

JOHN H. CONWAY

BIBLIOGRAPHY

ARTICLES & PAPERS

1. (with Heidi Burgiel and Chaim Goodman-Strauss), “The Symmetries of Things,” AK Peters, 2008.
2. (with S. Kochen), *The Geometry of the Quantum Paradoxes*, (to appear)
3. (with E.M. Rains & N.J.A. Sloane), *On the Existence of Similar Sublattices*, *Canad. J. Math.*, vol. 51, 1300-1306, 1999.
4. (with N.J.A. Sloane), *A Note on Optimal Unimodular Lattices*, *J. Number Theory*, vol. 72, 357-362, 1998.
5. (with C. Radin), *Quaquaversal Tilings and Rotations*, *Inventiones Math.*, (to appear).
6. (with C. Radin & L. Sadun), *On angles whose squared trigonometric functions are rational*, (submitted).  
*Low-Dimensional Lattice VII: Coordination Sequences*, *Proc. Royal Soc., London, Series A*, vol. 453, 2369-2389, 1997.
7. (with A. Hulpke & J. McKay), *On Transitive Permutation Groups*, *The LMS Journal of Computation and Mathematics* 1, 1998.
8. *On Happy Factorizations*, *Journal of Integer Sequences* 1, 1998.
9. (with C.S. Simons), *Relations in  $M_{666}$* , In: R.T. Curtis & R.A. Wilson (eds.), *The Atlas 10 Years On*, London Mathematical Society Lecture Note Series No. 249, Cambridge University Press, 1998.
10. *Little Mathematical Magic. Similar Sums in Squares, Hexagons and Hypercubes*, *Quantum (Greek edition)*, 4, No. 3, 52-55, 1997.
11. (with R.K. Guy, W.A. Schneeberger & N.J.A. Sloane), *The Primary Pretenders*, *Acta Arithmetica*, 78, 307-313, 1997.
12.  $M_{13}$  In: R.A. Bailey (ed.) *Surveys in Combinatorics*, 1997, Proceedings of the 16th British Combinatorial Conference, London, UK, July, 1997, London: Cambridge University Press, (ISBN 0-521-59840-0), Lond. Math. Soc. Lect. Note Ser. 241, 1-11, 1997.

13. (with N.J.A. Sloane), *The Antipode Constuction for Sphere Packings*, *Inventiones Mathematica*, **123**, No. 2, 309-313, 1996.
14. *The  $\sqrt{\text{Monster}}$  construction*. In: K.T. Arasu (ed.) et al.: *Groups, Difference Sets, and the Monster*, Proceedings of a Special Research Quarter, Columbus, OH, U.S.A., Spring 1993, Berlin: Walter de Gruyter, Ohio State Univ., Math. Res. Inst. Publ. **4**, 345-347, 1996.
15. *Understanding Groups like  $\Gamma_0(N)$* , In: K.T. Arasu (ed.) et al.: *Groups, Difference Sets, and the Monster*, Proceedings of a Special Research Quarter, Columbus, OH, U.S.A., Spring, 1993, Berlin: Walter de Gruyter, Ohio State Univ., Math. Res. Inst. Publ. **4**, 327-343, 1996.
16. (with A. Jackson), *Budding Mathematician Wins Westinghouse Competition*, *Not. Amer. Math. Soc.*, **43**, 776-779, 1996.
17. *The Angel Problem*, In: Richard J. Nowakowski (ed.): *Games of No Chance*. Combinatorial Games at MSRI, Workshop, July 11-21, Berkeley, CA, 1994, Cambridge: Cambridge Univ. Press, ISBN 0-521-57411-0, ISBN 0-521-57411-0, Math. Sci. Res. Inst. Publ. **29**, 3-12, 1996.
18. (with R.H. Hardin & N.J.A. Sloane: *Packing Lines, Planes, etc.: Packings in Grassmannian Space*, *Experimental Math* **5**, 139-159, 1996.
19. (with Tim Hsu), *Quilts and T-systems*, *J. Alg.* **174**, No. 3, 856-908, 1996.
20. (with N.J.A. Sloane), *A Lattice Without a Basis of Minimal Vectors*, *Mathematika* **42**, No. 1, 175-177, 1995.
21. (with N.J.A. Sloane), *What are all the best sphere packings in low dimensions?*, *Discrete Comp. Geom.* **13**, No. 3-4, 282-403, 1995.
22. (with T.D.S. Duff, R.H. Hardin & N.J.A. Sloane), *Minimal-Energy Clusters of Hard Spheres*, *Discrete Comput. Geom.* **14**, No. 3, 237-259, 1995.
23. *Sphere Packings, Lattices, Codes and Greed*, In: S.D. Chatterji (ed.): Proceedings of the International Congress of Mathematicians, ICM '94, August 3-11, 1994, Zuerich, Switzerland, Vol I. Basel, Birkhaeuser, 45-55, 1995.
24. (with N.J.A. Sloane), *Quaternary Constructions for the Binary Single-Error-Correcting Codes of Julin, Best and Others*, *Des. Codes Cryptography* **4**, No. 1, 31-42, 1994, also DIMACS Technical Report 93-53, August, 1993.
25. (with N.J.A. Sloane), *On Lattices Equivalent to their Duals*, *J. Number Theory* **48**, No. 3, 373-382, 1994, also DIMACS Technical Report 93-88, December, 1993.

