Cristian S. Calude

Selected Citations

February 11, 2021

Cited in more than 5500 papers and 120 books by more than 550 authors including:

A. Aaronson, A. A. Abbott, L. Accardi, A. Adamatzky, T. Addis, S. G. Akl, D. S. Alberts, A. Alhazov, G. Alford, H. Alghassi, S. M. Ali, S. Amante, K. Ambos-Spies, M. Amos, B. S. Anand, I. Antoniou, B. Apolloni, Margaret Archibald, A. Arslanov, J. J. Arulanandham, M. Aspelmeyer, J. Astola, E. Bach, J. Bacon, F. Baillly, M. S. Balan, J. Baez, K. Bao, J. D. Barrow, G. Barmpalias, I. I. Batyrshin, Veronica Becher, F. Benatti, H. Bensaid, A. Bergeron, L. Berggren, F. Bernardini, J.-L. Beuchat, L. Bianco, C.-L. Bichir, L. Bienvenu, E. Blakey, F. Blanchard, B. E. Blank, C. Boyer, J. Borwein, P. Borwein, P. Bottoni, O. J. Bousquet, O. Bournez, S. Boztaş, V. Brattka, S. L. Braunstein, B. von Braunmühl, D. Branzei, D. S. Bridges, C. Brukner, O. Brunet, J. Buechner, P. J. M. van der Burgt, K. Burrage, E. Busse, Ş. Buzeţeanu, D. Byatt, A. Cabello, T. CadwalladerOlsker, Silvia Canaider, J. Casti, M. L. Campagnolo, C. Câmpeanu, L. Nunes de Castro, G.-V. Cirlig, W. A. Carnielli, B. Carpenter, A. Carsetti, M. A. Cerdà-Uguet, J. Cervelle, G. J. Chaitin, F. Chatelin, K. Chandrasekhara Rao, S. Chen, W. Cheng, G. Chevalier, P. Cholak, M. Chown, M. M. Ćirković, J. A. Clark, B. Clegg, P. A. Cockshott, J. Cohen, J. Collier, S. B. Cooper, J. Copeland, P. Cotogno, T. Crolard, E. Csuhaj-Varju, T. J. Czerwinski, G. D'Abramo, P. D'Addabbo, S. Daicz, M. L. Dalrymple, M. Dauchet, G. Davie, M. Davis, J. H. Dawson, Jr., D. Decheng, J.-P. Delahaye, M. A. Martin-Delgado, W. A. Dembski, M. Denker, D. Desovski, M. Detlefsen, Elena Deza, M. Deza, U. Dhawan, F. Diacu, N. Dima, D. Ding, D. L. Dowe, R. G. Downey, R. Dridi, M. Drmota, J.-C. Dubacq, E. Duffy, B. Durand, N. Duţă, A. Dvurecenski, T. Ebert, A. Edalat, G. G. Emch, M. Emmer, R. L. Epstein, M. Eramian, H.-A. Esbelin, G. Etesi, G. Everest, M. Ferbus-Zanda, Mirtha-Lina Fernández, C. Ferretti, S. Figueira, S. Finch, E. Formenti, R. Freivalds, R. Freund, S. Gal, C. Garola, S. S. Ge, E. Gelenbe, R. Gengler, C. Gentile, Adelina Georgescu, G. Georgescu, D. Gerdemann, W. A. Germishuizen, F. Geurts, O. Giarini,, R. Girgensohn, J. Gleick, I. Glendinning, L. M. Gluskin, G. Godoy, V. Goel, González, N. Gotovac, R. Gowri, E. J. Griffiths, S. Grigorieff, J. Grossman, C. Grozea, F. Gruau, J. Gruska, L. Guibas, Y. Gurevich, H. Gutowitz, A. Hagar, S. Hamel, D. Hammer, J. Harrison, M. Hartwig, T. Head, S. Hebri, L. Hemaspaandra, B. Henley, F. Hernandez-Quiroz, P. Hertling, C. Heuberger, T. Hida, C. Horn, K. Higuchi, J. Hintikka, D. R. Hirschfeld, D. W. Hoffmann, M. Hoyrup, S. Horváth, J. Hromkovič, P. Hudelson, M. Huhne, M. Hutter, J. Hyde, O. H. Ibarra, Z. Ibrahim, L. Ilie, J. Inouye, S. Istrail, G. Istrate, J. J. Jadacki, A. Jain, P. Jakopin, C. Jalobeanu, S. Jiang, J. J. Joosten, S. Ji, A. Jurisic, E. Jurvanen, H. Jürgensen, I. Kalantari, S. Kalyanaraman, L. Kari, V. Kendon, A. Kent, D. E. Kephart, S. M. Kim, S. W. Kim, T. D. Kieu, C. King, A. P. Kirilyuk, P. Klimek, K. Klotz, R. A. Knoebel, J. Kofler, M. Kojman, S. Köhler, M. Koshelev, M. Khalid, B. Khoussainov, N. Khoussainova, B. Kjos-Hanssen, S. Köhler,, P. Konjevoda, I. Kramosil, N. Krasnogor, V. Kreinovich, S. N. Krishna, F. Kroon, A. Kučera, M. Kummer, L. Kuppusamy, A. Labella, G. L. LaForte, W. Langdon, M. A. Lanzagorta, V. Laschos, T. Lattimore, J. Lennon, E. A. Lee, C. Lee, J. van Leeuwen, S. Legg, A. E. M. Lewis, M. Li, Y. Liang, I. Licata, G. Lischke, C. Liu, F. Liu, J. Liu, X. Liu, Marjo Lipponen, G. Longo, L. Longpré, A. A. López, S. Lloyd, B. Löwe, D. Lu, R. Lupachchini, B. Ma, A. Mahendran, K. Mainzer, G. Malescio, M. Malitza, M. Malyutov, C. Mamali, V. Manca, Yu. Manin, P. Maranda, J. P. Marques de Sá, E. Matsikondis, B. Marchal, S. Marcus, G. Markowsky, C. Martin-Vide, A. Mateescu, Yu. V. Matiyasevich, J. Matýsek, H. Maurer, G. Mauri, I. Măndoiu, J. W. McAllister, K. McDermott, T. H. McNicholl, W. Merkle, J. Mielke, G. B. Michaelson, N. Mihailovic, J. S. Miller, B. Mills, L. Mills, M. Minnes, R. Miron, Z. Mo, H. Monroe, M. More, G. Moszkowski, S. J. Muller, R. Murawski, N. Murphy, J. Mycka, M. Nagy, T. J. Naughton, I. Németi, A. Nerode, N. Neufeld, E. Nicolau, D. V. Nicolau Jr., V. Nicolau, B. Nicolescu, S. Niculescu, T. Niculiu, H. Niederreiter, A. Nies, H. T. Nguyen, F. Noferini, Doris Nolte, G. van Noord, P. Odifreddi, M. Ogihara, M. Ohya, L. Olsen, E. Omri, O. Ono, T. Ord, P. M. Parker, D. Patrige, U. Pagallo, S. Parnes, T. Paterek, D. Pattinson, T. Paul, B. Pavlov, G. Păun, D. Petcu, H. Petersen, I. Petrykiewicz, D. Pixton, A. Podgurski, J. Poland, R. Poli, E. Polonowski, A. van der Poorten, C. P. Porter, A. Popovici, S. Porrot, P. H. Potgieter, R. Prevedel, L. Priese, P. Raatikainen, J. Rajahalme, R. Rama, A. Ra-

machandran, A. S. Ramírez, I. Razenshteyn, G. Roach, J. Reich, S. Reid, J. Reimann, D. L. Renfro, J. Resag, R. Rettinger, E. Rivals, L. Robbins, Y. Rogozhin, C. Rojas González, A. Romashchenko, J. Rothe, G. Rozenberg, A. Rubio, B. Ryabko, S. Rudeanu, M. Sablik, A. Salomaa, A. Sangalli, K. M. Sayre, A. M. Sălăgean-Mandache, D. Sburlan, J. L. Schiff, T. A. Sebeok, P. Semukhin, G. Schäfer, M. P. Schellekens, K. Schmaranz, C. Schindelhauer, J. Schmidhuber, M. Schmidt, D. Schultes, G. Segre, G. Shafer, O. Shagrir, J. Shallit, S. Shapiro, A. Shaw, S. Shelah, A. Shen, S. Y. Shen, K. Shimohara, I. Shparlinski, A. Sicard, S. G. Simpson, J. Šindelář M. Sipser, T. A. Slaman, J. Small, R. E. Smith, C. Smoryński, U. Sohn, G. Solana, F. Soler-Toscano, A. Sorbi, P. Sosík, C. Spandl, K. H. Sprenger, R. Srikanth, L. Staiger, N. Štambuk, O. Stănăşilă, M. Stannett, M. Stay, F. Stephan, S. Stepney, H.-G. Stork, W. Strawinski, I. Streinu, P. Strippoli, R. Sylvan, K. Subramani, K. Sutner, K. Svozil, V. Swaminathan, G. Tamburrini, A. Tanguiane, M. Tătărâm, A. Taveneaux, S A. Terwijn, E. Thacker, G. Thierrin, S. Thompson, I. Tomescu, J. F. Traub, G. Trautteur, R. A . Trejo, M. Trenton, M. Trott, Y. Tsuboi, R. M. Turner, A. Tyrrell, J. K. Uhlmann, V. A. Uspensky, L. Vaidman, D. Vakarelov, F. Vasiliu, U. Vazirani, M. Vélez, N. K. Vereshchagin, S. Vermeeren, B. Vidakovic, H. Vollmer, G. Vossen, T. Vidick, P. M. Vitányi, S. B. Volchan, Y. Wang, T. Ward, R. Wagner, I. Watson, K. Weihrauch, E. Weisstein, A. G. Werschulz, G. Wiederhold, J. Wiedermann, R. H. Williams, E. Winfree, K.-U. Witt, S. Wolfram, D. Woods, N. Woods, A Weiermann, M. B. Winter, M. W. Woyczyński, G. Wu, E. H. Yang, A. Yafyasov, B. Ycart, Y. T. Yeh, H. P. Yockey, T. Yokomori, K. Yokoyama, L. Yu, S. Yu, S. S. Yu, C. Zadron, L. Zajíček, A. Zeilinger, R. S. Zeitman, H. Zenil, K. Zhang, W. Zhang, F. Zhao, X. Zheng, M. Ziegler, M. Zimand, P. Zizzi.

1 Selected Citations

1.1 Papers

1. A. A.Abbott. De-quantisation of the quantum Fourier transform, *Appl. Math. Comput.* 218, 25 (2012), 3–13.

2. L. Accardi, M. Ohya. A stochastic limit approach to the SAT problem, *http://arxiv.org/abs/quant-ph/0401110*, 2004, 8 pp.

3. A. Adamatzky, C. Melhuish. Phototaxis of mobile excitable lattices, *Chaos, Solitons & Fractals* 13 (2002), 171–184.

4. Selim G. Akl. The myth of universal computation, in M. Vajteršic, R. Trobec, P. Zinterhof, A. Uhl (eds.). *Parallel Numerics '05*, 167–192.

5. S. G. Akl. Conventional or unconventional: Is any computer universal? in A. Adamatsky, C. Teuscher (eds.). *From Utopian to Genuine Unconventional Computers*, Luniver Press, 2006, 101–136.

6. S. G. Akl. Three counterexamples to dispel the myth of the universal computer, *Parallel Processing Letters*, 16 (3) (2006), 381–403.

7. D. S. Alberts, T. J. Czerwinski (eds.). *Complexity, Global Politics, and National Security,* National Defense University, Washington, D. C., 1997.

8. A. Alhazov, R. Freund, Y. Rogozhin. Computational power of symport/antiport: History, advances, and open problems, *LNCS*, 3850 (2006), 1–30.

9. G. Alford. An explicit construction of a universal extended H system, in C. S. Calude, J. Casti, M. J. Dinneen (eds.). *Unconventional Models of Computation*, Springer-Verlag, Singapore, 1998, 108–117.

10. S. Amante, B. Carpenter, S. Jiang, J. Rajahalme. *IPv6 Flow Label Specification draft-ietf-6man-flow-3697bis-04*, http://tools.ietf.org/html/draft-ietf-6man-flow-3697bis-04, May 11, 2011.

11. K. Ambos-Spies, E. Busse. Automatic forcing and genericity: On the diagonalization strength of finite automata, in C. Calude, M. Dinneen, V. Vajnovski (eds.). *Proc. 4th International Conf. DMTCS'03*, Lecture Notes Comput. Sci. 2731, Springer-Verlag, Heidelberg, 2003, 98–109.

12. K. Ambos-Spies, K. Weihrauch, X. Zheng. Weakly computable real numbers, *Journal of Complexity* 16 (4), (2000), 67-690.

13. M. Amos, G. Păun, G. Rozenberg, A. Salomaa. Topics in the theory of DNA computing, *Theoret. Comput. Sci.* 287 (2002), 3–38.

14. I. Antoniou, B. Pavlov, A. Yafyasov. Quantum electronic devices based on metal-dielectric transition in low-dimensional quantum structures, in D. S. Bridges, C. Calude, J. Gibbons, S. Reeves, I. Witten (eds.). *Combinatorics, Complexity, Logic, Proceedings of DMTCS'96*, Springer-Verlag, Singapore, 1996, 90–104.

15. B. S. Anand. Is the halting probability a Dedekind real number?, http://arXiv.org/abs/math/0306023, 2003.

16. B. Apolloni, C. Gentile. Sample size lower bounds in PAC learning by algorithmic complexity theory, *Theoret. Comput. Sci.* 209, 1–2 (1998), 141–162.

17. M. Archibald, V. Brattka, C. Heuberger. Randomness with respect to the signed-digit representation, Report 2007-13, September 2007, Institut für Optimierung und Diskrete Mathematik (Math B), Graz University of Technlogy.

18. A. Arslanov. On elementary computability-theoretic properties of algorithmic randomness, *Electronic Notes in Theoretical Computer Science* 42 (2001), 45–55.

19. A. Arslanov. On the phenomenon of autocomputability, *Electronic Notes in Theoretical Computer Science*, 31 (2001), 1–14.

20. A. Arslanov. On a conjecture of M. Van Lambalgen, *Bull. Eur. Assoc. Theor. Comput. Sci. EATCS* 62 (1997), 195–198.

21. J. J. Arulanandham. Implementing bead-sort with P systems, in C. S. Calude, M. J. Dinneen, F. Peper (eds.). *Unconventional Models of Computation (UMC'02)*, Lecture Notes Comput. Sci. 2509, Springer-Verlag, Heidelberg, 2002, 115–125.

22. J. Baez, M. Stay. Algorithmic thermodynamics, *Mathematical Structures in Computer Science* 22 (2012), 771–787.

23. F. Baillly, G. Longo. Phenomenology of incompleteness: from formal deductions to mathematics and physics, in R. Lupacchini, G. Rossi (eds.). *Deduction, Computation, Experiment. Exploring the Effectiveness of Proof*, 276–285.

24. M. S. Balan, H. Jürgensen. Peptide computing: A survey, in K. Krithivasan, R. Rama (eds.). *Formal Language Aspects of Natural Computing*, Ramanujan Mathematical Society, India, 2006, 63–76.

25. G. Barmpalias. Approximation representations for Δ_2 reals, *Arch. Math. Logic* 43 (2004), 947–964.

26. G. Barmpalias. On 0?-computable reals, *Electronic Notes in Theoretical Computer Science* 66, (2002), 3–14.

27. G. Barmpalias. Approximation representations for reals and their `wtt`-degrees, *Math. Log. Q.* 50(4-5) (2004), 370–380.

28. G. Barmpalias. The approximation structure of a computably approximable real, *J. Symb. Log.* 68(3) (2003), 885–922.

29. G. Barmpalias, D. L. Dowe. Universality probability of a prefix-free machine, *Phil. Trans. R. Soc. A* 370 (2012), 3488–3511.

30. G. Barmpalias, A. E. M. Lewis. The T degrees of computably enumerable sets are not dense, *Annals of Pure and Applied Logic*, 141 (1-2) (2006), 51–60.

31. J. D. Barrow. Gödel and physics, in M. Baaz, C. Papadimitriou, H. Putnam, D. Scott, C. Harper Jr. (eds.). *Kurt Gödel and the Foundations of Mathematics. Horizons of Truths*, Cambridge University Press, Cambridge, 2011, 255–276.

32. J. D. Barrow. Mathematical jujitsu: some informal thoughts about Gödel and physics, *Complexity*, 5, 5 (2000), 28–34. ˇ

33. J. D. Barrow. Mathematical explanation, in J. Cornwell (ed.). *Explanations: Styles of Explanation in Science*, Oxford University Press, 2004, 81–124.

34. I. I. Batyrshin. Quasi-completeness and functions without fixed-points, *Math. Log. Quart.*, 52(6) (2006), 595–601.

35. J. Beauquier, P. Blanchard, J. Burman, R. Guerraoui. The Entropy of a Distributed Computing Schedule – The Example of Population Protocols. *International Conference on Principles of DIstributed Systems* (OPODIS 2015), Dec 2015, Rennes, France. HAL – 01247020.

36. Verónica Becher, G. Chaitin. Another example of higher order randomness, *Fundamenta Informaticae* 51, 4 (2002), 325–338.

37. Verónica Becher, S. Daicz and G. Chaitin. A highly random number, in C. S. Calude, M. J. Dinneen, S. Sburlan (eds.). *Combinatorics, Computability and Logic, Proceedings of DMTCS'01*, Springer-Verlag, London, 2001, 55–68.

38. Verónica Becher, S. Figueira. An example of a computable absolutely normal number, *Theoret. Comput. Sci.* 270 (2002), 947–958.

39. Verónica Becher, S. Grigorieff. Random reals and possibly infinite computations, Part II: Randomness in $\emptyset'$, *J. Symbolic Logic* 74, 1 (2009), 124–156.

