

## LIST OF PUBLICATIONS

*András Benczúr*

- [1] On sequences of equivalent events and the compound Poisson process, *Studia Sci. Math. Hungar.*, **3** (1968), 451–458.
- [2] The distribution function for the estimate of the damping parameter of a stationary Gaussian Markov process (Russian), *Studia Sci. Math. Hungar.*, **5** (1970), 445–456. (with M. Arató)
- [3] Stacionárius Gauss–Markov folyamat csillapodási paraméterének konfidencia határai (Hungarian), *Közlemények–MTA Számítástechn. Automat. Kutató Int. Budapest*, **6** (1971).
- [4] Some new results in the statistical investigation of elementary Gaussian processes, In: *Progress in statistics (European Meeting Statisticians, Budapest, 1972)*, Vol. I, pp. 69–83. Colloq. Math. Soc. János Bolyai, Vol. 9, North-Holland, Amsterdam, 1974. (with M. Arató)
- [5] Szimulációs eredmények az elemi Gauss folyamat paraméterei becslésének eloszlására (Hungarian), *Közlemények–MTA Számítástechn. Automat. Kutató Int. Budapest*, **8** (1972), 3–35. (with M. Arató)
- [6] Some consequences of superimposed error in time series analysis, In: *Proceedings of Computer Science Conference*, Székesfehérvár, Hungary, 1973. (with Anwar Abd-Alla)
- [7] On absolute continuity of measures defined by multidimensional diffusion processes with respect to the Wiener measure, *Közlemények–MTA Számítástechn. Automat. Kutató Int. Budapest*, **13** (1974), 5–10. (with L. Szeidl)
- [8] Statistical problems of the elementary Gaussian processes. I. Stochastic processes. *Tanulmányok–MTA Számítástechn. Automat. Kutató Int. Budapest*, **22** (1974), 133 pp. (with M. Arató, A. Krámlí and J. Pergel)

- 
- [9] Nagy rendszerek implementálásának software problémái (Hungarian), *Közlemények–MTA Számítástech. Automat. Kutató Int. Budapest*, **15** (1975), 120–130.
- [10] Statistical problems of the elementary Gaussian processes. II. Statistics and related problems. *Tanulmányok–MTA Számítástech. Automat. Kutató Int. Budapest*, **41** (1975), 66 pp. (with M. Arató, A. Krámli and J. Pergel)
- [11] On the Bayesian approach to optimal performance of page storage hierarchies, *Acta Cybernet.*, **3** (1976/77), 79–89. (with A. Krámli and J. Pergel)
- [12] A probabilistic model for the comparison of different memory handling systems, In: *II. Hungarian Computer Science Conference*, Budapest, Hungary, 1977, 178–194. (with A. Krámli)
- [13] Adatkezelő rendszerek biztonságáról, (Integrity problems of data base management systems), (Hungarian), *Alkalmaz. Mat. Lapok*, **3** (1977), 65–81.
- [14] On the Bayesian approach to optimal performance of page storage hierarchies, *Acta Cybernet.*, **3** (1977), 79–89. (with A. Krámli and J. Pergel)
- [15] Optimális program lapolási eljárások Bayes-féle tárgyalása (Hungarian), *Közlemények–MTA Számítástech. Automat. Kutató Int. Budapest*, **18** (1977), 57–60.
- [16] A note on data base integrity, *Acta Cybernet.*, **3** (1977), 181–186. (with A. Krámli and J. Pergel)
- [17] A probabilistic model for the comparison of different memory handling systems, In: *Second Hung. Comp. Sci. Conference*, Budapest, Hungary, 1977, 178–195. (with A. Krámli)
- [18] *Adatkezelő rendszerek biztonsági problémái* (Hungarian), Cand. of Sci. Thesis, Budapest, Hungary, 1978.
- [19] Az ISDOS információrendszer-tervező rendszer használatának tapasztalatai (Hungarian), *Információ Elektronika*, **5** (1978), 296–301.
- [20] Megjegyzések a véletlen bolyongás torlódási pontjaihoz, (Remarks on the limit points of a normalized random walk), (Hungarian), *Alkalmaz. Mat. Lapok*, **4** (1978), 27–34.
- [21] An example for an adaptive control method providing data base integrity, In: M. Arató et al. (Eds.) *Performance of computer systems: Proceeding of the 4th International Symposium on Modelling and Performance*

