List of publications

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1 Research papers

1. On homotopical properties of a space, Ann. Univ. Sofia, Math., 64(1969/70), 17–22, (in russian); (with N.Hadjiivanov).

2. On mappings increasing the dimension, Mat.Zametki, 7, 6(1970), 697–705, (in russian); MR 42 M 1115.

3. On mappings increasing the dimension and resolvents of closed maps, PhD Dissertation, Moscow State University, 1970,(in russian).

4. On resolvents of a continuous map, Mat.Sbornik, 82, 4(1970), 532–550 (in russian); MR 43 N 5527.

5. On resolvents corresponding to a closed map, Mat.Sbornik, 86, 2(1971), 234–247, (in russian); MR 45 N 1157.

6. On the theorem of Hurewitz, Ann.Univ.Sofia, Math., 65(1970/71), 1–6, (in russian); MR M 3025.

7. Cohomology groups of bicompact AAR and AANR spaces, Ann. Univ. Sofia, Math., 66(1971/72), 1–5, (in russian); MR M 14472.

8. Fixed points of acyclic maps, Ann.Univ.Sofia, Math., 67(1972/73), 7–18, (in russian); MR 54 N 11313.

9. Equivariant multivalued maps of a sphere, Ann. Univ. Sofia, Math., 67(1972/73), 113–137, (in russian); MR 54 N 1134.

10. On the degree of an equivariant acyclic map of a sphere, Ann. Univ. Sofia, Math., 67(1972/73), 139–163, (in russian); MR 55 N 4151.

11. On a theorem of Rouche, Ann.Univ.Sofia, Math., 67(1972/73), 1–5, (in russian); MR 55 N 4199.

12. Finite coverings and resolvents of a closed map, C.R.Bulgarian Acad.Sci., 26, 6(1973), 733–734, (in russian); MR 48 M 7278.

13. Fixed ponts of multivalued maps, C.R.Bulgarian Acad Sci., 26, 5(1973), 595–597, (in russian); MR 47 M 9373.

14. Fixed points of continuous maps of bicompact A-ANR spaces, Bull.Acad.Polon., Sci.Math., 21, 2(1973), 173–180, (in russian); MR M 9602.

15. On AANR spaces, Bull.Acad.Polon., Math., 21, 12(1973), 1123–1130 (in russian); MR 49 N 1469.

16. On perturbations of vector fields, C.R.Bulgarian Acad.Sci., 26(1973), 999–1000, (in russian); MR N 3969.

17. Fixed points of multivalued maps of bicompact AANR spaces, Bull.Acad.Polon., Math., 22, 4(1974), 415–420, (in russian); MR 49 N 6223.

18. Incidences and coincidences of acyclic maps, C.R.Bulgarian Acad.Sci., 27, 3(1974), 415–420, (in russian); MR 50 N 1248.

19. Fixed point theorem for multivalued acyclic mappings, C.R.Bulgarian Acad.Sci., 27(1974), 1319–1320; MR 50 N 14724.

20. Antipodal maps, C.R.Bulgarian Acad.Sci., 27(1974), 159–160, (in russian); MR 50 N 3186.

21. Generalisation of Bourgin-Yang theorem, C.R.Bulgarian Acad.Sci., 27(1974), 1619–1620; ZB 355 N 55011.

22. On the invariance of domain, C.R.Bulgarian Acad.Sci., 27(1974), 1471–1472; MR 50 N 14733.

23. On a theorem of Bourgin-Yang, Serdica, Bulgarian Math.J., 1(1975), 183–198; MR 53 N 6543.

24. Incidences and coincidences of acyclic maps, Serdica, Bulgarian Math.J., 1(1975), 29–41, (in russian); MR 53 N 1567.

25. Factorisation an approximation theorem for Alexandroff-Cech cohomology, C.R. UdSSR Acad.Sci.,220(1975), 208–212 (with Yu.M.Smirnov), (in russian); MR 52 N 1665.

26. Mappings of a finite dimensional sphere in an euclidean space, C.R.Bulgarian Acad.Sci., 294(1975), 7–8.

27. On a theorem of H.Hopf, Serdica, Bulgarian Math.J., 1(1975), 317–325; MR 54 N 1206.

28. Fixed points of maps of compact connected groups, C.R. Bulgarian Acad.Sci., 28(1975), 437–439, (in russian); MR 58 N 24249.