40. Verónica Becher, S. Grigorieff. Random reals and possibly infinite computations, Part I: Randomness in $\emptyset'$, *J. Symbolic Logic* 70, 2 (2005), 891–913.

41. Verónica Becher, S. Figueira, S.Grigorieff, J. S. Miller. Randomness and halting probabilities, *Journal of Symbolic Logic*, 71 (4) (2006), 1411–1430.

42. V. Becher, S. Grigorieff. Random reals à la Chaitin with or without prefix-freeness, *Theoretical Computer Science* 385 (2007), 193–201.

43. A. Bergeron, S. Hamel. Fast implementations of automata computations, in S. Yu, A. Păun (eds.). *Proc. CIAA2000*, Lecture Notes Comput. Sci. 2088, Springer-Verlag, Heidelberg, 2001, 47–56.

44. F. Benatti. Entropy and algorithmic complexity in quantum information theory , *Natural Computing* 6 (2) (2007), 133–150.

45. F. Bernardini, M. Gheorghe, N. Krasnogor, J.-L. Giavitto. On self-assembly in population P systems, *Lecture Notes in Computer Science* 3699 (2005), 46–57.

46. J.-L. Beuchat. *Étude de conception d'opérateurs arithmétiques optimisés pour circuits programmables*, Docteur ès Sciences Techniques Thèse (2426), EPF Lausanne, 2001.

47. L. Bianco, V. Manca, V. (2006). Encoding-decoding transitional systems for classes of P systems, *LNCS* 3850 (2006), 134–143.

48. L. Bienvenu, M. Sablik. The dynamics of cellular automata in shift-invariant topologies, in *LNCS* 4588 (2007), 84–95.

49. L. Bienvenu, A. Romashchenko, A. Shen, A. Taveneaux, S. Vermeeren. The axiomatic power of Kolmogorov complexity, *Annals of Pure and Applied Logic* 165(2014), 1380–1402.

50. L. Bienvenu, G. Shafer, A. Shen. On the history of martingales in the study of randomness, *Electronic Journ@l for History of Probability and Statistics*, 5,1 June (2009), 1–40.

51. F. Blanchard, J. Cervelle, E. Formenti. Some results about the chaotic behavior of cellular automata, *Theoretical Computer Science* 349 (2005), 318–336.

52. B. E. Blank. The universal computer: the road from Leibniz to Newton, *Notices Amer. Math. Soc.* 48, 5 (2001), 498–501.

53. P. Bottoni, A. Labella, C. Martin-Vide, G. Păun. Rewriting P systems with conditional communication, in W. Brauer, H. Ehrig, J. Karhumäki, A. Salomaa (eds.). *Formal and Natural Computing*, Lecture Notes Comput. Sci. 2300, Springer-Verlag, Heidelberg, 2002, 325–353.

54. O. Bournez, M. L. Campagnolo. A survey on continuous time computations, in S.B. Cooper, B. Löwe, B. and A. Sorbi (eds.). *New Computational Paradigms. Changing Conceptions of What is Computable*, Springer-Verlag, New York, 2008, 383–423.

55. S. Boztaş. Randomness and pseudorandomness in secure and robust communications, *Research Report 4, 2000*, Royal Melbourne Institute of Technology, May 2000.

56. V. Brattka, I. Kalantari. A bibliography of recursive analysis and topology, in Yu. L. Ershov, S. .S. .Goncharov, A. Nerode, J. B. .Remmel (eds.). *Handbook of Recursive Mathematics*, Vol. 1, Elsevier, Amsterdam, 1998, 583–60.

57. D. S. Bridges. Reality and virtual reality in mathematics, *Bull. Eur. Assoc. Theor. Comput. Sci. EATCS* 78 (2002), 221–230.

58. D. S. Bridges. Constructive mathematics and unbounded operators: a reply to Hellman, *J. Philosophical Logic* 24 (1995), 549-561.

59. O. Brunet. A priori knowledge and the Kochen-Specker theorem, *Physics Letters, Section A: General, Atomic and Solid State Physics*, 365 (1-2) (2007), 39–43.

60. O. Brunet, O. (2004). Representation systems, orthoposets and quantum logic, *International Journal of Theoretical Physics*, 43 (11), (2004), 2187–2206.

61. D. Byatt, M. L. Dalrymple, R. M. Turner. Searching for primes in the digits of π, *Computers and Mathematics with Applications* 48 (3-4) (2004), 497–504.

62. A. Cabello. Bibliographic guide to the foundations of quantum mechanics and quantum information, http://arXiv:quant-ph/0012089v12, 15 November 2004, 462 pp.

63. T. CadwalladerOlsker. What do we mean by mathematical proof? *The Journal of Humanistic Mathematics*, 1 (1) (2011), 33-60.

64. E. Calude and Marjo Lipponen. Minimal deterministic incomplete automata, *J. UCS* 11 (1997), 1180–1193.

65. E. Calude, B. Mills, Lan Mills. A uniform approach to test computational complementarity, *Acta Cybernetica*, 16 (2004), 367–384.

66. C. Câmpeanu, Random numbers are Borel normal, *Bull. Eur. Assoc. Theor. Comput. Sci. EATCS* 58 (1996), 155–158.

67. C. Câmpeanu, A. Păun. Computing beyond the turing limit using the H systems, *Lecture Notes in Computer Science* 3384, (2005), 24–34.

68. M. A. Cerdà-Uguet, M. P. Schellekens, O. Valero. The Baire Partial Quasi-Metric Space: A Mathematical Tool for Asymptotic Complexity Analysis in Computer Science, *Theory Comput. Syst.* 50(2) (2012), 387–399.

69. J. Cervelle. *Complexité structurelle et algorithmicque des pavages et des automates cellulaires*, Thèse Doctorale, l'Universityé de Provence, Marseille, France, 2002.

70. J. Cervelle, B. Durand, E. Formenti. Algorithmic information theory and cellular automata dynamics,in J. Sgall, A. Pultr, P. Kolman (eds.). *Proc. MFCS'2001*, Lecture Notes Comput. Sci. 2136, Springer-Verlag, Heidelberg, 2001, 248–260.

71. G. J. Chaitin. How much information can there be in a real number? *International Journal of Bifurcation and Chaos* 17 (6) (2007), 1933–1935.

72. G. Chaitin. An algebraic characterization of the Halting Probability, *Fundamenta Informaticae* 79 (2007), 17–23.

73. G. Chaitin. Probability and program-size for functions, *Fundamenta Informaticae* 71 (4) (2006), 367–370.

74. G. J. Chaitin. Algorithmic irreducibility in a cellular automata universe, *J. UCS* 11, 12 (2005), 1901–1903.

75. G. J. Chaitin. Two philosophical applications of algorithmic information theory, in C. Calude, M. Dinneen, V. Vajnovski (eds.). *Proc. 4th International Conf. DMTCS'03*, Lecture Notes Comput. Sci. 2731, Springer-Verlag, Heidelberg, 2003, 1–11.

76. G. J. Chaitin. On the intelligibility of the universe and the notions of simplicity, complexity and irreducibility, Los Alamos preprint archive *http://arXiv.org/abs/math.HO/0210035*.

77. G. J. Chaitin. Paradoxes of Randomness, *CDMTCS Research Report* 188, 2002, 17 pp.

78. G. J. Chaitin. Meta-mathematics and the foundations of mathematics, *Bull. Eur. Assoc. Theor. Comput. Sci. EATCS* 77 (2002), 167–179.

79. G. J. Chaitin. The Berry paradox, *Complexity*, 1 (1995), 26–30.

80. G. J. Chaitin. On the number of N-bit strings with maximum complexity, *Applied Mathematics and Computation* 59 (1993), 97–100.

81. J.-M. Champarnaud and F. Coulon. Theoretical study and implementation of the canonical automaton, *Fundam. Inf.* 55, 1 (2003), 23–38.

82. K. Chandrasekhara Rao, R. Gowri, V. Swaminathan. Čech closure space in structural configuration of proteins, *Advanced Studies in Biology* 1,2 (2009), 95–104.

83. F. Chatelin. A computational journey into nonlinearity, *Natural Computing*, Volume 11, Number 1, (2011), 67-79.

84. S. Chen, B. Ma, K. Zhang. On the similarity metric and the distance metric, *Theoret. Comput. Sci.* 410 (2009), 2365–2376.

85. W. Cheng, Z. Mo. Minimization algorithm of fuzzy finite automata, *Fuzzy Sets and Systems*, 141 (3), (2004), 439–448.

86. G. Chevalier, A. Dvurecenski, K. Svozil, Piron and Bell's geometric lemmas and Gleason Theorem, *Foundations of Physics* 30(10) (2000), 1737–1755.

87. J. Cohen. *Intégration des collections topologiques et des transformations dans un langage fonctionnel*, Thèse, Grande Docteur en Sciences, L'Université d'Evry, 2004, 226 pp.

88. J. Cohen. Typing rule-based transformations over topological collections, in J.-L. Giavitto, P.-E. Moreau (eds.). *Rule-Based Programming 2003,* 56–66; full version in *Electronic Notes in Theoret. Comput. Sci.* 86 (2) (2003), 65–80.

89. M. M. Ćirković. Theories of everything, randomness, predictability, *Fifth General Conf. Balkan Physical Union*, Aug. 25–29, 2003, Vrnjačka Banja, Serbia and Montenegro, 6 pp.

90. P. A. Cockshott, G. B. Michaelson. Are there new models of computation? Reply to Wegner and Eberbach, *Computer Journal*, Volume 50, Issue 2 (2007), 232–247.

91. J. Collier. Information, *Stanford Encyclopedia of Philosophy*, http://plato.stanford.edu/entries/information/, 16 pp.

92. S.B. Cooper. Embodied and disembodied computing at the Turing Centenary, *Communications of the ACM* 55, 3 (2012), 74–83.

93. B. Cooper. Definability in the real university, in B. Cooper, A. Sorbi (eds.). *Computability in Context: Computation and Logic in the Real World*, Imperial College Press/World Scientific, 2011, 131–167.

94. S. B. Cooper. Extending and interpreting Post's programme, *Annals of Pure and Applied Logic, Volume* 161 (2009), 775–788.

95. S. B. Cooper. Incomputability, emergence and the Turing universe in A. Carsetti (ed.). *Causality, Meaningful Complexity and Embodied Cognition* Springer, Berlin, 135–153, 2009.

96. J. Copeland. Turing's Thesis, in Adam Olszewski, Jan Woleński, Robert Janusz. (Eds.) *Church's Thesis After 70 Years*, Ontos Verlag, Berlin, 2006,147–174.

97. J. Copeland. Hypercomputation: Philosphical issues, *Theoret. Comput. Sci.* 317 (2004), 251–267.

98. J. Copeland. Hypercomputation, *Minds and Machines: Journal for Artificial Intelligence, Philosophy and Cognitive Science*, 12, 4 (2002), 461–502.

99. J. Copeland. Narrow versus wide mechanism: including a re-examination of Turing's views on the mind-machine issue, *Journal of Philosophy* XCVI, 1 (2000), 5–32.

100. J. Copeland, O. Shagrir. Do accelerating Turing machines compute the uncomputable? *Minds & Machines* 21 (2011), 221–239.

101. J. Copeland, R. Sylvan. Beyond the universal Turing machine, *Australasian Journal of Philosophy* 771, 1 (1999), 46–67.

102. P. Cotogno. Hypercomputation and the physical Church-Turing Thesis, *Brit. J. Phil. Sci.* 54 (2003), 181–223.

103. T. Crolard, E. Polonowski. Extending the Loop Language with higher-order procedural variables, *ACM Transactions on Computational Logic*, Vol. V, No. N (2007), 1–36.

104. E. Csuhaj Varju, L. Kari, G. Păun. Test tube distributed systems based on splicing, *Comput. Artif. Intell.* 15, 2–3 (1996), 211–232.

105. G. D'Abramo. On the Church-Turing thesis, http://arXiv:math.HO/06115119 v1, 17 November 2006.

106. G. D'Abramo. Odd thoughts on algorithmic complexity, Los Alamos preprint archive http://arXiv:math.HO/0211222 v4, 21 March 2003.

107. G. D'Abramo. Some non-conventional ideas about algorithmic complexity, *Chaos, Solitons & Fractals* 25, 1 (2005), 29–32.

108. G. D'Abramo. Asymptotic behavior and halting probability of Turing Machines, *Chaos, Solitons & Fractals*, Volume 37, Issue 1 (2008), 210–214.

109. J. Dassow, G. Păun, G. Thierrin, S. Yu. Tree-systems of morphisms, *Acta Informatica*, 38, 2 (2001), 131–153.

110. G. Davie. Characterising Martin-Löf random sequences using computably enumerable sets of measure one, *Information Processing Letters* 92 (2004), 157–160.

111. G. Davie. Kolmogorov complexity and noncomputability, Math. Log. Quart. 48 (2002), 574–580.

112. G. Davie. Recursive events in random sequences, *Archive for Mathematical Logic*, 40, 8 (2001), 629–638.

113. M. Davis. FOM. London Review of Books: letters about Sokal–Bricmont, 1999, http://www.math.psu.edu/simpson/fom/postings/9902/msg00019.html.

114. M. Davis. Computability, computation, and the real world, in S. Termini (ed.) *Imagination and Rigor*, Springer, Heidelberg, 2006, 63–70.

115. J. H. Dawson, Jr. Prelude to recursion theory: the Gödel–Herbrand correspondence, in Z. W. Wolkowski (ed.). *First International Symposium on Gödel's Theorems*, World Scientific, Singapore, 1993, 1–13.

116. J.-P. Delahaye, H. Zenil. Numerical evaluation of algortihmic complexity for short strings: A glance into the innermost structure of randomness, *Appl. Math. Comput.* 218, 25 (2012), 63-77.

117. W. A. Dembski. Randomness, in E. Craig (ed.). *Routledge Encyclopedia of Philosophy*, Routledge, London, Vol. 8 (1998), 56–59.

118. M. Detlefsen. Gödel's theorems, in E. Craig (ed.). *Routledge Encyclopedia of Philosophy*, Routledge, London, Vol. 4 (1998), 106–119.

119. M. Detlefsen. Primitive recursive functions, *Historia–Matematica Discussion Group*, 6 Mar 2001, http://mam2000.mathforum.org/epigone/historia_matematica/chayyandyu/v03020900b6cab506f353@%5B129.74.252.85%5D.

120. F. Diacu. The solution of the N-body problem, *The Mathematical Intelligencer* 18, 3 (1996), 66–70.

121. D. Ding, L. Yu. There is SW-complete c.e. real, *J. Symbolic Logic* 69, 4 (2004), 1163–1170.

122. K. Dingle, G. Valle Pérez, Ard A. Louis. Generic predictions of output probability based on complexities of inputs and outputs, *Scientific Reports Nature Research* (2020) 10:4415, https://doi.org/10.1038/s41598-020-61135-7.

123. R. Downey. Randomness, Computation and Mathematics, INI2037 (2012), 20 pp.

124. R. G. Downey. Some computability-theoretic aspects of reals and randomness, in P. Cholak (ed.). *The Notre Dame Lectures*, A.K. Peters, Urbana, Lectures Notes in Logic, 18 (2005), 97–147.

125. R. G. Downey. Some recent progress in algorithmic randomness, in J. Fiala, V. Koubek, J. Kratochvíl (eds.). *Proc. 9th International Symposium, MFCS 2004*, Lecture Notes Comput. Sci. 3153, Springer-Verlag, Heidelberg, 2004, 42–83.

126. R. G. Downey. Some Computability-Theoretical Aspects of Reals and Randomness, *CDMTCS Research Report* 173, 2002, 42 pp.

127. R. G. Downey, E. J. Griffiths, S. Reid. On Kurtz randomness, *Theoretical Computer Science* 321 (2-3) (2004), 249–270.

128. R. G. Downey. Presentations of reals, in V. Brattka, M. Schröder, K. Weihrauch, N. Zhong (eds.). *Computability and Complexity in Analysis*, Informatik Berichte 302-8 FernUniversität in Hagen, 2003, 11–12.

129. R. G. Downey, G. L. LaForte. Presentations of computably enumerable reals, in K.-I. Ko, A. Nerode, K. Weihrauch (eds.). "Computability and Complexity in Analysis", *Theoret. Comput. Sci.* 284 (2002), 539–555.

130. R. G. Downey, D. R. Hirschfeld, A. Nies. Randomness, computability and density, in A. Ferreira, H. Reichel (eds.). *Proc. STACS 2001*, Springer-Verlag, Berlin, 2001, 195–205; full paper in *SIAM J. Comput.* 31 (2002), 1169–1183.

131. R. G. Downey, D. R. Hirschfeld, A. Nies, S. A. Terwijn. Calibrating randomness, *Bull. Symbolic Logic* 12, 3 (2006), 411–491.

132. R. G. Downey, D. R. Hirschfeld, A. Nies, F. Stephan. Trivial reals, *Electronic Notes in Theoret. Comput. Sci.* 66 (2002), 37–55. Also in R. Downey, D. Decheng, T. S. Ping, Q. Y. Hui, and M. Yasugi. (eds.) *Proceedings of the 7th and 8th Asian Logic Conferences*, Singapore University Press and World Scientific, Singapore, 2003, 103–131.

133. R. G. Downey, D. R. Hirschfeldt, J. Miller and A. Nies. Relativizing Chaitin's halting probability *Journal of Mathematical Logic* 5(2) (2005), 167–192.

134. R. G. Downey, D. R. Hirschfeld, G. L. LaForte. Randomness and Reducibility, in J. Sgall, A. Pultr, P. Kolman (eds.). *Proc. MFCS'2001*, Lecture Notes Comput. Sci. 2136, Springer-Verlag, Heidelberg, 2001, 316–327. Also in *Journal of Computer and System Sciences* 68 (1) (2004), 96–114.

