentations of perfect groups. In *Groups St. Andrews 2001 in Oxford. Vol. I*, volume 304 of *London Math. Soc. Lecture Note Ser.*, pages 238–243. Cambridge Univ. Press, Cambridge, 2003.
- [760] G. Havas and E. F. Robertson. Application of computational tools for finitely presented groups. In *Computational support for discrete mathematics (Piscataway, NJ, 1992)*, volume 15 of *DIMACS Ser. Discrete Math. Theoret. Comput. Sci.*, pages 29–39. Amer. Math. Soc., Providence, RI, 1994.
- [761] G. Havas and E. F. Robertson. Central factors of deficiency zero groups. *Comm. Algebra*, 24(11):3483–3487, 1996.

- [762] G. Havas and E. F. Robertson. Irreducible cyclic presentations of the trivial group. *Experiment. Math.*, 12(4):487–490, 2003.
- [763] G. Havas and E. F. Robertson. The $F^{a,b,c}$ conjecture. I. *Irish Math. Soc. Bull.*, (56):75–80, 2005.
- [764] G. Havas, E. F. Robertson, and D. C. Sutherland. The $F^{a,b,c}$ conjecture is true. II. *J. Algebra*, 300(1):57–72, 2006.
- [765] G. Havas, E. F. Robertson, and D. C. Sutherland. Behind and beyond a theorem on groups related to trivalent graphs. *J. Aust. Math. Soc.*, 85(3):323–332, 2008.
- [766] G. Havas and C. C. Sims. A presentation for the Lyons simple group. In *Computational methods for representations of groups and algebras (Essen, 1997)*, volume 173 of *Progr. Math.*, pages 241–249. Birkhäuser, Basel, 1999.
- [767] G. Havas, L. H. Soicher, and R. A. Wilson. A presentation for the Thompson sporadic simple group. In *Groups and computation, III (Columbus, OH, 1999)*, volume 8 of *Ohio State Univ. Math. Res. Inst. Publ.*, pages 193–200. de Gruyter, Berlin, 2001.
- [768] G. Havas and M. Vaughan-Lee. On counterexamples to the Hughes conjecture. *J. Algebra*, 322(3):791–801, 2009.
- [769] G. Havas and M. R. Vaughan-Lee. 4-Engel groups are locally nilpotent. *Internat. J. Algebra Comput.*, 15(4):649–682, 2005.
- [770] Y. He. G_2 quivers. *J. High Energy Phys.*, (2):023, 14, 2003.
- [771] Z. He, T. Korneffel, D. Meierling, L. Volkmann, and S. Winzen. Complementary cycles in regular multipartite tournaments, where one cycle has length five. *Discrete Math.*, 309(10):3131–3149, 2009.
- [772] L. S. Heath and N. A. Loehr. New algorithms for generating Conway polynomials over finite fields. *J. Symbolic Comput.*, 38(2):1003–1024, 2004.
- [773] D. Held, M. Pavčević, and M. Schmidt. A series of finite groups and related symmetric designs. *Glas. Mat. Ser. III*, 42(62)(2):257–272, 2007.
- [774] H. A. Helfgott. On the square-free sieve. *Acta Arith.*, 115(4):349–402, 2004.
- [775] H. A. Helfgott. Power-free values, large deviations and integer points on irrational curves. *J. Théor. Nombres Bordeaux*, 19(2):433–472, 2007.
- [776] G. T. Helleloid and U. Martin. The automorphism group of a finite p -group is almost always a p -group. *J. Algebra*, 312(1):294–329, 2007.
- [777] A. Henke, G. Hiss, and J. Müller. The 7-modular decomposition matrices of the sporadic O’Nan group. *J. London Math. Soc. (2)*, 60(1):58–70, 1999.
- [778] A. Henke and R. Paget. Brauer algebras with parameter $n = 2$ acting on tensor space. *Algebr. Represent. Theory*, 11(6):545–575, 2008.

- [779] A. Herman and A. R. Barghi. Schur indices of association schemes. *J. Pure Appl. Algebra*, 215(5):1015–1023, 2011.
- [780] S. Hermler, D. F. Holt, and S. Rees. Groups whose geodesics are locally testable. *Internat. J. Algebra Comput.*, 18(5):911–923, 2008.
- [781] M. Hertweck. A note on the modular group algebras of odd p -groups of M -length three. *Publ. Math. Debrecen*, 71(1-2):83–93, 2007.
- [782] M. Hertweck. Zassenhaus conjecture for A_6 . *Proc. Indian Acad. Sci. Math. Sci.*, 118(2):189–195, 2008.
- [783] M. Hertweck and W. Kimmerle. Coleman automorphisms of finite groups. *Math. Z.*, 242(2):203–215, 2002.
- [784] M. Hertweck and G. Nebe. On group ring automorphisms. *Algebr. Represent. Theory*, 7(2):189–210, 2004.
- [785] M. Hertweck and M. Soriano. Parametrization of central Frattini extensions and isomorphisms of small group rings. *Israel J. Math.*, 157:63–102, 2007.
- [786] L. Héthelyi and E. Horváth. Galois actions on blocks and classes of finite groups. *J. Algebra*, 320(2):660–679, 2008.
- [787] L. Héthelyi and M. Szőke. On the 2 out of 3 lemma. *Comm. Algebra*, 27(6):2547–2553, 1999.
- [788] L. Héthelyi and M. Szőke. Green correspondence and its generalisations. *Comm. Algebra*, 28(9):4463–4479, 2000.
- [789] L. Héthelyi, M. Szőke, and K. Lux. The restriction of indecomposable modules of group algebras and the quasi-Green correspondence. *Comm. Algebra*, 26(1):83–95, 1998.
- [790] R. J. Higgs. The bad behavior of representation groups. *J. Algebra Appl.*, 4(2):139–151, 2005.
- [791] O. Higuchi and I. Miyamoto. The 2-generators for certain simple permutation groups of small degree. *SUT J. Math.*, 34(1):63–74, 1998.
- [792] H. M. Hilden, M. T. Lozano, and J. M. Montesinos-Amilibia. The Chern-Simons invariants of hyperbolic manifolds via covering spaces. *Bull. London Math. Soc.*, 31(3):354–366, 1999.
- [793] F. Himstedt. Die dade-vermutung für die sporadische suzuki-gruppe. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1999.
- [794] F. Himstedt. Character tables of parabolic subgroups of Steinberg’s triality groups. *J. Algebra*, 281(2):774–822, 2004.
- [795] F. Himstedt. Character tables of parabolic subgroups of Steinberg’s triality groups ${}^3D_4(2^n)$. *J. Algebra*, 316(1):254–283, 2007.
- [796] F. Himstedt. On the decomposition numbers of the Ree groups ${}^2F_4(q^2)$ in non-defining characteristic. *J. Algebra*, 325:364–403, 2011.

- [797] F. Himstedt and S. Huang. Dade’s invariant conjecture for Steinberg’s triality groups ${}^3D_4(2^n)$ in defining characteristic. *J. Algebra*, 316(2):802–827, 2007.
- [798] F. Himstedt and S. Huang. Character table of a Borel subgroup of the Ree groups ${}^2F_4(q^2)$. *LMS J. Comput. Math.*, 12:1–53, 2009.
- [799] F. Himstedt and S. Huang. Character tables of the maximal parabolic subgroups of the Ree groups ${}^2F_4(q^2)$. *LMS J. Comput. Math.*, 13:90–110, 2010.
- [800] F. Himstedt, T. Le, and K. Magaard. Characters of the Sylow p -subgroups of the Chevalley groups $D_4(p^n)$. *J. Algebra*, 332:414–427, 2011.
- [801] G. Hiss. Decomposition matrices of the Chevalley group $F_4(2)$ and its covering group. *Comm. Algebra*, 25(8):2539–2555, 1997.
- [802] G. Hiss. On the incidence matrix of the Ree unital. *Des. Codes Cryptogr.*, 10(1):57–62, 1997.
- [803] G. Hiss and R. Kessar. Scopes reduction and Morita equivalence classes of blocks in finite classical groups. *J. Algebra*, 230(2):378–423, 2000.
- [804] G. Hiss and F. Lübeck. The Brauer trees of the exceptional Chevalley groups of types F_4 and 2E_6 . *Arch. Math. (Basel)*, 70(1):16–21, 1998.
- [805] G. Hiss, F. Lübeck, and G. Malle. The Brauer trees of the exceptional Chevalley groups of type E_6 . *Manuscripta Math.*, 87(1):131–144, 1995.
- [806] G. Hiss and K. Lux. The 5-modular characters of the sporadic simple Fischer groups Fi_{22} and Fi_{23} . *Comm. Algebra*, 22(9):3563–3590, 1994. With an appendix by Thomas Breuer.
- [807] G. Hiss, K. Lux, and J. Müller. The 2-modular decomposition matrices of the non-principal blocks of maximal defect of the triple cover of the sporadic simple McLaughlin group. *J. Symbolic Comput.*, 19(6):585–600, 1995.
- [808] G. Hiss and G. Malle. Low-dimensional representations of quasi-simple groups. *LMS J. Comput. Math.*, 4:22–63 (electronic), 2001.
- [809] G. Hiss and G. Malle. Low-dimensional representations of special unitary groups. *J. Algebra*, 236(2):745–767, 2001.
- [810] G. Hiss and J. Müller. The 5-modular characters of the sporadic simple Rudvalis group and its covering group. *Comm. Algebra*, 23(12):4633–4667, 1995.
- [811] G. Hiss, M. Neunhöffer, and F. Noeske. The 2-modular characters of the Fischer group Fi_{23} . *J. Algebra*, 300(2):555–570, 2006.
- [812] G. Hiss and A. Szczepański. Holonomy groups of Bieberbach groups with finite outer automorphism groups. *Arch. Math. (Basel)*, 65(1):8–14, 1995.
- [813] G. Hiss and A. Szczepański. Spin structures on flat manifolds with cyclic holonomy. *Comm. Algebra*, 36(1):11–22, 2008.

- [814] G. Hiss and D. L. White. The 5-modular characters of the covering group of the sporadic simple Fischer group Fi_{22} and its automorphism group. *Comm. Algebra*, 22(9):3591–3611, 1994.
- [815] C. Hoffman. Cross characteristic projective representations for some classical groups. *J. Algebra*, 229(2):666–677, 2000.
- [816] B. Höfling. Computing projectors, injectors, residuals and radicals of finite soluble groups. *J. Symbolic Comput.*, 32(5):499–511, 2001.
- [817] B. Höfling. Finite irreducible imprimitive nonmonomial complex linear groups of degree 4. *J. Algebra*, 236(2):419–470, 2001.
- [818] C. Hohlweg and C. E. M. C. Lange. Realizations of the associahedron and cyclohedron. *Discrete Comput. Geom.*, 37(4):517–543, 2007.
- [819] M. Holloway. Broué’s conjecture for the Hall-Janko group and its double cover. *Proc. London Math. Soc. (3)*, 86(1):109–130, 2003.
- [820] P. E. Holmes. On minimal factorisations of sporadic groups. *Experiment. Math.*, 13(4):435–440, 2004.
- [821] P. E. Holmes. Subgroup coverings of some sporadic groups. *J. Combin. Theory Ser. A*, 113(6):1204–1213, 2006.
- [822] P. E. Holmes, S. A. Linton, and S. H. Murray. Product replacement in the Monster. *Experiment. Math.*, 12(1):123–126, 2003.
- [823] P. E. Holmes and A. Maróti. Pairwise generating and covering sporadic simple groups. *J. Algebra*, 324(1):25–35, 2010.
- [824] D. F. Holt. Computing automorphism groups of finite groups. In *Groups and computation, III (Columbus, OH, 1999)*, volume 8 of *Ohio State Univ. Math. Res. Inst. Publ.*, pages 201–208. de Gruyter, Berlin, 2001.
- [825] D. F. Holt, C. R. Leedham-Green, E. A. O’Brien, and S. Rees. Computing matrix group decompositions with respect to a normal subgroup. *J. Algebra*, 184(3):818–838, 1996.
- [826] D. F. Holt, C. R. Leedham-Green, E. A. O’Brien, and S. Rees. Testing matrix groups for primitivity. *J. Algebra*, 184(3):795–817, 1996.
- [827] D. F. Holt and S. Rees. An implementation of the Neumann-Praeger algorithm for the recognition of special linear groups. *Experiment. Math.*, 1(3):237–242, 1992.
- [828] D. F. Holt and S. Rees. Testing modules for irreducibility. *J. Austral. Math. Soc. Ser. A*, 57(1):1–16, 1994.
- [829] D. F. Holt and S. Rees. Computing with abelian sections of finitely presented groups. *J. Algebra*, 214(2):714–728, 1999.
- [830] S. Hong, E. Rowell, and Z. Wang. On exotic modular tensor categories. *Commun. Contemp. Math.*, 10(suppl. 1):1049–1074, 2008.

- [831] J. Hood and D. Perkinson. Some facets of the polytope of even permutation matrices. *Linear Algebra Appl.*, 381:237–244, 2004.
- [832] M. Horn. On the Phan system of the Schur cover of $SU(4, 3^2)$. *Des. Codes Cryptogr.*, 47(1-3):243–247, 2008.
- [833] A. G. Horváth. On a problem connected with the weight distribution of the Reed-Muller code of order R . *Ann. Univ. Sci. Budapest. Eötvös Sect. Math.*, 38:171–176, 1995.
- [834] E. Horváth. On some questions concerning subnormally monomial groups. In *Groups '93 Galway/St. Andrews, Vol. 2*, volume 212 of *London Math. Soc. Lecture Note Ser.*, pages 314–321. Cambridge Univ. Press, Cambridge, 1995.
- [835] E. Horváth. M -blocks of solvable groups. *Math. Pannon.*, 8(1):37–47, 1997.
- [836] A. Hoshi and K. Miyake. On the field intersection problem of solvable quintic generic polynomials. *Int. J. Number Theory*, 6(5):1047–1081, 2010.
- [837] J. Howie and G. Williams. Free subgroups in certain generalized triangle groups of type $(2, m, 2)$. *Geom. Dedicata*, 119:181–197, 2006.
- [838] R. B. Howlett, L. J. Rylands, and D. E. Taylor. Matrix generators for exceptional groups of Lie type. *J. Symbolic Comput.*, 31(4):429–445, 2001.
- [839] T. Hsu. *Quilts: central extensions, braid actions, and finite groups*, volume 1731 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, 2000.
- [840] P. Huang, W. Ke, and G. F. Pilz. The cardinality of some symmetric differences. *Proc. Amer. Math. Soc.*, 138(3):787–797, 2010.
- [841] W. C. Huffman. The automorphism groups of the generalized quadratic residue codes. *IEEE Trans. Inform. Theory*, 41(2):378–386, 1995.
- [842] W. C. Huffman. Additive cyclic codes over \mathbb{F}_4 . *Adv. Math. Commun.*, 1(4):427–459, 2007.
- [843] W. C. Huffman. Additive self-dual codes over \mathbb{F}_4 with an automorphism of odd prime order. *Adv. Math. Commun.*, 1(3):357–398, 2007.
- [844] W. C. Huffman. On the decomposition of self-dual codes over $\mathbb{F}_2 + u\mathbb{F}_2$ with an automorphism of odd prime order. *Finite Fields Appl.*, 13(3):681–712, 2007.
- [845] W. C. Huffman. Additive cyclic codes over \mathbb{F}_4 . *Adv. Math. Commun.*, 2(3):309–343, 2008.
- [846] W. C. Huffman. Self-dual codes over $\mathbb{F}_2 + u\mathbb{F}_2$ with an automorphism of odd order. *Finite Fields Appl.*, 15(3):277–293, 2009.
- [847] A. Hulpke. Zur Berechnung von Charaktertafeln. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1993.
- [848] A. Hulpke. Block systems of a Galois group. *Experiment. Math.*, 4(1):1–9, 1995.

- [849] A. Hulpke. *Konstruktion transitiver Permutationsgruppen*. PhD thesis, RWTH, Aachen, 1996.
- [850] A. Hulpke. Computing normal subgroups. In *Proceedings of the 1998 International Symposium on Symbolic and Algebraic Computation (Rostock)*, pages 194–198 (electronic), New York, 1998. ACM.
- [851] A. Hulpke. Computing subgroups invariant under a set of automorphisms. *J. Symbolic Comput.*, 27(4):415–427, 1999.
- [852] A. Hulpke. Galois groups through invariant relations. In *Groups St. Andrews 1997 in Bath, II*, volume 261 of *London Math. Soc. Lecture Note Ser.*, pages 379–393. Cambridge Univ. Press, Cambridge, 1999.
- [853] A. Hulpke. Techniques for the computation of Galois groups. In *Algorithmic algebra and number theory (Heidelberg, 1997)*, pages 65–77. Springer, Berlin, 1999.
- [854] A. Hulpke. Conjugacy classes in finite permutation groups via homomorphic images. *Math. Comp.*, 69(232):1633–1651, 2000.
- [855] A. Hulpke. Representing subgroups of finitely presented groups by quotient subgroups. *Experiment. Math.*, 10(3):369–381, 2001.
- [856] A. Hulpke. Constructing transitive permutation groups. *J. Symbolic Comput.*, 39(1):1–30, 2005.
- [857] A. Hulpke, P. Kaski, and P. R. J. Östergård. The number of Latin squares of order 11. *Math. Comp.*, 80(274):1197–1219, 2011.
- [858] A. Hulpke and S. Linton. Construction of Co_3 . An example of the use of an integrated system for computational group theory. In *Groups St. Andrews 1997 in Bath, II*, volume 261 of *London Math. Soc. Lecture Note Ser.*, pages 394–409. Cambridge Univ. Press, Cambridge, 1999.
- [859] D. J. Hunter and P. T. von Hippel. How rare is symmetry in musical 12-tone rows? *Amer. Math. Monthly*, 110(2):124–132, 2003.
- [860] J. in 't panhuis, E. Postma, and D. Roozmond. Extremal presentations for classical Lie algebras. *J. Algebra*, 322(2):295–326, 2009.
- [861] S. Irnich. Minimale vielfachheiten bei der einschränkung gewöhnlicher darstellungen auf untergruppen. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1995.
- [862] A. A. Ivanov, S. A. Linton, K. Lux, J. Saxl, and L. H. Soicher. Distance-transitive representations of the sporadic groups. *Comm. Algebra*, 23(9):3379–3427, 1995.
- [863] A. A. Ivanov and D. V. Pasechnik. c -extensions of the $F_4(2)$ -building. *Discrete Math.*, 264(1-3):91–110, 2003. The 2000 *Com²MaC* Conference on Association Schemes, Codes and Designs (Pohang).

