

Schriftenverzeichnis

Fachwissenschaftliche Arbeiten

1. *A Reciprocity Formula for Quadratic Forms*
Monatshefte Math. **104** (1987), 125-132. DOI 10.1007/bf01326785
2. *On a Conjecture of Zaremba*
Monatshefte Math. **104** (1987), 133-137. DOI 10.1007/bf01326786
3. *Kleine Lösungen von quadratischen Gleichungen über endlichen Körpern*
Dissertation, Universität Hannover, 1987.
4. *On a conjecture of Graham*
Proc. AMS **102** (1988), 455-458. DOI 10.1090/s0002-9939-1988-0928959-9
5. *A remark on a theorem of Weinstein*
Fib. Qu. **27** (1989), 242-246.
6. *On Fibonacci primitive roots*
Fib. Qu. **28** (1990), 79-80.
7. *On the $(3n+1)$ -conjecture*
Acta Arith. **55**, no. 3 (1990), 241-248. DOI 10.4064/aa-55-3-241-248
8. *Prime power divisors of $\binom{2n}{n}$*
J. Number Theory **39**, no. 3 (1991), 65-74. DOI 10.1016/0022-314x(91)90034-9
9. *On $\frac{4}{n} = \frac{1}{x} + \frac{1}{y} + \frac{1}{z}$ and Rosser's sieve*
Acta Arith. **59**, no. 2 (1991), 183-204. DOI 10.4064/aa-59-2-183-204
10. *Über Primteiler von Binomialkoeffizienten*
Habilitationsschrift, Universität Hannover, 1991.
11. *On prime divisors of binomial coefficients*
Bull. London Math. Soc. **24**, 2 (1992), 140-142. DOI 10.1112/blms/24.2.140
12. *An asymptotic formula for a-th powers dividing binomial coefficients*
Mathematika **39** (1992), 25-36. DOI 10.1112/s0025579300006811
13. *Prime power divisors of binomial coefficients*
J. reine angew. Math. **430** (1992), 1-20. DOI 10.1515/crll.1992.430.1
14. *Die Nullstellen der Riemannschen Zetafunktion*
Math. Semesterber. **39** (1992), 185-194. DOI 10.1007/bf03186469
15. *On maximal antihierarchic sets of integers*
Discrete Mathematics **113** (1993), 179-189. DOI 10.1016/0012-365x(93)90515-u
16. *On primes not dividing binomial coefficients*
Math. Proc. Cambr. Phil. Soc. **113** (1993), 225-232. DOI 10.1017/s0305004100075927
17. *Prime power divisors of binomial coefficients: Reprise*
J. reine angew. Math. **437** (1993), 217-220. DOI 10.1515/crll.1993.437.217
18. *On numbers with a large prime power factor*
Acta Math. Hung. **63**, no. 1-2 (1994), 149-165. DOI 10.1007/bf01874946
19. *On a sum over primes*
Hardy-Ramanujan Journal **17** (1994), 32-39.

20. *On $\frac{4}{n} = \frac{1}{x} + \frac{1}{y} + \frac{1}{z}$ and Iwaniec' half dimensional sieve*
J. Number Theory **46**, no. 2 (1994), 123-136. DOI 10.1006/jnth.1994.1008
21. *Prime power divisors of multinomial coefficients and Artin's conjecture*
J. Number Theory **46**, no. 3 (1994), 372-384. DOI 10.1006/jnth.1994.1019
22. *A partition problem*
J. Number Theory **48**, no. 2 (1994), 162-182. DOI 10.1006/jnth.1994.1060
23. *Irrationality criteria for Mahler's numbers*
J. Number Theory **52**, no. 1 (1995), 145-156. DOI 10.1006/jnth.1995.1061
24. *On the order of prime powers dividing $\binom{2n}{n}$*
Acta Math. Uppsala **174** (1995), 85-118. DOI 10.1007/bf02392802
25. *A story of binomial coefficients and primes*
Amer. Math. Monthly **102**, no. 9 (1995), 802-807. DOI 10.2307/2974508
26. mit P.-G. BECKER: *Irrationality and Codes*
Semigroup Forum **51** (1995), 117-124.
27. *On the exponent average of integer sequences*
Monatshefte Math. **120** (1995), 137-151.
28. mit G. MYERSON: *What the least common multiple divides, II*
J. Number Theory **61**, no. 1 (1996), 67-84. DOI 10.1006/jnth.1996.0138
29. *On the value distribution of arithmetic functions*
J. Number Theory **66** (1997), 51-69. DOI 10.1006/jnth.1997.2159
30. *Egyptian fractions and the Erdős-Straus conjecture*
Nieuw Arch. Wiskunde **15** (1997), 43-50.
31. mit J. STEINIG: *Integer-detecting sequences*
Indag. Math. N.S. **9** (1998), 305-315. DOI 10.1016/s0019-3577(98)80026-8
32. mit C. ELSNER: *On the exact height of integer-detecting sequences*
J. Number Theory **73** (1998), 1-13. DOI 10.1006/jnth.1998.2282
33. *Rational points on a class of superelliptic curves*
J. London Math. Soc. **59** (1999), 422-434. DOI 10.1112/s0024610799007231
34. mit C. ELSNER: *On the distribution of residue classes of quadratic forms and integer-detecting sequences in number fields*
Stud. Sci. Math. Hung. **36**, no. 1-2 (2000), 123-152.
35. mit R. TIJDeman: *The complexity of functions on lattices*
Theor. Comp. Science A **246** (2000), 195-225. DOI 10.1016/s0304-3975(99)00078-x
36. mit R. TIJDeman: *Low complexity functions and convex sets in \mathbb{Z}^k*
Math. Zeitschrift **233** (2000), 205-218. DOI 10.1007/pl00004798
37. mit C. ELSNER, J. STEUDING: *Kettenbrüche als Summen ebensolcher*
Math. Slovaca **51**, no. 3 (2001), 281-293.
38. *On the parity of exponents in the prime factorization of factorials*
J. Number Theory **90**, no. 4 (2001), 316-328. DOI 10.1006/jnth.2000.2668
39. mit R. TIJDeman: *The rectangle complexity of functions on two-dimensional lattices*
Theor. Comp. Science A **270** (2002), 857-863. DOI 10.1016/s0304-3975(01)00281-x
40. *On the independence of Hartman sequences*
Monatshefte Math. **135** (2002), 327-332. DOI 10.1007/s006050200026