135. R. Downey, W. Merkle, J. Reimann. Schnorr dimension, *Mathematical Structures in Computer Science*, 16 (5) (2006), 789–811.

136. R. G. Downey, S. A. Terwijn. Computably enumerable reals and uniformly presentable ideals, *Math. Log. Quart.* 48 (2002) Suppl. 1, 29–40.

137. R. G. Downey, G. Wu, X. Zheng. Degrees of d. c. e. reals, *Math. Log. Quart.* 50 (4-5) (2004), 345–350.

138. Dridi, H. Alghassi. Homology Computation of Large Point Clouds using Quantum Annealing, http://arxiv.org/abs/1512.09328, 2015.

139. M. Drmota, R. Tichy. *Sequences, Discrepancies, and Applications*, Lecture Notes in Mathematics 1651, Springer, Berlin, 1997.

140. J.-C. Dubacq, B. Durand, E. Formenti. Kolmogorov complexity and cellular automata classification, *Theoret. Comput. Sci.* 259 (2001), 271–285.

141. B. Durand, S. Porrot. Comparison between the complexity of a function and the complexity of its graph, in *Mathematical Foundations of Computer Science' 1998*, Lecture Notes Comput. Sci. 1450, Springer-Verlag, Heidelberg, 1998, 732–739. Full version in *Theoret. Comput. Sci.* 271 (2001), 37–46.

142. N. Duţă. Representability and embeddability of P. Martin-Löf tests, *Stud. Cercet. Mat.* 47 (1995), 245–262.

143. T. Ebert, W. Merkle, H. Vollmer. On the autoreducibility of random sequences, *SIAM J. Comput.* 32, 6 (2003), 1542–1569.

144. A. Edalat, D. Pattinson. Inverse and implicit functions in domain theory," *20th Annual IEEE Symposium on Logic in Computer Science (LICS' 05)*, 2005, 417–426,.

145. G. G. Emch. Probabilistic issues in statistical mechanics, *Studies in History and Philosophy of Science Part B. Studies in History and Philosophy of Modern Physics* 36 (2) (2005), 303–322.

146. M. Eramian. Efficient simulation of nondeterministic weighted finite automata, *Journal of Automata, Languages and Combinatorics*, to appear.

147. H.-A. Esbelin and M. More. Rudimentary relations and primitive recursion: a toolbox, *Theoretical Computer Science*, 193 (1–2) (1998), 129–148.

148. G. Etesi. Note on a reformulation of the strong cosmic censor conjecture based on computability, *Physics Letters B*, 550, 1-2, (2002), 1–7.

149. D. Fallis. The Source of Chaitin's Incorrectness, *Philosophia Mathematica* 4 (1996), 261–269.

150. M. Ferbus-Zanda, S. Grigorieff. Is randomness "native" to computer science ? *Bull. Eur. Assoc. Theor. Comput. Sci. EATCS* 74 (2001), 78–118.

151. M. Ferbus-Zanda, S. Grigorieff. Kolmogorov complexity and set theoretical representations of integers, *Math. Log. Quart.*, 52, 4 (2006), 375–403.

152. Mirtha-Lina Fernández, G. Godoy,A. Rubio.Recursive path orderings can also be incremental, in A. (Andrei) Voronkov, G. Sutcliffe (eds.). *Logic for Programming, Artificial Intelligence, And Reasoning: 12th International Conference*, LNAI 3835, Springer, Berlin, 230–245.

153. C. Ferretti, G. Mauri, C. Zadron, G. Păun. On three variants of rewriting P systems, *Theor. Comput. Sci.*, 301, 1-3 (2003), 201–215.

154. S. Figueira. *Aspects of Randomness*, PhD Thesis, Universidad de Buenos Aires, Argentina, 2006, 15 pp.

155. S. Figueira, A. Nies, F. Stephan. Lowness properties and approximations of the jump, *Electronic Notes in Theoretical Computer Science* 143 (2006), 45–57.

156. S. Figueira, F. Stephan, G. Wu. Randomness and universal machines, *Journal of Complexity*, 22 (6) (2006), 738–751.

157. G. W. Flake, E. B. Baum. Rush Hour is PSPACE-complete, or "Why you should generously tip parking lot attendants", *Theor. Comput. Syst.* 270 (2002), 895–911.

158. R. Freund, L. Kari, G. Păun. DNA computing based on splicing: the existence of universal computers, *Theor. Comput. Syst.* 32, 1 (1999), 69–112.

159. C. Fritz, T. Wilke. Simulation relations for alternating parity automata and parity games, *LNCS* 4036 (2006), 59–70.

160. C. Garola. Objectivity versus nonobjectivity in quantum mechanics, *Found. Phys.* 30, 9 (2000), 1539–1565.

161. C. Garola. Is quantum mechanics contextual? in C. Garola, Claudio; A. Rossi (eds.). *The Foundations of Quantum Mechanics: Historical Analysis and Open Questions*, Wolrd Scientific, Singapore, 1998, 207–219.

162. E. Gelenbe. Natural computation, *Ubiquity*, ACM, February (2011), 1–10.

163. W. A. Germishuizen, C. Walti, R. Wirtz, M. B. Johnston, M. Pepper, A. G. Davies, et al. Selective di-electrophoretic manipulation of surface-immobilized DNA molecules, *Nanotechnology*, 14 (8) (2003), 896–902.

164. M. Gheorghe, M. Tătărâm, C. Achinca, C. Năstase. *Informatics*, High School Textbook (Form XI), Corint, Bucharest, 2006. (in Romanian)

165. J.-L., Giavitto, O. Michel, J. Cohen, A. Spicher. Computations in space and space in computations *Lecture Notes in Computer Science 3566* (2005), 137–152.

166. J. W. Grossman, R. S. Zeitman. Ackermann function, An Entry for the *Encyclopaedia of Mathematics*, Supplement II, Kluwer, 1998.

167. C. Grozea. NP Predicates computable in the weakest level of the Grzegorczyck hierarchy, *Journal of Automata, Languages and Combinatorics*, to appear

168. C. Grozea. Free-extendible prefix-free sets and an extension of the Kraft–Chaitin theorem, *J. UCS*

169. F. Gruau, G. Moszkowski. The blob division, in A. Jan Ijspeert, M. Murata, N. Wakamiya (eds.). *Biologically Inspired Approaches to Advanced Information Technology*, Springer, 2004, 317–332. 6, 1 (2000), 130–135.

170. J. Gruska. A broader view on the limitations of information processing and communication by nature *Natural Computing* 6 (2) (2007), 75–112.

171. J. Gruska. Updatings to "*Quantum Computing*, McGraw-Hill, London, 1999", 17 February 2002, www.fi.muni.cz/usr/gruska/quantum/ps/updatings.ps.

172. Y. Gurevich, G. Olney Passmore. Impugning randomness convincingly, *Bull. EATCS* 104 (2011), 112–137.

173. A. Hagar. Quantum algorithms: Philosophical lessons, *Minds and Machines*, Volume 17, Issue 2 (2007), 233–247.

174. Joel David Hamkins. Infinite time Turing machines, *Minds and Machines* 12, 4 (2002),521–539.

175. M. Hartwig. On the Relationship between Proof Writing and Programming: Some Conclusions for Teaching Future Software Developers, in *Software Engineering and Computer Systems, Communications in Computer and Information Science*, 2011, Volume 181, Part 1, 15–24.

176. J. Harrison. *Handbook of Practical Logic and Automated Reasoning*, Cambridge University Press, 2009.

177. J. Hyde, V. Laschos, L. Olsen, I. Petrykiewicz, A. Shaw. Iterated Cesàro averages, frequencies of digits, and Baire category, *Acta Arith.* 144 (2010), 287–293.

178. T. Head. An aqueous algorithm for finding the bijections contained in a binary relations, in W. Brauer, H. Ehrig, J. Karhumäki, A. Salomaa (eds.). *Formal and Natural Computing*, Lecture Notes Comput. Sci. 2300, Springer-Verlag, Heidelberg, 2002, 354–360.

179. T. Head. Finitely generated languages and positive data, *Romanian J. Information Science and Technology* 5, 1–2 (2002), 127–136.

180. T. Head, X. Chen, M. Yamamura and S. Gal. Aqueous computing: a survey with an invitation to participate, *J. Comput. Sci. Technol.* 17, 6 (2002), 672–681.

181. T. Head, S. Gal. Aqueous computing: writing into fluid memory, *Bull. Eur. Assoc. Theor. Comput. Sci. EATCS* 75 (2001), 190–198.

182. T. Head, Gh. Păun, D. Pixton. Language theory and molecular genetics, in G. Rozenberg, A. Salomaa (eds.). *Handbook of Formal Languages*, Vol. II, Springer-Verlag, Berlin, 1997, 295–360.

183. L. Hemaspaandra. Teaching computational complexity: resources to treasure, *SIGACT News*, 25, 4 (1994), 2–11.

184. L. A. Hemaspaandra, A. Ramachandran, M. Zimand. Worlds to die for, *ACM SIGACT News*, 26, 4 (1995), 5–15.

185. P. Hertling. Disjunctive ω-words and real numbers, *J. UCS* 2 (1996), 549–568.

186. P. Hertling. Surjective functions on computably growing Cantor sets, *J. UCS* 3, 11 (1997), 1226–1240.

187. P. Hertling, Y. Wang. Invariance properties of random sequences, *J. UCS* 12 (1997), 1241–1249.

188. P. Hertling. Simply normal numbers to different bases, *J. UCS* 8, 2 (2002), 235–242.

189. P. Hertling. Nonrandom sequences between random sequences, *J. UCS* 11, 12 (2005), 1970–1985.

190. P. Hertling, K. Weihrauch. Randomness spaces, in K. G. Larsen, S. Skyum and G. Winskel (eds.). *Automata, Languages and Programming, Proc. 25th Int. Colloq. ICALP'98*, Springer-Verlag, Berlin, 1998, 796–807.

191. P. Hertling, K. Weihrauch. Random elements in effective topological spaces with measure, *Information and Computation* 181 (2003), 32–56.

192. T. Hida, My mathematical journey, in L. Accardi, H. H. Kuo, N. Obata, K. Saitô, Si Si and L. Streit (eds.). *Selected Papers of Takeyuki Hida*, World Scientific, Singapore, 2002, 453–473.

193. J. Hintikka. An alternative concept of computability In J. Hintikka J. (ed.). *Language, Truth and Logic in Mathematics. Jaakko Hintikka Selected Papers*, vol 3. Springer, Dordrecht, 174–188.

194. K. Higuchi, P. Hudelson, S. G. Simpson, K. Yokoyama. Propagation of partial randomness, manuscript June 2012, 26 pp.

195. S. Horváth, H. Petersen. Minimality and decidability results concerning generating systems of primitive recursive functions, in H. Petersen (ed.). Workshop on Formal Languages, Automata and Petri-Nets, *Research Report Institut für Informatik, Universität Stuttgart*, 1998/01, 11–12.

196. J. Hromkovič. *Algoritmics for Hard Problems. Introduction to Combinatorial Optimization, Randomization, Approximation and Heuristics*, Springer-Verlag, Berlin, 2000.

197. M. Huhne. On the power of several queues, *Theoret. Comput. Sci.* 113, 1 (1993), 75–91.

198. M. Hutter. Convergence and error bounds for universal prediction of nonbinary sequences, in L. Dr-Raedt, P. Flach (eds.). *Proc. ECML2001*, Lecture Notes Artificial Intelligence 2167, Springer-Verlag Berlin, 2000, 239–250.

199. O.H. Ibarra. On determinism versus nondeterminism in P systems, *Theoretical Computer Science* 344 (2005), 120–133.

200. O.H. Ibarra. P systems: Some recent results and research problems, *Lecture Notes in Computer Science* 3566 (2005), 225–237.

201. Z. Ibrahim, Y. Tsuboi, O. Ono, M. Khalid. DNA computing for an absolute 1-center problem: An evolutionary approach, *International Journal of Computational Intelligence* 1, 2 (2004), 128–136.

202. L. Ilie. On lengths of words in context-free languages, *Theoretical Computer Science* 242 (1-2) (2000), 327–359.

203. L. Ilie, G. Păun, G. Rozenberg and A. Salomaa. On strongly context-free languages, *Discrete Applied Mathematics*, 1–3 (2000), 153–165.

204. J. Inouye. Quantum simulation using membrane computing, *Proceedings of the International Conference on Mathematics and Engineering Techniques in Medicine and Biological Sciences, METMBS'04*, 2004, 403-0409.

205. G. Istrate, G. Păun. Some combinatorial properties of self-reading sequences, *Discrete Appl. Math.*, 55, 1 (1994), 83–86.

206. M. Ito, C. Martin-Vide, G. Păun. A characterization of Parikh sets of ETOL languages in terms of P systems, in M. Ito, G. Păun, S. Yu (eds.). *Words, Semigroups, and Transductions*, World Scientific, Singapore, 2001, 239–253.

207. S. Ji. The bhopalator: an information/energy dual model of the living cel (II), *Fundamenta Informaticae* 49 (2002), 147–165.

208. J. J. Joosten, F. Soler-Toscano, and H. Zenil. Program-size versus Time complexity. Slowdown and speed-up phenomena in the micro-cosmos of small Turing machines, *International Journal of Unconventional Computing*, 2011, to appear.

209. E. Jurvanen, Marjo Lipponen. On Moore tree automata and infinite leaf alphabets, in T. Harju, I. Honkala (des.). *Seventh Nordic Combinatorial Conference, NCC'99,* No 15 in *TUCS General Publications*, Turku, Finland, June 1999, 49–56. http://users.utu.fi/jurvanen/paper/omega6.ps.

210. E. Jurvanen, Marjo Lipponen. Distinguishability, simulation and universality of Moore tree automata, *Fundamenta Informaticae* 34 (1999), 1–13.

211. H. Jürgensen, L. Staiger. Local Hausdorff dimension, *Acta Informatica* 32, 5 (1995), 491–507.

212. H. Jürgensen, L. Robbins. Towards foundations of cryptography: investigation of perfect secrecy, *J. UCS* 5 (1996), 347–379.

213. H. Jürgensen. Disjunctivity, in M. Ito, G. Păun, S. Yu (eds.). *Words, Semigroups, and Transductions*, World Scientific, Singapore, 2001, 255–274.

214. L. Kari, G. Păun, G. Thierrin, S. Yu. At the crossroads of DNA computing and formal languages: characterizing recursively enumerable languages using insertion-deletion systems, In *DNA Based Computers III* (Philadelphia, PA, 1997), (1999), 329–346.

215. D. E. Kephart. *Topology, Morphisms, and Randomness in the Space of Formal Languages*, PhD Thesis, University of South Florida, June 2005, 147 pages.

216. Tien D. Kieu. Hypercomputability in quantum mechanics, in S.B. Cooper, B. Löwe, L. Torenvliet (eds.). *New Computational Paradigms*, Technical Notes Series of Institute for Logic, Language and Computation, University of Amsterdam, 2005, 117–120.

217. T. D. Kieu. Hypercomputability of Quantum Adiabatic Processes, *International Journal of Unconventional Computing* 5, 3-4 (2009), 293–337.

218. T. D. Kieu. An anatomy of a quantum adiabatic algorithm that transcends the Turing computability, *International Journal of Quantum Information* 3(1) (2005), 177–183.

219. T. D. Kieu. Quantum algorithm for Hilbert's tenth problem, *International Journal of Theoretical Physics* 42, 7 (2003), 1451–1468.

220. T. D. Kieu. Quantum hypercomputation, *Minds and Machines: Journal for Artificial Intelligence, Philosophy and Cognitive Science*, 12, 4 (2002), 541–561.

221. T. D. Kieu. Computing the non-computable, *Contemporary Physics* 44, 1 (2003), 51–71.

222. T. D. Kieu. Hilbert's incompleteness, Chaitin's Ω number and quantum physics, Los Alamos preprint archive http://arXiv:quant-ph/0111062, v1, 21 November 2001.

223. C. King. Quantum cosmology and the hard problem of the conscious brain, in J. A. Tuszynski (ed.). *The Emerging Physics of Consciousness*, Springer, Berlin, 2006, 407–496.

224. C. King. Chaos, quantum-transactions and consciousness, *NeuroQuantology* 1 (2003), 129–162.

225. A. P. Kirilyuk. Dynamically multivalued, not unitary or stochastic, operation of real quantum, classical and hybrid micro-machines, http://arXiv:physics/0211071, v3, 1 March 2004.

226. B. Kjos-Hanssen, W. Merkle, P. Stephan. Kolmogorov complexity and the recursion theorem , *LNCS* 3884 (2006), 149–161.

227. M. Kojman, S. Shelah. Regressive Ramsey numbers are Ackermannian, *J. Comb. Theory A*, 86, 1 (1999) 177–181.

228. S. Köhler, C. Schindelhauer, M. Ziegler. On approximating real-world halting problems, *Lecture Notes in Computer Science*, Volume 3623, 2005, 454–466.

229. M. Koshelev. Towards the use of aesthetics in decision: Kolmogorov complexity formalizes Birkhoff's idea, *Bull. Eur. Assoc. Theor. Comput. Sci. EATCS* 66 (1998), 166–170.

230. B. Khoussainov. A quest for algorithmically random infinite structures, *CSL-LICS*, 2014: 56

231. B. Khoussainov. Randomness, computability, and algebraic specifications, in J. Harland (ed.). *Proceedings of CATS'97*, Australian Computer Science Communications, vol. 19, no 2, 1997, 96–102. Also in *Ann. Pure Appl. Logic* 91, 1 (1998), 1–15.

232. B. Khoussainov, P. Semukhin, F. Stephan, Applications of Kolmogorov complexity to computable model theory, *Journal of Symbolic Logic* 72, 3 (2007), 1041–1054.