- [864] A. A. Ivanov and D. V. Pasechnik. Minimal representations of locally projective amalgams. *J. London Math. Soc. (2)*, 70(1):142–164, 2004.
- [865] A. A. Ivanov, D. V. Pasechnik, A. Seress, and S. Shpectorov. Majorana representations of the symmetric group of degree 4. *J. Algebra*, 324(9):2432–2463, 2010.
- [866] A. A. Ivanov, D. V. Pasechnik, and S. V. Shpectorov. Non-abelian representations of some sporadic geometries. *J. Algebra*, 181(2):523–557, 1996.
- [867] A. A. Ivanov and S. V. Shpectorov. Amalgams determined by locally projective actions. *Nagoya Math. J.*, 176:19–98, 2004.
- [868] G. Ivanyos and K. Lux. Treating the exceptional cases of the MeatAxe. *Experiment. Math.*, 9(3):373–381, 2000.
- [869] T. Ivenzić. Simplicialkomplexe auflösbarer untergruppen und die alperinsche gewichtsvermutung. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 2000.
- [870] M. A. Jackson. The strong symmetric genus of the hyperoctahedral groups. *J. Group Theory*, 7(4):495–505, 2004.
- [871] M. A. Jackson. The strong symmetric genus of the finite Coxeter groups. *J. Group Theory*, 10(6):841–847, 2007.
- [872] M. A. Jackson. The strong symmetric genus and generalized symmetric groups $G(n, 3)$. *J. Group Theory*, 13(1):131–138, 2010.
- [873] A. Jamali. A further class of 3-generator, 3-relation finite groups. *Comm. Algebra*, 29(2):879–887, 2001.
- [874] A. Jamali and H. Mousavi. On the co-Dedekindian finite p -groups with non-cyclic abelian second centre. *Glasg. Math. J.*, 44(1):1–8, 2002.
- [875] G. James and A. Mathas. Hecke algebras of type \mathbf{A} with $q = -1$. *J. Algebra*, 184(1):102–158, 1996.
- [876] G. James and A. Mathas. A q -analogue of the Jantzen-Schaper theorem. *Proc. London Math. Soc. (3)*, 74(2):241–274, 1997.
- [877] G. James and A. Mathas. Symmetric group blocks of small defect. *J. Algebra*, 279(2):566–612, 2004.
- [878] J. P. James. Partition actions of symmetric groups and regular bipartite graphs. *Bull. London Math. Soc.*, 38(2):224–232, 2006.
- [879] C. Jansen. *Ein Atlas 3-modularer Charaktertafeln*. PhD thesis, RWTH, Aachen, 1995.
- [880] C. Jansen. The minimal degrees of faithful representations of the sporadic simple groups and their covering groups. *LMS J. Comput. Math.*, 8:122–144 (electronic), 2005.

- [881] C. Jansen, K. Lux, R. Parker, and R. Wilson. *An atlas of Brauer characters*, volume 11 of *London Mathematical Society Monographs. New Series*. The Clarendon Press Oxford University Press, New York, 1995. Appendix 2 by T. Breuer and S. Norton, Oxford Science Publications.
- [882] C. Jansen and J. Müller. The 3-modular decomposition numbers of the sporadic simple Suzuki group. *Comm. Algebra*, 25(8):2437–2458, 1997.
- [883] C. Jansen and R. A. Wilson. The minimal faithful 3-modular representation for the Lyons group. *Comm. Algebra*, 24(3):873–879, 1996.
- [884] C. Jansen and R. A. Wilson. Two new constructions of the O’Nan group. *J. London Math. Soc. (2)*, 56(3):579–583, 1997.
- [885] C. Jansen and R. A. Wilson. The 2-modular and 3-modular decomposition numbers for the sporadic simple O’Nan group and its triple cover. *J. London Math. Soc. (2)*, 57(1):71–90, 1998.
- [886] P. Jedlička, M. K. Kinyon, and P. Vojtěchovský. Constructions of commutative automorphic loops. *Comm. Algebra*, 38(9):3243–3267, 2010.
- [887] G. A. Jones, M. Streit, and J. Wolfart. Wilson’s map operations on regular dessins and cyclotomic fields of definition. *Proc. Lond. Math. Soc. (3)*, 100(2):510–532, 2010.
- [888] J. W. Jones. Number fields unramified away from 2. *J. Number Theory*, 130(6):1282–1291, 2010.
- [889] J. W. Jones. Wild ramification bounds and simple group Galois extensions ramified only at 2. *Proc. Amer. Math. Soc.*, 139(3):807–821, 2011.
- [890] J. W. Jones and D. P. Roberts. Octic 2-adic fields. *J. Number Theory*, 128(6):1410–1429, 2008.
- [891] J. Jonsson. Optimal decision trees on simplicial complexes. *Electron. J. Combin.*, 12:Research Paper 3, 31 pp. (electronic), 2005.
- [892] J. Jonsson. Simplicial complexes of graphs and hypergraphs with a bounded covering number. *SIAM J. Discrete Math.*, 19(3):633–650, 2005.
- [893] L. K. Jørgensen. Schur rings and non-symmetric association schemes on 64 vertices. *Discrete Math.*, 310(22):3259–3266, 2010.
- [894] L. K. Jørgensen and M. Klin. Switching of edges in strongly regular graphs. I. A family of partial difference sets on 100 vertices. *Electron. J. Combin.*, 10:Research Paper 17, 31 pp. (electronic), 2003.
- [895] R. Joshua and S. Van Ault. Implementation of Stanley’s algorithm for projective group imbeddings. *J. Symbolic Comput.*, 44(6):655–672, 2009.
- [896] F. Jouve, E. Kowalski, and D. Zywina. An explicit integral polynomial whose splitting field has Galois group $W(E_8)$. *J. Théor. Nombres Bordeaux*, 20(3):761–782, 2008.

- [897] D. Joyner. *Adventures in group theory. Rubik's cube, Merlin's machine and other mathematical toys*. Johns Hopkins University Press, Baltimore, 2002.
- [898] D. Joyner. Toric codes over finite fields. *Appl. Algebra Engrg. Comm. Comput.*, 15(1):63–79, 2004.
- [899] D. Joyner. A primer on computational group homology and cohomology using GAP and SAGE. In *Aspects of infinite groups*, volume 1 of *Algebra Discrete Math.*, pages 159–191. World Sci. Publ., Hackensack, NJ, 2008.
- [900] D. Joyner and D. Kohel. Group theory in SAGE. In *Computational group theory and the theory of groups*, volume 470 of *Contemp. Math.*, pages 115–139. Amer. Math. Soc., Providence, RI, 2008.
- [901] D. Joyner and A. Konovalov. Applications of the computer algebra system gap in coding theory. In *2nd International conference "Modern coding methods in electronic systems"*. Sumy, Ukraine, October 26–27, 2004, pages 18–19, 2004.
- [902] D. Joyner, R. Kreminski, and J. Turisco. *Applied abstract algebra*. Johns Hopkins University Press, Baltimore, MD, 2004.
- [903] D. Joyner and A. Ksir. Representations of finite groups on riemann-roch spaces, ii. (*submitted*), 2004. Preprint, <http://front.math.ucdavis.edu/math.AG/0312383>.
- [904] D. Joyner and A. Ksir. Automorphism groups of some AG codes. *IEEE Trans. Inform. Theory*, 52(7):3325–3329, 2006.
- [905] D. Joyner and A. Ksir. Decomposition representations of finite groups on Riemann-Roch spaces. *Proc. Amer. Math. Soc.*, 135(11):3465–3476 (electronic), 2007.
- [906] D. Joyner and W. Traves. Representations of finite groups on riemann-roch spaces. (*submitted*), 2004. Preprint, <http://front.math.ucdavis.edu/math.AG/0210408>.
- [907] D. Joyner and H. Verrill. Notes on toric varieties. (*submitted*), 2004. Preprint, <http://front.math.ucdavis.edu/math.AG/0208065>.
- [908] X. Ju. The Smith set of the group $S_5 \times C_2 \times \dots \times C_2$. *Osaka J. Math.*, 47(1):215–236, 2010.
- [909] U. Jürgens and G. Röhrle. MOP—algorithmic modality analysis for parabolic group actions. *Experiment. Math.*, 11(1):57–67, 2002.
- [910] A. Jurišić and J. Koolen. Krein parameters and antipodal tight graphs with diameter 3 and 4. *Discrete Math.*, 244(1-3):181–202, 2002. Algebraic and topological methods in graph theory (Lake Bled, 1999).
- [911] G. Jurman. A family of simple Lie algebras in characteristic two. *J. Algebra*, 271(2):454–481, 2004.
- [912] G. Jurman. Graded Lie algebras of maximal class. III. *J. Algebra*, 284(2):435–461, 2005.
- [913] M. Kambites. Small overlap monoids. I. The word problem. *J. Algebra*, 321(8):2187–2205, 2009.

- [914] M. Kambites and F. Otto. Uniform decision problems for automatic semigroups. *J. Algebra*, 303(2):789–809, 2006.
- [915] W. M. Kantor. Simple groups in computational group theory. In *Proceedings of the International Congress of Mathematicians, Vol. II (Berlin, 1998)*, number Extra Vol. II, pages 77–86 (electronic), 1998.
- [916] W. M. Kantor and A. Seress. Permutation group algorithms via black box recognition algorithms. In *Groups St. Andrews 1997 in Bath, II*, volume 261 of *London Math. Soc. Lecture Note Ser.*, pages 436–446. Cambridge Univ. Press, Cambridge, 1999.
- [917] W. M. Kantor and A. Seress. Black box classical groups. *Mem. Amer. Math. Soc.*, 149(708):viii+168, 2001.
- [918] W. M. Kantor and A. Seress. Large element orders and the characteristic of Lie-type simple groups. *J. Algebra*, 322(3):802–832, 2009.
- [919] G. Kaplan and D. Levy. Solitary subgroups. *Comm. Algebra*, 37(6):1873–1883, 2009.
- [920] G. Kaplan and D. Levy. Solvability of finite groups via conditions on products of 2-elements and odd p -elements. *Bull. Aust. Math. Soc.*, 82(2):265–273, 2010.
- [921] L. Kappe and R. F. Morse. On commutators in p -groups. *J. Group Theory*, 8(4):415–429, 2005.
- [922] L. Kappe and R. F. Morse. On commutators in groups. In *Groups St. Andrews 2005. Vol. 2*, volume 340 of *London Math. Soc. Lecture Note Ser.*, pages 531–558. Cambridge Univ. Press, Cambridge, 2007.
- [923] L. Kappe and P. M. Ratchford. On centralizer-like subgroups associated with the n -Engel word. *Algebra Colloq.*, 6(1):1–8, 1999.
- [924] L. Kappe and J. L. Redden. On the covering number of small alternating groups. In *Computational group theory and the theory of groups, II*, volume 511 of *Contemp. Math.*, pages 109–125. Amer. Math. Soc., Providence, RI, 2010.
- [925] E. Karaarslan. Large random & prime number generation. Msc thesis, International Computer Institute, Ege University, 2001.
- [926] E. Karaarslan. Primality testing techniques and the importance of prime numbers in security protocols. In *3rd International Conference on Mathematical & Computational Applications (ICMCA 2002) Conference*, 2004.
- [927] J. Karabáš, P. Malický, and R. Nedela. Three-manifolds with Heegaard genus at most two represented by crystallisations with at most 42 vertices. *Discrete Math.*, 307(21):2569–2590, 2007.
- [928] A. Karve and S. Pauli. GiANT: graphical algebraic number theory. *J. Théor. Nombres Bordeaux*, 18(3):721–727, 2006.

- [929] P. Kaski. Isomorph-free exhaustive generation of designs with prescribed groups of automorphisms. *SIAM J. Discrete Math.*, 19(3):664–690 (electronic), 2005.
- [930] P. Kaski and P. R. J. Östergård. Miscellaneous classification results for 2-designs. *Discrete Math.*, 280(1-3):65–75, 2004.
- [931] N. M. Katz. Notes on G_2 , determinants, and equidistribution. *Finite Fields Appl.*, 10(2):221–269, 2004.
- [932] N. M. Katz. G_2 and hypergeometric sheaves. *Finite Fields Appl.*, 13(2):175–223, 2007.
- [933] A. Kaup. Gitterbasen und Charaktere endlicher Gruppen. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1992.
- [934] H. Kawai. Construction of maximal ideals of commutative group algebras. *Internat. J. Algebra Comput.*, 20(3):381–389, 2010.
- [935] L. S. Kazarin and V. V. Yanishevskii. On finite simply reducible groups. *Algebra i Analiz*, 19(6):86–116, 2007.
- [936] K. S. Kedlaya. Mass formulas for local Galois representations. *Int. Math. Res. Not. IMRN*, (17):Art. ID rnm021, 26, 2007. With an appendix by Daniel Gulotta.
- [937] S. Keitemeier. Graphische Darstellung von Untergruppenverbänden im Computeralgebrasystem GAP. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, July 1995.
- [938] G. Kemper, F. Lübeck, and K. Magaard. Matrix generators for the Ree groups ${}^2G_2(q)$. *Comm. Algebra*, 29(1):407–413, 2001.
- [939] R. Kessar and L. Valero-Elizondo. Stable partitions and Alperin’s weight conjecture for the symmetric groups in characteristic two. *Bol. Soc. Mat. Mexicana (3)*, 10(1):53–62, 2004.
- [940] J. D. Key, T. P. McDonough, and V. C. Mavron. Partial permutation decoding for codes from finite planes. *European J. Combin.*, 26(5):665–682, 2005.
- [941] J. D. Key, T. P. McDonough, and V. C. Mavron. Information sets and partial permutation decoding for codes from finite geometries. *Finite Fields Appl.*, 12(2):232–247, 2006.
- [942] J. D. Key, T. P. McDonough, and V. C. Mavron. An upper bound for the minimum weight of the dual codes of Desarguesian planes. *European J. Combin.*, 30(1):220–229, 2009.
- [943] H. Kiechle and G. P. Nagy. On the extension of involutorial Bol loops. *Abh. Math. Sem. Univ. Hamburg*, 72:235–250, 2002.
- [944] N. Kilic. On rank 2 geometries of the Mathieu group M_{23} . *Taiwanese J. Math.*, 14(2):373–387, 2010.
- [945] H. J. Kim and D. Ruberman. Topological triviality of smoothly knotted surfaces in 4-manifolds. *Trans. Amer. Math. Soc.*, 360(11):5869–5881, 2008.

- [946] N. Kim. Implementierung der meataxe in das computeralgebra-system `gap` unter besonderer berücksichtigung einer schnellen vektorarithmetik. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1997.
- [947] I. Kiming, M. Schütt, and H. A. Verrill. Lifts of projective congruence groups. *J. Lond. Math. Soc. (2)*, 83(1):96–120, 2011.
- [948] W. Kimmerle and E. Kouzoudi. Doubly transitive automorphism groups of combinatorial surfaces. *Discrete Comput. Geom.*, 29(3):445–457, 2003.
- [949] S. A. King, D. J. Green, and G. Ellis. The mod-2 cohomology ring of the third Conway group is Cohen-Macaulay. *Algebr. Geom. Topol.*, 11(2):719–734, 2011.
- [950] M. K. Kinyon, J. D. Phillips, and P. Vojtěchovský. C-loops: extensions and constructions. *J. Algebra Appl.*, 6(1):1–20, 2007.
- [951] M. K. Kinyon and P. Vojtěchovský. Primary decompositions in varieties of commutative diassociative loops. *Comm. Algebra*, 37(4):1428–1444, 2009.
- [952] H. Kitayama. Noether’s problem for four- and five-dimensional linear actions. *J. Algebra*, 324(4):591–597, 2010.
- [953] H. Kitayama and A. Yamasaki. The rationality problem for four-dimensional linear actions. *J. Math. Kyoto Univ.*, 49(2):359–380, 2009.
- [954] G. Klaas. *Konstruktion und Wiedererkenntnis linearer pro-p-Gruppen endlicher Weite*. PhD thesis, RWTH, Aachen, 1998.
- [955] A. Klappenecker and M. Rötteler. Beyond stabilizer codes. I. Nice error bases. *IEEE Trans. Inform. Theory*, 48(8):2392–2395, 2002.
- [956] A. Klappenecker and M. Rötteler. Unitary error bases: constructions, equivalence, and applications. In *Applied algebra, algebraic algorithms and error-correcting codes (Toulouse, 2003)*, volume 2643 of *Lecture Notes in Comput. Sci.*, pages 139–149. Springer, Berlin, 2003.
- [957] S. Klavžar and S. Shpectorov. Tribes of cubic partial cubes. *Discrete Math. Theor. Comput. Sci.*, 9(1):273–291, 2007.
- [958] A. S. Kleshchev and J. Sheth. Representations of the alternating group which are irreducible over subgroups. *Proc. London Math. Soc. (3)*, 84(1):194–212, 2002.
- [959] M. Klin, M. Meszka, S. Reichard, and A. Rosa. The smallest non-rank 3 strongly regular graphs which satisfy the 4-vertex condition. *Bayreuth. Math. Schr.*, (74):145–205, 2005.
- [960] M. Klin, M. Muzychuk, and M. Ziv-Av. Higmanian rank-5 association schemes on 40 points. *Michigan Math. J.*, 58(1):255–284, 2009.
- [961] J. Klüners and G. Malle. Explicit Galois realization of transitive groups of degree up to 15. *J. Symbolic Comput.*, 30(6):675–716, 2000. Algorithmic methods in Galois theory.
- [962] W. Knapp and P. Schmid. An extension theorem for integral representations. *J. Austral. Math. Soc. Ser. A*, 63(1):1–15, 1997.

- [963] S. Kohl. Über die Anzahl der Bahnen in endlichen Gruppen unter der Operation ihrer Automorphismengruppe - Suzuki-Gruppen vs. lineare Gruppen. Diplomarbeit, Universität Stuttgart, 2000.
- [964] S. Kohl. Counting the orbits on finite simple groups under the action of the automorphism group—Suzuki groups vs. linear groups. *Comm. Algebra*, 30(7):3515–3532, 2002.
- [965] S. Kohl. Classifying finite simple groups with respect to the number of orbits under the action of the automorphism group. *Comm. Algebra*, 32(12):4785–4794, 2004.
- [966] S. Kohl. *Restklassenweise affine Gruppen*. PhD thesis, Universität Stuttgart, 2005.
- [967] S. Kohl. Wildness of iteration of certain residue-class-wise affine mappings. *Adv. in Appl. Math.*, 39(3):322–328, 2007.
- [968] S. Kohl. Algorithms for a class of infinite permutation groups. *J. Symbolic Comput.*, 43(8):545–581, 2008.
- [969] S. Kohl. On conjugates of Collatz-type mappings. *Int. J. Number Theory*, 4(1):117–120, 2008.
- [970] S. Kohl. A simple group generated by involutions interchanging residue classes of the integers. *Math. Z.*, 264(4):927–938, 2010.
- [971] C. Köhler. Über das $k(\text{gv})$ -problem. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1999.
- [972] C. Köhler and H. Pahlings. Regular orbits and the $k(\text{GV})$ -problem. In *Groups and computation, III (Columbus, OH, 1999)*, volume 8 of *Ohio State Univ. Math. Res. Inst. Publ.*, pages 209–228. de Gruyter, Berlin, 2001.
- [973] M. Kohlhase. Omdoc: Towards an internet standard for the administration, distribution, and teaching of mathematical knowledge. *ARTIFICIAL INTELLIGENCE AND SYMBOLIC COMPUTATION*, 1930:32–52, 2001.
- [974] S. Kolb and J. Pellegrini. Braid group actions on coideal subalgebras of quantized enveloping algebras. *Journal of Algebra*, 336(1):395 – 416, 2011.
- [975] A. Koloydenko. Symmetric measures via moments. *Bernoulli*, 14(2):362–390, 2008.
- [976] A. Konovalov. On several problems in modular group algebras and their investigations using computer algebra system gap. In *Groups and group rings. Abstracts. Wisla, Poland, June 6–10*, page 25, 2000.
- [977] A. Konovalov. Computer algebra system gap. “CHIP” Magazine, (9), 2001. Supplementary article for the GAP 4.2 distribution on the CD-appendix to the magazine.
- [978] A. Konovalov. Computer investigations of the modular isomorphism problem. In *Algebra and Applications. Krasnoyarsk, Russia, 5–9 August 2002*, pages 141–142, 2002.