29. A coincidence of maps of compact groups, C.R.Bulgarian Acad.Sci., 28(1975), 1451–1454, (in russian); MR 55 N 4150.

30. Lefschetz fixed point theorem for homogeneous spaces of localy compact gropups, C.R.Bulgariam Acad.Sci., 29(1976), 1771–1573 (with Ya.Kintishev), (in russian); MR 55 N 4150.

31. Resolvents of a closed map, Ann.Univ.Sofia, Math., 71(1976/77), 87–118,(in russian).

32. On the invariance of domain, Serdica, Bulgarian Math.J., 2(1976), 7–11; MR 54 N 8617.

33. On the fixed point theorem of Schauder, Serdica, Bulgarian Math.J., 2(1976), 122–125; MR N 13901.

34. A fixed point theorem for NE-maps, Serdica, Bulgarian Math.J., 3(1977),29–41, (with S.Bogatii), (in russian), MR 57 N 139254.

35. Coincidence of continuous maps, Fund. Math., CI (1978), 171–180, (in russian), (with L. Gorniewicz);MR 80e: 55004.

36. Shape of solenoidal spaces, C.R. Bulgarian Acad.Sci., 31(1978), 1101–1102; MR 80e:54046.

37. Shape of compact connected finite dimensional groups, C.R. Bulgarian Acad.Sci., 31(1978), 1517–1518; MR 89k:55038.

38. Shape of solenoidal spaces, Ann.Univ.Sofia, Math., 72,(1978), 47-61 (in russian); RJ 1988 3A690.

39. On a coincidence theorem of mappings of compact spaces in topological groups, Fund.Math., CIV(1979), 111–125; MR 1980 4A561.

40. A coincidence theorem for Q-simplicial spaces, C.R. Bulgarian Acad./Sci., 32(1979), 279–280; MR 83b 55003.

41. Solenoidal spaces, Int.Conf.Geom.Topology, PWN, Warszawa, 1980, 411–417.

42. Resolvents of Zarelua, Russ. Math.Surv., 35, 3(1980), 221–224(in russian).

43. Coincidence of maps in Q-simplicial spaces, Fund.Math., CXIII(1981), 67–79; MR 1986 7A595.

44. Fixed point index and chain approximations, Univ.Bremen, FSP Dyn. qSyst., Rep. 35(1981), (with H.-W.Siegberg).

45. Fixed point index for open sets in euclidean space, Univ.Bremen, FSP Dyn. Syst., Rep. 45(1981).

46. Fixed point index and chain approximations, Pacif.J.Math., 102(1982), 455–486(with H.-W.Siegberg).

47. Multivalued maps, XI Spring Conf. UBM, 1982 (with R.Ivanov, P.Kenderov, S.Nedev), (in russian).

48. Shape of compact groups, Serdica, Bulgarian Math.J., 8(1982), 123–142.

49. Homological properties of continuous maps, Doctoral Dissertation, University of Sofia, Bulgaria, 1983(in bulgarian).

50. The spectral sequence of Zarelua, Pliska, Bulgarian Math.J., 6(1983), 121–149 (in russian).

51. Fixed point index for open sets in euclidean space, Fund.Math., CXXI(1984), 41–58.

52. Coincidence of maps in homogeneous spaces, C.R. Bulgarian Acad.Sci., 38(1985), 1279–1281; RJ 1986 7A595.

53. The Lefschetz fixed point theorem, Ann. Univ Sofia, Math., 79(1985), 201–213.

54. Coincidence of maps in Q-simplicial spaces, Ann.Univ.Sofia, Math., 1987.

55. On the multiplicity of the fixed point index, Serdika, Bulgarian Math.J., 15(1989), 160-170.

56. Borsuk-Ulam theorem fixed point index and chain approximations for maps with a multiplicity, Univ. Bremen, Inst. Dyn. Syst., Rep. 214(1989); Pacif.J.Math., 153(1992), 369–395, (with F.v.Haeseler).

57. Pascal's triangle, dynamical systems and attractors,Inst. Dyn. Syst., Univ. Bremen, Rep. 250(1991); Erg.Th.Dyn.Syst., 12(1992), 479–486,(with F.v.Haeseler, H.-O.Peitgen).

58. Linear cellular automata, substitutions, hierarchical iterated function systems and attractors, Inst. Dyn. Syst., Univ. Bremen, Rep. 254(1991); in Fractal geometry and computer graphics, ed. J.L.Encarnacao et all, Springer, 1992,(with F.v.Haeseler, H.-O.Peitgen).

59. Cellular automata, matrix substitutions and fractals, Inst. Dyn. Syst., Univ. Bremen, Rep. 270(1992); Ann.Math.Art.Intell., 8(1993), 345–362, (with F.v.Haeseler, H.-O.Peitgen).