41. mit M. LAKHAL: *Rational points on the superelliptic Erdős-Selfridge curve of fifth degree*
Mathematika **50** (2003), 113-124. DOI 10.1112/s0025579300014844
42. mit T. SANDER: *On simply structured bases of tree kernels*
AKCE Int. J. Graphs Comb. **2** (2005), 45-56
43. mit J. STEUDING: *Joint universality for sums and products of Dirichlet L-functions*
Analysis **26** (2006), 295-312. DOI 10.1524/anly.2006.26.99.295
44. *A phenomenon of uniform distribution in the prime power factorization of factorials*
Forschungsbericht der FHDW Hannover **6** (2007), 57-63.
45. mit T. SANDER: *On simply structured kernel bases of unicyclic graphs*
AKCE Int. J. Graphs Comb. **4** (2007), 61-82
46. *How to play MetaSquares*
Math. Slovaca **57** (2007), 501-514. DOI 10.2478/s12175-007-0042-3
47. mit T. SANDER: *On kernels of circuit graphs and their powers*
Mathematik-Bericht der TU Clausthal **11** (2008), 1-31.
48. mit T. SANDER: *Tree decomposition by eigenvectors*
Lin. Alg. Appl. **430** (2009), 133-144. DOI 10.1016/j.laa.2008.07.015
49. *On the addition of units and nonunits mod m*
J. Number Theory **129**, no. 10 (2009), 2260-2266. DOI 10.1016/j.jnt.2009.04.010
50. mit T. SANDER: *On the kernel of the coprime graph of integers*
Integers: Electr. J. Comb. Number Theory **9** (2009), 569-579. DOI 10.1515/integ.2009.045
51. mit T. SANDER: *On the eigenvalues of distance powers of circuits*
Lin. Alg. Appl. **432** (2010), 3132-3140. DOI 10.1016/j.laa.2010.01.012
52. mit J. STEUDING, R. STEUDING: *Diophantine aspects of the Calkin-Wilf iteration*
Elemente der Math. **66** (2011), 45-55. DOI 10.4171/em/170
53. mit T. SANDER: *The energy of integral circulant graphs with prime power order*
Appl. Analysis and Discr. Math. **5**, no. 1 (2011), 22-36. DOI 10.2298/aadm110131003s
54. mit T. SANDER: *Integral circulant graphs of prime power order with maximal energy*
Lin. Alg. Appl. **435** (2011), 3212-3232. DOI 10.1016/j.laa.2011.05.039
55. mit T.A. LE: *Convolutions of Ramanujan sums and integral circulant graphs*
International J. Number Theory **8** (2012), 1777-1788. DOI 10.1142/s1793042112501023
56. mit T.A. LE: *Extremal energies of integral circulant graphs via multiplicativity*
Lin. Alg. Appl. **437** (2012), 1408-1421. DOI 10.1016/j.laa.2012.04.012
57. mit T. SANDER: *The maximal energy of classes of integral circulant graphs*
Discr. Appl. Math. **160** (2012), 2015-2029. DOI 10.1016/j.dam.2012.04.017
58. mit T. SANDER: *Adding generators in cyclic groups*
J. Number Theory **133** (2013), 705-718. DOI 10.1016/j.jnt.2012.08.021
59. mit T. SANDER: *The exact maximal energy of integral circulant graphs with prime power order*
Contributions Discr. Math. **8** (2013), 19-40. DOI 10.11575/CDM.V8I2.62187
60. mit T.A. LE: *Integral circulant Ramanujan graphs of prime power order*
Electronic J. Combinatorics **20** (2013), #P35, 12 pp. DOI 10.37236/3159
61. mit T. SANDER: *On So's conjecture for integral circulant graphs*
Appl. Analysis and Discr. Math. **9** (2015), 59-72. DOI 10.2298/aadm150226009s