- [979] A. Konovalov. *ISO 1.0 — The program for calculation of invariants of modular group algebras and investigation of the modular isomorphism problem.*, 2002. Preprint. Online at <http://www.mathpreprints.com/math/Preprint/drkonovalov/20030326/1/>.
- [980] A. Konovalov. Iso 1.0 — the program for investigation of the modular isomorphism problem of group algebras. In *Algebraic Methods of Discrete Mathematics. Lugansk, Ukraine 23–27 September 2002*, pages 32–34, 2002.
- [981] A. Konovalov. On the computer algebra system gap. “CHIP” Magazine, (9), 2003. Supplementary article for the GAP 4.3 distribution on the CD-appendix to the magazine.
- [982] A. Konovalov. The computer algebra system gap 4.4.3 on chip-cd 9/2004. “CHIP” Magazine, (9), 2004. Supplementary article for the GAP 4.3 distribution on the CD-appendix to the magazine.
- [983] A. Konovalov. Software news. gap 4.4. *Exponenta Pro. Mathematics in Applications*, (2(6)):87, 2004.
- [984] A. Konovalov. The computer algebra system gap 4.4.5 on chip-cd 9/2005. “CHIP” Magazine, (9), 2005. Supplementary article for the GAP 4.4.5 distribution on the CD-appendix to the magazine.
- [985] A. Konovalov. Computer investigations of the modular isomorphism problem. In *Groups and group rings XI. Abstracts. Bedlewo, Poland, June 4–11*, page 14, 2005.
- [986] A. Konovalov. The library of unit groups of modular group algebras of finite p -groups of order not greater than 128 for the computational algebra system gap. In *XI International Scientific Kravchuk Conference, Kyiv, Ukraine, May 18–20, 2006*, page 469, 2006.
- [987] A. Konovalov. Wreath products in modular group algebras of some finite 2-groups. *Acta Math. Acad. Paedagog. Nyházi. (N.S.)*, 23(2):125–127, 2007.
- [988] A. Konovalov, V. Bovdi, C. Schneider, and R. Rossmanith. Investigations in unit groups of modular group algebras using the gap4 package laguna 3.0. In *4th International Conference on Algebra. Lviv, Ukraine, 4–9 August 2003*, pages 52–53, 2003.
- [989] A. Konovalov and W. Kimmerle. An algorithm for the embedding of the given p -group into the normalised unit group of the modular group algebra of a finite p -group. In *Algebras, Rings and Modules. Lisboa, Portugal, 14–18 July 2003*, pages 45–46, 2003.
- [990] A. Konovalov and E. Kostenko. Testing the conjecture about congruently adjoined clusters in the amorphous state using the computer algebra system gap. In *Proceedings of the XXXII International Conference IT +SE’2005, Autumn Session. Yalta, Ukraine, October 1–10*, pages 84–85, 2002.
- [991] A. Konovalov and A. Krivokhata. On the isomorphism problem for unit groups of modular group algebras. *Acta Sci. Math. (Szeged)*, 73(1-2):53–59, 2007.
- [992] A. Konovalov and D. Lysenko. Learning algebra and number theory using the computer algebra system gap. In *4th All-Ukrainian Conference “Implementation of modern information technologies in education”. Zaporozhye, Ukraine, December 2004*, pages 172–179, 2004.

- [993] A. Konovalov, D. Lysenko, and A. Sudakov. Investigation of the modular isomorphism problem using the computer algebra system gap. In *Actual problems of mathematics and computer science. 2nd regional scientific conference of young researchers. Zaporozhye, Ukraine, April 22–23, 2004*, pages 28–29, 2004.
- [994] A. Konovalov and P. Moskalyov. Searching optimal golomb rulers with permutations groups acting on partitions. In *Actual problems of mathematics and computer science. Abstracts of the 3rd regional scientific conference of young researchers. Zaporozhye, Ukraine, April 21–22, 2005*, page 27, 2005.
- [995] A. Konovalov and A. Tsapok. The isomorphism problem for unit groups of modular group algebras of 2-groups of orders 16 and 32. In *5th International Algebraic Conference in Ukraine. Abstracts. Odessa, Ukraine, July 20–27*, page 104, 2005.
- [996] A. Konovalov and A. G. Tsapok. Normaliser series in finite groups and strojnowski problem. *Zaporozhye State University Herald — Physical and mathematical sciences*, (2):61–65, 2002.
- [997] A. B. Konovalov. Computer algebra system gap. Technical report, Zaporozhye State University, 1999. 2nd edition online at <http://ukrgap.exponenta.ru/papers/MetGAP43.htm>.
- [998] A. B. Konovalov. Computer algebra system gap. In *Ukrainian Mathematical Congress-2001. Kiev, August 21-23*, pages 29–30. Mathematical Institute of the Ukrainian National Academy of Sciences, 2001.
- [999] A. B. Konovalov. Computer algebra system gap. *3rd Internat. Conf. on Algebra in Ukraine*, pages 194–195, 2001.
- [1000] A. B. Konovalov and A. G. Krivokhata. Symmetric subgroups in modular group algebras. *Nauk. Visn. Uzhgorod. Univ., Ser. Mat.*, (9), 2004. Available at <http://arxiv.org/abs/0801.0809> translated from the original journal publication in Russian.
- [1001] A. B. Konovalov and A. G. Tsapok. Symmetric subgroups of a normalized multiplicative group of the modular group algebra of a finite p -group. *Nauk. Visn. Uzhgorod. Univ. Ser. Mat. Inform.*, (9):20–24, 2004.
- [1002] E. Konovalov A. Kostenko and V. Savin. The modelling of the amorphous state of the fast-tempered ni-nb-(ta,v) alloys. In *Metal and foundry in Ukraine*, 2005.
- [1003] J. H. Koolen and A. Munemasa. Tight 2-designs and perfect 1-codes in Doob graphs. *J. Statist. Plann. Inference*, 86(2):505–513, 2000. Special issue in honor of Professor Ralph Stanton.
- [1004] V. V. Korableva. Parabolic permutation representations of the group ${}^2E_6(q^2)$. *Mat. Zametki*, 67(6):899–912, 2000.
- [1005] C. Kościelny. Computing in $GF(2^m)$ using GAP. *Appl. Math. Comput. Sci.*, 7(3):677–688, 1997.
- [1006] H. Koshita. An example of relations on the Ext-quiver for the Suzuki group $Sz(8)$ in characteristic 2. *J. Symbolic Comput.*, 42(4):429–442, 2007.

- [1007] S. Koshitani, N. Kunugi, and K. Waki. Broué’s conjecture for non-principal 3-blocks of finite groups. *J. Pure Appl. Algebra*, 173(2):177–211, 2002.
- [1008] S. Koshitani, N. Kunugi, and K. Waki. Broué’s abelian defect group conjecture for the Held group and the sporadic Suzuki group. *J. Algebra*, 279(2):638–666, 2004.
- [1009] S. Koshitani and J. Müller. Broué’s abelian defect group conjecture holds for the Harada-Norton sporadic simple group HN. *J. Algebra*, 324(3):394–429, 2010.
- [1010] E. Y. Kostenko. The modeling of amorphous state of the melt-quenched ni-nb alloys prepared including powdered components, 2005. Poster presented at Junior Euromat 2004 (<http://www.junior-euromat.fems.org/>).
- [1011] K. V. Kostousov. Cayley graphs of the group \mathbb{Z}^4 that are limits of minimal vertex-primitive graphs of type HA. *Proc. Steklov Inst. Math.*, 257(suppl. 1):S118–S134, 2007.
- [1012] A. Koto, M. Morimoto, and Y. Qi. The Smith sets of finite groups with normal Sylow 2-subgroups and small nilquotients. *J. Math. Kyoto Univ.*, 48(1):219–227, 2008.
- [1013] O. Krafft, H. Pahlings, and M. Schaefer. Diagonal-complete Latin squares. *European J. Combin.*, 24(3):229–237, 2003.
- [1014] M. Kramar. The structure of irreducible matrix groups with submultiplicative spectrum. *Linear Multilinear Algebra*, 53(1):13–25, 2005.
- [1015] M. Kratzer. *Konkrete Charaktertafeln und kompatible Charaktere*, volume 30 of *Vorlesungen aus dem Fachbereich Mathematik der Universität GH Essen [Lecture Notes in Mathematics at the University of Essen]*. Universität Essen Fachbereich Mathematik, Essen, 2001. Dissertation, Universität Essen, Essen, 2001.
- [1016] M. Kratzer. Constructing pairs of compatible characters. In *Proceedings of the First Sino-German Workshop on Representation Theory and Finite Simple Groups (Beijing, 2002)*, volume 10, pages 285–302, 2003.
- [1017] M. Kratzer, W. Lempken, G. O. Michler, and K. Waki. Another existence and uniqueness proof for McLaughlin’s simple group. *J. Group Theory*, 6(4):443–459, 2003.
- [1018] M. Kratzer, G. O. Michler, and M. Weller. Harada group uniquely determined by centralizer of a 2-central involution. In *Proceedings of the First Sino-German Workshop on Representation Theory and Finite Simple Groups (Beijing, 2002)*, volume 10, pages 303–372, 2003.
- [1019] C. Y. Ku and B. B. McMillan. Independent sets of maximal size in tensor powers of vertex-transitive graphs. *J. Graph Theory*, 60(4):295–301, 2009.
- [1020] C. Y. Ku and D. B. Wales. Eigenvalues of the derangement graph. *J. Combin. Theory Ser. A*, 117(3):289–312, 2010.
- [1021] C. Y. Ku and T. W. H. Wong. Intersecting families in the alternating group and direct product of symmetric groups. *Electron. J. Combin.*, 14(1):Research Paper 25, 15 pp. (electronic), 2007.

- [1022] M. Kuhlkamp. Konzeption und Implementation von Hybridgruppen mit Rewriting System im Computeralgebrasystem GAP. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, July 1997.
- [1023] W. Kühnel and F. H. Lutz. A census of tight triangulations. *Period. Math. Hungar.*, 39(1-3):161–183, 1999. Discrete geometry and rigidity (Budapest, 1999).
- [1024] M. Künzer. On representations of twisted group rings. *J. Group Theory*, 7(2):197–229, 2004.
- [1025] M. Künzer and A. Mathas. Elementary divisors of Specht modules. *European J. Combin.*, 26(6):943–964, 2005.
- [1026] J. H. Kwak and Y. S. Kwon. Regular orientable embeddings of complete bipartite graphs. *J. Graph Theory*, 50(2):105–122, 2005.
- [1027] J. H. Kwak and J. Oh. Arc-transitive elementary abelian covers of the octahedron graph. *Linear Algebra Appl.*, 429(8-9):2180–2198, 2008.
- [1028] G. Labelle and C. Lamathe. General combinatorial differential operators. *Sém. Lothar. Combin.*, 61A:Art. B61Ag, 24, 2009/10.
- [1029] F. Ladisch. Groups with anticoncentral elements. *Comm. Algebra*, 36(8):2883–2894, 2008.
- [1030] F. Lalande. À propos de la relation galoisienne $x_1 = x_2 + x_3$. *J. Théor. Nombres Bordeaux*, 22(3):661–673, 2010.
- [1031] J. Lansky and D. Pollack. Hecke algebras and automorphic forms. *Compositio Math.*, 130(1):21–48, 2002.
- [1032] F. Larrión, V. Neumann-Lara, and M. A. Pizaña. On the homotopy type of clique graphs. *J. of the Brazilian Comp. Soc.*, 7(3):69–73, 2002.
- [1033] F. Larrión, V. Neumann-Lara, and M. A. Pizaña. Whitney triangulations, local girth and iterated clique graphs. *Discrete Math.*, 258(1-3):123–135, 2002.
- [1034] F. Larrión, V. Neumann-Lara, and M. A. Pizaña. Clique convergent surface triangulations. *Mat. Contemp.*, 25:135–143, 2003. The Latin-American Workshop on Cliques in Graphs (Rio de Janeiro, 2002).
- [1035] F. Larrión, V. Neumann-Lara, and M. A. Pizaña. Clique divergent clockwork graphs and partial orders. *Discrete Appl. Math.*, 141(1-3):195–207, 2004.
- [1036] F. Larrión, V. Neumann-Lara, and M. A. Pizaña. Graph relations, clique divergence and surface triangulations. *J. Graph Theory*, 51(2):110–122, 2006.
- [1037] F. Larrión, V. Neumann-Lara, and M. A. Pizaña. On expansive graphs. *European J. Combin.*, 30(2):372–379, 2009.
- [1038] F. Larrión, V. Neumann-Lara, M. A. Pizaña, and T. D. Porter. A hierarchy of self-clique graphs. *Discrete Math.*, 282(1-3):193–208, 2004.

- [1039] F. Larrión, M. A. Pizaña, and R. Villarroel-Flores. The clique operator on matching and chessboard graphs. *Discrete Math.*, 309(1):85–93, 2009.
- [1040] M. Law, A. C. Niemeyer, C. E. Praeger, and A. Seress. A reduction algorithm for large-base primitive permutation groups. *LMS J. Comput. Math.*, 9:159–173 (electronic), 2006.
- [1041] M. Law, C. E. Praeger, and S. Reichard. Flag-transitive symmetric 2–(96, 20, 4)-designs. *J. Combin. Theory Ser. A*, 116(5):1009–1022, 2009.
- [1042] I. J. Leary and B. Schuster. On the $GL(V)$ -module structure of $K(n)^*(BV)$. *Math. Proc. Cambridge Philos. Soc.*, 122(1):73–89, 1997.
- [1043] C. R. Leedham-Green. The computational matrix group project. In *Groups and computation, III (Columbus, OH, 1999)*, volume 8 of *Ohio State Univ. Math. Res. Inst. Publ.*, pages 229–247. de Gruyter, Berlin, 2001.
- [1044] C. R. Leedham-Green and E. A. O’Brien. Recognising tensor products of matrix groups. *Internat. J. Algebra Comput.*, 7(5):541–559, 1997.
- [1045] C. R. Leedham-Green and L. H. Soicher. Symbolic collection using Deep Thought. *LMS J. Comput. Math.*, 1:9–24 (electronic), 1998.
- [1046] W. Lempken. On the existence and uniqueness of the sporadic simple groups J_2 and J_3 of Z. Janko. *J. Group Theory*, 4(2):223–232, 2001.
- [1047] W. Lempken. 2-local amalgams for the simple groups $GL(5, 2)$, M_{24} and He. *Illinois J. Math.*, 47(1-2):361–393, 2003. Special issue in honor of Reinhold Baer (1902–1979).
- [1048] W. Lempken, B. Schröder, and P. H. Tiep. Symmetric squares, spherical designs, and lattice minima. *J. Algebra*, 240(1):185–208, 2001. With an appendix by Christine Bachoc and Tiep.
- [1049] L. Lévai, G. Rosenberger, and B. Souvignier. All finite generalized triangle groups. *Trans. Amer. Math. Soc.*, 347(9):3625–3627, 1995.
- [1050] M. L. Lewis. Generalizing a theorem of Huppert and Manz. *J. Algebra Appl.*, 6(4):687–695, 2007.
- [1051] M. L. Lewis. The vanishing-off subgroup. *J. Algebra*, 321(4):1313–1325, 2009.
- [1052] M. L. Lewis and D. L. White. Diameters of degree graphs of nonsolvable groups. II. *J. Algebra*, 312(2):634–649, 2007.
- [1053] M. L. Lewis and D. L. White. Nonsolvable groups satisfying the one-prime hypothesis. *Algebr. Represent. Theory*, 10(4):379–412, 2007.
- [1054] M. L. Lewis and D. L. White. Nonsolvable groups all of whose character degrees are odd-square-free. *Comm. Algebra*, 39(4):1273–1292, 2011.
- [1055] C. H. Li, L. Niu, A. Seress, and R. Solomon. The vertex primitive and vertex bi-primitive s -arc regular graphs. *J. Combin. Theory Ser. B*, 100(4):359–366, 2010.

- [1056] C. H. Li and A. Seress. The primitive permutation groups of squarefree degree. *Bull. London Math. Soc.*, 35(5):635–644, 2003.
- [1057] C. H. Li and A. Seress. On vertex-transitive non-Cayley graphs of square-free order. *Des. Codes Cryptogr.*, 34(2-3):265–281, 2005.
- [1058] C. H. Li and A. Seress. Symmetrical path-cycle covers of a graph and polygonal graphs. *J. Combin. Theory Ser. A*, 114(1):35–51, 2007.
- [1059] T. Li. A simple example of two p -groups with the same automorphism group. *Arch. Math. (Basel)*, 92(4):287–290, 2009.
- [1060] Y. Li, H. E. Bell, and C. Phipps. On reversible group rings. *Bull. Austral. Math. Soc.*, 74(1):139–142, 2006.
- [1061] M. W. Liebeck, E. A. O’Brien, A. Shalev, and P. H. Tiep. The Ore conjecture. *J. Eur. Math. Soc. (JEMS)*, 12(4):939–1008, 2010.
- [1062] M. W. Liebeck, C. E. Praeger, and J. Saxl. Transitive subgroups of primitive permutation groups. *J. Algebra*, 234(2):291–361, 2000. Special issue in honor of Helmut Wielandt.
- [1063] M. W. Liebeck, C. E. Praeger, and J. Saxl. Primitive permutation groups with a common suborbit, and edge-transitive graphs. *Proc. London Math. Soc. (3)*, 84(2):405–438, 2002.
- [1064] F. Lim, M. Fossorier, and A. Kavčič. Code automorphisms and permutation decoding of certain Reed-Solomon binary images. *IEEE Trans. Inform. Theory*, 56(10):5253–5273, 2010.
- [1065] R. C. Lindenbergh and R. W. van der Waall. Ergebnisse über Dedekind-Zeta-Funktionen, monomiale Charaktere und Konjugationsklassen endlicher Gruppen, unter Benutzung von GAP. *Bayreuth. Math. Schr.*, (56):79–148, 1999.
- [1066] S. Linton. Gap - groups, algorithms, programming. *ACM Communications in Computer Algebra*, 41(3):108–109, 2007. Issue 161.
- [1067] S. Linton, R. Parker, P. Walsh, and R. Wilson. Computer construction of the Monster. *J. Group Theory*, 1(4):307–337, 1998.
- [1068] S. A. Linton, K. Lux, and L. H. Soicher. The primitive distance-transitive representations of the Fischer groups. *Experiment. Math.*, 4(3):235–253, 1995.
- [1069] S. A. Linton, G. Pfeiffer, E. F. Robertson, and N. Ruškuc. Groups and actions in transformation semigroups. *Math. Z.*, 228(3):435–450, 1998.
- [1070] S. A. Linton, G. Pfeiffer, E. F. Robertson, and N. Ruškuc. Computing transformation semigroups. *J. Symbolic Comput.*, 33(2):145–162, 2002.
- [1071] E. H. Lo. A polycyclic quotient algorithm. In *Groups and computation, II (New Brunswick, NJ, 1995)*, volume 28 of *DIMACS Ser. Discrete Math. Theoret. Comput. Sci.*, pages 159–167. Amer. Math. Soc., Providence, RI, 1997.
- [1072] E. H. Lo. A polycyclic quotient algorithm. *J. Symbolic Comput.*, 25(1):61–97, 1998.