60. On the fractal structure of rescaled evolution set of cellular automata and attractors of dynamical systems, Inst. Dyn. Syst., Univ. Bremen, Rep. 278(1992), (with F.v.Haeseler, H.-O.Peitgen).

61. Linear cellular automata, matrix substitutions and Pascal's triangle, Univ. Bremen,Inst. Dyn. Syst., Rep. 290(1993); (as Linear cellular automata, finite automata andPascal's triangle), Discrete Appl. Math.,66(1996), 1–22, (with J.-P.Allouche, F.v.Haeseler, H.-O.Peitgen).

62. Multifractal decompositions of rescaled evolution sets of equivariant cellular automata,Inst. Dyn. Syst., Univ. Bremen, Rep. 298(1993), J. Random and Comput. Dynamics, 3(1995), 93–119, (with F.v.Haeseler, H.-O.Peitgen).

63. Global analysis of self-similarity features of cellular automata: selected examples, Univ. Bremen, Inst. Dyn. Syst., Rep. 308(1994); Physica D 86(1995), 64–80,(with F.v.Haeseler, H.-O.Peitgen).

64. Fractal patterns in Gaussian and Stirling number tables modulo prime power, Univ. Bremen,Inst. Dyn. Syst., Rep.319 (1994); Ars Combinatoria, 48(1998), 2–26, (with E.Lange, H.-O.Peitgen).

65. Coarse-graining invariant patterns of one-dimensional two-state linear cellular automataInst. Dyn. Syst., Univ. Bremen, Rep. 298(1993); Int.J.Bifurcation and Chaos, 5(1995), 1611–1631, (with A., F.v.Haeseler, H.-O.Peitgen).

66. Automatic maps on semiring with digits, Univ. Bremen, Inst. Dyn. Syst., Rep.339 (1995); Fractals, 3(1995), 663–677, (with J.-P. Allouche, E. Cateland, H.-O. Peitgen, J. Shallit).

67. Automaticity of double sequences generated by one-dimensional linear cellular automata, Inst. Dyn. Syst., Univ. Bremen, Rep. 346(1995); Theor. Comp. Sci. 188 (1997), 195-209, (with J.-P.Allouche, F.v.Haeseler, H.-O.Peitgen, A.Petersen).

68. Automatic maps in exotic numeration systems, Inst. Dyn. Syst., Univ. Bremen, Rep. 351(1995); Theory Comput. Syst., 30 (1997), 285–331, (with J-P. Allouche, E. Catelan, W. Gilbert, H.-O. Peitgen, J. Shallit).

69. Self-affine curves and sequential machines, Inst. Dyn. Syst., Univ. Bremen, Rep. 364(1996); Real Analysis Exchange, 22(1996-97), 446–491, (with H.-O.Peitgen, A.Rodenhausen).

70. Linear cellular automata and automatic sequences,Inst. Dyn. Syst., Univ. Bremen, Rep. 379(1996); Parallel Computing, 23 (1997), 1577-1592, (with J.-P.Allouche, F.v.Haeseler, E.Lange, A.Petersen).

71. Decimation-invariant sequences, ESAT - SISTA/COSIC, Katholieke Universiteit Leuven, Rep. 97-106, 1997, (with A. Barbé).

72. Automaticity of coarse-graining invariant orbits of one-dimensional linear cellular automata, ESAT-SISTA/COSIC, Katholieke Universiteit Leuven, report nr. 97-112, 1997,(with A. Barbé, H.-O. Peitgen).

73. Transcendence of binomial and Lucas' formal power series, Inst. Dyn. Syst., Univ. Bremen, Rep. 423 (1997); J. Algebra, 210 (1998), 577–592, (with J.-P. Allouche, D. Gouyou-Beauchamps).

74. Self-affine functions and cellular automata, Inst. Dyn. Syst., Univ. Bremen, Rep. 426 (1998); Fractals, 6 (1998), 371-394, (with H.-O. Peitgen, A. Rodenhausen).

75. Automaticity of coarse-graining invariant orbits of one-dimensional linear cellular automata, Inst. Dyn. Syst., Univ .Bremen, Rep. 417 (1997); Int. J. Bifurcation and Chaos, 9 (1999), 67-95, (with A. Barbé, H.-O. Peitgen).

76. Schur congruences, Carlitz sequences of polynomials and automaticity, Inst. Dyn. Syst., Univ. Bremen, Rep. 399(1997); Discrete Math. 214 (2000) 21–49, (with J.-P. Allouche).