26. (with N.J.A. Sloane),  $D_4$ ,  $E_8$ , *Leech and Certain Other Lattices are Symplectic*, Appendix in P. Buser, P. Sarnak: *On the Period Matrix of a Riemann Surface of Large Genus*, *Inventiones Math.*, **117**, No. 1, 27-56, 1994, also DIMACS Technical Reports, 93-55, August, 1993.
27. (with P. Buser, P. Doyle & K.D. Semmler), *Some Planar Isospectral Domains*, *Int. Math. Res. Not.*, No. 9, 391-400, 1994.
28. (with N.J.A. Sloane), *Self-Dual Codes over the Integers Modulo 4*, *J. Comb. Theory, Ser. A* **62**, No. 1, 30-45, 1993.
29. *From Hyperbolic Reflections to Finite Groups*, In: Larry Finkelstein (ed.) et al.: *Groups and Computation*, Papers from the workshop held at DIMACS, Rutgers University, New Brunswick, NJ, October 7-10, 1991, American Mathematical Society, Providence, RI, DIMACS, Ser. Discrete Math. Theor. Comput. Sci., **11**, 41-52, 1993.
30. (with W.L. Sibert), *Mathematical Kayles*, *Int. J. Game Theory* **20**, No. 3, 237-246, 1992.
31. (with V. Pless & N.J.A. Sloane), *The Binary Self-dual Codes of Length up to 32: A Revised Enumeration*, *J. Comb. Theory, Ser. A* **60**, No. 2, 183-195, 1992.
32. (with N.J.A. Sloane), *On the Covering Multiplicity of Lattices*, *Discrete Comput. Geom.*, **8**, No. 2, 109-130, 1992.
33. (with N.J.A. Sloane), *Low-dimensional Lattices VI: Voronoi Reduction of Three-Dimensional Lattices*, *Proc. R. Soc. Lond., Ser. A* **436**, No 1896, 55-68, 1992.
34. (with N.J.A. Sloane), *Four-dimensional Lattices with the Same Theta Series*, *Duke Math. J.*, **66**, (International Mathematics Research Notices Number 4), 1992, '93-'96.
35. *The Orbifold Notation for Surface Groups*, In: M. W. Liebeck and J. Saxl (eds.): *Groups, Combinatorics and Geometry*, Proceedings of the L.M.S. Durham Symposium, July 5-15, Durham, U.K., 1990, L.M.S. Lecture Notes Ser. **165**, Cambridge University Press, Cambridge, 438-447, 1992.
36. (with A.D. Pritchard), *Hyperbolic Reflections for the Bimonster and  $3Fi_{24}$* , In: M.W. Liebeck and J. Saxl (eds.): *Groups, Combinatorics and Geometry*, Proceedings of the L.M.S. Durham Symposium, July 5-15, Durham, U.K., 1990, L.M.S. Lecture Notes Ser. **165**, Cambridge University Press, Cambridge, 24-45, 1992.
37.  $Y_{555}$  and All That, In: M.W. Liebeck and J. Saxl (eds.): *Groups, Combinatorics and Geometry*, Proceedings of the L.M.S. Durham Symposium, July 5-15, Durham,