62. *Integral circulant Ramanujan graphs via multiplicativity and ultrafriable integers*
Lin. Alg. Appl. **477** (2015), 21-41. DOI 10.1016/j.laa.2015.03.012
63. *Sums of exceptional units in residue class rings*
J. Number Theory **159** (2016), 1-6. DOI 10.1016/j.jnt.2015.07.018
64. mit T. SANDER: *Recent developments on the edge between number theory and graph theory*
In: J.W. Sander, J. Steuding and R. Steuding (eds.): From Arithmetic to Zeta-Functions – Number Theory in Memory of Wolfgang Schwarz, Springer Basel, 2016; pp. 405-425. DOI 10.1007/978-3-319-28203-9_24
(ISBN 978-3-319-28202-2)
65. *Multiplicative atom decomposition of sets of exceptional units in residue class rings*
J. Number Theory **173** (2017), 254-271. DOI 10.1016/j.jnt.2016.09.027
66. *On the kernel of integral circulant graphs*
Lin. Alg. Appl. **549** (2018), 79-85. DOI 10.1016/j.laa.2018.03.023
67. *Structural properties and formulae of the spectra of integral circulant graphs*
Acta Arithmetica **184** (2018), 297-315. DOI 10.4064/aa171020-30-6
68. *Holes in lace doilies: The geometric kernel of circulant graphs*
Elemente Math. **76** (2021), 154-164. DOI 10.4171/em/435
69. *The geometric kernel of integral circulant graphs*
Electr. J. Comb. **28** (2021), P3.33. DOI 10.37236/9764
70. mit R. MIYAMOTO: *Solving the iterative differential equation $\gamma g' = g^{-1}$*
In: H. Maier, J. Steuding, R. Steuding (eds.): Number Theory in Memory of Eduard Wirsing, Springer, 2023; pp. 223-236. DOI 10.1007/978-3-031-31617-14
(ISBN 978-3-031-31616-6).
71. mit T. SANDER: *Characterisation of all integral circulant graphs with multiplicative divisor sets and few eigenvalues*
J. Algebr. Comb. **58** (2023), 25 pp. DOI 10.1007/s10801-023-01259-x
72. mit PH. KÖNIG, R. MIYAMOTO: *Counting sequences*
(zur Veröffentlichung eingereicht)
73. *How to construct the atom decomposition of the set of exceptional units in a residue class ring*
(zur Veröffentlichung eingereicht)

Fachdidaktische Arbeiten

1. mit T. HAMANN, S. KREUZKAM, B. SCHMIDT-THIEME, J.H. DE WILJES: *The first academic year - Steps on the way to mathematics*
In: B. Ubuz, C. Haser und M. A. Mariotti (eds.): Proceedings of the Eighth Congress of the European Society for Research in Mathematics Education (CERME 8), Ankara, 2013; pp. 2492-2493
2. mit T. HAMANN, S. KREUZKAM, B. SCHMIDT-THIEME: “Was ist Mathematik?” *Einführung in mathematische Arbeiten und Studienwahlüberprüfung für Lehramtsstudierende*
In: I. Bausch et al. (Hrsg.): “Mathematische Vor- und Brückenkurse”, Konzepte und Studien zur Hochschuldidaktik und Lehrerbildung Mathematik, Springer Wiesbaden, 2014, (ISBN 978-3-658-03065-0); pp. 375-387.

Monographien

1. mit K. BRINGMANN, Y. BUGEAUD, T. HILBERDINK: *Four Faces of Number Theory*
EMS Series of Lectures in Mathematics, European Mathematical Society Publ. House
Zürich, 2015 (ISBN 978-3-03719-142-2; DOI 10.4171/142).
2. mit J. STEUDING AND R. STEUDING (EDS.): *From Arithmetic to Zeta-Functions –
Number Theory in Memory of Wolfgang Schwarz*
Springer Basel, 2016 (ISBN 978-3-319-28202-2; DOI 10.1007/978-3-319-28203-9-2).
3. mit R. KNACKSTEDT AND J. KOLOMITCHOUK (EDS.): *Kompetenzmodelle für den
Digitalen Wandel – Orientierungshilfen und Anwendungsbeispiele*
Reihe Kompetenzmanagement in Organisationen, Springer, 2022
(ISBN 978-3-662-63672-5; DOI 10.1007/978-3-662-63673-2).