

## LIST OF PUBLICATIONS

*Antal Iványi*

### Papers

- [1] On multiplicative functions with congruence property, *Ann. Univ. Sci. Budapest., Sect. Math.*, **15** (1972), 133–137.
- [2] On monotonic additive functions, *Acta Math. Acad. Sci. Hungar.*, **24** (1973), 203–208. (with I. Kátai)
- [3] Lower and upper estimates for speed of computers with blocked memory, ELTE TTK, Budapest, 1975, 1–14. (with I. Kátai)
- [4] Classification paging algorithms and methods of their estimations (in Russian), in: *Some questions of automatized processing and interpretations of physical experiments* (eds. A. N. Tichonova, V. Ya. Galkin and P. N. Zaikin), MGU, Moscow, **3** (1975), 105–125. (with L. N. Korolev)
- [5] Estimates for speed of computers with interleaved memory systems, *Ann. Univ. Sci. Budapest., Sect. Math.*, **19** (1976), 159–164. (with I. Kátai)
- [6] On the performance of computers with interleaved memory (Hungarian), *Alkalmaz. Mat. Lapok*, **3(1–2)** (1977), 1–11. (with I. Kátai)
- [7] On the speed of computers with paged and interleaved memory, *MTA SZTAKI Közl.*, **18** (1977), 105–117. (with I. Kátai)
- [8] On some features of paging algorithms, Theory of operating systems (3rd Visegrád Winter School, Visegrád, 1977), *Tanulmányok-MTA Számítástechn. Automat. Kutató Int. Budapest*, **69** (1977), 79–94. (with D. Bárdossy)
- [9] Processing of random sequences with priority, *Acta Cybernet.*, **4(1)** (1978/79), 85–101. (with I. Kátai)
- [10] On the performance of computers with interleaved memory, In: M. Arató and E. Knuth (eds), *Selected Papers on Operating Systems: Theory and*

- Practice*, (Lectures, Visegrád Winter School, Visegrád, 1978), pp. 205–216, Szám. Kutató Int., (SZÁMKI) Budapest, 1978, pp. 205–216. (with I. Kátai)
- [11] The effect of page size on the speed. Theory of operating systems (Fifth Visegrád Winter School, Visegrád, 1979). *Tanulmányok-MTA Számítástechn. Automat. Kutató Int. Budapest*, **100** (1979), 301–310. (with Z. Pókos)
- [12] Parallel processing of random sequences with priority. In: *The First Pannonian Symposium on Mathematical Statistics (Bad Tatzmannsdorf, 1979)* eds.: P. Révész, L. Schmetterer and V.M. Zolotarev, Springer, New York-Berlin, 1981, 122–139. (Lecture Notes in Statistics; 8) (with I. Kátai)
- [13] Processing of independent Markov-chains, *Annales. Univ. Sci. Budapest., Sect. Comp.*, **3** (1982), 33–46. (with I. Kátai)
- [14] Parallel processing of 0–1 sequences, *Annales. Univ. Sci. Budapest., Sect. Comp.*, **4** (1983), 85–95. (with J. Pergel)
- [15] Modeling of program runs using popular Markov chains (Russian), *Vestnik Moskov. Univ. Ser. XV Vychisl. Mat. Kibernet.*, **3(1)** (1984), 59–65.
- [16] Optimization of descriptor automated information retrieval systems with zone-hierarchical organization of the search set (Russian), *Vestnik Moskov. Univ. Ser. XV Vychisl. Mat. Kibernet.*, **72(2)** (1984), 53–57. (with A.N. Sotnikov)
- [17] Estimation of the efficiency of bin-packing algorithms (Russian), *Problemy Kibernet.*, **41** (1984), 253–256.
- [18] Algorithms for determination of parameters of zone-hierarchical structures of a search set (Russian), *Programmirovaniye*, **96(2)** (1984), 68–74. (with A.N. Sotnikov)
- [19] On dumpling-eating giants. In: *Finite and Infinite Sets, Vol. I, II (Eger, 1981)* eds.: A. Hajnal, L. Lovász and V. T. Sós, Colloq. Math. Soc. János Bolyai, **37**, North-Holland, Amsterdam, 1984, 379–390.
- [20] Performance evaluation of an algorithm, processing 0–1 sequences with priority, *Ann. Univ. Sci. Budapest., Sect. Comp.*, **5** (1984), 37–40. (with J. Pergel)
- [21] Performance bounds for simple bin packing algorithms, *Ann. Univ. Sci. Budapest., Sect. Comp.*, **5** (1984), 77–82.