- Evaluation of Computer Systems*, Vienna 1979, 263–276, North-Holland, Amsterdam-New York, 1979. (with A. Krámli)
- [22] An example for an adaptive control method providing data base integrity, IIASA, Luxembourg, 1979. (with A. Krámli)
- [23] Egy nagy adatrendszer karbantartásának vizsgálata (Hungarian), *SZÁMKI Tanulmányok*, **6** (1980), 85–97. (with J. Stahl)
- [24] Megjegyzés a dinamikus rekordelhelyezési feladathoz lineáris tároló esetén I. (Hungarian), *SZÁMKI Tanulmányok*, **5** (1980), 55–59.
- [25] Megjegyzés a dinamikus rekordelhelyezési feladathoz lineáris tároló esetén II. (Hungarian), *SZÁMKI Tanulmányok*, **6** (1980), 61–69.
- [26] On the solution of optimal performance of page storage hierarchies with an independent reference string, *Probab. Math. Statist.*, **6** (1980), 9–15. (with M. Arató and A. Krámli)
- [27] On the solution of optimal performance of page storage hierarchies with an independent reference string, *Banach Center Publ.*, **6** (1980) 9–15. (with M. Arató and A. Krámli)
- [28] Dynamic placement of records and the classical occupancy problem, *Comput. Math. Appl.*, **7(2)** (1981), 173–185. (with M. Arató)
- [29] Egy nagy adatrendszer karbantartásának vizsgálata – egy alternatív modell (Hungarian), *SZÁMKI Tanulmányok*, **7** (1981), 105–113. (with J. Stahl)
- [30] A general treatment of rearrangement problems in a linear storage, *Performance Evaluation*, **2** (1982), 108–117. (with M. Arató)
- [31] Az állami népességnyilvántartás rendszerének számítástechnikai problémáiról (Hungarian), In: *II. Neumann Congress*, Székesfehérvár, Hungary, 1983, 178–184.
- [32] Problems in modelling of data base performance, Warsaw; Lodz: Państwowe Wydawnictwo Naukowe, 1983, pp. 85–98.
- [33] Egy nagy adatrendszer karbantartásának vizsgálata, (On updating a large-scale datasystem), (Hungarian), *Alkalmaz. Mat. Lapok*, **10** (1984), 1–13. (with J. Stahl)
- [34] A distributed data base management system in territorial planning, *Közlemények–MTA Számítástechn. Automat. Kutató Int. Budapest*, **34** (1986), 53–78. (with P. Dipotet)