- [1073] P. Lopes. Permutations which make transitive groups primitive. *Cent. Eur. J. Math.*, 7(4):650–659, 2009.
- [1074] K. Lorenzen. P -localizing group extensions with a nilpotent action on the kernel. *Comm. Algebra*, 34(12):4345–4364, 2006.
- [1075] M. Lorenz. Picard groups of multiplicative invariants. *Comment. Math. Helv.*, 72(3):389–399, 1997.
- [1076] M. Lorenz. Multiplicative invariants and semigroup algebras. *Algebr. Represent. Theory*, 4(3):293–304, 2001.
- [1077] M. Lorenz. On the Cohen-Macaulay property of multiplicative invariants. *Trans. Amer. Math. Soc.*, 358(4):1605–1617, 2006.
- [1078] F. Lübeck. *Charaktertafeln fr die Gruppen $CSp_6(q)$ mit ungeradem q und $Sp_6(q)$ mit geradem q* . Dissertation, Universität Heidelberg, 1993.
- [1079] F. Lübeck. Smallest degrees of representations of exceptional groups of Lie type. *Comm. Algebra*, 29(5):2147–2169, 2001.
- [1080] F. Lübeck. On the computation of elementary divisors of integer matrices. *J. Symbolic Comput.*, 33(1):57–65, 2002.
- [1081] F. Lübeck, K. Magaard, and E. A. O’Brien. Constructive recognition of $SL_3(q)$. *J. Algebra*, 316(2):619–633, 2007.
- [1082] F. Lübeck and G. Malle. $(2, 3)$ -generation of exceptional groups. *J. London Math. Soc. (2)*, 59(1):109–122, 1999.
- [1083] F. Lübeck and M. Neunhöffer. Enumerating large orbits and direct condensation. *Experiment. Math.*, 10(2):197–205, 2001.
- [1084] A. Lubotzky and I. Pak. The product replacement algorithm and Kazhdan’s property (T). *J. Amer. Math. Soc.*, 14(2):347–363 (electronic), 2001.
- [1085] A. Lucchini, F. Menegazzo, and M. Morigi. Generating permutation groups. *Comm. Algebra*, 32(5):1729–1746, 2004.
- [1086] E. M. Luks, F. Rákóczi, and C. R. B. Wright. Some algorithms for nilpotent permutation groups. *J. Symbolic Comput.*, 23(4):335–354, 1997.
- [1087] E. M. Luks and A. Seress. Computing the Fitting subgroup and solvable radical of small-base permutation groups in nearly linear time. In *Groups and computation, II (New Brunswick, NJ, 1995)*, volume 28 of *DIMACS Ser. Discrete Math. Theoret. Comput. Sci.*, pages 169–181. Amer. Math. Soc., Providence, RI, 1997.
- [1088] R. Lutowski. On symmetry of flat manifolds. *Experiment. Math.*, 18(2):201–204, 2009.
- [1089] F. H. Lutz. *Triangulated manifolds with few vertices and vertex-transitive group actions*. Berichte aus der Mathematik. [Reports from Mathematics]. Verlag Shaker, Aachen, 1999. Dissertation, Technischen Universität Berlin, Berlin, 1999.

- [1090] F. H. Lutz. Some results related to the evasiveness conjecture. *J. Combin. Theory Ser. B*, 81(1):110–124, 2001.
- [1091] F. H. Lutz. Examples of \mathbb{Z} -acyclic and contractible vertex-homogeneous simplicial complexes. *Discrete Comput. Geom.*, 27(1):137–154, 2002. Geometric combinatorics (San Francisco, CA/Davis, CA, 2000).
- [1092] F. H. Lutz. Combinatorial 3-manifolds with 10 vertices. *Beiträge Algebra Geom.*, 49(1):97–106, 2008.
- [1093] K. Lux, J. Müller, and M. Ringe. Peakword condensation and submodule lattices: an application of the MEAT-AXE. *J. Symbolic Comput.*, 17(6):529–544, 1994.
- [1094] K. Lux, F. Noeske, and A. J. E. Ryba. The 5-modular characters of the sporadic simple Harada-Norton group HN and its automorphism group HN.2. *J. Algebra*, 319(1):320–335, 2008.
- [1095] K. Lux and H. Pahlings. Computational aspects of representation theory of finite groups. In *Representation theory of finite groups and finite-dimensional algebras (Bielefeld, 1991)*, volume 95 of *Progr. Math.*, pages 37–64. Birkhäuser, Basel, 1991.
- [1096] K. Lux and H. Pahlings. Computational aspects of representation theory of finite groups. II. In *Algorithmic algebra and number theory (Heidelberg, 1997)*, pages 381–397. Springer, Berlin, 1999.
- [1097] K. Lux and M. Wiegmann. Determination of socle series using the condensation method. *J. Symbolic Comput.*, 31(1-2):163–178, 2001. Computational algebra and number theory (Milwaukee, WI, 1996).
- [1098] S. Lyle. Some results obtained by application of the LLT algorithm. *Comm. Algebra*, 34(5):1723–1752, 2006.
- [1099] L. A. Maas. On a construction of the basic spin representations of symmetric groups. *Comm. Algebra*, 38(12):4545–4552, 2010.
- [1100] M. Mačaj and J. Širáň. Search for properties of the missing Moore graph. *Linear Algebra Appl.*, 432(9):2381–2398, 2010.
- [1101] B. D. MacArthur, R. J. Sánchez-García, and J. W. Anderson. Symmetry in complex networks. *Discrete Appl. Math.*, 156(18):3525–3531, 2008.
- [1102] R. Maddux. Self-similarity and the species-area relationship. *AMERICAN NATURALIST*, 163(4):616–626, APR 2004.
- [1103] K. Magaard, E. A. O’Brien, and A. Seress. Recognition of small dimensional representations of general linear groups. *J. Aust. Math. Soc.*, 85(2):229–250, 2008.
- [1104] K. Magaard, T. Shaska, S. Shpectorov, and H. Völklein. The locus of curves with prescribed automorphism group. *Sūrikaisekikenkyūsho Kōkyūroku*, (1267):112–141, 2002. Communications in arithmetic fundamental groups (Kyoto, 1999/2001).

- [1105] K. Magaard, S. Shpectorov, and H. Völklein. A GAP package for braid orbit computation and applications. *Experiment. Math.*, 12(4):385–393, 2003.
- [1106] K. Magaard, K. Strambach, and H. Völklein. Finite quotients of the pure symplectic braid group. *Israel J. Math.*, 106:13–28, 1998.
- [1107] K. Magaard and H. Völklein. The monodromy group of a function on a general curve. *Israel J. Math.*, 141:355–368, 2004.
- [1108] J. Maginnis and S. Onofrei. On a homotopy relation between the 2-local geometry and the Bouc complex for the sporadic group Co_3 . *J. Algebra*, 315(1):1–17, 2007.
- [1109] J. Maginnis and S. Onofrei. On fixed point sets and Lefschetz modules for sporadic simple groups. *J. Pure Appl. Algebra*, 213(6):901–912, 2009.
- [1110] J. Maginnis and S. Onofrei. On fixed point sets of distinguished collections for groups of parabolic characteristic. *J. Combin. Theory Ser. A*, 117(7):872–883, 2010.
- [1111] A. Mahalanobis. The Diffie-Hellman key exchange protocol and non-abelian nilpotent groups. *Israel J. Math.*, 165:161–187, 2008.
- [1112] A. Mahalanobis. A simple generalization of the ElGamal cryptosystem to non-abelian groups. *Comm. Algebra*, 36(10):3878–3889, 2008.
- [1113] M. Makai. Response matrix and composition asymmetry. *Transport Theory Statist. Phys.*, 32(5-7):545–565, 2003. Special issue comprised of papers presented at the Seventeenth International Conference on Transport Theory, Part II (London, 2001).
- [1114] M. Makai and Y. Orechwa. Symmetries of boundary value problems in mathematical physics. *J. Math. Phys.*, 40(10):5247–5263, 1999.
- [1115] M. Makai and Y. Orechwa. Field reconstruction from measured values in symmetric volumes. *NUCL ENG DES*, 199(3):289–301, 2000.
- [1116] M. Makai and Y. Orechwa. Solutions of boundary-value problems in discretized volumes. *Electron. J. Differential Equations*, pages No. 01, 20 pp. (electronic), 2002.
- [1117] M. Makai and Y. Orechwa. Model calculations in reconstructions of measured fields. *CENTRAL EUROPEAN JOURNAL OF PHYSICS*, 1(1):118–131, JAN 2003.
- [1118] A. A. Maksimenko and A. S. Mamontov. Local finiteness of some groups generated by a class of conjugate elements of order 3. *Sibirsk. Mat. Zh.*, 48(3):631–644, 2007.
- [1119] W. Malfait and A. Szczepański. The structure of the (outer) automorphism group of a Bieberbach group. *Compositio Math.*, 136(1):89–101, 2003.
- [1120] G. Malle. Almost irreducible tensor squares. *Comm. Algebra*, 27(3):1033–1051, 1999.
- [1121] G. Malle. Fast-einfache Gruppen mit langen Bahnen in absolut irreduzibler Operation. *J. Algebra*, 300(2):655–672, 2006.

- [1122] G. Malle. Extensions of unipotent characters and the inductive McKay condition. *J. Algebra*, 320(7):2963–2980, 2008.
- [1123] G. Malle. The inductive McKay condition for simple groups not of Lie type. *Comm. Algebra*, 36(2):455–463, 2008.
- [1124] A. Malnič, D. Marušič, and P. Potočnik. Elementary abelian covers of graphs. *J. Algebraic Combin.*, 20(1):71–97, 2004.
- [1125] A. Malnič and P. Potočnik. Invariant subspaces, duality, and covers of the Petersen graph. *European J. Combin.*, 27(6):971–989, 2006.
- [1126] G. S. Manku, R. Hojati, and R. Brayton. Structural symmetry and model checking. In *Computer aided verification (Vancouver, BC, 1998)*, volume 1427 of *Lecture Notes in Comput. Sci.*, pages 159–171. Springer, Berlin, 1998.
- [1127] A. Mann, C. E. Praeger, and A. Seress. Extremely primitive groups. *Groups Geom. Dyn.*, 1(4):623–660, 2007.
- [1128] S. P. Mansilla. On arc-regular permutation groups using Latin squares. *J. Algebraic Combin.*, 21(1):5–22, 2005.
- [1129] M. A. Marco Buzunáriz. A description of the resonance variety of a line combinatorics via combinatorial pencils. *Graphs Combin.*, 25(4):469–488, 2009.
- [1130] M. C. Marcusanu. Complementary l_1 -graphs embeddable in the half-cube. *European J. Combin.*, 23(8):1061–1072, 2002.
- [1131] I. Marin. Éléments de Jucys-Murphy généralisés. *Comm. Algebra*, 33(9):2879–2898, 2005.
- [1132] A. Maróti. Bounding the number of conjugacy classes of a permutation group. *J. Group Theory*, 8(3):273–289, 2005.
- [1133] A. Maróti. Covering the symmetric groups with proper subgroups. *J. Combin. Theory Ser. A*, 110(1):97–111, 2005.
- [1134] A. Maróti and M. C. Tamburini. Bounds for the probability of generating the symmetric and alternating groups. *Arch. Math. (Basel)*, 96(2):115–121, 2011.
- [1135] K. Martin. A symplectic case of Artin’s conjecture. *Math. Res. Lett.*, 10(4):483–492, 2003.
- [1136] K. Martin. Modularity of hypertetrahedral representations. *C. R. Math. Acad. Sci. Paris*, 339(2):99–102, 2004.
- [1137] P. P. Martin and A. Elgamal. Ramified partition algebras. *Math. Z.*, 246(3):473–500, 2004.
- [1138] D. Matei and A. I. Suciú. Cohomology rings and nilpotent quotients of real and complex arrangements. In *Arrangements—Tokyo 1998*, volume 27 of *Adv. Stud. Pure Math.*, pages 185–215. Kinokuniya, Tokyo, 2000.
- [1139] D. Matei and A. I. Suciú. Hall invariants, homology of subgroups, and characteristic varieties. *Int. Math. Res. Not.*, (9):465–503, 2002.

- [1140] D. Matei and A. I. Suciuc. Counting homomorphisms onto finite solvable groups. *J. Algebra*, 286(1):161–186, 2005.
- [1141] A. Mathas. On the left cell representations of Iwahori-Hecke algebras of finite Coxeter groups. *J. London Math. Soc. (2)*, 54(3):475–488, 1996.
- [1142] A. Mathas. Murphy operators and the centre of the Iwahori-Hecke algebras of type A . *J. Algebraic Combin.*, 9(3):295–313, 1999.
- [1143] P. C. Matthews. Automating symmetry-breaking calculations. *LMS J. Comput. Math.*, 7:101–119 (electronic), 2004.
- [1144] C. L. May and J. Zimmerman. The groups of symmetric genus three. *Houston J. Math.*, 23(4):573–590, 1997.
- [1145] C. L. May and J. Zimmerman. The group of symmetric Euler characteristic -3 . *Houston J. Math.*, 27(4):737–752, 2001.
- [1146] P. Mayr. The polynomial functions on Frobenius complements. *Acta Sci. Math. (Szeged)*, 72(1-2):37–50, 2006.
- [1147] P. Mayr and F. Morini. Nearings whose set of N -subgroups is linearly ordered. *Results Math.*, 42(3-4):339–348, 2002.
- [1148] V. D. Mazurov. On the generation of sporadic simple groups by three involutions, two of which commute. *Sibirsk. Mat. Zh.*, 44(1):193–198, 2003.
- [1149] V. D. Mazurov and A. S. Mamontov. On periodic groups with elements of small orders. *Sibirsk. Mat. Zh.*, 50(2):397–404, 2009.
- [1150] V. D. Mazurov and W. Shi. A note to the characterization of sporadic simple groups. *Algebra Colloq.*, 5(3):285–288, 1998.
- [1151] G. Mazzuocolo. Primitive 2-factorizations of the complete graph. *Discrete Math.*, 308(2-3):175–179, 2008.
- [1152] J. McCarron. *Residual nilpotence and one relator groups*. ProQuest LLC, Ann Arbor, MI, 1995. Thesis (Ph.D.)—University of Waterloo (Canada).
- [1153] L. McCarthy. Typing for interactive symbolic computation. Synthesis project, Dept. of Computer Science, University of Massachusetts at Amherst, 1995.
- [1154] D. McCullough and M. Wanderley. Writing elements of $\mathrm{PSL}(2, q)$ as commutators. *Comm. Algebra*, 39(4):1234–1241, 2011.
- [1155] A. McDermott. *The nonabelian tensor product of groups: computations and structural results*. PhD thesis, Department of Mathematics, National University of Ireland, Galway, 1998.
- [1156] T. P. McDonough, V. C. Mavron, and H. N. Ward. Amalgams of designs and nets. *Bull. Lond. Math. Soc.*, 41(5):841–852, 2009.

- [1157] T. P. McDonough and C. A. Pallikaros. On the irreducible representations of the specializations of the generic Hecke algebra of type F_4^* . *J. Algebra*, 218(2):654–671, 1999.
- [1158] T. P. McDonough and C. A. Pallikaros. On the irreducible representations of the specializations in characteristics 2 and 3 of the generic Hecke algebra of type F_4^1 . *J. Algebra*, 226(2):857–864, 2000.
- [1159] T. P. McDonough and C. A. Pallikaros. On relations between the classical and the Kazhdan-Lusztig representations of symmetric groups and associated Hecke algebras. *J. Pure Appl. Algebra*, 203(1-3):133–144, 2005.
- [1160] T. P. McDonough and C. A. Pallikaros. On subsequences and certain elements which determine various cells in S_n . *J. Algebra*, 319(3):1249–1263, 2008.
- [1161] J. McInroy and S. Shpectorov. On the simple connectedness of hyperplane complements in dual polar spaces. II. *Discrete Math.*, 310(8):1381–1388, 2010.
- [1162] I. McLoughlin and T. Hurley. A group ring construction of the extended binary Golay code. *IEEE Trans. Inform. Theory*, 54(9):4381–4383, 2008.
- [1163] J. P. McSorley and L. H. Soicher. Constructing t -designs from t -wise balanced designs. *European J. Combin.*, 28(2):567–571, 2007.
- [1164] K. Meagher and P. Spiga. An Erdős-Ko-Rado theorem for the derangement graph of $\text{PGL}(2, q)$ acting on the projective line. *J. Combin. Theory Ser. A*, 118(2):532–544, 2011.
- [1165] A. Meier, M. Pollet, and V. Sorge. Classifying isomorphic residue classes. *COMPUTER AIDED SYSTEMS THEORY - EUROCAST 2001*, 2178:494–508, 2001.
- [1166] A. Meier, M. Pollet, and V. Sorge. Comparing approaches to the exploration of the domain of residue classes. *J. Symbolic Comput.*, 34(4):287–306, 2002. Integrated reasoning and algebra systems (Siena, 2001).
- [1167] J. Meier. Ein Interpreter einer Programmiersprache für die Gruppentheorie. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, January 1987.
- [1168] E. Melis, J. Budenbender, G. Goguadze, P. Libbrecht, and C. Ullrich. Knowledge representation and management in activemath. *ANNALS OF MATHEMATICS AND ARTIFICIAL INTELLIGENCE*, 38:47–64, MAY 2003.
- [1169] T. Merkwitz. Markentafeln endlicher gruppen. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1998.
- [1170] W. W. Merkwitz. Symbolische Multiplikation in nilpotenten Gruppen mit Deep Thought. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, April 1997.
- [1171] H. Meyer. Konjugationsklassensummen in endlichen Gruppenringen. *Bayreuth. Math. Schr.*, (66):viii+160, 2002. Dissertation, Universität Bayreuth, Bayreuth, 2002.
- [1172] H. Meyer. On a subalgebra of the centre of a group ring. *J. Algebra*, 295(1):293–302, 2006.