- [22] On the power of an electronic computer with interleaved memory (Russian), *Vychisl. Tekh. Vopr. Kibern.*, **20** (1984), 121–135. (with Z. László)
- [23] Tight worst-case bounds for bin packing algorithms. In: *Colloquium on the Theory of Algorithms (Pécs, 1984)* eds.: L. Lovász and E. Szemerédi, Colloq. Math. Soc. János Bolyai, 44, North-Holland, Amsterdam, 1985, 233–240.
- [24] Parallel processing of binary queues. (Hungarian), *Alkalmaz. Mat. Lapok*, **11(1–2)** (1985), 191–200. (with J. Pergel)
- [25] Modeling of priorityless processing in an interleaved memory with a perfectly informed processor (English. Russian original), *Autom. Control*, **46(4)** (1985), 520–526; translation from *Avtom. Telemekh.*, 1985, No.4, (1985), 129–136. (with I. Kátai)
- [26] On the optimization of library information retrieval systems, *Acta Cybernet.*, **7(3)** (1986), 323–328. (with A.N. Sotnikov)
- [27] On the optimization of descriptor-based information retrieval systems (Russian), *Vestnik Moskov. Univ. Ser. XV Vychisl. Mat. Kibern.*, **72(1)** (1987), 51–55. (with A.N. Sotnikov)
- [28] On the d-complexity of words, *Ann. Univ. Sci. Budapest., Sect. Comp.*, **8** (1987), 69–90.
- [29] Analysis of two combinatorial sums that characterize the speed of a computer with block memory (Russian), *Ann. Univ. Sci. Budapest., Sect. Comp.*, **7** (1987), 19–32. (with G.P. Egorychev, and A.I. Makosii)
- [30] Construction of infinite de Bruijn arrays, *Discrete Appl. Math.*, **22(3)** (1988), 289–293.
- [31] Construction of planar de Bruijn words. In: *Papers on automata and languages, X.* (ed.: I. Peák), Karl Marx University of Economics, Budapest, 1988, 63–69. (with Z. Tóth)
- [32] Existence of de Bruijn words. In: *Second Conference on Automata, Languages and Programming Systems (Salgótarján, 1988)* eds.: F. Gécseg and I. Peák, Karl Marx Univ. Econom., Budapest, 1988, 165–172. (with Z. Tóth)
- [33] Simultaneous solution of the traveling salesman problem and the packing problem (Russian), *Vestnik Moskov. Univ. Ser. XV Vychisl. Mat. Kibern.*, **56(1)** (1989), 48–54; translation in *Moscow Univ. Comput. Math. Cybernet.*, 1989, no. 1, 66–73. (with L. Kajtár)