- U.K., 1990, L.M.S. Lecture Notes Ser. **165**, Cambridge University Press, Cambridge, 22-23, 1992.
38. *Some Mathematical Magic*, Quantum, Mar-Apr, pp.28, 1991.
  39. *Calendar Calculations*, Quantum, Jan-Feb, pp. 46, 1991.
  40. *More Ways of Combining Games*, In: R.K. Guy (ed.): *Combinatorial Games*, Lecture Notes AMS Short Course, Columbus, OH, 1990, Proceedings of Symposia in Applied Mathematics **43**, 57-91, 1991, American Math. Society, Providence, RI.
  41. *Number and Games*, In: R.K. Guy (ed.): *Combinatorial Games*, Lecture Notes AMS Short Course, Columbus, OH, 1990, Proceedings of Symposia in Applied Mathematics **43**, 23-24, 1991, American Math. Society, Providence, RI
  42. (with N.J.A. Sloane), *The Cell Structures of Certain Lattices*, In: P. Hilton, F. Hirzebruch, R. Remmert (eds.): *Miscellanea Mathematica*, New York, Springer-Verlag, 71-107, 1991, also DIMACS Technical Report 91-5, February, 1991.
  43. (with N.J.A. Sloane) *Lattices with Few Distances*, J. Number Theory **39**, No. 1, 75-90, 1991, also DIMACS Technical Report 90-77, December, 1990.
  44. (with N.J.A. Sloane), *Erratum: A New Upper Bound for the Minimum of an Integral Lattice Determinant One*, Bull. Am. Math. Soc., New Ser. **24**, No. 2, 479, 1991.
  45. *Play it again ... and again ...*, Quantum, **63**, 30-31, Nov-Dec, 1990.
  46. *An Old Fact and Some New Ones*, Quantum, 24ff, Sep.-Oct., 1990.
  47. *Friezing Our Way into Summer*, Quantum, 50ff, May, 1990.
  48. (with N.J.A. Sloane), *Corrections to "Sphere Packings, Lattices and Groups,"* Bell Laboratories, Murray Hill, NJ, Sept. 15, 1990.
  49. (with N.J.A. Sloane), *A New Upper Bound for the Minimum of an Integral Lattice Determinant One*, Bull. Am. Math. Soc., New Ser. **23**, No. 2, 383-387, 1990.
  50. (with N.J.A. Sloane), *A New Upper Bound on the Minimal Distance of Self-Dual Codes*, IEEE Trans. Inf. Theory **36**, No. 6, 1319-1333, 1990.
  51. (with N.J.A. Sloane), *Orbit and Coset Analysis of the Golay and Related Codes*, IEEE Trans. Inf. Theory **36**, No. 5, 1038-1050, 1990.
  52. (with P. Doyle & B. Thurston), *Geometry and the Imagination*, In: *Geometry's Future*, Conference Proceedings (sponsored by COMAP, Inc.), Arlington, MA, 37-80, 1990.

53. *Integral Lexicographic Codes*, Discrete Math. **83**, 219-235, 1990.
54. (with S.J. Lomonaco & N.J.A. Sloane), *A [45,13] Code with Minimal Distance 16*, Discrete Math **83**, No. 2/3, 213-217, 1990.
55. (with J.C. Lagarias), *Tiling with Polyominoes and Combinatorial Theory*, Journal of Combinatorial Theory, Series A, **53**, No. 2, 183-208, 1990.
56. *Foreward*, In: *Martin Gardner: Mathematical Carnival, with a Foreward by and Elegant Mathematical Commentaries*, Afterthoughts, a new Postscript, and a new Bibliography by Mr. Gardner, Backtalk from Readers, and 115 Pictures and Diagrams. Updated and Revised from the 1975 edition. The Mathematical Association of America, Washington, DC, 1989.
57. (with N.J.A. Sloane & A.R. Wilks), *Gray Codes for Reflection Groups Graphs Comb.* **5**, No. 4, 315-325, 1989.
58. (with N.J.A. Sloane), *Low-dimensional Lattices, V: Integral Coordinates for Integral Lattices*, Proc. R. Soc. Lond., Ser. A **426**, No. 1871, 211-232, 1989.
59. (with N.J.A. Sloane), *Errata: Low-Dimensional Lattices, III: Perfect Forms*, Proc. R. Soc. Lond., Ser. A **426**, No. 1871, 441, 1989.
60. (with N.J.A. Sloane), *On the Classification of Integral Quadratic Forms*, In: J.H. Conway & N.J.A. Sloane, *Sphere Packings, Lattices and Groups*, New York, Springer-Verlag, Chapter 15, 352-405, 1988.
61. (with N.J.A. Sloane), *Low-Dimensional Lattices, IV: The Mass Formula*, Proc. R. Soc. Lond., Ser. A **419**, No. 1857, 259-286, 1988.
62. (with N.J.A. Sloane), *Low-Dimensional Lattices, III: Perfect Forms*, Proc. R. Soc. Lond., Ser. A **418**, No. 1854, 43-80, 1988.
63. (with N.J.A. Sloane), *Low-Dimensional Lattices, II: Subgroups of  $GL(n, \mathbf{Z})$* , Proc. R. Soc. Lond., Ser. A **419**, No. 1856, 29-68, 1988.
64. (with N.J.A. Sloane), *Low-Dimensional Lattices, I: Quadratic Forms of Small Determinant*, Proc. R. Soc. Lond., Ser. A **418**, No. 1854, 17-41, 1988.
65. (with P.B. Kleidman & R.A. Wilson), *New Families of Ovoids in  $O_{+8}$* , Geom.Dedicata **26**, 157-170, 1988.
66. (with S.P. Norton & L.H. Soicher), *The Bimonster, the Group  $Y_{555}$  and the Projective Plane of Order 3*, In: M.C. Tangora (ed.): *Computers in Algebra (Proc. Conf., Chicago, IL, 1985)*, Marcel Dekker, New York, 27-50, 1988.