- 
- [35] Az információ mérése relációs adatbázisokban, (Information measurement in relational databases), (Hungarian), *Alkalmaz. Mat. Lapok*, **12** (1986), 213–225.
- [36] Gauss–Markov folyamatok maximum-likelihood becslésének egzakt eloszlása, 3. fejezet (Hungarian), In: Tusnády G. and Ziermann M. (Eds.), *Idősorok analízise* (Hungarian), Műszaki Könyvkiadó, Budapest, 1986. pp. 85–117.
- [37] On the expected time of the first occurrence of every  $k$ -bit long pattern in the symmetric Bernoulli process, *Acta Math. Hungar.*, **47** (1986), 233–238.
- [38] On the number of occurrences of sequence patterns, *Acta Math. Hungar.*, **47** (1986), 371–382. (with I. Kátai)
- [39] A relációs adatmodell függőségeinek egy általános osztálya és implikációs problémáinak vizsgálata, (On a general class of data dependencies in the relational model and its implication problems), (Hungarian), *Alkalmaz. Mat. Lapok*, **13** (1987), 291–312. (with A. Kiss and T. Márkus)
- [40] Adatbáziskezelő rendszerek hatékonyságának jellemzése Kolmogorov algoritmikus információmennyisége alapján, (On the performance evaluation of database systems using Kolmogorov’s algorithmic information measure), (Hungarian), *Alkalmaz. Mat. Lapok*, **13** (1987), 285–289.
- [41] A first order theory of the learnable and knowledge communication, In: *Proceedings of the 2nd Austrian–Hungarian conference on Computer Science*, "Beyond Number Crunching", Leibnitz, Ausztria, 1988, pp. 113–118.
- [42] Information measurement in relational databases, *Lecture Notes in Comput. Sci.*, **305** (1988), 1–9.
- [43] On the role of equality in the dependency systems of relational databases. In: *Proceedings of the 2nd International Conference on Automata, Languages and Programming Systems*, (Salgótarján, Hungary), 1988, 27–34.
- [44] Open problems in database theory – Summary of the panel discussion, *Lecture Notes in Comput. Sci.*, **305** (1988), 241–247. (with K. Benecke, J. Biskup, H.H. Brüggemann, G. Burosch, J. Demetrovics, G. Katona, P. Debra, J. Paredaens, U. Rasch and B. Thalheim)
- [45] A fuzzy  $\sigma$ -algebrák generáltságáról, (Fuzzy  $\sigma$ -algebras to be generated), (Hungarian), *Alkalmaz. Mat. Lapok*, **14** (1989), 37–43. (with S. József)
- [46] Performance evaluation of database management systems in terms of Kolmogorov’s algorithmic "quantity of information", (Russian) *Vestnik*

- Moskov. Univ. Ser. XV Vychisl. Mat. Kibernet.*, **1** (1989), 44–48; translation in *Moscow Univ. Comput. Math. Cybernet.*, **1** (1989), 59–65.
- [47] Table dependencies and their implication problems in relational models of databases, (Russian) *Vestnik Moskov. Univ. Ser. XV Vychisl. Mat. Kibernet.*, **1** (1989), 34–44; translation in *Moscow Univ. Comput. Math. Cybernet.*, **1** (1989), 44–58. (with A. Kiss and T. Márkus)
- [48] An attempt to the algorithmic definition of fuzziness, *Annales Univ. Sci. Budapest., Sect. Comp.*, **12** (1991), 19–33.
- [49] On a general class of data dependencies in the relational model and its implication problems, *Comput. Math. Appl.*, **21** (1991), 1–11. (with A. Kiss and T. Márkus)
- [50] The problem of learning concepts. A probabilistic view, *Annales Univ. Sci. Budapest., Sect. Comp.*, **13** (1992), 179–194. (with E. Alvarez, E. Castillio and J.N. Sarabia)
- [51] Klasszikus és súlyozott tudásbázisok transzformációi (Hungarian), *Alkalmaz. Mat. Lapok*, **17** (1993), 347–371.
- [52] Workflow Management - Challenges, Paradigms and Products, Wien; München: R. Oldenbourg Verlag, 1994. Proceedings of the Ninth Austrian-Hungarian Informatics Conference, CON94. (with G. Chroust)
- [53] Negyedik generációs szoftverfejlesztési környezet kidolgozása relációs adatbázis-kezelő rendszerek felhasználói felületének kibővítésével (Hungarian), *Technical Report*, (1994), OMF number: 94-97-67-0754, Budapest, pp. 1–18. (with A. Kiss, T. Nikovits and T. Márkus)
- [54] Datalog extension for nested relations, *Comput. Math. Appl.*, **30** (1995), 51–79. (with C. Hajas and G. Kovács)
- [55] Classical and weighted knowledgebase transformations, *Comput. Math. Appl.*, **32** (1996), 85–98. (with Á.B. Novák and P.Z. Revesz)
- [56] On the semantics of revision and model-fitting in weighted case, *Zb. Rad. (Varaždin)* **20** (1996), 45–58. (with Á.B. Novák and P.Z. Revesz)
- [57] Revíziós operátorok alkalmazása relációs modellen alapuló adatbázisokra (Hungarian), In: P. Bakonyi and M. Herdon (Eds.) *Informatika a felsőoktatásban 96 - Networkshop 96*, Debrecen, Hungary, 1996. (with Á.B. Novák and P.Z. Revesz)
- [58] Some constraints assuring serializability in multidatabases, *Comput. Math. Appl.*, **34(10)** (1997), 9–21. (with C.K. Quang and T. Nikovits)