- [34] Construction of three-dimensional perfect matrices, Twelfth British Combinatorial Conference (Norwich, 1989), *Ars Combin.*, **29(C)** (1990), 33–40.
- [35] Beladys anomaly is unbounded. In: *Proceedings of the 5th International Conference on Applied Informatics*, Eger, Hungary, January 28–February 3, 2001. eds.: E. Kovács and Z. Winkler, Molnár és társa, Eger, 2001, 65–72. (with P. Fornai)
- [36] Maximal tournaments, *Pure Math. Appl.*, **13(1–2)** (2002), 171–183.
- [37] Two-dimensional arrays with maximal complexity, *Pure Math. Appl. (P.U.M.A.)*, **17(3–4)** (2006), 197–204. (with M.-C. Anisiu)
- [38] Growing perfect cubes, *Discrete Math.*, **308(19)** (2008), 4378–4388. (with M. Horváth)
- [39] Density of safe matrices, *Acta Univ. Sapientiae Math.*, **1(2)** (2009), 121–142.
- [40] Reconstruction of complete interval tournaments, *Acta Univ. Sapientiae, Inform.*, **1(1)** (2009), 71–88.
- [41] Reconstruction of complete interval tournaments. II, *Acta Univ. Sapientiae Math.*, **2(1)** (2010), 47–71.
- [42] FIFO anomaly is unbounded, *Acta Univ. Sapientiae, Inform.*, **2(1)** (2010), 80–89. (with P. Fornai)
- [43] Imbalances in directed multigraphs, *Acta Univ. Sapientiae Math.*, **2(2)** (2010), 137–145. (with S. Pirzada, T.A. Naikoo and U. Samee)
- [44] Testing of sequences by simulation, *Acta Univ. Sapientiae, Inform.*, **2(2)** (2010), 135–153. (with B. Novák)
- [45] Score lists in multipartite hypertournaments, *Acta Univ. Sapientiae, Inform.*, **2(2)** (2010), 184–193. (with S. Pirzada and G. Zhou)
- [46] List coloring of Latin and Sudoku graphs. In: *8th Joint Conference on Mathematics and Computer Science – MaCS 2010*, eds.: H.F. Pop and A. Bege, NOVADAT Ltd., Győr, 2011, 23–34. (with Zs. Németh)
- [47] Testing of random matrices, *Acta Univ. Sapientiae, Inform.*, **3(1)** (2011), 99–126. (with I. Kátai)
- [48] Comparison based ranking, in: *Algorithms of Informatics*, Vol. 3 (ed. A. Iványi), AnTonCom, Budapest 2011, 1209–1258. (with S. Pirzada)

- [49] On Erdős–Gallai and Havel–Hakimi algorithms, *Acta Univ. Sapientiae, Inform.*, **3(2)** (2011), 230–268. (with L. Lutz, T. Móri and P. Sótér)
- [50] Perfect hypercubes. In: *Extended abstracts of the sixth European conference on combinatorics, graph theory and applications*, EuroComb 2011, Budapest, Hungary, August 29–September 2 eds.: J. Neshetril et al., Elsevier. Electronic Notes in Discrete Mathematics 38, Amsterdam, 2011, 475–480. (with J. Madarász)
- [51] Degree sequences of multigraphs, *Ann. Univ. Sci. Budapest., Sect. Comp.*, **37** (2012), 195–214.
- [52] Degree sequences of multigraphs (Hungarian), *Alkalmaz. Mat. Lapok*, **29** (2012), 1–54. (with L. Lutz)
- [53] Imbalances of bipartite multitournaments, *Annales. Univ. Sci. Budapest., Sect. Comp.*, **37** (2012), 215–228. (with S. Pirzada and N.A. Shah)
- [54] Minimal digraphs with given imbalance sequence, *Acta Univ. Sapientiae Math.*, **4(1)** (2012), 86–101. (with S. Pirzada)
- [55] Prism complexity of matrices, *Annales Univ. Sci. Budapest., Sect. Comp.*, **39** (2013), 181–202. (with Z. Kása)
- [56] Deciding football sequences, *Acta Univ. Sapientiae, Inform.*, **4(1)** (2012), 130–183. (with J.E. Schoenfeld)
- [57] Parallel enumeration of degree sequences of simple graphs, *Acta Univ. Sapientiae, Inform.*, **4(2)** (2012), 260–288. (with L. Lucz, T. Matuszka and S. Pirzada)
- [58] Quick testing of random sequences. In: *Proceedings of the 8th international conference on applied informatics (ICAI 2010)*, Eger, Hungary, January 27–30, 2010. Vol. I, II, eds.: A. Egri-Nagy et al., BVB Nyomda és Kiadó Kft., Eger, 2012, 379–386. (with I. Káta)
- [59] Parallel enumeration of degree sequences of simple graphs. II, *Acta Univ. Sapientiae, Inform.*, **5(2)** (2013), 245–270. (with L. Lucz, G. Gombos and T. Matuszka)
- [60] Score sets in multitournaments I. Mathematical results, *Ann. Univ. Sci. Budapest. Sect. Comput.*, **40** (2013), 307–319. (with L. Lutz, T. Matuszka and G. Gombos)
- [61] Leader election in synchronous networks, *Acta Univ. Sapientiae Math.*, **5(1)** (2013), 54–82.