- [1173] H. Meyer. On a subalgebra of the centre of a group ring. II. *Arch. Math. (Basel)*, 90(2):112–122, 2008.
- [1174] H. Meyer. Primitive central idempotents of finite group rings of symmetric groups. *Math. Comp.*, 77(263):1801–1821, 2008.
- [1175] H. Meyer. Primitive central idempotents of finite group rings of symmetric groups. In *Proceedings of the International Conference on Modules and Representation Theory*, pages 133–147. Presa Univ. Clujeană, Cluj-Napoca, 2009.
- [1176] I. M. Michailov. On Galois cohomology and realizability of 2-groups as Galois groups. *Cent. Eur. J. Math.*, 9(2):403–419, 2011.
- [1177] J. Michel. Calculs en théorie des groupes et introduction au langage GAP (groups, algorithms and programming). In *Groupes finis*, pages 71–95. Ed. Éc. Polytech., Palaiseau, 2000.
- [1178] P. Michel. Homology of groups and third busy beaver function. *Internat. J. Algebra Comput.*, 20(6):769–791, 2010.
- [1179] G. O. Michler. On the construction of the finite simple groups with a given centralizer of a 2-central involution. *J. Algebra*, 234(2):668–693, 2000. Special issue in honor of Helmut Wielandt.
- [1180] G. O. Michler. The character values of multiplicity-free irreducible constituents of a transitive permutation representation. *Kyushu J. Math.*, 55(1):75–106, 2001.
- [1181] G. O. Michler. On the uniqueness of the finite simple groups with a given centralizer of a 2-central involution. *Illinois J. Math.*, 47(1-2):419–444, 2003. Special issue in honor of Reinhold Baer (1902–1979).
- [1182] G. O. Michler and A. Previtali. O’Nan group uniquely determined by the centralizer of a 2-central involution. *J. Algebra Appl.*, 6(1):135–171, 2007.
- [1183] G. O. Michler and O. Solberg. Testing modules of groups of even order for simplicity. *J. Algebra*, 202(1):229–242, 1998.
- [1184] G. O. Michler and M. Weller. The character values of the irreducible constituents of a transitive permutation representation. *Arch. Math. (Basel)*, 78(6):417–429, 2002.
- [1185] G. O. Michler, M. Weller, and K. Waki. Natural existence proof for Lyons simple group. *J. Algebra Appl.*, 2(3):277–315, 2003.
- [1186] F. Migliorini. Some topics and a classification in the theory of sm-representation of finite groups. *Pure Math. Appl.*, 11(3):521–532, 2000.
- [1187] A. Miller, M. Calder, and A. F. Donaldson. A template-based approach for the generation of abstractable and reducible models of featured networks. *Computer Networks*, 51(2):439–455, 2007.
- [1188] A. Miller, A. F. Donaldson, and M. Calder. Symmetry in temporal logic model checking. *ACM Comput. Surv.*, 38(3), 2006.

- [1189] A. A. Miller and C. E. Praeger. Non-Cayley vertex-transitive graphs of order twice the product of two odd primes. *J. Algebraic Combin.*, 3(1):77–111, 1994.
- [1190] T. Minkwitz. An algorithm for solving the factorization problem in permutation groups. *J. Symbolic Comput.*, 26(1):89–95, 1998.
- [1191] A. Miri, M. Nevins, and T. Niyomsataya. Applications of representation theory to wireless communications. *Des. Codes Cryptogr.*, 41(3):307–318, 2006.
- [1192] J. Misra, T. Nipkow, and E. Sekerinski. Fm 2006: Formal methods, 14th international symposium on formal methods, hamilton, canada, august 21-27, 2006, proceedings. In *FM*, volume 4085 of *Lecture Notes in Computer Science*, 2006.
- [1193] E. Mistretta and F. Polizzi. Standard isotrivial fibrations with $p_g = q = 1$. II. *J. Pure Appl. Algebra*, 214(4):344–369, 2010.
- [1194] I. Miyamoto. Computing isomorphisms of association schemes and its applications. *J. Symbolic Comput.*, 32(1-2):133–141, 2001. Computer algebra and mechanized reasoning (St. Andrews, 2000).
- [1195] J. Mnich. Untergruppenverbände und auflösbare Gruppen in GAP. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1992.
- [1196] A. R. Moghaddamfar. On spectrum of linear groups over the binary field and recognizability of $L_{12}(2)$. *Internat. J. Algebra Comput.*, 16(2):341–349, 2006.
- [1197] B. Monson, T. Pisanski, E. Schulte, and A. I. Weiss. Semisymmetric graphs from polytopes. *J. Combin. Theory Ser. A*, 114(3):421–435, 2007.
- [1198] B. Monson and E. Schulte. Reflection groups and polytopes over finite fields. I. *Adv. in Appl. Math.*, 33(2):290–317, 2004.
- [1199] B. Monson and E. Schulte. Reflection groups and polytopes over finite fields. II. *Adv. in Appl. Math.*, 38(3):327–356, 2007.
- [1200] B. Monson and E. Schulte. Reflection groups and polytopes over finite fields. III. *Adv. in Appl. Math.*, 41(1):76–94, 2008.
- [1201] B. Monson and E. Schulte. Locally toroidal polytopes and modular linear groups. *Discrete Math.*, 310(12):1759–1771, 2010.
- [1202] B. Monson and A. I. Weiss. Medial layer graphs of equivelar 4-polytopes. *European J. Combin.*, 28(1):43–60, 2007.
- [1203] A. Montinaro. Large 2-transitive arcs. *J. Combin. Theory Ser. A*, 114(6):993–1023, 2007.
- [1204] E. H. Moore and H. Pollatsek. Looking for difference sets in groups with dihedral images. *Des. Codes Cryptogr.*, 28(1):45–50, 2003.
- [1205] J. Moori. $(2, 3, p)$ -generations for the Fischer group F_{22} . *Comm. Algebra*, 22(11):4597–4610, 1994.

- [1206] J. Moori and Z. Mpono. Fischer-Clifford matrices and the character table of a maximal subgroup of \overline{F}_{22} . *Int. J. Math. Game Theory Algebra*, 10(1):1–12, 2000.
- [1207] J. Moori and B. G. Rodrigues. On Frattini extensions. *Sci. Math. Jpn.*, 55(2):215–221, 2002.
- [1208] J. Moori and K. Zimba. Permutation actions of the symmetric group S_n on the groups Z_m^n and \overline{Z}_m^n . *Quaest. Math.*, 28(2):179–193, 2005.
- [1209] J. Moori and K. Zimba. Fischer-Clifford matrices of $B(2, n)$. *Quaest. Math.*, 29(1):9–37, 2006.
- [1210] P. Moravec. Some groups with n -central normal closures. *Publ. Math. Debrecen*, 67(3-4):355–372, 2005.
- [1211] P. Moravec. On power endomorphisms of n -central groups. *J. Group Theory*, 9(4):519–536, 2006.
- [1212] P. Moravec. Schur multipliers and power endomorphisms of groups. *J. Algebra*, 308(1):12–25, 2007.
- [1213] P. Moravec. Schur multipliers and power endomorphisms of groups. *Journal of Algebra*, 308(1):12–25, 2007.
- [1214] P. Moravec. The exponents of nonabelian tensor products of groups. *J. Pure Appl. Algebra*, 212(7):1840–1848, 2008.
- [1215] P. Moravec. On the exponent semigroups of finite p -groups. *J. Group Theory*, 11(4):511–524, 2008.
- [1216] P. Moravec. Schur multipliers of n -Engel groups. *Internat. J. Algebra Comput.*, 18(6):1101–1115, 2008.
- [1217] A. Moreau. Indice du normalisateur du centralisateur d’un élément nilpotent dans une algèbre de Lie semi-simple. *Bull. Soc. Math. France*, 134(1):83–117, 2006.
- [1218] I. Moreno Mejía. The trace of an automorphism on $H^0(J, \mathcal{O}(n\Theta))$. *Michigan Math. J.*, 53(1):57–69, 2005.
- [1219] I. Moreno-Mejía. The quadrics through the Hurwitz curves of genus 14. *J. Lond. Math. Soc. (2)*, 81(2):374–388, 2010.
- [1220] M. Morimoto. Smith equivalent $\text{Aut}(A_6)$ -representations are isomorphic. *Proc. Amer. Math. Soc.*, 136(10):3683–3688, 2008.
- [1221] M. Morimoto. Nontrivial $\mathcal{P}(G)$ -matched \mathfrak{S} -related pairs for finite gap Oliver groups. *J. Math. Soc. Japan*, 62(2):623–647, 2010.
- [1222] J. Morris, P. Spiga, and K. Webb. Balanced Cayley graphs and balanced planar graphs. *Discrete Math.*, 310(22):3228–3235, 2010.

- [1223] R. F. Morse. Advances in computing the nonabelian tensor square of polycyclic groups. *Irish Math. Soc. Bull.*, (56):115–123, 2005.
- [1224] R. F. Morse. On the Rosenberger monster. In *Combinatorial group theory, discrete groups, and number theory*, volume 421 of *Contemp. Math.*, pages 251–260. Amer. Math. Soc., Providence, RI, 2006.
- [1225] P. Moskalev. Group-theoretical methods in optimal golomb ruler search. In *Actual problems of mathematics and computer science. 2nd regional scientific conference of young researchers. Zaporozhye, Ukraine, April 22–23, 2004*, pages 29–30, 2004.
- [1226] J. Müller. 5-modulare Zerlegungszahlen für die sporadische einfache Gruppe Co_3 . Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1992.
- [1227] J. Müller. *Zerlegungszahlen für generische Iwahori-Hecke-Algebren von exzeptionellem Typ*. PhD thesis, RWTH, Aachen, 1995.
- [1228] J. Müller. Decomposition numbers for generic Iwahori-Hecke algebras of noncrystallographic type. *J. Algebra*, 189(1):125–149, 1997.
- [1229] J. Müller. The 5-modular decomposition matrix of the sporadic simple Conway group Co_3 . In *Proceedings of the 1998 International Symposium on Symbolic and Algebraic Computation (Rostock)*, pages 179–185 (electronic), New York, 1998. ACM.
- [1230] J. Müller. The 2-modular decomposition matrices of the symmetric groups S_{15} , S_{16} , and S_{17} . *Comm. Algebra*, 28(10):4997–5005, 2000.
- [1231] J. Müller. Brauer trees for the Schur cover of the symmetric group. *J. Algebra*, 266(2):427–445, 2003.
- [1232] J. Müller. A note on applications of the ‘Vector Enumerator’ algorithm. *Linear Algebra Appl.*, 365:291–300, 2003. Special issue on linear algebra methods in representation theory.
- [1233] J. Müller. On endomorphism rings and character tables. Habilitationsschrift, RWTH Aachen, 2003.
- [1234] J. Müller. On the action of the sporadic simple Baby Monster group on its conjugacy class 2B. *LMS J. Comput. Math.*, 11:15–27, 2008.
- [1235] J. Müller. On the multiplicity-free actions of the sporadic simple groups. *J. Algebra*, 320(2):910–926, 2008.
- [1236] J. Müller and M. Neunhöffer. Some computations regarding Foulkes’ conjecture. *Experiment. Math.*, 14(3):277–283, 2005.
- [1237] J. Müller, M. Neunhöffer, F. Röhr, and R. Wilson. Completing the Brauer trees for the sporadic simple Lyons group. *LMS J. Comput. Math.*, 5:18–33 (electronic), 2002.
- [1238] J. Müller, M. Neunhöffer, and R. A. Wilson. Enumerating big orbits and an application: B acting on the cosets of Fi_{23} . *J. Algebra*, 314(1):75–96, 2007.

- [1239] J. Müller and C. Ritzenthaler. On the ring of invariants of ordinary quartic curves in characteristic 2. *J. Algebra*, 303(2):530–542, 2006.
- [1240] J. Müller and J. Rosenboom. Condensation of induced representations and an application: the 2-modular decomposition numbers of Co_2 . In *Computational methods for representations of groups and algebras (Essen, 1997)*, volume 173 of *Progr. Math.*, pages 309–321. Birkhäuser, Basel, 1999.
- [1241] J. Müller and M. Schaps. The Broué conjecture for the faithful 3-blocks of $4.M_{22}$. *J. Algebra*, 319(9):3588–3602, 2008.
- [1242] J. Müller and R. Zimmermann. Green vertices and sources of simple modules of the symmetric group labelled by hook partitions. *Arch. Math. (Basel)*, 89(2):97–108, 2007.
- [1243] P. Müller. Kronecker conjugacy of polynomials. *Trans. Amer. Math. Soc.*, 350(5):1823–1850, 1998.
- [1244] T. W. Müller and J. Schlage-Puchta. Character theory of symmetric groups, subgroup growth of Fuchsian groups, and random walks. *Adv. Math.*, 213(2):919–982, 2007.
- [1245] T. W. Müller and J. Schlage-Puchta. Statistics of isomorphism types in free products. *Adv. Math.*, 224(2):707–730, 2010.
- [1246] S. H. Murray and E. A. O’Brien. Selecting base points for the Schreier-Sims algorithm for matrix groups. *J. Symbolic Comput.*, 19(6):577–584, 1995.
- [1247] Q. Mushtaq and S. Asif. A_5 as a homomorphic image of a subgroup of Picard group. *Comm. Algebra*, 38(10):3897–3912, 2010.
- [1248] A. Mutlu. Application of Peiffer commutators in the Moore complex of a simplicial group its given with GAP program. *Bull. Pure Appl. Sci. Sect. E Math. Stat.*, 18(1):89–100, 1999.
- [1249] V. I. Mysovskikh. Testing subgroups of a finite group on embedding properties like pronormality. *Zap. Nauchn. Sem. S.-Peterburg. Otdel. Mat. Inst. Steklov. (POMI)*, 236(Vopr. Teor. Predst. Algebr i Grupp. 5):119–123, 218, 1997.
- [1250] V. I. Mysovskikh. Burnside marks and a solution of two problems of Z. I. Borevich on polynormal subgroups. *Dokl. Akad. Nauk*, 367(4):445–446, 1999.
- [1251] V. I. Mysovskikh. Investigation of subgroup embeddings by the computer algebra package GAP. In *Computer algebra in scientific computing—CASC’99 (Munich)*, pages 309–315. Springer, Berlin, 1999.
- [1252] V. I. Mysovskikh. Subnormalizers and embedding properties of subgroups of finite groups. *Zap. Nauchn. Sem. S.-Peterburg. Otdel. Mat. Inst. Steklov. (POMI)*, 265(Vopr. Teor. Predst. Algebr i Grupp. 6):258–280, 328–329 (2000), 1999.
- [1253] V. I. Mysovskikh. Burnside matrices and subgroup embeddings in finite groups. In *Formal power series and algebraic combinatorics (Moscow, 2000)*, pages 528–533. Springer, Berlin, 2000.

- [1254] V. I. Mysovskikh. Computer algebra systems and symbolic computations. *Zap. Nauchn. Sem. S.-Peterburg. Otdel. Mat. Inst. Steklov. (POMI)*, 281(Vopr. Teor. Predst. Algebr. i Grupp. 8):227–236, 283–284, 2001.
- [1255] V. I. Mysovskikh and A. I. Skopin. Embedding properties of nonprimary subgroups of the symmetric group of degree eight. *Zap. Nauchn. Sem. S.-Peterburg. Otdel. Mat. Inst. Steklov. (POMI)*, 236(Vopr. Teor. Predst. Algebr i Grupp. 5):124–128, 218–219, 1997.
- [1256] V. I. Mysovskikh and A. I. Skopin. Embeddings of subgroups in the symmetric group of degree nine. *Zap. Nauchn. Sem. S.-Peterburg. Otdel. Mat. Inst. Steklov. (POMI)*, 265(Vopr. Teor. Predst. Algebr i Grupp. 6):281–284, 329 (2000), 1999.
- [1257] V. I. Mysovskikh and A. I. Skopin. Embedding of nonprimary subgroups in the symmetric group S_9 . *Zap. Nauchn. Sem. S.-Peterburg. Otdel. Mat. Inst. Steklov. (POMI)*, 281(Vopr. Teor. Predst. Algebr. i Grupp. 8):237–252, 284, 2001.
- [1258] N. Naehrig. Endomorphism rings of permutation modules. *J. Algebra*, 324(5):1044–1075, 2010.
- [1259] G. P. Nagy. On the tangent algebra of algebraic commutative Moufang loops. *Mathematica*, 45(68)(2):147–160, 2003.
- [1260] G. P. Nagy. Direct construction of code loops. *Discrete Math.*, 308(23):5349–5357, 2008.
- [1261] G. P. Nagy. A class of finite simple Bol loops of exponent 2. *Trans. Amer. Math. Soc.*, 361(10):5331–5343, 2009.
- [1262] G. P. Nagy. On the multiplication groups of semifields. *European J. Combin.*, 31(1):18–24, 2010.
- [1263] G. P. Nagy and P. Vojtěchovský. The Moufang loops of order 64 and 81. *J. Symbolic Comput.*, 42(9):871–883, 2007.
- [1264] G. Navarro. The McKay conjecture and Galois automorphisms. *Ann. of Math. (2)*, 160(3):1129–1140, 2004.
- [1265] G. Navarro, L. Sanus, and P. H. Tiep. Real characters and degrees. *Israel J. Math.*, 171:157–173, 2009.
- [1266] G. Navarro and P. H. Tiep. Rational Brauer characters. *Math. Ann.*, 335(3):675–686, 2006.
- [1267] G. Navarro and P. H. Tiep. Degrees of rational characters of finite groups. *Adv. Math.*, 224(3):1121–1142, 2010.
- [1268] G. Nebe. *Endliche rationale Matrixgruppen vom Grad 24*. PhD thesis, RWTH, Aachen, 1993.
- [1269] G. Nebe. *Orthogonale Darstellungen endlicher Gruppen und Gruppenringe*. Habilitationsschrift, RWTH, Aachen, 1993.
- [1270] G. Nebe. Finite subgroups of $GL_n(Q)$ for $25 \leq n \leq 31$. *Comm. Algebra*, 24(7):2341–2397, 1996.

- [1271] G. Nebe. Finite quaternionic matrix groups. *Represent. Theory*, 2:106–223 (electronic), 1998.
- [1272] G. Nebe. The structure of maximal finite primitive matrix groups. In *Algorithmic algebra and number theory (Heidelberg, 1997)*, pages 417–422. Springer, Berlin, 1999.
- [1273] G. Nebe. Invariants of orthogonal G -modules from the character table. *Experiment. Math.*, 9(4):623–629, 2000.
- [1274] G. Nebe and W. Plesken. Finite rational matrix groups. *Mem. Amer. Math. Soc.*, 116(556):viii+144, 1995.
- [1275] J. M. Neuberger, N. Sieben, and J. W. Swift. Symmetry and automated branch following for a semilinear elliptic PDE on a fractal region. *SIAM J. Appl. Dyn. Syst.*, 5(3):476–507 (electronic), 2006.
- [1276] J. Neubüser. An invitation to computational group theory. In *Groups '93 Galway/St. Andrews, Vol. 2*, volume 212 of *London Math. Soc. Lecture Note Ser.*, pages 457–475. Cambridge Univ. Press, Cambridge, 1995.
- [1277] M. Neunhöffer and C. E. Praeger. Computing minimal polynomials of matrices. *LMS J. Comput. Math.*, 11:252–279, 2008.
- [1278] M. F. Newman. On a family of cyclically-presented fundamental groups. *J. Aust. Math. Soc.*, 71(2):235–241, 2001. Special issue on group theory.
- [1279] M. F. Newman, W. Nickel, and A. C. Niemeyer. Descriptions of groups of prime-power order. *J. Symbolic Comput.*, 25(5):665–682, 1998.
- [1280] M. F. Newman and E. A. O'Brien. Application of computers to questions like those of Burnside. II. *Internat. J. Algebra Comput.*, 6(5):593–605, 1996.
- [1281] M. F. Newman and E. A. O'Brien. Classifying 2-groups by coclass. *Trans. Amer. Math. Soc.*, 351(1):131–169, 1999.
- [1282] M. F. Newman, E. A. O'Brien, and M. R. Vaughan-Lee. Groups and nilpotent Lie rings whose order is the sixth power of a prime. *J. Algebra*, 278(1):383–401, 2004.
- [1283] W. Nickel. Endliche Körper im gruppentheoretischen Programmsystem GAP. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, August 1988.
- [1284] W. Nickel. *Central extensions of polycyclic groups*. PhD thesis, Australian National University, 1993.
- [1285] W. Nickel. Computation of nilpotent Engel groups. *J. Austral. Math. Soc. Ser. A*, 67(2):214–222, 1999. Group theory.
- [1286] W. Nickel. Matrix representations for torsion-free nilpotent groups by Deep Thought. *J. Algebra*, 300(1):376–383, 2006.
- [1287] S. J. Nickerson and R. A. Wilson. Semi-presentations for the sporadic simple groups. *Experiment. Math.*, 14(3):359–371, 2005.