77. On the fractal structure of the rescaled evolution set of Carlitz sequences of polynomials, Inst. Dyn. Syst., Univ. Bremen, Rep. 419 (1997); Discr. Appl. Math. 103 (2000), 89 –109, (with F.v. Haeseler, H.-O. Peitgen).

78. Fractals associated with random multiplication of polynomials, Inst. Dyn. Syst., Univ. Bremen, Rep. 432 (1998); Random linear cellular automata: Fractals associated with random multiplication of polynomials,Japanese J. Math. 26, 2 (2000), 381-406 (with R. D. Mauldin).

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83. Notes on cellular automata, Inst. Dyn. Syst., Univ. Bremen, Rep. 458 (2000), Cubo Matemática Educacional, 3 (2001), 213-244 (with J.-P. Allouche, M. Courbage).

84. Cellular automata,Encyclopedia of Physical Science and Technology, Third Edition, vol. 2,Academic Press, , 555-567 (with J.-P. Allouche, M. Courbage, J. Kung).

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86. Lefschetz fixed point theorem for acyclic maps with multiplicity, Inst Dyn. Syst., Univ. Bremen, Rep. 461 (2001), Topological Methods in Nonlinear Analysis, 19, 2(2002), 339-374.(with F. v. Haeseler, H.-O. Peitgen).

87. Rescaled evolution sets of linear cellular automata on a cylinder, Inst Dyn. Syst., Univ. Bremen, Rep. 462 (2001);Int. J. Bifurcation and Chaos, 13, 4 (2003), 815-842(with a. Barbé , F. v. Haeseler, H.-O. Peitgen).

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91. Tools for devising cellular automata in the hyperbolic 3D space, Publication du LITA, N 2002-101, Universite de Metz, pp. 52 (with M. Margenstern)

92. Tools for devising cellular automata in the hyperbolic 3D space, Fundamenta Informaticae, 58 (2003), 369-398(with M. Margenstern)

93. The tiling {p, q } of the hyperbolic plane are combinatoric, SCI'2003, Orlando, USA (with M. Margenstern)

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95. Self-generating sets, integers with missing blocks, and substitutions, Discrete Math.,143 (2004), 166-181 (with J.-P. Allouche, J. Shallit)

96. Integer-valued fixed point index for acyclic maps on ANR's, C. R. Bulgarian Academy of Sci., 57, Nr.12(2004), 5-8, (with E. G. Sklyarenko).

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99. Substitutions for tilings $\{p, q\}$, Publications du LITA, N 2005-102, Université de Metz, arXiv:cs.CG/0611039v1 9 Nov 2006 (with M. Margenstern).

100. Integer-valued fixed point index for compositions of acyclic maps, arXiv:math.GN/0610831 v1, Journal of Fixed Point Theory and Applications 1(2007), 97-109 (with E. G. Sklyarenko).

101. Von Koch and Thue-Morse revisited, Fractals, 15, 4(2007), 405-409 (with J.-P. Allouche).

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103. Substitutions generating the fractal matrices of the p-adic valuation of the binomial and Legendre- polynomial coefficients, Fractals (to appear), (wit A. Barbe).

2 Textbooks, scientific-popular books and papers

1. Regular polytops, Bibl. Alef, Narodna Prosveta, Sofia, 1978, pp. 90, (in bulgarian).

2. Regular mosaics, Bibl. Alef, Narodna Prosveta, Sofia, 1981, pp. 120, (with I.Stoyanova), (in bulgarian).

3. Algebra, IX grade of secondary schools, Narodna Prosveta, Sofia, 1981, (with M.Gavrilov, P.Barnev, E.Todorova), (in bulgarian); Second Ed. 1984.

4. August F.Möbius, Matematika, 1(1978), 2–7, (with I.Stoyanova), (in bulgarian).

5. Topology of letters, Matematika, 1(1979), 19–24, (with I.Stoyanova), (in bulgarian).

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10. Two dimensional crystalographic groups, Educ. Math. Inf., 4(1991), 31–45, (with I.Stoyanova), (in bulgarian).

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3 Translations

1. B. V. Gnedenko, "Formirane na mirogled u uchenicite pri obuchenieto po matematika", Narodna Prosveta, Sofia,1986 (from russian) (with I. Stoyanova).

2. H.-O. Peitgen, H. Jürgens, Fraktali - nov ezik za kompleksni strukturi, Educ. Math. Inf., 2(1990), (from german).