- 
- [59] Tudásbázisok transzformációinak alkalmazása relációs adatbázisokra (Hungarian), In: *Relációs Adatbáziskezelők III. Magyarországi Konferenciája*, Budapest, Hungary, 1997. (with Á.B. Novák)
- [60] *Adatbázis-rendszerek (Alapvetés)* (Hungarian), Panem-Prentice-Hall, Budapest, 1998. Translation of the book: J.F. Ullman and J. Widom: *A First Course in Database Systems*, Prentice Hall, 1997 (1998).
- [61] Correctness criteria for databases using abstract data types, *Annales Univ. Sci. Budapest., Sect. Comp.*, **17** (1998), 49–64. (with C.K. Quang)
- [62] On weighted knowledgebase transformations, *Annales Univ. Sci. Budapest., Sect. Comp.*, **17** (1998), 65–78. (with Á.B. Novák and P.Z. Revesz)
- [63] *Adatbázisrendszerek megvalósítása* (Hungarian), PANEM Kiadó, Budapest, 2000. Translation of the book: Garcia-Molina, J.F. Ullman and J. Widom, *Database Systems Implementation*, Prentice-Hall, 1999, 2000.
- [64] *Adatbányászat (Konceptiók és technikák)*, PANEM Kiadó, Budapest, 2004. Translation of the book: Jaiwei Han and Micheline Kember, *Data Mining, Concepts and Techniques*, Elsevier, 2001.
- [65] Benczúr, A. (szerk.) Hungarian Applied Mathematics and Computer Applications. Amsterdam: Elsevier, 2003. (Mathematical and Computer Modelling) 7-9.
- [66] Hungarian applied mathematics and computer applications - Preface, *Mathematical and Computer Modelling*, **38(7-9)** (2003), XIII–XIV.
- [67] Számítógépek és híradástechnika: az emberiség új kommunikációs korszaka I. rész (Hungarian), *Híradástechnika*, **LVIII:(9)** (2003), 18–24.
- [68] Számítógépek és híradástechnika: az emberiség új kommunikációs korszaka II. rész (Hungarian), *Híradástechnika*, **LVIII:(10)** (2003), 22–31.
- [69] The evolution of human communication and the information revolution - A mathematical perspective. *Mathematical and Computer Modelling*, **38(7-9)** (2003), 691–708.
- [70] Static analysis of structural recursion in semistructured databases and its consequences, In: A. Benczúr (ed) et al, *Advances in databases and information systems. 8th East European Conference, ADBIS 2004*, Budapest, Hungary, 2004. Proceedings. Berlin: Springer, *Lecture Notes in Computer Science*, **3255** (2004), 189–203. (with B. Kósa)