67. *The Weird and Wonderful Chemistry of Audioactive Decay*, In: T.M. Cover & B. Gopinath (eds): *Open Problems in Communication and Computation*, Springer-Verlag, New York, 173-188, 1987.
68. *The Weird and Wonderful Chemistry of Audioactive Decay*, *Eureka* **46**, 5-18, 1986.
69. (with K.M. Knowles), *Quasiperiodic Tiling in Two and Three Dimensions*, *J. Phys. A.* **19**, 3645-3653, 1986.
70. (with N.J.A. Sloane), *Lexicographic Codes: Error-Correcting Codes from Game Theory*, *IEEE Trans. Inform. Theory* IT-32, 337-348, 1986.
71. (with N.J.A.Sloane), *Soft Decoding Techniques for Codes and Lattices, Including the Golay Code and the Leech Lattice*, *IEEE Trans. Inf. Theory* IT-32, 41-50, 1986.
72. *L. Queen: Computing the Character Table of a Lie Group, Infinite Groups - coming of age*, *Proc. CMS Conf., Montreal, Quebec, 1982*, *Contemp. Math.* **45**, 51-87, 1985.
73. (with N.J.A. Sloane), *Decoding Techniques for Multi-Dimensional Codes*, U.S. Patent No. 4, 507, 648, March 26, 1985.
74. (with N.J.A. Sloane), *A Lower Bound on the Average Error of Vector Quantizers*, *IEEE Trans. Inf. Theory* IT-31, 106-109, 1985.
75. (with D. Benson), *Diagrams for Modular Lattices*, *Journal of Pure and Applied Algebra* **37**, 111-116, 1985.
76. *A Simple Construction for the Fischer-Griess Monster Group*, *Invent. Math.* **79**, 513-540, 1985.
77. (with N.J.A. Sloane), *On the Voronoi Regions of Certain Lattices*, *SIAM J. Algebraic Discrete Method* **5**, 294-305, 1984.
78. (with A.E. Borchers, L. Queen & N.J.A. Sloane) *A Monster Lie Algebra?*, *Advances in Math.* **53**, 75-79, 1984.
79. *Hexacode and Tetracode - MOG and MINIMOG*, In: Michael D. Atkinson (ed.): *Computational Group Theory*, Proceedings of the London Mathematical Society Symposium on Computational Group Theory, Durham, July 30 - August 9, 1982, London (etc.), Academic Press (Harcourt Brace Jovanovich, Publishers), 359-365, 1984.
80. *Character Calisthenics*, In: Michael D. Atkinson (ed.): *Computational Group Theory*, Proceedings of the London Mathematical Society Symposium on Computational Group Theory, Durham, July 30-August 9, 1982, London, (etc.), Academic Press (Harcourt Brace Jovanovich, Publishers), 249-266, 1984.