- [1288] C. Nicotera. A note on rewritability of commutators in nilpotent groups. *Comm. Algebra*, 26(9):2967–2970, 1998.
- [1289] M. Niebrzydowski. On colored quandle longitudes and its applications to tangle embeddings and virtual knots. *J. Knot Theory Ramifications*, 15(8):1049–1059, 2006.
- [1290] M. Niebrzydowski. Coloring invariants of spatial graphs. *J. Knot Theory Ramifications*, 19(6):829–841, 2010.
- [1291] M. Niebrzydowski and J. H. Przytycki. Burnside kei. *Fund. Math.*, 190:211–229, 2006.
- [1292] M. Niebrzydowski and J. H. Przytycki. Homology of dihedral quandles. *J. Pure Appl. Algebra*, 213(5):742–755, 2009.
- [1293] M. Niebrzydowski and J. H. Przytycki. Homology operations on homology of quandles. *J. Algebra*, 324(7):1529–1548, 2010.
- [1294] M. Niebrzydowski and J. H. Przytycki. The second quandle homology of the Takasaki quandle of an odd abelian group is an exterior square of the group. *J. Knot Theory Ramifications*, 20(1):171–177, 2011.
- [1295] M. Niemenmaa and M. Rytty. On finite loops with nilpotent inner mapping groups. *Arch. Math. (Basel)*, 95(4):319–324, 2010.
- [1296] A. Niemeyer. Algorithmen für Permutationsgruppen in GAP. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, August 1988.
- [1297] A. C. Niemeyer. *Computing Presentations for Soluble Groups*. PhD thesis, Australian National University, 1993.
- [1298] A. C. Niemeyer. A finite soluble quotient algorithm. *J. Symbolic Comput.*, 18(6):541–561, 1994.
- [1299] A. C. Niemeyer. Computing finite soluble quotients. In *Computational algebra and number theory (Sydney, 1992)*, volume 325 of *Math. Appl.*, pages 75–82. Kluwer Acad. Publ., Dordrecht, 1995.
- [1300] A. C. Niemeyer. Constructive recognition of normalizers of small extra-special matrix groups. *Internat. J. Algebra Comput.*, 15(2):367–394, 2005.
- [1301] A. C. Niemeyer and C. E. Praeger. Implementing a recognition algorithm for classical groups. In *Groups and computation, II (New Brunswick, NJ, 1995)*, volume 28 of *DIMACS Ser. Discrete Math. Theoret. Comput. Sci.*, pages 273–296. Amer. Math. Soc., Providence, RI, 1997.
- [1302] A. C. Niemeyer and C. E. Praeger. A recognition algorithm for classical groups over finite fields. *Proc. London Math. Soc. (3)*, 77(1):117–169, 1998.
- [1303] A. C. Niemeyer and C. E. Praeger. On the frequency of permutations containing a long cycle. *J. Algebra*, 300(1):289–304, 2006.

- [1304] A. C. Niemeyer and C. E. Praeger. On the proportion of permutations of order a multiple of the degree. *J. Lond. Math. Soc. (2)*, 76(3):622–632, 2007.
- [1305] R. Nikkuni and K. Onda. A characterization of knots in a spatial graph. II. *J. Knot Theory Ramifications*, 11(7):1133–1154, 2002.
- [1306] F. Noeske. Zur darstellungstheorie schurscher erweiterungen symmetrischer gruppen. Diploma thesis, Aachen University, 2002.
- [1307] F. Noeske. The 2- and 3-modular characters of the sporadic simple Fischer group Fi_{22} and its cover. *J. Algebra*, 309(2):723–743, 2007.
- [1308] A. Nomura. A note on the 3-class field tower of a cyclic cubic field. *Proc. Japan Acad. Ser. A Math. Sci.*, 83(2):14–15, 2007.
- [1309] A. Nomura. Notes on the minimal number of ramified primes in some l -extensions of \mathbf{Q} . *Arch. Math. (Basel)*, 90(6):501–510, 2008.
- [1310] S. Norton. Computing in the Monster. *J. Symbolic Comput.*, 31(1-2):193–201, 2001. Computational algebra and number theory (Milwaukee, WI, 1996).
- [1311] S. P. Norton and R. A. Wilson. Anatomy of the Monster. II. *Proc. London Math. Soc. (3)*, 84(3):581–598, 2002.
- [1312] V. Núñez and J. Rodríguez-Viorato. Dihedral coverings of Montesinos knots. *Bol. Soc. Mat. Mexicana (3)*, 10(Special Issue):423–449, 2004.
- [1313] P. Ó Catháin and M. Röder. The cocyclic Hadamard matrices of order less than 40. *Des. Codes Cryptogr.*, 58(1):73–88, 2011.
- [1314] E. A. O’Brien. The groups of order 256. *J. Algebra*, 143(1):219–235, 1991.
- [1315] E. A. O’Brien. Isomorphism testing for p -groups. *J. Symbolic Comput.*, 16(3):305–320, 1993.
- [1316] E. A. O’Brien. Computing automorphism groups of p -groups. In *Computational algebra and number theory (Sydney, 1992)*, volume 325 of *Math. Appl.*, pages 83–90. Kluwer Acad. Publ., Dordrecht, 1995.
- [1317] E. A. O’Brien and M. R. Vaughan-Lee. The groups with order p^7 for odd prime p . *J. Algebra*, 292(1):243–258, 2005.
- [1318] J. Oh. Arc-transitive elementary abelian covers of the Pappus graph. *Discrete Math.*, 309(23-24):6590–6611, 2009.
- [1319] J. Oh. A classification of cubic s -regular graphs of order $14p$. *Discrete Math.*, 309(9):2721–2726, 2009.
- [1320] J. Oh. A classification of cubic s -regular graphs of order $16p$. *Discrete Math.*, 309(10):3150–3155, 2009.
- [1321] D. v. Đoković. Poincaré series of some pure and mixed trace algebras of two generic matrices. *J. Algebra*, 309(2):654–671, 2007.

- [1322] D. v. Đoković and D. Doniz. The complex indecomposable representations of $\text{Aut}(F_2)$ of degree less than six. *Internat. J. Algebra Comput.*, 10(2):229–260, 2000.
- [1323] D. v. Đoković and V. P. Platonov. Low-dimensional representations of $\text{Aut}(F_2)$. *Manuscripta Math.*, 89(4):475–509, 1996.
- [1324] R. N. Oliveira and S. N. Sidki. On commutativity and finiteness in groups. *Bull. Braz. Math. Soc. (N.S.)*, 40(2):149–180, 2009.
- [1325] A. Olivieri and A. del Río. An algorithm to compute the primitive central idempotents and the Wedderburn decomposition of a rational group algebra. *J. Symbolic Comput.*, 35(6):673–687, 2003.
- [1326] A. Olivieri, A. del Río, and J. J. Simón. On monomial characters and central idempotents of rational group algebras. *Comm. Algebra*, 32(4):1531–1550, 2004.
- [1327] M. A. Ollis. Protection against premature termination of experiments based on Williams squares with circular structure. *Util. Math.*, 63:143–149, 2003.
- [1328] M. A. Ollis and P. Spiga. Every abelian group of odd order has a narcissistic terrace. *Ars Combin.*, 76:161–168, 2005.
- [1329] G. Olteanu. Computing the Wedderburn decomposition of group algebras by the Brauer-Witt theorem. *Math. Comp.*, 76(258):1073–1087 (electronic), 2007.
- [1330] G. Olteanu and A. del Río. Group algebras of Kleinian type and groups of units. *J. Algebra*, 318(2):856–870, 2007.
- [1331] G. Olteanu and A. del Río. An algorithm to compute the Wedderburn decomposition of semisimple group algebras implemented in the GAP package `wedderga`. *J. Symbolic Comput.*, 44(5):507–516, 2009.
- [1332] A. Omrani and A. Shokrollahi. Computing irreducible representations of supersolvable groups over small finite fields. *Math. Comp.*, 66(218):779–786, 1997.
- [1333] J. Opgenorth, W. Plesken, and T. Schulz. Crystallographic algorithms and tables. *Acta Cryst. Sect. A*, 54(5):517–531, 1998.
- [1334] E. O’Reilly Regueiro. Biplanes with flag-transitive automorphism groups of almost simple type, with alternating or sporadic socle. *European J. Combin.*, 26(5):577–584, 2005.
- [1335] P. R. J. Östergård. Classifying subspaces of Hamming spaces. *Des. Codes Cryptogr.*, 27(3):297–305, 2002.
- [1336] J. Ostrowski, J. Linderoth, F. Rossi, and S. Smriglio. Constraint orbital branching. In *Integer programming and combinatorial optimization*, volume 5035 of *Lecture Notes in Comput. Sci.*, pages 225–239. Springer, Berlin, 2008.
- [1337] M. Ottensmann. Vervollständigung der brauerbäume von 3.on in charakteristik 11, 19 und 31 mit methoden der kondensation. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 2000.

- [1338] M. Oura. The dimension formula for the ring of code polynomials in genus 4. *Osaka J. Math.*, 34(1):53–72, 1997.
- [1339] B. Owren and A. Marthinsen. Integration methods based on canonical coordinates of the second kind. *Numer. Math.*, 87(4):763–790, 2001.
- [1340] H. Pahlings. Character polynomials and the Möbius function. *Arch. Math. (Basel)*, 65(2):111–118, 1995.
- [1341] H. Pahlings. The character table of $2_+^{1+22}.Co_2$. *J. Algebra*, 315(1):301–325, 2007.
- [1342] I. Pak. What do we know about the product replacement algorithm? In *Groups and computation, III (Columbus, OH, 1999)*, volume 8 of *Ohio State Univ. Math. Res. Inst. Publ.*, pages 301–347. de Gruyter, Berlin, 2001.
- [1343] P. P. Pálffy. The number of conjugacy classes in some quotients of the Nottingham group. *Proc. Edinburgh Math. Soc. (2)*, 41(2):369–384, 1998.
- [1344] P. P. Pálffy and C. Szabó. Congruence varieties of groups and abelian groups. In *Lattice theory and its applications (Darmstadt, 1991)*, volume 23 of *Res. Exp. Math.*, pages 163–183. Heldermann, Lemgo, 1995.
- [1345] S. Papadima and A. I. Suciuc. Algebraic invariants for right-angled Artin groups. *Math. Ann.*, 334(3):533–555, 2006.
- [1346] H. Park, K. Park, and Y. Cho. Analysis of the variable length nonzero window method for exponentiation. *Comput. Math. Appl.*, 37(7):21–29, 1999.
- [1347] S. Park and S. Kwon. Class number one problem for normal CM-fields. *J. Number Theory*, 125(1):59–84, 2007.
- [1348] C. Parker and P. Rowley. Quadratic functions and $GF(q)$ -groups. *Proc. Amer. Math. Soc.*, 125(8):2227–2237, 1997.
- [1349] C. Parker and P. Rowley. Sporadic simple groups which are completions of the Goldschmidt G_3 -amalgam. *J. Algebra*, 235(1):131–153, 2001.
- [1350] D. V. Pasechnik. Extended generalized octagons and the group He. *Geom. Dedicata*, 56(1):85–101, 1995.
- [1351] D. V. Pasechnik. Extending polar spaces of rank at least 3. *J. Combin. Theory Ser. A*, 72(2):232–242, 1995.
- [1352] D. V. Pasechnik. The triangular extensions of a generalized quadrangle of order $(3, 3)$. *Bull. Belg. Math. Soc. Simon Stevin*, 2(5):509–518, 1995.
- [1353] D. V. Pasechnik. The extensions of the generalized quadrangle of order $(3, 9)$. *European J. Combin.*, 17(8):751–755, 1996.
- [1354] A. Pasini and S. Yoshiara. New distance regular graphs arising from dimensional dual hyperovals. *European J. Combin.*, 22(4):547–560, 2001.

- [1355] A. Pasotti and M. A. Pellegrini. Symmetric 1-factorizations of the complete graph. *European J. Combin.*, 31(5):1410–1418, 2010.
- [1356] J. Paulhus. Decomposing Jacobians of curves with extra automorphisms. *Acta Arith.*, 132(3):231–244, 2008.
- [1357] K. Pawałowski and T. Sumi. The Laitinen conjecture for finite solvable Oliver groups. *Proc. Amer. Math. Soc.*, 137(6):2147–2156, 2009.
- [1358] O. Payne and S. Rees. Computing subgroup presentations, using the coherence arguments of McCammond and Wise. *J. Algebra*, 300(1):109–133, 2006.
- [1359] A. Pêcher. Partitionable graphs arising from near-factorizations of finite groups. *Discrete Math.*, 269(1-3):191–218, 2003.
- [1360] A. Pêcher. Cayley partitionable graphs and near-factorizations of finite groups. *Discrete Math.*, 276(1-3):295–311, 2004. 6th International Conference on Graph Theory.
- [1361] D. Pellicer. A construction of higher rank chiral polytopes. *Discrete Math.*, 310(6-7):1222–1237, 2010.
- [1362] D. Pellicer and A. I. Weiss. Generalized CPR-graphs and applications. *Contrib. Discrete Math.*, 5(2):76–105, 2010.
- [1363] C. Pernet and W. Stein. Fast computation of Hermite normal forms of random integer matrices. *J. Number Theory*, 130(7):1675–1683, 2010.
- [1364] K. E. Petrie and B. M. Smith. Symmetry breaking in graceful graphs. In *PRINCIPLES AND PRACTICE OF CONSTRAINT PROGRAMMING - CP 2003*, pages 930–934, 2003.
- [1365] G. Pfeiffer. Von Permutationscharakteren und Markentafeln. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1991.
- [1366] G. Pfeiffer. Character tables of Weyl groups in GAP. *Bayreuth. Math. Schr.*, (47):165–222, 1994.
- [1367] G. Pfeiffer. Young characters on Coxeter basis elements of Iwahori-Hecke algebras and a Murnaghan-Nakayama formula. *J. Algebra*, 168(2):525–535, 1994.
- [1368] G. Pfeiffer. *Charakterwerte von Iwahori-Hecke-Algebren von klassischem Typ*. PhD thesis, RWTH, Aachen, 1995.
- [1369] G. Pfeiffer. Character values of Iwahori-Hecke algebras of type B . In *Finite reductive groups (Luminy, 1994)*, volume 141 of *Progr. Math.*, pages 333–360. Birkhäuser Boston, Boston, MA, 1997.
- [1370] G. Pfeiffer. The subgroups of M_{24} , or how to compute the table of marks of a finite group. *Experiment. Math.*, 6(3):247–270, 1997.
- [1371] G. Pfeiffer. A quiver presentation for Solomon’s descent algebra. *Adv. Math.*, 220(5):1428–1465, 2009.

- [1372] J. D. Phillips and P. Vojtěchovský. Linear groupoids and the associated wreath products. *J. Symbolic Comput.*, 40(3):1106–1125, 2005.
- [1373] M. Picantin. Explicit presentations for the dual braid monoids. *C. R. Math. Acad. Sci. Paris*, 334(10):843–848, 2002.
- [1374] M. A. Pizaña. *Gráficas Iteradas de Clanes*. PhD thesis, Universidad Autónoma Metropolitana, Mexico, 2002.
- [1375] M. A. Pizaña. The icosahedron is clique divergent. *Discrete Math.*, 262(1-3):229–239, 2003.
- [1376] T. E. Plambeck. Taming the wild in impartial combinatorial games. *Integers*, 5(1):G5, 36, 2005.
- [1377] W. Plesken and M. Pohst. Constructing integral lattices with prescribed minimum. II. *Math. Comp.*, 60(202):817–825, 1993.
- [1378] W. Plesken and D. Robertz. Constructing invariants for finite groups. *Experiment. Math.*, 14(2):175–188, 2005.
- [1379] W. Plesken and B. Souvignier. Constructing rational representations of finite groups. *Experiment. Math.*, 5(1):39–47, 1996.
- [1380] U. Polis. Algorithmen für Permutationsgruppen. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1993.
- [1381] F. Polizzi. Standard isotrivial fibrations with $p_g = q = 1$. *J. Algebra*, 321(6):1600–1631, 2009.
- [1382] F. Polizzi. Numerical properties of isotrivial fibrations. *Geom. Dedicata*, 147:323–355, 2010.
- [1383] C. E. Praeger. Computers in algebra: new answers, new questions. *J. Korean Math. Soc.*, 38(4):763–780, 2001. Mathematics in the new millennium (Seoul, 2000).
- [1384] C. E. Praeger. The flag-transitive symmetric designs with 45 points, blocks of size 12, and 3 blocks on every point pair. *Des. Codes Cryptogr.*, 44(1-3):115–132, 2007.
- [1385] C. E. Praeger and L. H. Soicher. *Low rank representations and graphs for sporadic groups*, volume 8 of *Australian Mathematical Society Lecture Series*. Cambridge University Press, Cambridge, 1997.
- [1386] C. E. Praeger and S. Zhou. Imprimitive flag-transitive symmetric designs. *J. Combin. Theory Ser. A*, 113(7):1381–1395, 2006.
- [1387] H. Pralle. The hyperplanes of $DW(5, 2)$. *Experiment. Math.*, 14(3):373–384, 2005.
- [1388] A. Previtali. Maps behaving like exponentials and maximal unipotent subgroups of groups of Lie type. *Comm. Algebra*, 27(5):2511–2519, 1999.
- [1389] A. Previtali. Irreducible constituents of monomial representations. *J. Symbolic Comput.*, 41(12):1345–1359, 2006.