233. R. A. Knoebel. Exponentialis reiterated, *Amer. Math. Monthly* 88(4) (1981), 235–252.

234. S. Köhler, C. Schindelhauer, M. Ziegler. On approximating real-world halting problems, in M. Liśkiewicz, R. Reischuk (eds.). Proc. FCT 2005, Lectures Notes Comput. Sci. 3623, Springer, Heidelberg, 2005, 454–466.

235. I. Kramosil. Searching algorithms implemented on probabilistic systolic arrays, *Int. J. Gen. Syst.*, 25, 1 (1996), 7–45.

236. I. Kramosil, J. Šindelář. On pseudo-random sequences and their relations to a class of stochastical laws, *Kybernetika* 28 (5) (1992), 383–391.

237. V. Kreinovich and L. Longpré. How important is theory for practical problems ? A partial explanation of Hartmanis' observation, *Bull. Eur. Assoc. Theor. Comput. Sci. EATCS* 71 (2000), 160–164.

238. V. Kreinovich, L. Longpré, S. Ferson, L. Ginzburg. Why is selecting the simplest hypothesis (consistent with data) a good idea? A simple explanation, *Bull. Eur. Assoc. Theor. Comput. Sci. EATCS* 77 (2002), 191–194.

239. S. N. Krishna, R. Rama. On the power of tissue P systems working in the minimal mode, in C. S. Calude, M. J. Dinneen, F. Peper (eds.). *Unconventional Models of Computation (UMC'02)*, Lecture Notes Comput. Sci. 2509, Springer-Verlag, Heidelberg, 2002, 208–219.

240. F.W. Kroon. Reflections on the Church-Turing Thesis, in J-Y. Béziau and M. E. Coniglio (eds.). *Logic without Frontiers: Festschrift for Walter Alexandre Carnielli on the occasion of his 60th Birthday*, Tribute Series vol. 17, College Publications, London, 2011, 43–64.

241. A. Kučera, T. A. Slaman. Randomness and recursive enumerability, *SIAM J. Comput.*, 31, 1 (2001), 199–211.

242. M. Kummer. On the complexity of random strings, in C. Puech, R. Reischuk (eds.). *Proceedings of STACS'96*, Lecture Notes Comput. Sci. 1046, Springer-Verlag, Berlin, 1996, 25–38.

243. M. Kummer. Kolmogorov complexity and instance complexity of recursively enumerable sets, *SIAM J. Comput.* 25 (1996), 1123–1143.

244. U. Dhawan, V. Goel and A. Jain. An efficient CORDIC engine for embedded applications', *International Conference on Trends and Advances in Computation and Engineering*, 2011, accepted.

245. L. Kuppusamy, A. Mahendran. Modelling DNA and RNA secondary structures using matrix insertion systems, *Int. J. Appl. Math. Comput. Sci.*, 26, 1 (2016), 245–258.

246. K. Landsman. Randomness? What randomness?

247. *Foundations of Physics*, https://doi.org/10.1007/s10701-020-00318-8, 44, 2020.

248. W. B. Langdon. Mapping non-conventional extensions of genetic programming, in *LNCS* 4135, Springer, Heidelberg, 2006, 166-180.

249. W. B. Langdon, R. Poli. On Turing complete T7 and MISC F-4 program fitness landscape, draft paper 19 Dec 2005, 28 pp.

250. W. B. Langdon, R. Poli. The halting probability in von Neumann architectures, *LNCS* 3905 (2006), 225–237.

251. T. Lattimore, M. Hutter. On Martin-Löf convergence of Solomonoff mixture, in *Theory and Applications of Models of Computation* Lecture Notes in Computer Science Volume 7876, Springer, Heidelberg, 2013, 212–223.

252. M. A. Lanzagorta, J. K. Uhlmann. Quantum computational geometry, in *Proceedings of SPIE—The International Society for Optical Engineering* 5436 (2004), 332–339.

253. S. Legg. Is there an elegant universal theory of prediction? *LNAI* 4264 (2007), 274–287.

254. C. Lee, S. W. Kim, S. M, Kim, U. Sohn. DNA computing the hamiltonian path problem, *Molecules and Cells*, 9 (5) (1999), 464–469.

255. J. Lennon, H. Maurer. Digital libraries and teaching support, *J. UCS* 5 (1995), 719–727.

256. J. Lennon, H. Maurer. Applications of hypermedia systems, *Program Comput. Soft.*+, 21, 3 (1995), 121–134.

257. A. E. M. Lewis, G. Barmpalias. Random reals and lipschitz continuity, *Mathematical Structures in Computer Science*, 16 (5) (2006), 737–749.

258. Y. Liang, D. Decheng. There is no SW-complete C.E. real, *Journal of Symbolic Logic* 69 (4) (2004), 1163–1170.

259. I. Licata. Beyond Turing: hypercomputation and quantum morphogenesis, *Asia Pacific Mathematics Newsletter* 2,3 (2012), 20–24.

260. I. Licata. Emergence and computation at the edge of classical and quantum systems, in I. Licata, A. Sakaji (eds.). *Physics of Emergence and Organization*, World Scientific, Singapore, 2008, 1–27.

261. I. Licata. Effective physical processes and active information in quantum computing, *Quantum Biosystem* 1 (2007), 51–65.

262. X. Liu, E. Matsikondis, E. A. Lee. Modeling timed concurrent systems, *LNCS* 4137 (2006), 1–15.

263. M. Lipponen. Computational complementarity and shift spaces, *J. UCS* 6, 1 (2000), 169–177.

264. G. Lischke. Restorations of punctured languages and similarity of languages, *Math. Log. Quart.* 52, 1 (2006), 20–28.

265. S. Lloyd. A Turing test for free will, *Phil. Trans. R. Soc. A* 370 (2012), 3597–3610.

266. G. Longo. Incomputability in physics, in F. Ferreira, B. Löwe, E. Majordomo, L. Mendes Gomes (eds.). *Programs, Proofs, Process. Proceedings CiE 2010*, LNCS 6158, Springer, Heideberg, 2010, 307–316.

267. G. Longo. Incomputability in physics and biology, *Math. Struct. in Comp. Science* 22 (2012), 880–900.

268. G. Longo, T. Paul. The Mathematics of Computing Between Logic and Physics, in B. Cooper, A. Sorbi (eds.). *Computability in Context: Computation and Logic in the Real World*, Imperial College Press/World Scientific 2011, 243–273.

269. L. Longpré and V. Kreinovich. Zeros of Riemann's Zeta function are uniformly distributed, but not random: an answer to Calude's open problem, *Bull. Eur. Assoc. Theor. Comput. Sci. EATCS* 59 (1996), 163–164.

270. L. Longpré and V. Kreinovich. Human visual perception and Kolmogorov complexity: revisited, *Bull. Eur. Assoc. Theor. Comput. Sci. EATCS* 64 (1998), 155–158.

271. R. Lupacchini, G. Tamburrini. Grounding effective processes in empirical laws: introductory remarks, in R. Lupacchini, G. Tamburrini (eds.). *Grounding Effective Processes in Empirical Laws. Reflections on the Notion of Algorithm*, Centro Interdipartimentale di Ricerca "Federigo Enriques", Università di Bologna, Bulzoni Editore, 2000, 9–21.

272. G. Malescio. Predicting with unpredictability, *Nature* 434, 1073 (28 April 2005), 1073.

273. M. Malitza. The double helix: a project for the future learning and work, *Higher Education in Europe* 25, 1 (2000), 75–79.

274. V. Manca, C. Martin-Vide, G. Păun. New computing paradigms suggested by DNA computing: computing by carving, *Biosystems* 52, 1–3 (1999), 47–54.

275. I. Măndoiu. Optimum extensions of prefix codes, *Information Processing Letters* 66 (1998), 35–40.

276. I. Măndoiu. Kraft–Chaitin's theorem for free-extensible codes, *Stud. Cerc. Mat.* 44 (1992), 497–501.

277. I. Măndoiu. On a theorem of Gacs, *Intern. J. Computer Mathematics* 48 (1993), 157–169.

278. Yy. I. Manin. Complexity vs energy: theory of computation and theoretical physics, *Journal of Physics: Conference Series* 532 (2014), 012018.

279. Yu. Manin. Zipf's law and L. Levin's probability distributions,*Functional Analysis and Its Applications* 48, 2 (2014), 116–127.

280. Yu. I. Manin. Renormalisation and computation II: time cut-off and the Halting Problem, *Math. Struct. in Comp. Science* 22 (2012), 729–751.

281. Yu. I. Manin. Infinities in quantum field theory and in classical computing: renormalization program, in F. Ferreira, B. Löwe, E. Majordomo, L. Mendes Gomes (eds.). *Programs, Proofs, Process. Proceedings CiE 2010*, LNCS 6158, Springer, Heideberg, 2010, 307–316. Full paper in Renormalization and Computation II: Time Cut-off and the Halting Problem, http://arxiv.org/abs/0908.3430, 24 August 2009, 28 pp.

282. P. Maranda. Le sens au corps: note sur la physio-sémiotique. Prospective de la sémiotique, *Sémiotique en jeu: a partir et autour de l'oeuvre d'A. J. Greimas*, Actes de la décade tenue au Centre culturel international de Cerisy-la-Salle du 4 au 14 août 1983, 5, 131, 1987.

283. B. Marchal. *Conscience & Mécanisme*, Université Libre de Bruxelles, 1995, http://iridia.ulb.ac.be/~marchal/bxlthesis/consciencemecanisme.html (PhD Thesis).

284. S. Marcus. Semiotics and formal artificial languages, in A. Kent, J. G. Williams (Eds.). *Encyclopedia of Computer Science and Technology*, Marcel Dekker, New York, 1993, 363–376.

285. S. Marcus. The status of research in the field of analytical algebraic models of language, in Carlos Martin Vide (eds.). *Current Issues in Mathematical Linguistics*, Elsevier, Amsterdam, 1994, 1–19.

286. S. Marcus. Mental representations under some genuine restrictions: the conflictual sets, *Caleção Documentos*, Serie Cognitiva-21, Instituto de Estudos Avançados, Universidade de São Paulo, 1996, 74–79.

287. S. Marcus. Contextual grammars and natural languages, in G. Rozenberg, A. Salomaa (eds.). *Handbook of Formal Languages*, Vol. II, Springer-Verlag, Berlin, 1997, 215–235.

288. S. Marcus. The palindromic year 2002, *NZ Math. Magazine* 39, 2 (2002), 56–59.

289. G. Markowsky. Introduction to algorithmic information theory, *J. UCS* 5 (1996), 245–269.

290. G. Markowsky. An introduction to algorithmic information theory. Its history and some examples, *Complexity* 2,4 (1997), 14–22.

291. M. A. Martin-Delgado. Alan Turing and the Origins of Complexity, *arXiv: 1110.0271 v1 [cs.CC]* 3 October 2011, 14 pp.

292. M. A. Martin-Delgado. On quantum effects in a theory of biological evolution, *Nature Scientific Reports*, 2, 302 (2012), 1–8. DOI: 10.1038/srep00302

293. C. Martin-Vide, Gh. Păun. Computing with membranes (P Systems): universality results, in M. Margenstern and Y. Rogozhin (eds.). *MCU 2001,* Lecture Notes Comput. Sci. 2055, 2001, 82–101.

294. C. Martin-Vide, Gh. Păun, J. Pazos and A. Rodriguez-Paton. Tissue P systems, *Theoret. Comput. Sci.* 296, 2 (2003), 295–326.

295. C. Martin-Vide, G. Păun, G. Rozenberg. Membrane systems with carriers, *Theoret. Comput. Sci.* 270 (2002), 779–796

296. Joaquim P. Marques de Sá. *Chance: The Life of Games and the Game of Life*, Springer, 2008 (edition illustrated).

297. A. Mateescu, G. Păun, G. Rozenberg, A. Salomaa. Characterizations of RE languages starting from internal contextual languages, *Int. J. Comput. Math.* 66, 3–4 (1998), 179–197.

298. A. Matos. *Complexidade*, Course Notes, Porto University, 2001–2002, http://www.ncc.up.pt/~acm/aulas/0102/complexidade/index_0.html.

299. H. Maurer. Hypermedia systems as Internet tools, in Lecture Notes Comput. Sci. 1000, Springer-Verlag, Heidelberg, 1995, 608–624.

300. H. Maurer, K. Schmaranz. J. UCS: the next generation in electronic journal publishing, *J.UCS* 0 (1994), 118–126.

301. J. W. McAllister. Algorithmic randomness in empirical data, *Studies in History and Philosophy of Science Part C*, 34 (3) (2003),633–646.

302. T. H. McNicholl. A uniformly computable implicit function theorem, *Math. Log. Quart.*, 54, 3 (2008), 272–279.

303. Z. Meglicki. *Introduction to Quantum Computing, M743*, 264 pp. http://www.tqc.iu.edu/M743/.

304. I. Németi. Logic and relativity, *Abstracts of the Janos Bolyai Conference on Hyperbolic Geometry*, 8-12 July 2002, Budapest, Hungary, 100.

305. W. Merkle, J. S. Miller, A. Nies, J. Reimann, F. Stephan. Kolmogorov-Loveland randomness and stochasticity, *Annals of Pure and Applied Logic* 138 (1-3) (2006), 183–210.

306. W. Merkle, N. Mihailovic. On the construction of effectively random sets, *Journal of Symbolic Logic* 69(3) (2004), 862–878.

307. W. Merkle, N. Mihailovic, T. A. Slaman. Some results on effective randomness, *Proc. ICALP'2004*, Lecture Notes Comput. Sci. 3142, Springer-Verlag, Heidelberg, (2004), 983–995; *Theory of Computing Systems*, 39 (5) (2006), 707–721.

308. J. Mielke. Refined bounds on Kolmogorov complexity for ω-languages, *Electronic Notes in Theoretical Computer Science*, 221 (2008), 181–189. Also in *Annals of Pure and Applied Logic* 156, 1 (2008), 170–182.

309. J. S. Miller, A. Nies. Randomness and computability: Open questions, *Bulletin of Symbolic Logic* 12 (3) (2006), 390–410.

310. M. Minnes. Survey of three papers in automatic randomness, *Bulletin of Symbolic Logic* 18, 4 (2012), 579–580.

311. H. Monroe. Are there natural problems with speed-up?, *Bulletin of the EATCS* no 94, pp. 212–220, February 2008.

312. N. Murphy, D. Woods, T.J. Naughton. Stable Sorting Using Special-Purpose Physical Devices, *BCRI Preprint 06/2006*, May 2006, Boole Centre for Research in Informatics, University College Cork, Ireland.

313. N. Murphy, T. J. Naughton, D. Woods, B. Henley, K. McDermott, E. Duffy, P. J. M. van der Burgt, N. Woods. Implementations of a model of physical sorting, *International Journal of Unconventional Computing*, 4, 1(2008). 3–12..

314. N. Murphy, T. J. Naughton, D. Woods, B. Henley, K. McDermott, P. J. M. van der Burgt, N. Woods. Implementations of a model of physical sorting, in A. Adamatsky, C. Teuscher (eds.). *From Utopian to Genuine Unconventional Computers*, Luniver Press, 2006, 79–99.

315. M. Nagy, S. G. Akl. Quantum computing: Beyond the limits of conventional computation, *TR 2005–500*, School of Computing, Queen's University, Canada, 2005.

316. M. Nagy, S. G. Akl. Quantum computation and quantum information, *International J. Parallel, Emergent and Distributed Systems* 21, 1(2006), 1–59.

317. D. V. Nicolau Jr., G. Solana, F. Fulga, V. Nicolau Sr. A C library for implementing P systems on the electronic computer, in C. Martin-Vide, G. Păun (eds.). *Pre-proceedings of the Workshop on Membrane Computing (WMC-CdeA2001)*, Reports of the Research Group on Mathematical Linguistics, Universitat Rovira i Vrigili, Taragona, 2001, 221–222.

318. D. V. Nicolau Jr., D.V. Nicolau. Computing with the actin-myosin molecular motor system, *Proceedings of SPIE–The International Society for Optical Engineering* 4937 (2002), 219–225.

319. D. V. Nicolau Jr., K. Burrage, D. V. Nicolau. Computing with motile bio-agents, *Proceedings of SPIE—The International Society for Optical Engineering* 6416 (2007), art. no. 64160S.

320. H. Niederreiter. Some computable complexity measures for binary sequences, in C. Ding, T. Helleseth, H. Niederreiter (eds.). *Sequences and Their Applications*, Springer-Verlag, London, 1999, 67–78.

321. A. Nies. Lowness properties and randomness, *Advances in Mathematics* 197 (1) (2005), 274–305.

322. A. Nies, F. Stephan, S. A. Terwijn. Randomness, Relativization and Turing Degrees, *CDMTCS Research Report* 234, 2004, 22 pp.

323. H. T. Nguyen, V. Kreinovich, L. Longpré. Second-order uncertainty as a bridge between probabilistic and fuzzy approaches, *Proceedings of the 2nd Conference of the European Society for Fuzzy Logic and Technology EUSFLAT'01*, Leicester, England, 2001, 410–413.

324. Doris Nolte, L. Priese. Abstract fairness and semantics, *Theor. Comput. Sci.* 177, 1 (1997), 139–153.

325. A. K. Noor. Computing technology: frontiers and beyond, in *Engineering Computational Technology*, Civil-Comp Press, Stirling, 2002, 1–23.

326. G. van Noord, D. Gerdemann. An extendible regular expression compiler for finite-state approaches in natural language processing, in O. Boldt, H. Jürgensen (eds.) *Automata Implementation*, Lecture Notes Comput. Sci. 2214, Springer-Verlag, Heidelberg, 2001, 122–139.