81. *An Algorithm for Double Coset Enumeration?*, In: Michael D. Atkinson (ed.): *Computational Group Theory*, Proceedings of the London Mathematical Society Symposium on Computational Group Theory, Durham, July 30-August 9, 1982, London (etc.), Academic Press (Harcourt Brace Jovanovich, Publishers), 33-37, 1984.
82. (with C. McA. Gordon), *Knots and Links in Spatial Graphs*, J. Graph Theory **7**, No. 4, 445-453, 1983.
83. (with V. Pless), *Monomials of Orders 7 and 11 Cannot be in the Group of  $(24,12,10)$  Self-dual Quaternary Code*, IEEE Trans. Inf. Theory IT-29, 137-140, 1983.
84. (with N.J.A. Sloane), *Complex and Integral Laminated Lattices*, Trans. Amer. Math. Soc. **280**, 463-490, 1983.
85. (with N.J.A. Sloane), *The Coxeter-Todd Lattice, the Mitchell Group and Related Sphere Packings*, Math. Proc. Camb. Philos. Soc. **93**, 421-440, 1983.
86. (with N.J.A. Sloane), *A Fast Encoding Method for Lattice Codes and Quantizers*, IEEE Trans. Inf. Theory IT-29, 820-824, 1983.
87. *The Automorphism Group of the 26-Dimensional even Unimodular Lorentzian Lattice*, J. Algebra **80**, 159-163, 1983.
88. (with V. Pless), *On Primes Dividing the Group Order of a Doubly-Even  $(72,36,16)$  Code and the Group Order of a Quaternary  $(24,12,10)$  Code*, Discrete Math. **38**, 143-156, 1982.
89. (with N.J.A. Sloane), *Further Lattice Packings in High Dimensions*, Mathematika **29**, 171-180, 1982.
90. (with R.A. Parker & N.J.A. Sloane), *The Covering Radius of the Leech Lattice*, Proc. R. Soc. Lond., Ser. A **380**, 261-290, 1982.
91. (with N.J.A. Sloane), *The Unimodular Lattices of Dimension up to 23 and the Minkowski-Siegel Mass Constants*, European J. Combinatorics **3**, 219-231, 1982.
92. (with N.J.A. Sloane), *Twenty-Three Constructions for the Leech Lattice*, Proc. R. Soc. Lond., Ser. A **381**, 275-283, 1982.
93. (with N.J.A. Sloane), *Leech Roots and Vinberg Groups*, Proc. R. Soc. Lond., Ser. A **384**, 233-258, 1982.
94. (with N.J.A. Sloane), *Fast Quantizing and Decoding Algorithms for Lattice Quantizers and Codes*, IEEE Trans. Inf. Theory IT-28, 227-232, 1982. Reprinted in: H. Abut (ed.): *Vector Quantization*, New York, IEEE Press, 134-139, 1990.

95. (with N.J.A. Sloane), *Voronoi Regions of Lattices, Second Moments of Polytopes, and Quantization*, IEEE Trans. Inf. Theory IT-28, 211-226, 1982. Reprinted in: H. Abut (ed.): *Vector Quantization*, New York, IEEE Press, 118-133, 1990.
96. (with N.J.A. Sloane), *Lorentzian Forms for the Leech Lattice*, Bull. Am. Math. Soc., New Ser. **6**, 215-217, 1982.
97. (with N.J.A. Sloane), *Laminated Lattices*, Annals of Math., II, Ser., **116**, 593-620, 1982.
98. (with N.J.A. Sloane), *On the Enumeration of Lattices of Determinant One*, J. Number Theory **15**, 83-94, 1982.
99. (with M.J.T. Guy), *Message Graphs*, Ann. Discrete Math. **13**, 61-64, 1982.
100. *The Hunting of J4*, Eureka **41**, 1981.
101. (N.J.A. Sloane), *Fast 4 - and 8-Dimensional Quantizers and Decoders*, National Telecomm. Conf. Record - 1981, New York, IEEE Press, **3**, F4.2.1-F4.2.4, 1981.
102. (with V. Pless), *On the Enumeration of Self-Dual Codes*, J. Comb. Theory, Ser. A **28**, 26-53, 1980.
103. *Monsters and Moonshine*, The Mathematical Intelligencer, No. 2, 165-171, 1980.
104. (with M.S. Paterson), Moscow, U.S.S.R., *A Headache Causing Problem*, In: P. van Emde Boas, J. K. Lenstra, F. Oort, A.H.G. Rinnooy Kan, T.J. Wansbeek (eds.), Een Pak Met Korte Broek, *A Book in Short Trousers*, Amsterdam, May 18, 1997.
105. (with V. Pless & N.J.A. Sloane), *Self-dual Codes over  $GF(3)$  and  $GF(4)$  of Length not Exceeding 16*, IEEE Trans. Inform. Theory IT-25, 312-322, 1979.
106. (with H.T. Croft, P. Erdos & M.J.T. Guy), *On the Distribution of Values of Angles Determined by Coplanar Points*, J. Lond. Math. Soc., II., Ser. **19**, 137-143, 1979.
107. (with S.P. Norton), *Monstrous Moonshine*, Bull. London Math. Soc. **11**, 308-339, 1979.
108. *A Gamut of Game Theories*, Mathematics Magazine **51**, 5-12, 1978.
109. (with A.M. Odlyzko & N.J.A. Sloane), *Extremal Self-Dual Lattices Exist only in Dimension 1-8, 12, 14, 15, 23 and 24*, Mathematika **25**, 36-43, 1978.
110. *Loopy Games*, In: B. Bollobas (ed.), Cambridge Combinatorial Conference, (May 1977: Trinity College), Advances in Graph Theory, North-Holland, Amsterdam-New York, Ann. Discrete Math. **3**, 55-74, 1978.