- [62] Degree sets of tournaments, *Stud. Univ. Babeş-Bolyai Inform.*, **59(1)** (2014), 150–164. (with J. Elek)
- [63] Parallel enumeration of degree sequences (in Hungarian), *Alkalmaz. Mat. Lapok*, **31** (2014), 41–98. (with Z. Kása)
- [64] Recognition of split-graphic sequences, *Acta Univ. Sapientiae, Inform.*, **6(2)** (2014), 252–286. (with B.A. Chat and S. Pirzada)
- [65] Reconstruction of score sets, *Acta Univ. Sapientiae, Inform.*, **6(2)** (2014), 210–229.
- [66] Energy, Laplacian energy of double graphs and new families of equienergetic graphs, *Acta Univ. Sapientiae, Inform.*, **6(1)** (2014), 89–116. (with H.A. Ganie and S. Pirzada)
- [67] On vertex independence number of uniform hypergraphs, *Acta Univ. Sapientiae, Inform.*, **6(1)** (2014), 132–158. (with T.A. Chishti, G. Zhou and S. Pirzada)
- [68] Tripartite graphs with given degree set, *Acta Univ. Sapientiae, Inform.*, **7(1)** (2015), 72–106. (with S. Pirzada and F.A. Dar)
- [69] On the scores and degrees in hypertournaments, *Acta Univ. Sapientiae, Inform.* **7(2)** (2015), 200–215. (with S. Pirzada and R. Raja)

### Books and lecture notes

- [70] *Párhuzamos Algoritmusok*, ELTE Eötvös Kiadó, Budapest, 2003. (in Hungarian)
- [71] *Parallel Computations*. Chapter in: *Algorithms of Informatics, Vol. II: Applications*, MondAt Kiadó, Budapest, 2007, 702–750. (with C. Leopold)
- [72] *Memory Management*. Chapter in: *Algorithms of Informatics, Vol. II: Applications*, MondAt Kiadó, Budapest, 2007, 797–748. (with Á. Balogh)
- [73] *Comparison Based Ranking*. Chapter in: *Algorithms of Informatics, Vol. III*, AnTonCom, Budapest, 2011. (electronic book) (with Z. Kása)
- [74] *Perfect Arrays*. Chapter in: *Algorithms of Informatics, Vol. III*, AnTonCom, Budapest, 2011. (electronic book)
- [75] *Score Sets And Kings in Oriented Graphs*. Chapter in: *Algorithms of Informatics, Vol. III*, AnTonCom, Budapest, 2011. (electronic book) (with S. Pirzada and M.A. Khan)

**Editorial work**

- [76] *Conference of young programmers and mathematicians, May 23–27, 1984*, ELTE TTK, Budapest, 1984.
- [77] *First conference of program designers, July 11–12, 1985*, ELTE TTK, Budapest, 1985.
- [78] *Second conference of program designers, July 8–9, 1986*, ELTE TTK, Budapest, 1986.
- [79] *Third conference of program designers, July 1–3, 1987*, ELTE TTK, Budapest, 1987.
- [80] *Fourth conference of program designers, June 1–3, 1988*, ELTE TTK, Budapest, 1988.
- [81] *Fifth conference of program designers, Aug 28–Sept 1, 1989*, ELTE TTK, Budapest, 1989.
- [82] *Informatikai Algoritmusok 1.*, ELTE Eötvös Kiadó, Budapest, 2005. (in Hungarian)
- [83] *Informatikai Algoritmusok 2.*, ELTE Eötvös Kiadó, Budapest, 2005. (in Hungarian)
- [84] *Angol-magyar informatikai szótár*, Tinta Könyvkiadó, Budapest, 2006. (in Hungarian)
- [85] *Algorithms of Informatics, Vol. I: Foundations*, MondAt Kiadó, Budapest, 2007.
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- [87] *D.E. Knuth: A számítógép-programozás művészete. Vol. I/1*, AnTonCom, Budapest, 2008. (in Hungarian)
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- [89] *D.E. Knuth: A számítógép-programozás művészete. Vol. IV/4*, AnTonCom, Budapest, 2008. (in Hungarian)
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