327. E. Omri, A. Weiermann. Classifying the phase transition threshold for Ackermannian functions, *Annals of Pure and Applied Logic* 158 (2009), 156–162.

328. P. Odifreddi. Ultrafilters, dictators, and Gods, in C. S. Calude, G. Păun (eds.). *Finite Versus Infinite. Contributions to an Eternal Dilemma*, Springer-Verlag, London, 2000, 255–262.

329. T. Ord. *Hypercomputation: Computing more than the Turing Machine*, Honours Thesis, Computer Science Department, University of Melbourne, Australia, 2002; arxiv.org/ftp/math/papers/0209/0209332.pdf.

330. T. Ord, T. Kieu. On the existence of a new family of Diophantine equations for Ω, *Fundamenta Informaticae* 56 (3) (2003), 273–284.

331. T. Paterek, J. Kofler, R. Prevedel, P. Klimek, M. Aspelmeyer, A. Zeilinger, C. Brukner. Mathematical undecidability and quantum randomness, arXiv:0811.4542v1, 27 November 2008, 9 pp.

332. T. Paterek, J. Kofler, R. Prevedel, P. Klimek, M. Aspelmeyer, A. Zeilinger, and Č Brukner. Logical independence and quantum randomness, *New Journal of Physics*, 12(1)(2010), 013019.

333. G. Păun. Membrane Computing: Main ideas, basic results, applications, in M. Gheorghe (ed.). *Molecular Computational Models: Unconventional Approaches*, Idea Group Publ., 2005, 1–30.

334. G. Păun. From cells to computers: computing with membranes (P systems), *Biosystems* 59(3) (2001), 139–158.

335. G. Păun. Distributed architectures in DNA computing based on splicing: limiting the size of components, in C. S. Calude, J. Casti, M. J. Dinneen (eds.). *Unconventional Models of Computation*, Springer-Verlag, Singapore, 1998, 323–335.

336. G. Păun. String function based machines, *ROMJIST* 1 (1998), 73–84.

337. G. Păun, G. Rozenberg. A guide to membrane computing, *Theoret. Comput. Sci.* 287 (2002), 73–100.

338. G. Păun. DNA computing based on splicing: universality results *Theory Comput. Sci.* 231, 2 (2000), 275–296.

339. G. G. Păun. From the history of Romanian theoretical computer science, in F. G. Filip (ed.). *The Science and Technology of Information*, Editura Academiei Romane, Bucharest, 2018, 117–160. (in Romanian)

340. B. Pavlov, G. Roach, A. Yafyasov. Resonance scattering and design of quantum gates, in C. S. Calude, J. Casti, M. J. Dinneen (eds.). *Unconventional Models of Computation*, Springer-Verlag, Singapore, 1998, 336–352.

341. D. Petcu. Parallel jess, in *ISPDC 2005: 4th International Symposium on Parallel and Distributed Computing* 2005 (2005), Article number 1609984, 307–314.

342. Elena Petre. Watson-Crick automata, *J. Autom. Lang. Comb.* 8, 1 (2003), 59–70.

343. G. Pinson. *Complexité algorithmique de Kolmogorov-Chaitin*, http://perso.wanadoo.fr/gerard.pinson/TCI/index.htm.

344. A. Podgurski. Reliability, sampling, and algorithmic randomness, *International Symposium on Software Testing and Analysis*, ACM Press, New York, NY, 1991, 11–20.

345. J. Poland, M. Hutter. Asymptotics of discrete MDL for online prediction, *IEEE Transactions on Information Theory* 51 (11) (2005),3780–3795.

346. J. Poland, M. Hutter. Convergence of discrete MDL for sequential prediction, http://arxiv.org/pdf/cs.LG/0404057, November 2004, 17 pp.

347. S. Porrot, M. Dauchet, B. Durand, N. K. Vereshchagin. Deterministic rational transducers and random sequences, *Theoret. Comput. Sci.* 378 (1998), 258–272.

348. P. H. Potgieter. Topological aspects of the "random" sequences, http://www.bke.hu/math/Tabla/Seminar.htm.

349. P. H. Potgieter. Zeno machines and hypercomputation, *Theoret. Comput. Sci.* 358 (2006), 23–33. arXiv:cs.CC/0412022

350. P. Raatikainen. Complexity and Information: A Critical Evaluation of Algorithmic Information Theory, manuscript, 2006, 26 pp.

351. M. Rajman, M. Vessely, P. Andrews. Network of excelleence in text mining and its applications in statistics, *NEMIS 2004 Annual Conference "Text Mining for Business Inteligence"*, University of Roma La Sapienza, 2004.

352. J. Reimann. Effectively Closed Sets of Measures and Randomness, http://arxiv.org/abs/0804.2656, April 2008.

353. J. Reimann, F. Stephan. On hierarchies of randomness tests, in S. S. Goncharov, H. Ono, R. Downey (eds.). *Proc. 9th Asian Logic Conference, "Mathematical Logic in Asia"*, World Scientific, Singapore, 2006, 215–232. http://math.uni-heidelberg.de/logic/reimann/lectures/alc_05_novosibirsk_talk.pdf.

354. R. Rettinger, X. Zheng. Hierarchy of monotonically computable real numbers, in J. Sgall, A. Pultr, P. Kolman (eds.). *Proc. MFCS'2001*, Lecture Notes Comput. Sci. 2136, Springer-Verlag, Heidelberg, 2001, 633–644.

355. R. Rettinger, X. Zheng, R. Gengler, B. von Braunmühl. Monotonically computable real numbers, in C. S. Calude, M. J. Dinneen, S. Sburlan (eds.). *Combinatorics, Computability and Logic, Proceedings of DMTCS'01*, Springer-Verlag, London, 2001, 187–202. Also in *Math. Log. Quart.*, 48 (3) (2002), 459–479.

356. R. Rettinger, X. Zheng. On the hierarchy and extension of monotonically computable real numbers, *J. Complex.* 19, 5 (2003), 672–691.

357. R. Rettinger, X. Zheng. Solovay reducibility on D-c.e real numbers, *Lecture Notes in Computer Science* 3595 (2005), 359–368.

358. E. Rivals, J.-P. Delahaye. Optimal representation in average using Kolmogorov complexity, *Theoret. Computer Science* 200 (1998), 261–287.

359. C. Rojas González. *Aléatoire et théorie ergodique: un point de vue algorithmique*, École Normale Polytechnique, Paris, France, PhD Thesis, 2008.

360. G. Rote. Crossing the bridge at night, *Bull. Eur. Assoc. Theor. Comput. Sci. EATCS* 78 (2002), 241–246.

361. K. M. Sayre. Information theory, in E. Craig (ed.). *Routledge Encyclopedia of Philosophy*, Routledge, London, Vol. 4 (1998), 782–786.

362. A. M. Sălăgean-Mandache. A geometrical proof of Kraft–Chaitin theorem, *An. Univ. Bucureşti Mat.* 39/40 (1990/91), no. 3, Matematică–Informatică, 90–97.

363. L. Sântean. A hierarchy of unary primitive recursive string-functions, *Aspects and Prospects of Theoretical Computer Science* (Smolenice, 1990), Lecture Notes Comput. Sci. 464, Springer-Verlag Berlin, 1990, 225–233.

364. D. Sburlan. *Promotig and In hibiting Contexts in Membrane Computing*, PhD Thesis, University of Seville, Spain, November 2005, 174 pp.

365. D. Sburlan. *Promotig and In hibiting Contexts in Membrane Computing*, PhD Thesis, University of Seville, Spain, November 2005, 174 pp.

366. Thomas Albert Sebeok. *Encyclopedic Dictionary of Semiotics*, Mouton de Gruyter, 1994 (2nd ed.).

367. G. Schäfer. A note on conjectures of Calude about the topological size of partial recursive functions, *Z. Math. Logik Grundlang. Math.* 31 (3) (1985), 279–280.

368. J. Schmidhuber. Hierarchies of generalised Kolmogorov complexities and nonenumerable universalsemimeasures computable in the limit, *International Journal of Foundations of Computer Science*, to appear.

369. D. Schultes. Rainbow Sort: Sorting at the Speed of Light, *Journal of Natural Computing* 5,1 (2006), 67–82.

370. J. Schmidhuber. Algorithmic theories of everything, Los Alamos preprint archive http://arXiv:quant-ph/0011122 30 November 2000.

371. M. Schmidt. On the power of several queues, in in C. Choffrut, M. Jantzen (eds.), Proc. STACS'91, Lecture Notes Comput. Sci. 480, Springer-Verlag, Heidelberg, 1991, 64–75.

372. M. Schmidt. Time-bounded Kolmogorov complexity may help in search for extra terrestrial intelligence (SETI), *Bull. Eur. Assoc. Theor. Comput. Sci. EATCS* 67 (1999), 176–180.

373. S. Shapiro. Church's thesis, in E. Craig (ed.). *Routledge Encyclopedia of Philosophy*, Routledge, London, Vol. 2 (1998), 351–355.

374. A. Sicard, J. Ospina, M. Vélez. Quantum hypercomputation based on the dynamical algebra su(1, 1), *Journal of Physics A: Mathematical and General* 39 (40), art. no. 018 (2007), 12539–12558.

375. J. Šindelář, P. Boček. Kolmogorov complexity and probability measures *Kybernetika* 38 (6) (2002), 729–745.

376. J. Šindelář, P. Boček. Kolmogorov complexity, pseudorandom generators and statistical models testing, *Kybernetika* 38 (6) (2002), 747–759.

377. J. Small. How does causality protection constrain the form of physical law? http://www.physicsfoundations.org/PIRT_X/papers/SMALL%2520PAPER%25202006.pdf.

378. P. Sosík, J. Matýsek. Membrane computing: When communication is enough, in C. S. Calude, M. J. Dinneen, F. Peper (eds.). *Unconventional Models of Computation (UMC'02)*, Lecture Notes Comput. Sci. 2509, Springer-Verlag, Heidelberg, 2002, 264–275.

379. P. Sosík, O. Valiìk. On evolutionary lineages of membrane systems, *LNCS* 3850 (2006), 67–78.

380. C. Spandl. Computable codings for shift dynamical systems, *Fundamenta Informaticae*, accepted.

381. K. H. Sprenger. Some hierarchies of primitive recursive functions, *Math. Log. Quart.*, 43 (1997), 251–286.

382. R. Srikanth. Computable functions, the Church-Turing and the quantum measurement problem, Los Alamos preprint archive http://arXiv:quant-ph/0402128 v2 18 February 2004, 5 pp.

383. L. Staiger. Topologies for the set of disjunctive ω-words, in M. Ito, G. Păun, S. Yu (eds.). *Words, Semigroups, and Transductions*, World Scientific, Singapore, 2001, 421–430.

384. L. Staiger. How large is the set of disjunctive sequences? in C. S. Calude, M. J. Dinneen, S. Sburlan (eds.). *Combinatorics, Computability and Logic, Proceedings of DMTCS'01*, Springer-Verlag, London, 2001, 215–226. Also in *J. UCS* 8 (2002), 348–362.

385. L. Staiger. The Kolmogorov complexity of real numbers, in G. Ciobanu, Gh. Păun (eds.). *Proc. Fundamentals of Computation Theory*, Lecture Notes Comput. Sci. 1684, Springer-Verlag, Berlin, 1999, 536–546. Full paper in *Theoret. Comput. Sci.* 284 (2002), 455–466.

386. L. Staiger. The Kolmogorov Complexity of Liouville Numbers, *CDMTCS Research Report* 096, 1999, 11 pp.

387. L. Staiger. A tight upper bound on Kolmogorov complexity by Hausdorff dimension and uniformly optimal prediction, *Theory Comput. Systems*, 31 (1998), 215–229.

388. L. Staiger. The Kolmogorov complexity of infinite words, *Theoretical Computer Science* 383 (2-3) (2007), 244–259.

389. L. Staiger. On oscillation-free ε-random sequences, *Electronic Notes in Theoretical Computer Science* volume 221, issue C (2008), 287–297.

390. N. Štambuk, P. Konjevoda, N. Gotovac. Binary coding, mRNA information and protein structure, *Proceedings of the International Conference on Information Technology Interfaces, ITI*, (2004), 53–61.

391. M. Stannett. Hypercomputational models, in C. Teuscher (ed.). *Alan Turing: Life and Legacy of a Great Thinker*, Springer-Verlag, Heidelberg, 2003, 135–157.

392. M. Stay. Very simple Chaitin machines for concrete AIT, *Fundamenta Informaticae* 68, 3 (2005), 231–247.

393. F. Stephan, G. Wu. Presentations of K-trivial reals and kolmogorov complexity, *Lecture Notes in Computer Science* 3526 (2005), 461–469.

394. S. Stepney, S. L. Braunstein, J. A. Clark, A. Tyrrell, A. Adamatzky, R. E. Smith, T. Addis, D. Partridge. Journeys in non-classical computation I: A grand challenge for computing research, *International Journal of Parallel, Emergent and Distributed Systems* 20 (2005), 5–19.

395. S. Stepney, S. L. Braunstein, J. A. Clark, A. Tyrrell, A. Adamatzky, R. E. Smith, T. Addis, D. Partridge. Journeys in non-classical computation II: Initial journeys and waypoints, *International Journal of Parallel, Emergent and Distributed Systems* 21 (2006), 97–125.

396. H.-G. Stork. Cognition and (Artificial) Cognitive Systems, http://www.cikon.de/Text_EN/CogNotes1.pdf.

397. Ileana Streinu. Grammar directed Gödel numberings, *Intern. J. Computer Math.* 14(3–4) (1983), 223–237.

398. P. Strippoli, Silvia Canaider, F. Noferini, P. D'Addabbo, L. Vitale, Feferica Facchin, L. lenzi, Raffaella Casadei, P. Carinci, Maria Zannotti, Flavia Frabetti. Uncertainty principle of genetic information in a living cell, *Theor. Biol. Med. Model* 2 (2005), 40–47.

399. R. Srikanth, S. Hebri. Gödel incompleteness and the black hole information paradox, *Quantum Inf. Process* 7 (2008), 291–312.

400. K. Subramani, D. Desovski. Out of order quantifier elimination for Standard Quantified Linear Programs, *Journal of Symbolic Computation* 40 (2005), 1383–1396.

401. K. Sutner. The Ehrenfeucht–Mycielski staircase, http://www-2.cs.cmu.edu/~sutner/papers.html, draft 2001.

402. K. Svozil. Quantum value indefiniteness, *Natural Computing*, 2011, to appear.

403. K. Svozil. Physical unknowables, in M. Baaz, C. Papadimitriou, H. Putnam, D. Scott, C. Harper Jr. (eds.). *Kurt Gödel and the Foundations of Mathematics. Horizons of Truths*, Cambridge University Press, Cambridge, 2011, 213–254.

404. K. Svozil. Quantum scholasticism: On quantum contexts, counterfactuals, and the absurdities of quantum omniscience, *Information Sciences*179(2009), 535–541.

405. Karl Svozil. Contexts in quantum, classical and partition logic, in K. Engesser, D. M. Gabbay and D. Lehmann (eds.). *Handbook of Quantum Logic and Quantum Structures*, Elsevier, Amsterdam, 2008, pp. 551–586.

406. K. Svozil. Aesthetic complexity, *CDMTCS Research Report* 319 (2008), 20 pp.

407. K. Svozil. Physics and metaphysics look at computation, in Adam Olszewski, Jan Woleński, Robert Janusz. (Eds.) *Church's Thesis After 70 Years*, Ontos Verlag, Berlin, 2006, 491–517.

408. K. Svozil. Are simultaneous Bell measurements possible? *New Journal of Physics* 8, (2006), 1–5.

409. K. Svozil. Physics and metaphysics look at computation, to appear 2005.

410. K. Svozil. Finite automata models of quantized systems: conceptual status and outlook, in M. Ito, M. Toyama (eds.). *Development in Language Theory (DLT 2002*, Lecture Notes Comput. Sci. 2450, Heidelberg, 2002, 93–102.

411. K. Svozil. Quantum Information via State partitions and the Context Translation Principle, *CDMTCS Research Report* 233, 2004, 11 pp.

412. K. Svozil. Computational universes, *Chaos, Solitons & Fractals* 25(4) (2005), 845–859.

413. K. Svozil. *n*-ary Quantum Information Defined by State Partitions, *CDMTCS Research Report* 184, 2002, 10 pp.

414. K. Svozil. Logical Equivalence Between Generalized Urn Models and Finite Automata, *CDMTCS Research Report* 179, 2002, 10 pp.

415. K. Svozil. Irreducibility of *n*-ary quantum information, Los Alamos preprint archive http://arXiv:quant-ph/0111113 v1 21 Nov 2001, 3 pp.

416. K. Svozil. Quantum information: the new frontier, in I. Antoniou, C. S. Calude, M. J. Dinneen (eds.). *Unconventional Models of Computation (UMC'2K)*, Springer-Verlag, London, 2000, 248–272.

417. K. Svozil. Science at the Crossroad Between Randomness and Determinism, *CDMTCS Research Report* 137, 2000, 16 pp.

418. K. Svozil. One-to-one, *Complexity* 4,1 (1998), 25–29.

419. K. Svozil. On the computational power of physical systems, undecidability, the consistency of phenomena and the practical use of paradoxa, in *Fundamental Problems in Quantum Mechanics*, Baltimore, June 18–23, 1994.

420. K. Svozil. A constructivist manisfesto for the physical sciences: constructive re-interpretation of physical undecidability, in W. Depauli-Schimanovich, E. Koehler, F. Stadler (eds.). *The Foundational Debate, Complexity and Constructivity in Mathematics and Physics,* Kluwer, Dordrecht, 1995, 65–88.

421. K. Svozil. On the computational power of physical sysytems, undecidability, the consistency of phenomena, and the practical uses of paradoxes, *Ann. NY Acad. Sci.*, 755 (1995), 834–841.