111. (with V. Pless), *On the Enumeration of Self-Dual, Binary Codes*, Theorie de l'Information, Developments Recents et Applications, Colloq. Int. CNRS 276, (Cachan/Fr. 1977), 209-214, 1978.
112. *All Games Bright and Beautiful*, Univ. of Calgary Math. Research Paper, 1975, The AMM **84**, 417-434, 1977.
113. *A Quaternionic Construction for the Rudvalis Group*, Top. Group, Theory Comput., Proc. Summer Sch., (Galway, 1973), 69-81, 1977.
114. *The Miracle Octad Generator*, Top. Group Theory Comput., Proc. Summer Sch., (Galway, 1973), 62-68, 1977.
115. (with A.J. Jones), *Trigonometric Diophantine Equations, (On Vanishing Sums of Roots of Unity)*. Acta Arithmetica **30**, 229-240, 1976.
116. (with C. McA. Gordon), *A Group to Clasify Knots*, Bull. London Math. Soc. **7**, 84-86, 1975.
117. (with D.B. Wales), *Matrix Generators for  $J_\beta$* , J. Algebra **29**, 474-476, 1974.
118. *Tomorrow is the Day After Doomsday*, Eureka **36**, 28-31, 1973.
119. *Invariants for Quadratic Forms*, J. Number Theory **5**, 390-404, 1973.
120. *A Construction for the Smallest Fischer Group  $F_{22}$  Infinite Groups '72*, Proc. Gainesville Conf., 1972, 27-35, 1973.
121. *Effective Implications Between the "Finite" Choice Axioms*, Cambridge Summer School Math. Logic, Cambridge 1971, Lecture Notes Math. **337**, 439-458, 1973.
122. (with D.B. Wales), *Construction of the Rudvalis Group of Order 144,926,144,000.*, J. Algebra **27**, 538-548, 1973.
123. (with H.S.M. Coxeter), *Triangulated Polygons and Frieze Patterns*, Math. Gazette **57**, 87-94, 175-183, 1973.
124. *Unpredictable Iterations*, In: Proc. Number Theory Conference, University of Colorado, Boulder, Colorado, 49-52, 1972.
125. (with H.S.M. Coxeter & G.C. Shephard), *Erratum to "The Centre of a Finitely Generated Group,"* Tensor, n. Ser. **26**, 477, 1972.
126. (with H.S.M. Coxeter & G.C. Shephard), *The Centre of a Finitely Generated Group*, Tensor, n. Ser. **25**, 405-418, 1972.