- [1390] M. Püschel. Decomposing monomial representations of solvable groups. *J. Symbolic Comput.*, 34(6):561–596, 2002.
- [1391] M. Püschel and J. M. F. Moura. The algebraic approach to the discrete cosine and sine transforms and their fast algorithms. *SIAM J. Comput.*, 32(5):1280–1316 (electronic), 2003.
- [1392] M. Puschel, J. M. F. Moura, B. Singer, J. X. Xiong, J. Johnson, D. Padua, M. Veloso, and R. W. Johnson. Spiral: A generator for platform-adapted libraries of signal processing algorithms. *INTERNATIONAL JOURNAL OF HIGH PERFORMANCE COMPUTING APPLICATIONS*, 18(1):21–45, APR 2004.
- [1393] M. Püschel, M. Rötteler, and T. Beth. Fast quantum Fourier transforms for a class of non-abelian groups. In *Applied algebra, algebraic algorithms and error-correcting codes (Honolulu, HI, 1999)*, volume 1719 of *Lecture Notes in Comput. Sci.*, pages 148–159. Springer, Berlin, 1999.
- [1394] M. Püschel, B. Singer, M. Veloso, and J. M. F. Moura. Fast Automatic Generation of DSP Algorithms. In *Proc. ICCS 2001*, LNCS 2073, pages 97–106. Springer, 2001.
- [1395] B. Putrycz. Commutator subgroups of Hantzsche-Wendt groups. *J. Group Theory*, 10(3):401–409, 2007.
- [1396] B. Putrycz and A. Szczepański. Existence of spin structures on flat four-manifolds. *Adv. Geom.*, 10(2):323–332, 2010.
- [1397] A. Raggi-Cárdenas and L. Valero-Elizondo. Two nonisomorphic groups of order 96 with isomorphic tables of marks and noncorresponding centres and abelian subgroups. *Comm. Algebra*, 37(1):209–212, 2009.
- [1398] A. G. Raggi-Cárdenas and L. Valero-Elizondo. Groups with isomorphic Burnside rings. *Arch. Math. (Basel)*, 84(3):193–197, 2005.
- [1399] M. F. Ragland. Generalizations of groups in which normality is transitive. *Comm. Algebra*, 35(10):3242–3252, 2007.
- [1400] A. Ram and A. V. Shepler. Classification of graded Hecke algebras for complex reflection groups. *Comment. Math. Helv.*, 78(2):308–334, 2003.
- [1401] D. Rattaggi. Anti-tori in square complex groups. *Geom. Dedicata*, 114:189–207, 2005.
- [1402] D. Rattaggi. A finitely presented torsion-free simple group. *J. Group Theory*, 10(3):363–371, 2007.
- [1403] D. Rattaggi. Three amalgams with remarkable normal subgroup structures. *J. Pure Appl. Algebra*, 210(2):537–541, 2007.
- [1404] N. Reading. Order dimension, strong Bruhat order and lattice properties for posets. *Order*, 19(1):73–100, 2002.
- [1405] M. Reeder. Formal degrees and L -packets of unipotent discrete series representations of exceptional p -adic groups. *J. Reine Angew. Math.*, 520:37–93, 2000. With an appendix by Frank Lübeck.

- [1406] S. Rees. Automatic groups associated with word orders other than shortlex. *Internat. J. Algebra Comput.*, 8(5):575–598, 1998.
- [1407] S. Rees and L. H. Soicher. An algorithmic approach to fundamental groups and covers of combinatorial cell complexes. *J. Symbolic Comput.*, 29(1):59–77, 2000.
- [1408] E. O. Regueiro. Flag-transitive automorphism groups of almost simple type, with alternating or sporadic socle. *European Journal of Combinatorics*, 2004. Submitted.
- [1409] E. O. Regueiro. On primitivity and reduction for flag-transitive symmetric designs. *J. Combin. Theory Ser. A*, 109(1):135–148, 2005.
- [1410] M. Reid. Tile homotopy groups. *Enseign. Math. (2)*, 49(1-2):123–155, 2003.
- [1411] V. Reiner and D. I. Stamate. Koszul incidence algebras, affine semigroups, and Stanley-Reisner ideals. *Adv. Math.*, 224(6):2312–2345, 2010.
- [1412] B. Reinert and D. Zeckzer. Coset enumeration using prefix Gröbner bases: an experimental approach. *LMS J. Comput. Math.*, 4:74–134 (electronic), 2001.
- [1413] N. Rennert. A parallel multi-modular algorithm for computing Lagrange resolvents. *J. Symbolic Comput.*, 37(5):547–556, 2004.
- [1414] N. Rennert and A. Valibouze. Calcul de résolvantes avec les modules de Cauchy. *Experiment. Math.*, 8(4):351–366, 1999.
- [1415] D. O. Revin and E. P. Vdovin. Hall subgroups of finite groups. In *Ischia group theory 2004*, volume 402 of *Contemp. Math.*, pages 229–263. Amer. Math. Soc., Providence, RI, 2006.
- [1416] D. O. Revin and E. P. Vdovin. On the number of classes of conjugate Hall subgroups in finite simple groups. *J. Algebra*, 324(12):3614–3652, 2010.
- [1417] U. Riese. The quasisimple case of the $k(GV)$ -conjecture. *J. Algebra*, 235(1):45–65, 2001.
- [1418] U. Riese. Counting conjugacy classes of certain semidirect products. *J. Group Theory*, 7(2):143–165, 2004.
- [1419] J. Roberts. An algorithm for low dimensional group homology. *Homology, Homotopy Appl.*, 12(1):27–37, 2010.
- [1420] N. R. Rocco. A crossed embedding of groups and the computation of certain invariants of finite solvable groups. *Mat. Contemp.*, 7:19–24, 1994. XII School of Algebra, Part II (Portuguese) (Diamantina, 1992).
- [1421] N. R. Rocco. A presentation for a crossed embedding of finite solvable groups. *Comm. Algebra*, 22(6):1975–1998, 1994.
- [1422] M. Röder. The quasiregular projective planes of order 16. *Glas. Mat. Ser. III*, 43(63)(2):231–242, 2008.

- [1423] F. Röhr. Die brauer-charaktere der sporadisch einfachen rudvalis-gruppe in den charakteristiken 13 und 29. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 2000.
- [1424] A. M. Rojas. Group actions on Jacobian varieties. *Rev. Mat. Iberoam.*, 23(2):397–420, 2007.
- [1425] C. M. Roney-Dougal. Conjugacy of subgroups of the general linear group. *Experiment. Math.*, 13(2):151–163, 2004.
- [1426] C. M. Roney-Dougal. The primitive permutation groups of degree less than 2500. *J. Algebra*, 292(1):154–183, 2005.
- [1427] C. M. Roney-Dougal and W. R. Unger. The affine primitive permutation groups of degree less than 1000. *J. Symbolic Comput.*, 35(4):421–439, 2003.
- [1428] D. Roozemon. *Algorithms for Lie Algebras of Algebraic Groups*. PhD thesis, Technische Universiteit Eindhoven, 2010.
- [1429] S. Rosebrock. *Geometrische Gruppentheorie - Ein Einstieg mit dem Computer*. Basiswissen für Studium und Mathematikunterricht. Vieweg, Wiesbaden, 2004.
- [1430] J. Rosenboom. On the computation of Kazhdan-Lusztig polynomials and representations of Hecke algebras. *Arch. Math. (Basel)*, 66(1):35–50, 1996.
- [1431] J. Rosenboom. A distributed algorithm for the construction of invariant subspaces. *LECT NOTES CONTR INF*, 226:138–142, 1997.
- [1432] R. Rossmanith. Lie centre-by-metabelian group algebras in even characteristic. I, II. *Israel J. Math.*, 115:51–75, 77–99, 2000.
- [1433] B. Rothe. Konjugiertenklassen in Gruppen von Primzahlpotenzordnung. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1993.
- [1434] E. C. Rowell and I. Tuba. Finite linear quotients of \mathcal{B}_3 of low dimension. *J. Knot Theory Ramifications*, 19(5):587–600, 2010.
- [1435] P. Rowley and P. Taylor. Normalizers of 2-subgroups in black-box groups. *LMS J. Comput. Math.*, 13:307–319, 2010.
- [1436] P. J. Rowley. Plane-line collinearity graph of the M_{24} minimal parabolic geometry. *Ars Combin.*, 73:257–262, 2004.
- [1437] D. Ruberman. Isospectrality and 3-manifold groups. *Proc. Amer. Math. Soc.*, 129(8):2467–2471 (electronic), 2001.
- [1438] L. J. Rylands and D. E. Taylor. Matrix generators for the orthogonal groups. *J. Symbolic Comput.*, 25(3):351–360, 1998.
- [1439] L. J. Rylands and D. E. Taylor. Constructions for octonion and exceptional Jordan algebras. *Des. Codes Cryptogr.*, 21(1-3):191–203, 2000. Special issue dedicated to Dr. Jaap Seidel on the occasion of his 80th birthday (Oisterwijk, 1999).

- [1440] F. Saeedi, M. Farrokhi D. G., and S. H. Jafari. Subgroup normality degrees of finite groups. I. *Arch. Math. (Basel)*, 96(3):215–224, 2011.
- [1441] M. A. M. Salim. Torsion units in the integral group ring of the alternating group of degree 6. *Comm. Algebra*, 35(12):4198–4204, 2007.
- [1442] M. Sampels. Visualization of automorphisms and vertex-symmetry. *PARALLEL PROCESSING APPLIED MATHEMATICS*, pages 35–41, 2002.
- [1443] R. Sánchez-García. Bredon homology and equivariant K -homology of $SL(3, \mathbb{Z})$. *J. Pure Appl. Algebra*, 212(5):1046–1059, 2008.
- [1444] R. J. Sánchez-García. Equivariant K -homology for some Coxeter groups. *J. Lond. Math. Soc. (2)*, 75(3):773–790, 2007.
- [1445] R. Sandling. Presentations for unit groups of modular group algebras of groups of order 16. *Math. Comp.*, 59(200):689–701, 1992.
- [1446] J. Sarmiento. Resolutions of $PG(5, 2)$ with point-cyclic automorphism group. *J. Combin. Des.*, 8(1):2–14, 2000.
- [1447] J. F. Sarmiento. On point-cyclic resolutions of the 2 - $(63, 7, 15)$ design associated with $PG(5, 2)$. *Graphs Combin.*, 18(3):621–632, 2002.
- [1448] N. Sarmin. *On two-generator groups of nilpotency class two and their nonabelian tensor squares*. ProQuest LLC, Ann Arbor, MI, 1998. Thesis (Ph.D.)—State University of New York at Binghamton.
- [1449] H. Sasaki. Mod 7 cohomology algebra of Held simple group. *Algebr. Represent. Theory*, 6(4):369–392, 2003.
- [1450] M. Sawa. Optical orthogonal signature pattern codes with maximum collision parameter 2 and weight 4. *IEEE Trans. Inform. Theory*, 56(7):3613–3620, 2010.
- [1451] H. Sawada. On a certain algebraic property of block ciphers. *IEICE T FUND ELECTR E*, 84A(5):1130–1134, 2001.
- [1452] M. Scherner. Erweiterung einer Arithmetik von Kreisteilungskörpern und deren Implementation in GAP. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1992.
- [1453] J. Schlage-Puchta. The subgroup growth spectrum of virtually free groups. *Israel J. Math.*, 177:229–251, 2010.
- [1454] J. Schlage-Puchta and J. Wolfart. How many quasiplatonic surfaces? *Arch. Math. (Basel)*, 86(2):129–132, 2006.
- [1455] R. Schmied and K. K. Lehmann. Computer-generated character tables and nuclear spin statistical weights: Application to benzene dimer and methane dimer. *Journal of Molecular Spectroscopy*, 2004. To appear.

- [1456] R. Schmitt-Hartmann. Zerlegung von modularen Matrixdarstellungen der Kleinschen Vierergruppe und von Kroneckermoduln über endlichen Körpern. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1993.
- [1457] C. Schneider. Groups of prime-power order with a small second derived quotient. *J. Algebra*, 266(2):539–551, 2003.
- [1458] C. Schneider. A computer-based approach to the classification of nilpotent Lie algebras. *Experiment. Math.*, 14(2):153–160, 2005.
- [1459] C. Schneider. Small derived quotients in finite p -groups. *Publ. Math. Debrecen*, 69(3):373–378, 2006.
- [1460] C. Schneider and H. Van Maldeghem. Primitive flag-transitive generalized hexagons and octagons. *J. Combin. Theory Ser. A*, 115(8):1436–1455, 2008.
- [1461] M. Schönert. Konzeption und Implementation des Programmiersystems GAP für die Algorithmische Gruppentheorie. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, March 1987.
- [1462] M. Schönert. An invitation to GAP. *Comp. Sci. J. of Moldova*, 3, 1994.
- [1463] M. Schönert and A. Seress. Finding blocks of imprimitivity in small base groups in nearly linear time. In *Proc. ISSAC 94*, 1994.
- [1464] A. Schürmann. Perfect, strongly eutactic lattices are periodic extreme. *Adv. Math.*, 225(5):2546–2564, 2010.
- [1465] K. See and S. Y. Song. Association schemes of small order. *J. Statist. Plann. Inference*, 73(1-2):225–271, 1998. R. C. Bose Memorial Conference (Fort Collins, CO, 1995).
- [1466] U. Seidel. Exceptional sequences for quivers of Dynkin type. *Comm. Algebra*, 29(3):1373–1386, 2001.
- [1467] A. Seress. The minimal base size of primitive solvable permutation groups. *J. London Math. Soc. (2)*, 53(2):243–255, 1996.
- [1468] A. Seress. Primitive groups with no regular orbits on the set of subsets. *Bull. London Math. Soc.*, 29(6):697–704, 1997.
- [1469] A. Seress. Nearly linear time algorithms for permutation groups: an interplay between theory and practice. *Acta Appl. Math.*, 52(1-3):183–207, 1998. Algebra and combinatorics: interactions and applications (Königstein, 1994).
- [1470] A. Seress. On vertex-transitive, non-Cayley graphs of order pqr . *Discrete Math.*, 182(1-3):279–292, 1998. Graph theory (Lake Bled, 1995).
- [1471] A. Seress. All lambda-designs with $\lambda = 2p$ are type-1. *Des. Codes Cryptogr.*, 22(1):5–17, 2001.
- [1472] A. Seress. *Permutation group algorithms*, volume 152 of *Cambridge Tracts in Mathematics*. Cambridge University Press, Cambridge, 2003.

- [1473] T. Shaska. Some special families of hyperelliptic curves. *J. Algebra Appl.*, 3(1):75–89, 2004.
- [1474] R. Shaw. Subsets of $\text{PG}(n, 2)$ and maximal partial spreads in $\text{PG}(4, 2)$. *Des. Codes Cryptogr.*, 21(1-3):209–222, 2000. Special issue dedicated to Dr. Jaap Seidel on the occasion of his 80th birthday (Oisterwijk, 1999).
- [1475] J. Shi and L. Wang. Automorphism groups of the imprimitive complex reflection groups. *J. Aust. Math. Soc.*, 86(1):123–138, 2009.
- [1476] T. Shiina. Rigid braid orbits related to $\text{PSL}_2(p^2)$ and some simple groups. *Tohoku Math. J. (2)*, 55(2):271–282, 2003.
- [1477] M. W. Short. *The primitive soluble permutation groups of degree less than 256*, volume 1519 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, 1992.
- [1478] M. W. Short. A conjecture about free Lie algebras. *Comm. Algebra*, 23(8):3051–3057, 1995.
- [1479] S. Siciliano. Cartan subalgebras in Lie algebras of associative algebras. *Comm. Algebra*, 34(12):4513–4522, 2006.
- [1480] S. N. Sidki. Functionally recursive rings of matrices—two examples. *J. Algebra*, 322(12):4408–4429, 2009.
- [1481] J. Siekmann, C. Benz Müller, A. Fiedler, A. Meier, I. Normann, and M. Pollet. Proof development with Ω : the irrationality of $\sqrt{2}$. In *Thirty-five years of automating mathematics*, volume 28 of *Appl. Log. Ser.*, pages 271–314. Kluwer Acad. Publ., Dordrecht, 2003.
- [1482] J. Siekmann, C. Benz Müller, A. Fiedler, A. Meier, and M. Pollet. Proof development with omega mega: root 2 is irrational. *LOGIC FOR PROGRAMMING, ARTIFICIAL INTELLIGENCE, AND REASONING*, pages 367–387, 2002.
- [1483] M. D. Sikirić, Y. Itoh, and A. Poyarkov. Cube packings, second moment and holes. *European Journal of Combinatorics*, 28(3):715–725, 2007.
- [1484] M. D. Sikirić, A. Schürmann, and F. Vallentin. Classification of eight-dimensional perfect forms. *Electron. Res. Announc. Amer. Math. Soc.*, 13:21–32 (electronic), 2007.
- [1485] A. Silverberg and Y. G. Zarhin. Inertia groups and abelian surfaces. *J. Number Theory*, 110(1):178–198, 2005.
- [1486] J. Simonis. The $[23, 14, 5]$ Wagner code is unique. *Discrete Math.*, 213(1-3):269–282, 2000. Selected topics in discrete mathematics (Warsaw, 1996).
- [1487] C. C. Sims. *Computation with finitely presented groups*, volume 48 of *Encyclopedia of Mathematics and its Applications*. Cambridge University Press, Cambridge, 1994.
- [1488] G. Skersys. Computing permutation groups of error-correcting codes. *Liet. Mat. Rink.*, 40(Special Issue):320–328, 2000.
- [1489] M. Skotiniotis, A. Roy, and B. C. Sanders. On the epistemic view of quantum states. *J. Math. Phys.*, 49(8):082103, 13, 2008.

- [1490] E. Skrzypczyk. Charaktertafeln von p -Gruppen. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1992.
- [1491] M. C. Slattery. Generation of groups of square-free order. *J. Symbolic Comput.*, 42(6):668–677, 2007.
- [1492] M. Smith. Computing automorphisms of finite soluble groups. *B AUST MATH SOC*, 53(1):169–171, 1996.
- [1493] S. D. Smith and K. L. Umland. Stability of cohomology via double-coset products and suborbit diagrams. *J. Algebra*, 182(3):627–652, 1996.
- [1494] L. H. Soicher. GRAPE: a system for computing with graphs and groups. In *Groups and computation (New Brunswick, NJ, 1991)*, volume 11 of *DIMACS Ser. Discrete Math. Theoret. Comput. Sci.*, pages 287–291. Amer. Math. Soc., Providence, RI, 1993.
- [1495] L. H. Soicher. Three new distance-regular graphs. *European J. Combin.*, 14(5):501–505, 1993. Algebraic combinatorics (Vladimir, 1991).
- [1496] L. H. Soicher. Coset enumeration, permutation group algorithms, and applications to graphs and geometries. In *EIDMA Minicourse: Computer Algebra with Emphasis on Discrete Algebra and Geometry*, Eindhoven, 1994. Euler Institute for Discrete Mathematics and its Applications.
- [1497] L. H. Soicher. Yet another distance-regular graph related to a Golay code. *Electron. J. Combin.*, 2:Note 1, approx. 4 pp. (electronic), 1995.
- [1498] L. H. Soicher. On the structure and classification of SOMAs: generalizations of mutually orthogonal Latin squares. *Electron. J. Combin.*, 6:Research Paper 32, 15 pp. (electronic), 1999.
- [1499] L. H. Soicher. Is there a McLaughlin geometry? *J. Algebra*, 300(1):248–255, 2006.
- [1500] L. H. Soicher. More on block intersection polynomials and new applications to graphs and block designs. *J. Combin. Theory Ser. A*, 117(7):799–809, 2010.
- [1501] L. H. Soicher. On generalised t -designs and their parameters. *Discrete Mathematics*, 311(13):1136 – 1141, 2011. Selected Papers from the 22nd British Combinatorial Conference.
- [1502] E. Sonnenschein. Designs in gruppen und homogenen raeumen. Diplomarbeit, Lehrstuhl B für Mathematik, RWTH, Aachen, 1993.
- [1503] V. Sorge. Non-trivial symbolic computations in proof planning. In *Frontiers of combining systems (Nancy, 2000)*, volume 1794 of *Lecture Notes in Comput. Sci.*, pages 121–135. Springer, Berlin, 2000.
- [1504] V. Sorge, S. Colton, R. McCasland, and A. Meier. Classification results in quasigroup and loop theory via a combination of automated reasoning tools. *Comment. Math. Univ. Carolin.*, 49(2):319–339, 2008.