422. K. Svozil. Set theory and physics, *Found. Phys.* 25 (11) (1995), 1541–1560.

423. K. Svozil. Halting probability amplitude of quantum computers, *J. UCS*, 1 (1995), 201–203.

424. K. Svozil. Quantum information theory, *J. UCS* 5 (1996), 311–346.

425. K. Svozil. Undecidability everywhere ?, in J. L. Casti, A. Karlqvist (eds.). *Boundaries and Barriers*, Addison-Wiley, New York, 1996, 215–237.

426. K. Svozil. The Church–Turing Thesis as a guiding principle for physics, in C. S. Calude, J. Casti, M. J. Dinneen (eds.). *Unconventional Models of Computation*, Springer-Verlag, Singapore, 1998, 371–385.

427. K. Svozil. On self-reference and self-description, *La Nuova Critica* 29 (1997), 75–86.

428. K. Svozil. Are chaotic systems dynamically random ? *Phys. Lett.* 140 (1–2) (1989), 5–9.

429. K. Svozil, N. Neufeld. "Linear" chaos via paradoxical set decompositions. *Chaos, Solitons & Fractals*, 7, 5 (1996), 785–793.

430. K. Tadaki. A statistical mechanical interpretation of algorithmic information theory III: composite systems and fixed points, *Math. Struct. in Comp. Science* 22, (2012), 752–770.

431. K. Tadaki. A new representation of Chaitin Ω number based on compressible strings, in C. S. Calude, M. Hagiya, K. Morita, G. Rozenberg (eds.). *Proc. 9th International Conference Unconventional Computation*, Lecture Notes Comput. Sci. 6079, Springer, Heidelberg, 2010, 127–139.

432. K. Tadaki. The Tsallis entropy and the Shannon entropy of a universal probability, *ISIT 2008*, Toronto, Canada, July 6 - 11, 2008, 2111–2115.

433. K. Tadaki. A statistical mechanical interpretation of algorithmic information theory, *ISIT2007*, Nice, France, June 24 - June 29, 2007, 1906–1910. Revised: arXiv:0801.4194v1, 28 January 2008.

434. K. Tadaki. Upper bound by Kolmogorov complexity for the probability in computable POVM measurement, Los Alamos preprint archive, http://arXiv:quant-ph/0212071, 11 December 2002.

435. K. Tadaki. An extension of chaitin's halting probability Ù to a measurement operator in an infinite dimensional quantum system, *Math. Log. Quart.*, 52 (5) (2006), 419–438.

436. A. Tanguiane. Towards axiomatization of music perception, *J. New Music Res.* 24, 3 (1995), 247–281.

437. S.A. Terwijn. Complexity and Randomness, *CDMTCS Research Report*, 212, 2003, 45 pp.

438. S. Thompson. Mind the gap: Technology as soma, *AI and Society* Volume 22, Issue 1(2007), 37–44.

439. I. Tomescu. Asymptotic properties of the factors of words over a finite alphabet, *Fundamenta Informaticae* 64, 1–4 (2005), 463–470.

440. I. Tomescu. On the asymptotic average length of a maximum common subsequence for words over a finite alphabet, *Theoret. Comput. Sci.* 164 (1996), 277–285.

441. I. Tomescu. On words containing all short subwords, *Theoret. Comput. Sci.* 197 (1998), 235–240.

442. I. Tomescu. A threshold property concerning words containing all short factors, *Bull. Eur. Assoc. Theor. Comput. Sci. EATCS* 64 (1998), 166–170.

443. I. Tomescu. On the number of words containing the factor $(abs)^k$, *Discrete Applied Mathematics*155, 11 (2007), 506–1511.

444. G. Trautteur. Analog computation and the continuum-discrete conundrum, in R. Lupachchini, G. Tamburrini (eds.). *Grounding Effective Processes in Empirical Laws. Reflections on the Notion of Algorithm*, Centro Interdipartimentale di Ricerca "Federigo Enriques", Università di Bologna, Bulzoni Editore, 2000, 23–42.

445. R. A . Trejo, V. Kreinovich, L. Longpré. Choosing a physical model: why symmetries? *Bull. Eur. Assoc. Theor. Comput. Sci. EATCS* 70 (2000), 159–161.

446. M. Trenton. *Some Results on Borel-Normal Strings*, CSIT Report Series 2, University of Prince Edward Island, November 2006.

447. L. Vaidman. Quantum theory and determinism, *Quantum Stud. Math. Found.* 1 (2014), 5–38.

448. V. A. Uspensky, A. Shen. Relations between varieties of Kolmogorov complexities, *Math. Systems Theory* 29 (1996), 271–292.

449. D. Vakarelov. Logic in Central and Eastern Europe: Balkan region, in M. L. Dalla Chiara, K. Doets, D. Mundici, J. van Benthem (eds.). *Logic and Scientific Methods,* Kluwer, Dordrecht, 1997, 485–495.

450. U. Vazirani, T. Vidick. Certifiable quantum dice, *Phil. Trans. R. Soc. A* 370 (2012), 3432–3448.

451. H. Velasco. The objects of meaning from the limits of logic, http://www.scieng.flinders.edu.au/cpes/people/cahill_r/Logic-Limits.html.

452. N. K. Vereshchagin. An enumerable undecidable set with low prefix complexity: a simplified proof, *Electronic Colloquium on Computational Complexity (ECCC)*, 2001, 1–1.

453. B. Vidakovic. Algorithmic complexity, universal priors and Ockham's Razor, *Resenhas do Instituto de Matematica e Estatistica da Universidade de Sao Paolo* 3, 4 (1998), 359–390.

454. S. B. Volchan. The algorithmic theory of randomness, *Amer. Math. Monthly* 1 (2002), 46–63.

455. R. Wagner, V. Kendon. The continuous-variable Deutsch-Josza algorithm using realistic quantum systems, in M. Stannet, D. Makowiec, A. Lawniczak, B. Di Stefano (eds.). *Proceedings of the Satellite Workshops of UC 2011*, TUCSLecture Notes 14, June 2011, 91–99.

456. E. W. Weisstein. Bead-Sort, MathWorld–A Wolfram Web Resource, http://mathworld.wolfram.com/Bead-Sort.html.

457. E. W. Weisstein. Real Number, MathWorld–A Wolfram Web Resource, http://mathworld.wolfram.com/RealNumber.html.

458. E. W. Weisstein. Chaitin's Constant. http://mathworld.wolfram.com/ChaitinsConstant.html.

459. G. Wiederhold. Digital libraries, value and productivity, *Comm. ACM*, 38, 4 (1995), 85–96.

460. J. Wiedermann, J. van Leeuwen. Relativistic computers and non-uniform complexity theory, in C. S. Calude, M. J. Dinneen, F. Peper (eds.). *Unconventional Models of Computation (UMC'02)*, Lecture Notes Comput. Sci. 2509, Springer-Verlag, Heidelberg, 2002, 287–299.

461. G. Wu. Regular reals, in V. Brattka, M. Schröder, K. Weihrauch, N. Zhong (eds.). *Computability and Complexity in Analysis*, Informatik Berichte 302-8 FernUniversität in Hagen, 2003, 363–374. Also in *Math. Log. Quart.*, 51, 2 (2005), 111–119.

462. G. Wu. Prefix-free languages and initial segments of computably enumerable degrees, in J. Wang (ed.). *COCOON 2001*, Lecture Notes Comput. Sci. 2108, Springer-Verlag, Heidelberg, 2001, 576–585.

463. G. Wu. Regular reals, *Math. Log. Quart.* 51 (2) (2005), 111–119.

464. E. H. Yang, S. Y. Shen. Chaitin complexity, Shannon-information content of a single event, and infinite random sequences 1, *Sci. China Ser. A* 34, 10 (1991), 1183–1193.

465. E. H. Yang, S. Y. Shen. Chaitin complexity, Shannon-information content of a single event, and infinite random sequences 2, *Sci. China Ser. A* 34, 11 (1991), 1307–1319.

466. N. S. Yanofsky. Kolmogorov Complexity of Categories. Accepted for the Abramsky Festschrift. (Books and Publications: Peer Reviewed Article) 2013

467. Y. T. Yeh, S. S. Yu. The disjunctiveness of ω-languages, *Discrete Applied Mathematics* 127, 3 (2003), 627–641.

468. L. Yu, D. Ding, R. Downey. The Kolmogorov complexity of random reals *Annals of Pure and Applied Logic* 129 (1-3) (2004), 163–180.

469. H. P. Yockey. *Information Theory, Evolution, and the Origin of Life*, Cambridge University Press, Cambridge, 2005.

470. T. Yokomori. Molecular computing paradigm toward freedom from Turing's charm, *Natural Computing* 1, 4 (2002), 333–390.

471. L. Zajíček. On σ–porous sets in abstract spaces, *Abstract and Applied Analysis* 2005, 5 (2005), 509–534.

472. H. Zenil. F. Hernandez-Quiroz. On the possible Computational Power of the Human Mind, in C. Gershenson, D. Aerts, B. Edmonds (eds.). *Worldviews, Science and Us: Philosophy and Complexity*, World Scientific, Singapore, 315–334.

473. W. Zhang, S. S. Ge. A global implicit theorem without initial point and its applications to control of non-affine systems of high dimensions, *Mathematical Analysis and Applications* 313 (2006), 251–261.

474. F. Zhao, J. Liu, J. Liu, L. Guibas, J. Reich. Collaborative signal and information processing: An information-directed approach, *Proceedings of the IEEE* 91 (8) (2003),1199–1209.

475. X. Zheng. On the Turing degrees of weakly computable reals, *Journal of Logic and Computation* 13, 2 (2003), 159–172.

476. X. Zheng. On the divergence bounded computable real numbers, in Tandy Warnow, Binhai Zhu (eds.). *Proc. COCOON 2003*, Lecture Notes Comput. Sci. 2697, Springer-Verlag, Heidelberg, 2003, 102–111.

477. X. Zheng. Recursive approximability of real numbers, *Math. Log. Quart.* 48 (2002), 131–156.

478. X. Zheng. The closure properties on real numbers under limits and computable operators, in K.-I. Ko, A. Nerode, K. Weihrauch (eds.). "Computability and Complexity in Analysis", *Theoret. Comput. Sci.* 284 (2002), 499–518.

479. X. Zheng. Closure properties of real number classes under limits and computable operators, in D. Z. Du (ed.). *Proc. COCOON 2000*, Lecture Notes Comput. Sci. 1858, Springer-Verlag, Heidelberg, 2000, 170-179.

480. X. Zheng. Classification of the computable approximations by divergence boundings, *Electronic Notes in Theoretical Computer Science*, 167 (2007), 325–344.

481. X. Zheng. A computability theory of real numbers, *LNCS* 3988 (2006), 584–594.

482. X. Zheng, G. Barmpalias. On the monotonic computability of semi-computable real numbers, in C. Calude, M. Dinneen, V. Vajnovski (eds.). *Proc. 4th International Conf. DMTCS'03*, Lecture Notes Comput. Sci. 2731, Springer-Verlag, Heidelberg, 2003, 324–334.

483. X. Zheng, D. Lu, K. Bao. Divergence bounded computable real numbers, *Theoret. Comput. Sci.* 251 (2006), 27–38.

484. X. Zheng, R. Rettinger. *h*–Monotonically computable real numbers, in V. Brattka , M. Schröder, K. Weihrauch, N. Zhong (eds.). *Computability and Complexity in Analysis*, Informatik Berichte 302-8 FernUniversität in Hagen, 2003, 375–388.

485. X. Zheng, R. Rettinger. On the extensions of Solovay-reducibility, in K.-Y. Chwa, J. I. Munro (eds.). *COCOON 2004*, LNCS 3106, 360–369, Springer, Berlin, 2004.

486. X. Zheng, R. Rettinger, G. Barmpalias. H-monotonically computable real numbers, *Math. Log. Quart.* 51, 2, (2005), 157–170.

487. X. Zheng, R. Rettinger, R. Gengler. Closure properties of real number classes under CBV functions, *Theory of Computing Systems* 38 (2005), 701–729.

488. M. Ziegler. Does Quantum Mechanics Allow for Infinite Parallelism?, *International Journal of Theoretical Physics* Vol. 44, No 11 (2005), 2059–2071.

489. M. Zimand. On generating independent random strings, *CiE 2009*, Lecture Notes in Computer Science 5635, Springer Verlag, 2009, 499–508.

490. M. Zimand. Possibilities and impossibilities in Kolmogorov complexity extraction, *ACM SIGACT News*, 41, 4 (2010), 74–94.

491. M. Zimand. If not empty, $NP - P$ is topologically large, *Theoret. Comput. Sci.* 119 (1993), 293–310.

492. M. Zimand. On the topological size of P-M-complete degrees, *Theoret. Comput. Sci.* 147, 1–2 (1995), 137–147.

493. J. Walleczek. Agent inaccessibility as a fundamental principle in Quantum Mechanics: Objective unpredictability and formal uncomputability, *Entropy* 21, 4 (2019), doi:10.3390/e21010004.

494. Y. Wang. A comparison of two approaches to pseudorandomness, *Theoret. Comput. Sci.* 276 (2002), 449–459.

495. P. Zizzi. Computability at the Plank scale, in S. B. Cooper, B. Löwe, L. Torenvliet (eds.). *New Computational Paradigms*, Technical Notes Series of Institute for Logic, Language and Computation, University of Amsterdam, 2005, 238–244.

1.2 Books

1. G. Ş. Andonie. *History of Romanian Science: Mathematics, Mechanics, Astronomy*, Romanian Academy Publishing Comp., Bucharest, 1981. (in Romanian)

2. E. Bach, J. Shallit. *Algorithmic Number Theory, Vol. I: Efficient Algorithms,* MIT Press, Cambridge, Massachusetts, 1996.

3. A. Badia. *The Information Manifold: Why Computers Can't Solve Algorithmic Bias and Fake News*, MIT Press, Cambridge, Massachusetts, 2019.

4. D. Bailey, J. Borwein. *The Experimental Mathematician,* A. K. Peters, Natick, Ma., 2003.

5. T. Bălănescu. *The Correctness of Algorithms*, Editura Tehnică, Bucharest, 1995. (in Romanian)

6. J. Barrow. *Impossibility: The Limits of Science and the Science of Limits*, Oxford University Press, Oxford, 1998.

7. F. Benatti. *Dynamics, Information and Complexity in Quantum Systems*, Springer, Berlin, 2009.

8. L. Berggren, J. Borwein, P. Borwein. *Pi: A Source Book*, Springer, Berlin, 2004.

9. A. A. Bolibruch, Yu. S. Osipov, Ya. G. Sinai (eds.). *Mathematical Events of the Twentieth Century*, Springer, Berlin, 2006.

10. D. S. Bridges. *Computability: A Mathematical Sketchbook*, Springer-Verlag, Berlin, 1994.

11. D. S. Bridges. *Foundations of Real and Abstract Analysis*, Springer-Verlag, Berlin, 1997.

12. J. Buechner. *Gödel, Putnam, and Functionalism: A New Reading of Representation and Reality*, Bradford Books, MIT Press. 2007.

13. B. Carpenter. *Network Geeks. How They Built the Internet*, Copernicus Books, Springer-Verlag, London, 2013.

14. A. Carsetti. *Functional Models of Cognition*, Springer, Berlin, 1999.

15. R. Caso. *La Rivoluzione incompiuta*, Ledizione, 2020.

16. J. Casti. *Five More Golden Rules: Knots, Codes, Chaos, and Other Great Theories of 20th–Century Mathematics*, Wiley, New York, 2000.

17. D. Ceccarelli, G. Frezza. *Predictability and the Unpredictable. Life, Evolution and Behaviour*, CNR Edizioni, Roma, 2018.

18. G. J. Chaitin, N. da Costa, F.A. Doria. *Göde's Way. Exploits into an Undecidable World*, CRC Press, Leiden, 2012.

19. G. J. Chaitin. *MetaMath!*, Pantheon, 2005.

20. G. J. Chaitin. *From Philosophy to Program Size*, 8th Estonian Winter School in Computer Science, Institute of Cybernetics, Tallinn, 2003.

21. G. J. Chaitin. *Conversations with a Mathematician*, Springer-Verlag, London, 2002.

22. G. J. Chaitin. *Exploring Randomness*, Springer-Verlag, London, 2001.

23. G. J. Chaitin. *The Unknowable*, Springer-Verlag, Singapore, 1999.

24. G. J. Chaitin. *The Limits of Mathematics*, Springer-Verlag, Singapore, 1998.

25. G. J. Chaitin. *Thinking about Gödel and Turing*, World Scientific, Singapore, 2007.

26. P. Cholak (ed.). *The Notre Dame Lectures Lecture Notes in Logic*, ASL, 2005.

27. B. J. Copeland, C. J. Posy, O. Shagrir (eds.). *Computability Turing, Gödel, Church, andBeyond*, MIT Press Cambridge, Massachusetts London, England, 2013.

28. M. Chown. *The Never-Ending Days of Being Dead*, Faber & Faber, London, 2007.

29. B. Clegg. *Infinity: The Quest to Think the Unthinkable*, Robinson, London, 2003.

30. S. Cojocaru, G. Păun, D. Vaida. *One Hundred Romanian Authors in Theoretical Computer Science*, Editura Academiei Romane, Bucharest, 2018.

31. S. B. Cooper. *Computability Theory*, Chapman & Hall/CRC London, 2004.

32. J. H. Dawson, Jr. *Logical Dilemmas. The Life and Work of Kurt Gödel*, A K Peters, Wellesley, Massachusetts, 1997.

33. J.-P. Delahaye. *La Logique, un Aiguillonpour la Pensée*, Belin, Pour la Science, Paris, 2012.

34. J.-P. Delahaye. *Complexitées*, Belin, Pour la Science, Paris, 2006.

35. M. Denker, M. W. Woyczyński, B. Ycart. *Introductory Statistics and Random Phenomena: Uncertainty, Complexity, and Chaotic Behavior in Engineering and Science,* Birkhäuser, Boston, 1998.