127. *Three Lectures on Exceptional Groups*, In: M.B. Powell, G. Higman (eds.), *Finite Simple Groups*, Proceedings of an Instructional Conference organized by the London Mathematical Society (A NATO Advanced Study Institute), London-New York, Academic Press, 215-247, 1971.
128. *The Subgroup Structures of the Exceptional Simple Groups*, Actes Congr. Internati. math., 1970, **1**, 347-348, 1971.
129. *Groups, Lattices, and Quadratic Forms*, Computers Algebra Number Theory, Proc. Sympos. Appl. Mathematics, 1970, Amer. Math. Soc. and Soc. Industr. Appl. Math. Proc. **4**, 135-139, 1971.
130. *An Enumeration of Knots and Links, and Some of Their Algebraic Properties*, In: John Leech (ed.), *Computational Problems in Abstract Algebra*, Proc. Conf. Oxford, 1967, Pergamon Press, Oxford-New York, 329-358, 1970.
131. *A Group of Order 8,315,553,613,086,720,000.*, Bull. Lond. Math. Soc. **1**, 79-88, 1969.
132. *A Characterization of Leech's Lattice*, Invent. Math. **7**, 137-142, 1969.
133. (with R.K. Guy), *Solution of a Problem of P. Erdos*, Colloq. Math. **20**, 307, 1969.
134. (with R.K. Guy), *Sets of Natural Numbers with Distinct Sums*, Notices Amer. Math. Soc. **15**, 345, 1968.
135. *A Perfect Group of Order 8,315,553,613,086,720,000 and the Sporadic Simple Groups*, Proc. Natl. Acad. Sci. USA **61**, 398-400, 1968.
136. *A Tabulation of Some Information Concerning Finite Fields*, Comput. Math. Res., 37-50, 1968.
137. *Four-Dimensional Archimedean Polytopes*, Proc. Colloq. Convexity, (Copenhagen, 1965), 38-39, 1967.
138. *Problem 5328, Triangle Tesselations of the Plane*, The American Mathematical Monthly **72**, 915, 1965., (Solution by D.C. Kac, idid. **73**, 903-4, 1966.
139. *Mrs. Perkin's Quilt*, Proc. Camb. Philos. Soc. **60**, 363-368, 1964.
140. (with H.T. Croft), *Covering a Sphere with Congruent Great-Circle Arcs*, Proc. Cambridge Math. Soc., **60**, 787-800, 1964.
141. (with M.J.T. Guy), *II in four 4's*, Eureka **25**, 18-19, 1962.
142. (with M.R. Boothroyd), *Problems Drive*, 1959, Eureka **22**, **15**, (Solutions: 22-23), 1959.

143. (with J.P. Rossetti), *Describing the Platyeosms*, (in preparation).
144. (with J.P. Rossetti), *Hearing the Platyeosms*, (in preparation).

### BOOKS

1. Regular Algebra and Finite Machines, Chapman and Hall, Ltd. London, 1971.
2. All Numbers Great and Small, Research Paper No. 149, Calgary, Alberta, Canada: The University of Calgary, Dept. of Mathematics and Statistics, 1972.
3. All Games Bright and Beautiful, Research Paper No. 295, Calgary, Alberta, Canada: The University of Calgary, Dept. of Mathematics and Statistics, 1975.
4. On Numbers and Games, London Mathematical Society Monographs, No. 6, Academic Press, London-New-San Francisco, 1976.
5. (with E.R. Berlekamp and R.K. Guy), Winning Ways, for Your Mathematical Plays, Vol. 1: Games in General, Vol. 2: Games in Particular, New York-London: Academic Press, 1982, ISBN: 0120911027, Paperback (August, 1982), Academic Press, ISBN 0120911027.
6. (with R.T. Curtis, S.P. Norton, R.A. Parker and R.A. Wilson), Atlas of Finite Groups: Maximal Subgroups and Ordinary Characters for Simple Groups, Oxford, Clarendon Press, New York, Oxford University Press, 1985.
7. (with N.J.A. Sloane), Sphere Packings, Lattices, and Groups, (with additional contributions by E. Bannai, J. Leech, S.P. Norton, A.M. Odlyzko, R.A. Parker, L. Queen and B.B. Venkov), Grundlehren der Mathematischen Wissenschaften, **209**, Springer-Verlag, New York, 1988, ISBN 0-387-96617-X, Russian Translation: Mir, Moscow, 1990, 2nd edition 1993, ISBN 0-387-97912-3, 3rd edition 1998, ISBN 0-387-98585-9.
8. (with R.K. Guy), The Book of Numbers, Copernicus. An Imprint of Springer-Verlag, New York, 1996, ISBN 0-387-97993-X, Review by Ian Stewart. Review by Susan Stefney, Corrected 2nd printing, 1998.
9. (with Francis Y.C. Fung), The Sensual (Quadratic) Form, MAA (Series: Carus Mathematical Monographs), Printed in the U.S.A., 1997, ISBN 0-88385-030-3.
10. (with N.J.A. Sloane), The Geometry of Low-Dimensional Groups and Lattices, (in preparation).

11. (with D. Smith), "Quaternions, Octonions, and Geometry," AK Peters, Publishers, January 2003. preparation).