- [1505] N. Sottocornola. Simple homoclinic cycles in low-dimensional spaces. *J. Differential Equations*, 210(1):135–154, 2005.
- [1506] B. Souvignier. Irreducible finite integral matrix groups of degree 8 and 10. *Math. Comp.*, 63(207):335–350, 1994. With microfiche supplement.
- [1507] B. Souvignier. *Erweiterungen von analytischen pro- p -Gruppen mit endlichen Gruppen vom klassischem Typ*. PhD thesis, RWTH, Aachen, 1995.
- [1508] H. Spence. Character relations. Senior thesis, Eastern Illinois, 2002.
- [1509] P. Spiga. Permutation characters and fixed-point-free elements in permutation groups. *J. Algebra*, 299(1):1–7, 2006.
- [1510] P. Spiga. Elementary abelian p -groups of rank greater than or equal to $4p - 2$ are not CI-groups. *J. Algebraic Combin.*, 26(3):343–355, 2007.
- [1511] P. Spiga. CI-property of elementary abelian 3-groups. *Discrete Math.*, 309(10):3393–3398, 2009.
- [1512] P. Spiga. Enumerating groups acting regularly on a d -dimensional cube. *Comm. Algebra*, 37(7):2540–2545, 2009.
- [1513] E. L. Spitznagel. Review of mathematical software, GAP. *Notices Amer. Math. Soc.*, 41(7):780–782, September 1994.
- [1514] R. Staszewski. Matrix multiplication over small finite fields on mimd architectures. *LECT NOTES CONTR INF*, 226:183–201, 1997.
- [1515] A. Stoimenow. Tabulating and distinguishing mutants. *Internat. J. Algebra Comput.*, 20(4):525–559, 2010.
- [1516] A. Stoimenow and T. Tanaka. Mutation and the colored Jones polynomial. *J. Gökova Geom. Topol. GGT*, 3:44–78, 2009.
- [1517] D. S. Stones. The many formulae for the number of Latin rectangles. *Electron. J. Combin.*, 17(1):Article 1, 46, 2010.
- [1518] D. S. Stones. The parity of the number of quasigroups. *Discrete Math.*, 310(21):3033–3039, 2010.
- [1519] O. Šuch. On families of additive exponential sums. *Finite Fields Appl.*, 11(4):700–723, 2005.
- [1520] A. I. Suciú. Fundamental groups of line arrangements: enumerative aspects. In *Advances in algebraic geometry motivated by physics (Lowell, MA, 2000)*, volume 276 of *Contemp. Math.*, pages 43–79. Amer. Math. Soc., Providence, RI, 2001.
- [1521] A. I. Suciú. Translated tori in the characteristic varieties of complex hyperplane arrangements. *Topology Appl.*, 118(1-2):209–223, 2002. Arrangements in Boston: a Conference on Hyperplane Arrangements (1999).

- [1522] I. A. I. Suleiman, P. G. Walsh, and R. A. Wilson. Conjugacy classes in sporadic simple groups. *Comm. Algebra*, 28(7):3209–3222, 2000.
- [1523] I. A. I. Suleiman and R. A. Wilson. The 2-modular characters of Conway’s group Co_2 . *Math. Proc. Cambridge Philos. Soc.*, 116(2):275–283, 1994.
- [1524] I. A. I. Suleiman and R. A. Wilson. The 2-modular characters of Conway’s third group Co_3 . *J. Symbolic Comput.*, 24(3-4):493–506, 1997. Computational algebra and number theory (London, 1993).
- [1525] I. A. I. Suleiman and R. A. Wilson. Covering and automorphism groups of $\text{U}_6(2)$. *Quart. J. Math. Oxford Ser. (2)*, 48(192):511–517, 1997.
- [1526] I. A. I. Suleiman and R. A. Wilson. Construction of exceptional covers of generic groups. *Math. Proc. Cambridge Philos. Soc.*, 125(1):31–38, 1999.
- [1527] R. Suter. Quantum affine Cartan matrices, Poincaré series of binary polyhedral groups, and reflection representations. *Manuscripta Math.*, 122(1):1–21, 2007.
- [1528] D. Sutherland. *Computer-assisted proofs and the $F^{a,b,c}$ conjecture*. PhD thesis, University of St Andrews, 2006.
- [1529] J. R. Swallow. Quadratic descent for quaternion algebras. *Comm. Algebra*, 29(10):4523–4544, 2001.
- [1530] J. R. Swallow and F. N. Thiem. Quadratic corestriction, C_2 -embedding problems, and explicit construction. *Comm. Algebra*, 30(7):3227–3258, 2002.
- [1531] M. Szöke. *Examining Green Correspondents of Weight Modules*. PhD thesis, RWTH, Aachen, 1998.
- [1532] B. Taeri. On a permutability problem for groups. *J. Appl. Math. Comput.*, 20(1-2):75–96, 2006.
- [1533] F. Taherkhani. The Kazhdan property of the mapping class group of closed surfaces and the first cohomology group of its cofinite subgroups. *Experiment. Math.*, 9(2):261–274, 2000.
- [1534] M. C. Tamburini and E. P. Vdovin. Carter subgroups in finite groups. *J. Algebra*, 255(1):148–163, 2002.
- [1535] A. Terras. *Fourier analysis on finite groups and applications*, volume 43 of *London Mathematical Society Student Texts*. Cambridge University Press, Cambridge, 1999.
- [1536] H. Theißen. Methoden zur Bestimmung der rationalen Konjugiertheit in endlichen Gruppen. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1993.
- [1537] H. Theißen. *Eine Methode zur Normalisatorberechnung in Permutationsgruppen mit Anwendungen in der Konstruktion primitiver Gruppen*. PhD thesis, RWTH, Aachen, 1997.
- [1538] R. M. Thomas. Group presentations where the relators are proper powers. In *Groups ’93 Galway/St. Andrews, Vol. 2*, volume 212 of *London Math. Soc. Lecture Note Ser.*, pages 549–560. Cambridge Univ. Press, Cambridge, 1995.

- [1539] A. V. Timofeenko. On generating triples of involutions of large sporadic groups. *Diskret. Mat.*, 15(2):103–112, 2003.
- [1540] B. Totaro. Splitting fields for E_8 -torsors. *Duke Math. J.*, 121(3):425–455, 2004.
- [1541] A. Tsapok. Computer investigations of modular group algebras. In *Actual problems of mathematics and computer science. 2nd regional scientific conference of young researchers. Zaporozhye, Ukraine, April 22–23, 2004*, pages 31–32, 2004.
- [1542] A. Tsapok. Symmetric subgroups of the unit group of the modular group algebra of a finite p -group. In *X International Scientific Kravchuk Conference, Kyiv, Ukraine, May 13–15, 2004*, page 545, 2004.
- [1543] A. Turull. Strengthening the McKay conjecture to include local fields and local Schur indices. *J. Algebra*, 319(12):4853–4868, 2008.
- [1544] V. A. Ufnarovskij. Combinatorial and asymptotic methods in algebra [MR1060321 (92h:16024)]. In *Algebra, VI*, volume 57 of *Encyclopaedia Math. Sci.*, pages 1–196. Springer, Berlin, 1995.
- [1545] A. M. Uludağ. Galois coverings of the plane by $K3$ surfaces. *Kyushu J. Math.*, 59(2):393–419, 2005.
- [1546] W. R. Unger. Computing the character table of a finite group. *J. Symbolic Comput.*, 41(8):847–862, 2006.
- [1547] K. Uno. Conjectures on character degrees for the simple Thompson group. *Osaka J. Math.*, 41(1):11–36, 2004.
- [1548] L. Valero-Elizondo. Some simple projective Brauer quotients of simple modules for the symmetric groups in characteristic two. *J. Algebra*, 236(2):796–818, 2001.
- [1549] A. Valibouze. Computation of the Galois groups of the resolvent factors for the direct and inverse Galois problems. In *Applied algebra, algebraic algorithms and error-correcting codes (Paris, 1995)*, volume 948 of *Lecture Notes in Comput. Sci.*, pages 456–468. Springer, Berlin, 1995.
- [1550] A. Valibouze. Sur les relations entre les racines d’un polynôme. *Acta Arith.*, 131(1):1–27, 2008.
- [1551] J. van Bon. Finite primitive distance-transitive graphs. *European J. Combin.*, 28(2):517–532, 2007.
- [1552] J. van Bon, A. A. Ivanov, and J. Saxl. Affine distance-transitive graphs with sporadic stabilizer. *European J. Combin.*, 20(2):163–177, 1999.
- [1553] E. R. van Dam and M. Muzychuk. Some implications on amorphic association schemes. *J. Combin. Theory Ser. A*, 117(2):111–127, 2010.
- [1554] I. Van Gelder and G. Olteanu. Finite group algebras of nilpotent groups: a complete set of orthogonal primitive idempotents. *Finite Fields Appl.*, 17(2):157–165, 2011.

- [1555] S. van Willigenberg. *The descent algebras of Coxeter groups*. PhD thesis, University of St Andrews, 1997.
- [1556] M. I. G. Vasco, A. L. P. del Pozo, and P. T. Duarte. A note on the security of MST_3 . *Des. Codes Cryptogr.*, 55(2-3):189–200, 2010.
- [1557] A. V. Vasil'ev. On the recognition of all finite nonabelian simple groups with orders having prime divisors at most 13. *Sibirsk. Mat. Zh.*, 46(2):315–324, 2005.
- [1558] A. V. Vasil'ev and E. P. Vdovin. An adjacency criterion in the prime graph of a finite simple group. *Algebra Logika*, 44(6):682–725, 764, 2005.
- [1559] M. Vaughan-Lee. On 4-Engel groups. *LMS J. Comput. Math.*, 10:341–353 (electronic), 2007.
- [1560] N. A. Vavilov, V. I. Mysovskikh, and Y. G. Teterin. Computational group theory in St. Petersburg. *Zap. Nauchn. Sem. S.-Peterburg. Otdel. Mat. Inst. Steklov. (POMI)*, 236(Vopr. Teor. Predst. Algebr i Grupp. 5):42–49, 215–216, 1997.
- [1561] E. P. Vdovin. Regular orbits of solvable linear p' -groups. *Sib. Elektron. Mat. Izv.*, 4:345–360, 2007.
- [1562] A. Vera-López, J. M. Arregi, M. A. García-Sánchez, F. J. Vera-López, and R. Esteban-Romero. The exact bounds for the degree of commutativity of a p -group of maximal class. I. *J. Algebra*, 256(2):375–401, 2002.
- [1563] G. Verret. Shifts in Cayley graphs. *Discrete Math.*, 309(12):3748–3756, 2009.
- [1564] H. Verrill and D. Joyner. Computing with toric varieties. *J. Symbolic Comput.*, 42(5):511–532, 2007.
- [1565] R. Vessenes. Generalized Foulkes' conjecture and tableaux construction. *J. Algebra*, 277(2):579–614, 2004.
- [1566] M. P. Visscher. On the nilpotency class and solvability length of nonabelian tensor products of groups. *Arch. Math. (Basel)*, 73(3):161–171, 1999.
- [1567] P. Vojtěchovský. Generators of nonassociative simple Moufang loops over finite prime fields. *J. Algebra*, 241(1):186–192, 2001.
- [1568] P. Vojtěchovský. A class of Bol loops with a subgroup of index two. *Comment. Math. Univ. Carolin.*, 45(2):371–381, 2004.
- [1569] P. Vojtěchovský. Toward the classification of Moufang loops of order 64. *European J. Combin.*, 27(3):444–460, 2006.
- [1570] M. Vsemirnov, V. Mysovskikh, and M. C. Tamburini. Triangle groups as subgroups of unitary groups. *J. Algebra*, 245(2):562–583, 2001.
- [1571] K. Waki. Decomposition numbers of non-principal blocks of J_4 for characteristic 3. *J. Algebra*, 321(8):2171–2186, 2009.
- [1572] R. Waldmüller. A flat manifold with no symmetries. *Experiment. Math.*, 12(1):71–77, 2003.

- [1573] J. L. Walker. Constructing critical indecomposable codes. *IEEE Trans. Inform. Theory*, 47(5):1780–1795, 2001.
- [1574] A. Weber. On coherence in computer algebra. *J. Symbolic Comput.*, 19(1-3):25–38, 1995. Design and implementation of symbolic computation systems (Gmunden, 1993).
- [1575] C. Weber. Low-degree cohomology of integral Specht modules. *Experiment. Math.*, 18(1):85–95, 2009.
- [1576] A. Wegner. Implementation eines Algorithmus zur Berechnung endlicher auflösbarer Faktorgruppen einer endlich präsentierten Gruppe. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, February 1989.
- [1577] A. Wegner. *The Construction of Finite Soluble Factor Groups of Finitely Presented Groups and its Application*. PhD thesis, University of St Andrews, 1992.
- [1578] M. Weidner. Independence and maximal subgroups. *Illinois J. Math.*, 40(1):47–76, 1996.
- [1579] S. Weiß. Die berechnung von ext-köchern mit relationen für blöcke von gruppenalgebren. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1995.
- [1580] M. Weller. Construction of classes of subgroups of small index in p -groups. *Arch. Math. (Basel)*, 68(2):89–99, 1997.
- [1581] M. Weller, G. O. Michler, and A. Previtali. Thompson’s sporadic group uniquely determined by the centralizer of a 2-central involution. *J. Algebra*, 298(2):371–459, 2006.
- [1582] F. Wettl. *Configuration problems in finite geometries*. PhD thesis, Hungarian Academy of Sciences, 1995. Candidates Degree.
- [1583] D. L. White. Decomposition numbers of unipotent blocks of $\mathrm{Sp}_6(2^a)$ in odd characteristics. *J. Algebra*, 227(1):172–194, 2000.
- [1584] D. L. White. Degree graphs of simple groups. *Rocky Mountain J. Math.*, 39(5):1713–1739, 2009.
- [1585] M. Wiegelmann. Fixpunktkondensation von tensorproduktmoduln. Diplomarbeit, Lehrstuhl D für Mathematik, RWTH-Aachen, Aachen, 1994.
- [1586] T. Wilde. The real part of the character table of a finite group. *Comm. Algebra*, 35(12):4042–4056, 2007.
- [1587] M. Wildon. Labelling the character tables of symmetric and alternating groups. *Q. J. Math.*, 59(1):123–135, 2008.
- [1588] R. A. Wilson. Standard generators for sporadic simple groups. *J. Algebra*, 184(2):505–515, 1996.
- [1589] R. A. Wilson. A representation for the Lyons group in $\mathrm{GL}_{2480}(4)$, and a new uniqueness proof. *Arch. Math. (Basel)*, 70(1):11–15, 1998.

- [1590] R. A. Wilson. Construction of finite matrix groups. In *Computational methods for representations of groups and algebras (Essen, 1997)*, volume 173 of *Progr. Math.*, pages 61–83. Birkhäuser, Basel, 1999.
- [1591] R. A. Wilson. The maximal subgroups of the Baby Monster. I. *J. Algebra*, 211(1):1–14, 1999.
- [1592] S. Wilson and A. Breda d’Azevedo. Surfaces having no regular hypermaps. *Discrete Math.*, 277(1-3):241–274, 2004.
- [1593] E. Wings. *Über die unipotenten Charaktere der Chevalley-Gruppen vom Typ F_4 in guter Charakteristik*. PhD thesis, RWTH, Aachen, 1995.
- [1594] H. Wondratschek and U. Müller. *Symmetry Relations between Space Groups*, volume A1. Kluwer Academic Publishers, Dordrecht/Boston/London, first edition, 2004.
- [1595] D. R. Wood. An algorithm for finding a maximum clique in a graph. *Oper. Res. Lett.*, 21(5):211–217, 1997.
- [1596] R. Woodrooffe. Shelling the coset poset. *J. Combin. Theory Ser. A*, 114(4):733–746, 2007.
- [1597] R. Woodrooffe. Cubical convex ear decompositions. *Electron. J. Combin.*, 16(2, Special volume in honor of Anders Björner):Research Paper 17, 33, 2009.
- [1598] S. Wreth. A certain non-singular system of length three equations over a group. *Proc. Edinburgh Math. Soc. (2)*, 40(3):515–539, 1997.
- [1599] D. Wright. Elicitation and validation of graphical dependability models. In *SAFECOMP*, 2003.
- [1600] c. Yalçınkaya. Black box groups. *Turkish J. Math.*, 31(suppl.):171–210, 2007.
- [1601] M. Yoshikawa. The intersection of normal closed subsets of an association scheme is not always normal. *J. Fac. Sci. Shinshu Univ.*, 40:37–40 (2006), 2005.
- [1602] M. Zarrin. On element-centralizers in finite groups. *Arch. Math. (Basel)*, 93(6):497–503, 2009.
- [1603] A. V. Zavarnitsin. On the recognition of finite groups by the prime graph. *Algebra Logika*, 45(4):390–408, 502, 2006.
- [1604] A. V. Zavarnitsine. Finite simple groups with narrow prime spectrum. *Sib. Elektron. Mat. Izv.*, 6:1–12, 2009.
- [1605] P. Zeiner and T. Janssen. Notes on the normalizer of a finite subgroup of $GL(n, d, \mathbb{Z})$ in $GL(n, d, \mathbb{Z})$. *Acta Cryst. Sect. A*, 57(3):256–263, 2001.
- [1606] S. Zhou, H. Dong, and W. Fang. Finite classical groups and flag-transitive triplanes. *Discrete Math.*, 309(16):5183–5195, 2009.
- [1607] A. K. Zhurtov. Frobenius groups generated by two elements of order 3. *Sibirsk. Mat. Zh.*, 42(3):533–537, i, 2001.

- [1608] A. K. Zhurtov. On a group acting locally freely on an abelian group. *Sibirsk. Mat. Zh.*, 44(2):343–346, 2003.
- [1609] G. Ziegler. Die kommutatorstruktur der pro- p -sylogruppen einiger p -adisch algebraischer gruppen. Diplomarbeit, Lehrstuhl B für Mathematik, RWTH, RWTH, 1993.
- [1610] K. Zimba and M. Raboshakga. The conjugacy classes of a subgroup $S_n^m : C_m$ of S_{mn} , prime m . *Internat. J. Algebra Comput.*, 18(4):705–717, 2008.
- [1611] J. Zimmer. Stored energy functions for phase transitions in crystals. *Arch. Ration. Mech. Anal.*, 172(2):191–212, 2004.
- [1612] J. Zimmerman. The symmetric genus of 2-groups. *Glasg. Math. J.*, 41(1):115–124, 1999.
- [1613] A. Zinchenko. Extensions of a residue class ring with the help of the primitive root of unity. In *Actual problems of mathematics and computer science. 2nd regional scientific conference of young researchers. Zaporozhye, Ukraine, April 22–23, 2004*, pages 27–28, 2004.
- [1614] P. Zusmanovich. ω -Lie algebras. *J. Geom. Phys.*, 60(6-8):1028–1044, 2010.
- [1615] P. Zusmanovich. On δ -derivations of Lie algebras and superalgebras. *J. Algebra*, 324:3470–3486, 2010.