36. S. D. Devine. *Algorithmic Information Theory for Physicists and Natural Scientists*, IOP Publishing, 2020.

37. M.-M. Deza, Elena Deza. *Dictionary of Distances*, Elsevier, Amsterdam, 2006.

38. M.-M. Deza, Elena Deza. *Dictionary of Distances*, Springer, Berlin, 2009; second edition 2012; third edition 2014.

39. F. A. Doria Francisco, S. Wuppuluri (eds.). *Unravelling Complexity: The Life And Work of Gregory Chaitin*, World Scientific, Singapore, 2020.

40. R. Downey, D. Hirschfeldt. *Algorithmic Randomness and Complexity*, Springer, Heidelberg, 2010.

41. G. G. Emch, C. Liu. *The Logic of Thermo Statistical Physics*, Springer, Heidelberg, 2002.

42. M. Emmer (ed.) *Matematica E Cultura*, Springer, Berlin, 2002.

43. R. L. Epstein, W. A. Carnielli. *Computability. Computable Functions, Logic, and the Foundations of Mathematics,* 2nd ed., Wadsworth, Belmont, 1999.

44. G. Everest, A. van der Poorten, I. Shparlinski, T. Ward. *Recurrence Sequences*, American Mathematical Society, Providence, RI, 2003.

45. S. R. Finch. *Mathematical Constants*, Cambridge University Press, Cambridge, 2003. Errata and Addednda, http://pauillac.inria.fr/algo/csolve/erradd.pdf.

46. T. Franzén. *Gödel's Theorem. An Incomplete Guide to Its Use and Abuse*, AK Peters, Wellesley, Massachusetts, 2005.

47. M. Florescu, E. Nicolau, E. Niculescu-Mizil, C. Bilciu. *History of Romanian Science:Cybernetics*, Romanian Academy Publishing Comp. Bucharest, 1981. (in Romanian)

48. A. W. Geertz and A. K. Petersen (eds.). *Evolution, Cognition, And The History of Religion: A New Synthesis : Festschrift in Honour of Armin W. Geertz*, Brill, Leiden, Boston, 2019.

49. G. Georgescu. *The Theory of Algorithms*, Military Academy, Bucharest, 1980. (in Romanian)

50. A. Georgescu, C.-L. Bichir, G.-V. Cirlig. *Romanian Mathematicians from Everywhere*, The Flower Power Comp., Piteşti, 2004. (in Romanian)

51. O. Giarini, M. Malitza. *The Double Helix of Learning and Work*, Unesco Studies on Science & Culture, CEPES, Bucharest, 2003.

52. J. Gleick. *The Information: A History, A Theory, A Flood*, Pantheon Books, Toronto, 2011.

53. J. Gruska. *Foundations of Computing*, Thomson International Computer Press, Boston, 1997.

54. H. Gutowitz. *Cellular Automata: Theory and Experiment*, MIT Press, Cambridge, MA, 1991.

55. D. Hammer. *Complexity Inequalities*, Wissenschaft & Technik Verlag, Berlin, 1998.

56. J. Harrison. *Handbook of Practical Logic and Automated Reasoning*, Cambridge University Press, 2009.

57. J. Hintikka. *Language, Truth and Logic in Mathematics*, Springer, Berlin, 1997.

58. J. Hintikka. *Socratic Epistemology*, Cambridge University Press, Cambridge, 2007.

59. D. W. Hoffmann. *Grenzen der Mathematik: Eine Reise durch die Kerngebiete der mathematischen Logik*, Spektrum Academisher Verlag, Heideliberg, 2011.

60. M. Hutter. *Universal Artificial Intelligence*, Springer-Verlag, Heidelberg, 2004, 278 pp.

61. Jacek Juliusz Jadacki, Witold Strawinski. *In the World of Signs*, Rodopi Bv Editions, 1998.

62. Ji. Liu, K. Shimohara. *Biomolecular Computation for Bionanotechnology*, Artech House, 2007.

63. B. Khoussainov, N. Khoussainova. *Lectures On Discrete Mathematics For Computer Science*, World Scientific, Singapore, 2012.

64. B. Khoussainov, A. Nerode. *Automata Theory and Its Applications*, Birkhäuser, Boston, 2001.

65. S. Legg. *Machine Super Intelligence*, University of Lugano, Lugano, 2008.

66. J. Lenhard. *Calculated Surprises: A Philosophy of Computer Simulation*, Oxford University press, Oxford, 2019.

67. M. Li, P. M. Vitányi. *An Introduction to Kolmogorov Complexity and Its Applications*, Springer-Verlag, Berlin, 1993. Second edition 1997. Third edition 2009.

68. V. Manca. *Logica Matematica*, Bollati Boringhieri, 2001 (in Italian).

69. K. Mainzer. *Symmetry and Complexity: The Spirit and Beauty of Nonlinear Science*, World Scientific, Singapore, 2005.

70. S. Marcus. *The Mathematica Shock*, Ed. Albatros, Bucharest, 1987. (in Romanian)

71. S. Marcus. *From the Romanian Mathematical Thinking*, Ed. Ştiinţifică and Enciclopedică, Bucharest, 1975. (in Romanian)

72. S. Marcus. *The Time*, Ed. Albatros, Bucharest, 1985. (in Romanian)

73. S. Marcus. *Mathematics in Romania*, CUB Press 22, Baia Mare, 2004.

74. S. Marcus. *Words and Languages Everywhere*, Polimetrica, Milano, 2007.

75. Yu. V. Matiyasevich. *Hilbert's Tenth Problem*, MIT Press, Cambridge, Massachusetts, 1993.

76. H. Maurer. *Hyper-G Now Hyperwave. The Next Generation Web Solution*, Addison-Wesley, New York, 1996.

77. R. Miron, D. Branzei. *Backgrounds of Arithmetic and Geometry: An Introduction*, World Scientific, Singapore, 1995.

78. V. Moisil. *A Man as Anybody Else*, Ed. Albatros, Bucharest, 1979. (in Romanian)

79. C. Moore, S. Mertens. *The Nature of Computation*, Oxford University Press, Oxford, 2011.

80. R. Murawski. *Recursive Functions and Metamathematics*, Springer, Heidelberg, 1999.

81. Scott J. Muller. *Asymmetry: The Foundation of Information*, Springer, Berlin, 2007.

82. T. Niculiu. *Hierarchical Intelligent Simulation*, Matrix Rom, Bucharest, 2002. (in Romanian)

83. A. Nies. *Computability and Randomness*, Clarendon Press, Oxford, 2009.

84. T. Nørretranders. *The Generous Man*, Thunder's Mouth Press, New York, 2005.

85. L. Nunes de Castro. *Fundamentals of Natural Computing: Basic Concepts, Algorithms, And Applications*, Chapman & Hall/CRC, Los Angeles, 2006.

86. P. Odifreddi. *Classical Recursion Theory*, North-Holland, Amsterdam, New York, Vol. 2, 1999.

87. U. Pagallo. *Introduzione alla Filosofia Digitale. Da Leibniz a Chaitin*, G. Giappicheli Editore, Torino, 2006.

88. P. M. Parker (ed.). *Borel: Webster's Timeline History*, 1567–2007, Icon Group International, 2007.

89. G. Păun. *Membrane Computing: An Introduction*, Springer-Verlag, Heidelberg, 2002.

90. G. Păun, G. Rozenberg, A. Salomaa. *DNA Computing. New Computing Paradigms,* Springer-Verlag, Berlin, 1998.

91. P. Pietsch. *Big Data*, Cambridge University Press, 2021, 86 pp.

92. D. L. Renfro. *A Study of Porous and Sigma-Porous Sets*, CRC Press, 2003.

93. J. Rothe. *Complexity Theory and Cryptography*, Springer, Heidelberg, 2005.

94. G. Rozenberg, A. Salomaa. *Cornerstones of Undecidability*, Prentice Hall, Englewood Cliffs, 1994.

95. S. Rudeanu. *Lectures on Predicate and Propositional Calculi*, Bucharest University Press, Bucharest, 1997. (in Romanian)

96. B. Ryabko, J. Astola, M. Malyutov. *Compression-Based Methods of Statistical Analysis and Prediction of Time Series*, Springer, 2016, http://dx.doi.org/10.1007/978-3-319-32253-7_2.

97. A. Sangalli. *The Importance of Being Fuzzy: And Other Insights from the Border Between Math and Computers*, Princeton University Press, Princeton, 1998.

98. A. Sangalli. *Pythagoras' Revenge: A Mathematical Mystery*, Princeton University Press, 2009. (A mystery novel on the philosophy of mathematics)

99. J. L. Schiff. *Cellular automata. A discrete view of the world.*, Wiley-Interscience. Hoboken, NJ, 2008.

100. A. Shen, V. A. Uspensky, N. Vereshchagin. *Kolmogorov Complexity and Algorithmic Randomness*, American Mathematical Society Providence, Rhode Island, 2017, 511 pp.

101. M. Sipser. *Introduction to the Theory of Computation,* PWS Publishing, Comp., Boston, 1997.

102. C. Smoryński. *Logical Number Theory I. An Introduction*, Springer-Verlag, Berlin, 1991.

103. L. Spandonide, G. Păun (eds.). *Meetings with Solomon Marvus*, Spandugino, 2010, 1500 pp.

104. K. H. Sprenger. *Hierarchies of Primitive Recursive Functions on Term Algebras*, Shaker Verlag, 1995.

105. O. Stănăşilă. *Notions and Techniques of Discrete Mathematics*, Ed. Ştiinţifică and technică, Bucharest, 1985. (in Romanian)

106. I. M. Ştefan, E. Nicolau. *Short History of Romanian Science and Technology Creativity*, Ed. Albatros, Bucharest, 1981. (in Romanian)

107. I. Streinu. *LISP: The Programming Language of Artificial Intelligence*, Editura Ştiinţifică & Enciclopedică, Bucharest, 1986. (in Romanian)

108. K. Svozil. *Mathematical Methods of Theoretical Physics*, World Scientific, Singapore, 2020.

109. K. Svozil. *Randomness & Undecidability in Physics*, World Scientific, Singapore, 1993.

110. K. Svozil. *Quantum Logic*, Springer-Verlag, Singapore, 1998.

111. A. S. Tanguiane. *Artificial Perception and Music Recognition*, Lecture Notes in Artificial Intelligence, Vol. 746, Springer, 1993.

112. E. Thacker. *Biomedia*, University of Minnesota Press, Minneapolis, 2004.

113. J. F. Traub, A. G. Werschulz. *Complexity and Information*, Cambridge University Press, Cambridge, 1998.

114. M. Trott. *The Mathematica GuideBook for Programming*, Springer, New York, 2004.

115. F. Vasiliu. *Paradoxism's Main Roots: Essay*, Xiquan Pub. House, 1994.

116. J. O. R. Velásquez. Método para la predicción de la dinámica temporal de la malaria en los municipios de Colombia, *Rev Panam Salud Publica* 27(3) (2010), 211–218.

117. G. Vossen, K.-U. Witt. *Grundkurs theoretische Informatik*, Vieweg Verlag, Wiesbaden, 2006.

118. R. H. Williams, A. Kent. *Encyclopedia of Computer Science and Technology*, Vol. 29, Marcel Dekker, New York, 1993.

119. R. H. Williams, A. Kent. *Encyclopedia of Microcomputers*, Vol. 15, Marcel Dekker, New York, 1993.

120. S. Wolfram. *A New Kind of Science*: Referenced Materials, Relevant Books, http://www.wolfram.science.com/reference/books/.

121. S. Wuppuluri, G. Ghirardi, Giancarlo (eds.).*Space, Time and the Limits of Human Understanding*, Springer, 2016.

122. H. Zenil, F. Soler-Toscano, J.-P. Delahaye and N. Gauvrit. *Methods and Applications of Kolmogorov Complexity*, Springer-Verlag, to appear.

123. M. Zimand. *Computational Complexity: A Quantitative Perspective*, Elsevier, Amsterdam, 2004.

1.3 Ph.D. and MSc Theses

1. S. M. Ali. *The Concept of Poiesis and Its Application in a Heideggerian Critique of Computationally Emergent Artificiality*, PhD Thesis, Brunel University, 1999, http://mcs.open.ac.uk/sma78/thesis/thesis.html.

2. L. Asproni. *Quantum Machine Learning and Optimisation: Approaching Real-World Problems With A Quantum Coprocessor*, M.Sc. in Mathematical Engineering Thesis, Politecnico di Torino, 2019.

3. M. Belghis-Zadeh. *Improving Recommender Systems For Learning: A Deep Dive Into Designing And Evaluating Educational Recommender Systems*, MSc. Thesis, Athabasca University, Alberta,Canada, 2020.

4. H. Bensaid. *Utilisation des Schématisation de Termes en Déduction Automatique*, Thèse pour obtenir le grade de Docteur de l'Université de Grenoble, 27 April 2011, 138 pp.

5. Ed Blakey. *A Model-Independent Theory of Computational Complexity: From Patience to Precision and Beyond*, Ph. D. Thesis, The Queen's College, Oxford, 2011.

6. M. Edwards. *Towards Practical Hybrid Quantum/Classical Computing*, Master of Science in Physics (Quantum Information), Waterloo University, Ontario, Canada, 2020.

7. N. Hay. *Principles of Metalevel Control*, Ph.D. Thesis, University of California at Berkeley, Technical Report No. UCB/EECS-2016-152, 2 September 2016.

8. F. Geurts. *Compositional Analysis of Iterated Relations: Dynamics and Computations,* Ph.D. Thesis, Université Catholique de Louvain, March 1996.

9. H. Shoman. *Partitioning of Positive Integers*, American University of Sharjah, UAE, BSc Thesis in Mathematics, 2013.

10. M. Skomra. Tropical Spectrahedra: Application to Semidefinite Programming and Mean Payoff Games, PhD Thesis in Applied Mathematics, École Polytechnique, Paris, December 2018.

11. M. Hoyrup. *Computability, Randomness and Ergodic Theory on Metric Spaces*, École Doctorale de Sciences Mathématiques de Paris Centre, Paris, France, PhD Thesis, 2008.

12. P. Jakopin. Zgornja meja entropije pri leposlovnih besedilih v slovenskem jeziku, Ph.D. Thesis, 1999, http://www.ff.uni-lj.si/hp/pj/disertacija/.

13. S. Kalyanaraman. *On Obtaining Pseudorandomness from Error-Correcting Codes*, MSc Thesis, California Institute of Technology Pasadena, California, USA, 2006.

14. J. Kamminga. *An Algorithmic Perspective on Randomness in Quantum Mechanics*, BSc Thesis in Mathematics, Radboud University Nijmegen, Netherlands, June 2019.

15. D. Kernberger. Hybrid Branching-Time Logics, PhD Thesis, Universität Kassel, Germany, July 2019.

16. A. A. López. *Detection of Nonlocality with Two-body Correlation Functions*, http://upcommons.upc.edu/bitstream/handle/2117/77510/Master_Thesis_AlbertAloy.pdf?sequence=1, MSc Thesis in Photonics, PhotonicsBCN, Spain, http://www.photonicsbcn.eu, 2015.

17. Christine Müller. *Adaptation of Mathematical Documents*, Ph. D. Thesis, Jacobs University Bremen, Germany, May 2010.

18. Sarah Placi. *Statistical Reasoning in Nonhuman Primates and Human Children*, Ph. D. Thesis, Division of Mathematics and Natural Sciences at the Georg-August-Universität Göttingen, Germany, 2019.

19. Adriana Popovici. *n-Dimensional Cellular Automata: Applications and Generalizations*, Ph.D. Thesis, University of Timişoara, Romania, 2003.

20. C. P. Porter. *Mathematical and Philosophical Perspectives on Algorithmic Randomness*, Ph.D. Thesis, University of Notre Dame, USA, 2012.

21. D. Rajan. *Quantum Entanglement in Time*, PhD Thesis, Victoria University of Wellington, New Zealand, 2020.

22. L. Robbins. *Modelling Cryptographic Systems,* Ph.D. Thesis, Faculty of Graduate Studies, University of Western Ontario, London, Canada, 1998, 166 pp.

23. C. Rojas González. Aléatoire et théorie ergodique: un point de vue algorithmique, Ph. D. Thesis, Ećole Polytechnique et Universita di Pisa, 2008, 135 pp.

24. G. I. Senno. *A Computer-Theoretical Outlook on Foundations of Quantum Information*, Universidad de Buenos Aires, Argentina, 2017 (Ph.D. Thesis).

25. J. Stecher. *Business Language and Asymmetric Perceptions*, Ph. D. Thesis, University of Minnesota, USA, 2005.

26. G. Segre. *Algorithmic Information Theoretic Issues in Quantum Mechanics*, Ph.D. Thesis, Department of Theoretical Physics, University of Geneva, Switzerland, October 2001.

27. T. Siems. *Bayesian Changepoint Analysis*, Ph.D. Thesis, University Greifswald, Germany, October, 2019.

28. H. Shoman. *Partitioning of Positive Integers*, Ph.D. Thesis, American University of Sharjah, United Arab Emirates, 2013.

29. G. Smith. *The AI Delusion*, Oxford University Press, Oxford, 2018.

30. Tom f. Sterkenburg. *Universal Prediction. A Philosophical Investigation*, Rijksuniversitet Groningen, January 2018.

31. Hector Zenil. *Une Approche Expérimentale à la Thérorie Algorithmique de la Complexité*, Lille 1 University, France, 2011.

32. Michael Benjamin Winter. *Structural Metrics: An Epistemology*, Ph.D. Thesis, University of California at Santa Barbara, USA, May 2010.

1.4 Popular Articles

1. M. Chown. Smash and grab, (Feature Story) *New Scientist* 6 April (2002), 24–28.
2. M. Chown. The Omega man, *New Scientist* 10 March (2001), 29–31.
3. Robert M. Chute. Poem on Ω[1], in *Beloit Poetry Journal Spring* Vol. 50, No. 3 (2000), 8.
4. Simon Collins. Scotty may soon be able to beam us up, *NZ Herald*, Saturday, 24.07.2004.
5. J.-P. Delahaye. Être normal? Pas si facile !, *Pour la Science*, 422 (2012), 126–131.
6. J.-P. Delahaye. Presque tout est indécidable, *Pour la Science*, 375 (2009), 88–93.
7. J.-P. Delahaye. Les nombres oméga, *Pour la Science*, 292 May (2002), 98–103.
8. J.-P. Delahaye. La barrière de Turing, *Pour la Science*, 312 October (2003), 90–95.
9. J.-P. Delahaye. Démontrer?, *Pour la Science*, 315 January (2004), 90–95.
10. K. Klotz. Zahlen, wie noch keine waren—Die mühsame Suche nach dem echten Zufall, *Innovate!*, September 2005, 18–21. (Quarterly magazine distributed with the *Süddeutsche Zeitung*)
11. Jerzy Mycka. Omne sacramentum non est impossibile tibi, *Gazeta IT* 10 (29) (2004).
12. I. Watson. Future computing (feature story), *NetGuide*, August 2008, 30–37.
13. The CBS (US drama) TV show Numb3rs (season 5; episode 5; scene 6, http://www.cbs.com/primetime/numb3rs) cites the Omega number bits computed by Calude-Dinneen-Shu. For the math behind see http://numb3rs.wolfram.com/505 (LARRY: Ah, Charles, my ambulatory reference book. Chaitin's Omega Constant...? CHARLIE: Omega equals .00787499699. Why, what're you working on? (sees the file, reacts) Oh. FBI file.)

1.5 Demos

1. http://en.wikipedia.org/wiki/Bead_sort
2. http://en.wikipedia.org/wiki/Sorting_algorithm
3. http://mathworld.wolfram.com/Bead-Sort.html
4. http://demonstrations.wolfram.com/ExtendedBeadSort
5. http://rosettacode.org/wiki/Sorting_algorithms/Bead_sort
6. http://tildegeek.blogspot.com/2005/07/sorting-in-o1-time-bead-sort.html
7. http://www.ask.com/wiki/Bead_sort
8. Massimo Piattelli Palmarini. Attenti, i Big Data non sono la scienza, Corriere della Sera, 19 June 2016.

1.6 Web sites

1. *Proceedings of the Royal Society A* Reviewers in 2016.
2. J. Bacon's home-page at http://www.personal.usyd.edu.au/~jbacon/homepage.html.
3. O. J. Bousquet "Kolmogorov complexity resources" page at:
   http://www.cmap.polytechnique.fr/~bousquet/kolmogorov.html.
4. E. Winfree Molecular Computation page at
   http://www.gg.caltech.edu/~winfree/old_html/DNApeople.html.

[1] Inspired by the paper C. S. Calude, G. J. Chaitin. Randomness everywhere, *Nature*, 400, 22 July (1999), 319-320.

5. University of Macedonia, Department of Applied Informatics: Complex Systems Researchers
http://www.it.uom.gr/pdp/digitallib/Complex/comp_peop.htm.

6. Shikano Lab database at
http://isw3.aist-nara.ac.jp/IS/Shikano-lab/database/library/book-B616.html.

7. Data Mining and Knowledge Discovery in Databases: Business Applications at
http://www.cmap.polytechnique.fr/~bousquet/finance.html.

8. L. Devroye's "Luc's library" at
http://www-cgrl.cs.mcgill.ca/~luc/lucbtcs.html.

9. S. Finch's "Well-known Constants: Chaitin Constant" at
http://www.mathsoft.com/mathresources/constants/wellknown/article/0,,1984,00.html.

10. A bibliography on primality testing at
http://math.uwaterloo.ca/\protect\char126\relaxshallit/bib/primes.bib

11. H. Velasco. The objects of meaning. From the limits of logic, at
http://www.fractalprism.com/article1022.html.

12. H. Masum. Turing machines and complexity at
http://www.carleton.ca/~hmasum/TMandComplexity.html.

13. Entropy in Logic and the Theory of Algorithms at
http://www.unibas.ch/mdpi/entropy/.

14. Bookmarks for Mitch Harris at
http://calcutta.cs.uiuc.edu:1024/~maharri/nsbm.html.

15. P. Frisco's Bibliography of Molecular Computation and Splicing Systems at
http://www.liacs.nl/home/pier/.

16. Marcus Hutter. "Kolmogorov Complexity and Solomonoff Induction" web site at
http://www.hutter1.de/index.htm.

17. Selected *JACM* citations at
http://theory.lcs.mit.edu/\protect\char126\relaxjacm/References/ginsburg1958:266.html.

18. Selected *Information and Computation* citations at
http://theory.lcs.mit.edu/\protect\char126\relaxiandc/References/solomonoff1964:224.html.

19. Lab 333, EE, NTU, Taiwan, bibliography on zero-knowledge at
http://crypto.ee.ntu.edu.tw/lab333/tech-rep/crypto/zero_knowledge/

20. Yonezawa Lab's WWW server, at the Department of Information Science of the University of Tokyo, bibliography in quantum computation at
http://web.yl.is.s.u-tokyo.ac.jp/members/haruo/qc.html

21. C. Herring. "Books Recently Read" at
http://csl.ncsa.uiuc.edu/\protect\char126\relaxherring/books.html

22. J. Borwein, P. Borwein, R. Girgensohn and S. Parnes. *Experimental Mathematics: A Discussion* at
http://www.cecm.sfu.ca/organics/vault/expmath/expmath/html/expmath.html

23. Lucas Bordeaux links in Quantum Computing at
http://www.sciences.univ-nantes.fr/info/perso/permanents/bordeaux/links.html.

24. Bibliography on the Busy Beaver Problem at
http://www.rpi.edu/~greeng3/interests/bb/bib/bib.html

25. R. Greg Lavender. "Recommended Reading" at
http://www.cs.utexas.edu/users/lavender/reading.html.

26. I. Shmulevich, D.-J. Povel. Complexity measures of musical rhythms,
www.nici.kun.nl/mmm/papers/mmm-16/mmm-16.pdf.

27. Nagoya Hiroaki's home page at
http://www.cc.hit-u.ac.jp/about_center/staff/nagoya/research/.

28. MGS simulation of Arulanandham-Calude-Dinneen bead-sort at
http://www.lami.univ-evry.fr/mgs/ImageGallery/mgs_gallery.html#beadsort.

29. Presented in *The Royal Society of New Zeland Science Digest* (Science and Technology Alert 25), 17 April 1998. See http://www.rsnz.govt.nz/cgi-bin/new_news.

30. L. Hemaspaandra and M. Ogihara. *Reductions, Resources, and Robustness,* http://www.cs.rochester.edu/u/lane/complexity.html.

31. M. Gass' home-page at http://www.math.csbsju.edu/~mgass/info/theory/index.html.

32. Y. Matiyasevich "Hilbert's tenth problem" book at http://logic.pdmi.ras.ru/~yumat/H10Pbook/.

33. A bibliography on Constructivity, Computability and Complexity in Analysis at
http://www.informatik.fernuni-hagen.de/import/cca/publications/bibliography.html#BK98.

34. People at Dyade at http://www.dyade.fr/fr/actions/VIP/jglfun.html.

35. P. Cholak's bibliography on computability theory at
http://www.nd.edu/~cholak/computability/bib/computability.bib.

36. Wolfram MathGroup at
http://library.wolfram.com/mathgroup/archive/1997/Jun/msg00028.html.

37. David Dowe's Minimum Encoding Length Inference page at
http://www.csse.monash.edu.au/~dld/MML.html.

38. Information theory at
http://www.answersleuth.com/science/mathematics/information_theory.shtml.

39. Applications, Interactions, and Connections, of Results and Methods From Core ("Pure") Computability Theory (C.C.T) at
http://www.math.psu.edu/simpson/cta/applications-990729.html.

40. Frank's Molecular Computation page at
http://ee.tamu.edu/~zhiquan/dna/manpower.html.

41. Andrea Sorbi's computability page at
http://www.mat.unisi.it/web/sorbi/computability.html.

42. Links to people and ideas at
http://members.home.net/stephenk1/Outlaw/links.html.

43. Bibliography collected by L.M. Gluskin, Part I, at
http://www.math.uni-mannheim.de/~duplij/l-glusk.htm.

44. D. Oţel bookmarks at
http://www.ce.chalmers.se/~otel/bookmarks.html.

45. M. Gass web-site on information theory at
http://www.users.csbsju.edu/~mgass/misc/info_theory/.

46. Ian Glendinning's Hotlist: Quantum Computing at
http://www.vcpc.univie.ac.at/~ian/hotlist/qc/research.shtml.

47. Matthew R. Watkins "Zeta Function Page" at
http://www.maths.ex.ac.uk/~mwatkins/zeta/newmaterial.htm.

48. L. M. Gluskin's Bibliography, Part I, at
http://www.math.uni-mannheim.de/~duplij/l-glusk.htm

49. A. Jurisic's cryptography web site at
http://valjhun.fmf.uni-lj.si/~ajurisic/tec_fri2/f15.html.

50. B. Löwe. "Seminar "Philosophie der Mathematik", Sommersemester 2002 at
http://www.math.uni-bonn.de/people/logic/Lectures/SoSe2002/PhilMathLiteratur.html.

51. J. Resag. "Unvollständigkeit und Zufall in der Mathematik" at
http://home.t-online.de/home/joerg.resag/mybk3htm/chap34.htm.

52. The Miser Project (a practical exploration of key concepts at the foundation of computer-science) at
http://nfocentrale.net/miser/readings/theory.htm.

53. B. Nicolescu. "Levels of reality and the sacred" at
www.pul.it/irafs/CD%20IRAFS'02/texts/Nicolescu.pdf.

54. Andrés Sicard Ramírez. "Computación paraconsistent" at
www.eafit.edu.co/~asicard/archivos/proyectoCP.ps.gz.

55. C. Horn's Links to peoples and ideas at http://webpages.charter.net/stephenk1/Outlaw/links.html.

56. Open Problems at
http://www.geometry.net/detail/theorems_and_conjectures/open_problems_page_no_4.html.

57. Included in Wolfram Research Library
http://library.wolfram.com/database/Articles/2963/.

58. The Collection of Computer Science Bibliographies at
http://liinwww.ira.uka.de/searchbib/index.

59. Bibliography of Mathematical Logic and Related Fields, Heidelberger Akademie der Wissenschaften at
http://www-logic.uni-kl.de/BIBL/index.html.

60. Sequence A079365 in N. Sloane's "On-Line Encyclopedia of Integer Sequences" at
http://www.research.att.com/cgi-bin/access.cgi/as/njas/sequences/eisA.cgi?Anum=A079365.

61. Cited regarding sequence A011541, in N. Sloane's "On-Line Encyclopedia of Integer Sequences" at http://www.research.att.com/cgi-bin/access.cgi/as/njas/sequences/eisA.cgi?Anum=A011541.

62. Taxicab result cited at http://taxicab-number.wikiverse.org/.

63. M. Ziegler. Hypercomputation, University of Paderborn, http://wwwcs.upb.de/cs/ag-madh/WWW/Teaching/2004WS/Hypercomputation/.

64. The Taxicab Problem at http://euler.free.fr/taxicab.htm.

65. The Physics Encyclopedia at http://www.physicsdaily.com/physics/Chaitin's_constant.

66. The Mathematics Encyclopedia and Lessons at http://www.mathdaily.com/lessons/Chaitin's_constant.

67. Absolute Astronomy at http://www.absoluteastronomy.com/encyclopedia/C/Ch/Chaitins_constant.htm.

68. Marcus Hutter page at http://www.idsia.ch/~marcus/kolmo.htm.

69. Quantum Theory at http://www.nu.to.infn.it/Quantum_Theory/

70. Directory of Zeta functions at http://www.maths.ex.ac.uk/~mwatkins/zeta/directoryofzetafunctions.htm

71. CERN most hit papers at http://doc.cern.ch/impact/hitpages_2005.html

72. Giuseppe Vitillaro "things to come" at http://phoenix.thch.unipg.it/

73. Sorting algorithms at http://thoughtsofpramod.wordpress.com/2011/12/03/sorting-algorithms.

2 Selected Teaching Citations

1. The book *Computing with Cells and Atoms* is used for the courses "COMP 4/6601: Models of Computation", The University of Memphis, USA, http://www.cs.memphis.edu/classes/6601/refs.htm, "Introduction to Quantum Computing (M743)", Indiana University, USA, http://beige.ucs.indiana.edu/B679/M743.html, "06–12411 Introduction to Molecular and Quantum Computation", The University of Birmingham, UK, http://www.cs.bham.ac.uk/resources/modules/2001/syls/syl-12411.html, Seminar "Bits und Zellen", Hamburg University, Germany, http://ima-www.informatik.unihamburg.de/Teaching/WS_2001/Bits_und_Zellen/themen_und_termine.html, "Bioinformatics and Biocomputing", Seoul National University, Korea, http://bi.snu.ac.kr/, "Computaci ón Molecular Basada en ADN" (Curso 2001-2002) at Universidad de Sevilla, http://www.cs.us.es/~marper/docencia/computaciondna/plan-cdna-2002.html.

2. Igor Litovsky and Bruno Martin use the book *Information and Randomness* for their course on "LOG6: Complexité et combinatoire" at University of Nice Sophia Antipolis, France, www.essi.fr/PO/Fr/PROGRAMMESESSI3/LOG99/LOG6.html.

3. Karin Seifert-Lorenz, Christoph F. Strnadl, Andreas Eichler use the book *Theories of Computational Complexity* for their course "Symbolische Mathematik in der Theoretischen Physik", http://tph.tuwien.ac.at/~www/teaching/mma/Welcome.html.

4. "AT02.20 Theory of Computation" at Asian Institute of Technology is using the book *Theories of Computational Complexity*, http://cs.ait.ac.th/csinfo/courses.html.

5. "Complejidad Algoritmica", "Modelos de Informatica Teorica" and "Introduccion a la complejidad algoritmica" at Universidad De Granada are using *Theories of Computational Complexity*: http://decsai.ugr.es/docencia/li_complejidad.html, http://decsai.ugr.es/~castro/CA/node20.html, http://decsai.ugr.es/docencia/ii/ii_mod_inf_teo.html.

6. The book *Information and Randomness* is used for the following courses: "Algorithmische Informationstheorie" at the University of Ulm http://hermes.informatik.uni-ulm.de/ti/Lehre/WS9697Informationstheorie/index.htmlby Prof. Dr. U. Schöning, and "Theoretische Informatik II Ausgewählte Kapitel der Theoretischen Informatik" at Martin-Luther-Universität Halle-Wittenberg http://www.mathematik.uni-halle.de/~fachschaft/ws96/theo1.html by Prof. Dr. L. Staiger, "Theoretische Informatik 2" at the University of Potsdam http: //www.cs.uni-potsdam.de/ls_inf4/lehre/SS00/ti2/notes.ps byProf. Dr. H. Jürgensen, "Information and Coding Theory" at the Universitat Politécnica de Valéncia, Spain, http://www.fiv.upv.es/eng/IngInf/subjects/fifth/TIC.html by Prof. J. M. Sempere.

7. Stanford University: "Papers and Books for CS 446 and Beyond" at

   http://www-db.stanford.edu/pub/gio/CS446/biblio.html.

8. Y. Amaya. *Characterization of Chaitin Machine Satisfying the Algorithmic Coding Theorem*, Masters Thesis, Japan Advanced Institute of Science and Technology, Japan, February 2001.

9. P. Andreasen. *Universal Source Coding*, Masters Thesis, Department of Mathematics, University of Copenhagen, Denmark, July 2001.

10. G. Segre. The definition of a random sequence of qubits: from noncommutative algorithmic probability theory to quantum algorithmic information theory and back, Los Alamos preprint archive http://arXiv:quant-ph/0009009 v3, 7 November 2000.

11. G. Segre. Physical complexity of classical and quantum objects and their dynamical evolution from an information-theoretic viewpoint, *International Journal of Theoretical Physics*, 43, 6 (2004), 1371–1395.

12. I. Dinov used my joint *Nature* 1999 paper for his class *Order & Organization in the Stochastic Universe*, UCLA STAT 10, Fall 2004, www.stat.ucla.edu/~dinov/courses_students.html.

13. P. Johnson, Universidade Federal de Pernambuco, Recife, Brasil cites some of my lecture notes:

    http://www.dmat.ufpe.br/~peterj/.

14. Former students home-pages:
    G. Istrate at

    http://cnls.lanl.gov/~gistrate/

    I. Streinu at

    http://cs.smith.edu/~streinu/bookmarks.html

    Keith Wansbrough at

    http://www.cl.cam.ac.uk/~kw217/research/papers.html P. Leung at

    http://www.interworld.com/Staff/Patrick/varsity.htm

    I. Mandoiu at

    http://www.cs.ucsd.edu/~mandoiu/

    F. Surette at

    http://www.cyberus.ca/\protect\char126\relaxsurette/.

15. S. Wray. *Evolutionary Computation*, Masters Thesis, University of Victoria in Wellington, http://www.mcs.vuw.ac.nz/~stevew/thesis/.

16. M. Lipponen matematiikan väitöskirja vuoden 1996 paras Nevanlina-palkinto turkulaistutkijale, *Turum Sanomat,* 22 April 1998, p. 11.

17. Tumblr tag: http://www.tumblr.com/tagged/cristian-calude.