- [71] Autonomous applications - Toward a better data integration model, In: Johann Eder, Hele-Mai Haav, Ahto Kalja and Jaan Penjam (Eds.) *Advances of Database and Information Systems, Proc. of ADBIS*, Tallinn, Estonia, 2005. pp. 117–126. (with Zs. Hernáth and Z. Porkoláb)
- [72] LORD - Lay-Out Relationship and Domain Definition Language, In: Yannis Manolopoulos, Jaroslav Pokorny, Timos Sellis (Eds.) *Advances of Database and Information Systems, Proc. of ADBIS*, Thessaloniki, Greece, 2006. Proceedings. Berlin; Heidelberg; New York: Springer Verlag, 2006. pp. 215–230. (with Zs. Hernáth and Z. Porkoláb)
- [73] *Adatbázis-rendszerek (Alapvetés), 3. kiadás*, (Hungarian), Panem Kiadó, Budapest, 2008. Translation of the book: J.F. Ullman and J. Widom: *A First Course in Database Systems, 3rd edition*, Prentice Hall, 2008.
- [74] An efficient implementation of an expressive fragment of Xpath using extended structural recursions: T4.1.6, *Technical Report, ELTE RET*, 14/2005, pp. 1–26, 2008. (with A. Kiss and B. Kósa)
- [75] An efficient implementation of an expressive fragment of Xpath using structural recursions: T4.1.6, *Technical Report, ELTE RET*, 14/2005, pp. 1–26, 2008. (with A. Kiss and B. Kósa)
- [76] An efficient implementation of an expressive fragment of XSLT using extended structural recursion: T4.1.7 Technical Report, *Technical Report, ELTE RET*, 14/2005, pp. 1–15, 2008. (with A. Kiss and B. Kósa)
- [77] Hálózatot monitorozó riportoló rendszerek vizsgálata adatbázis-elméleti és szoftvertechnológiai szempontból (Hungarian), *Technical Report, IKKK*, Budapest, Hungary, 2008, pp. 1–31. (with A. Kiss and K. Kada)
- [78] An efficient implementation of an expressive fragment of XPath for typed and untyped structural recursion, In: J. Grundspenskis and G. Vossen (Eds.), *Advances of Database and Information Systems: 13th East-European Conference, ADBIS 2009*, Local Proceedings. Riga, Lithuania, 2009, 156–176. (with A. Kiss and B. Kósa)
- [79] Extended structural recursion and XSLT, *Acta Universitatis Sapientiae Informatica*, **1(2)** (2009), 165–213. (with A. Kiss and B. Kósa)
- [80] XML technologies in web-based information system, *Poster at Neumann Day, Eötvös Loránd University*, Budapest, Hungary, 2011. (with A. Kiss, B. Kósa, E. Nyitrai, G. Rácz, Gy. Szabó, B. Varga and Z. Vincellér)

- [81] Csukás B., Debelak K., Karaffa L., Prokop A., Raffai M., Sunol A. K., Takács D., Varga M., Kerekes S., Naas I. A., Rédey Á., Benczúr A., Bélafi-Bakó K., Doluschitz R., Balogh S. (Eds.) *Conservation, Information, Evolution: towards a sustainable engineering and economy*, 2011.
- [82] Satisfiability and containment problem of structural recursions with conditions, In: B. Catania, M. Ivanović and B. Thalheim (Eds.), *Advances in Databases and Information Systems*, 2010, Berlin; Heidelberg: Springer Verlag, 2011. pp. 336–350. Lecture Notes in Computer Science, 6295. (with A. Kiss and B. Kósa)
- [83] Encapsulated functional dependencies for XML design, In: P. Iványi (Ed.) *Research Conference on Information Technology: Seventh International PhD&DLA Symposium*, Pécs, Hungary, 2011, pp. 129–130. (with Gy.I. Szabó)
- [84] Formal approach to a web information system based on story algebra, *Singidunum Journal of Applied Sciences: Economy Management Tourism Information Technology and Law*, **9(2)** (2012), 63–73. (with B. Molnár and Á. Tarcsi)
- [85] Investigation of criteria for selection of ERP systems, In: Leszek A. Maciaszek, Alfredo Cuzzocrea and José Cordeiro (Eds.) *ICEIS 2012: Proceedings of the 14th International Conference on Enterprise Information Systems*, Wroclaw, Poland, SciTePress, 2012. pp. 175–180. (with B. Molnár and Gy.I. Szabó)
- [86] Functional dependencies on extended relations defined by regular languages, In: T. Lukasiewicz and A. Sali (Eds.), *Foundations of Information and Knowledge Systems. 7th International Symposium, FoIKS 2012*, Kiel, Germany, 2012. Proceedings. Berlin: Springer, 2012. pp. 384–403. Lecture Notes in Computer Science, 7153 (with Gy.I. Szabó)
- [87] Functional dependencies on symbol strings generated by extended context free languages, In: T. Morzy, Th. Haerder and R. Wrembel (Eds.), *Advances in Intelligent Systems and Computing: 16th East European Conference, ADBIS 2012*, Poznan, Poland, 2012. Proceeding. Poznan: Springer, 2012. pp. 253–264. (with Gy.I. Szabó)
- [88] Cloud computing in practice, *Informatika - A Gábor Dénes Főiskola Közleményei XV.*, **1** (2013), 29–33. (with B. Molnár and Gy.I. Szabó)
- [89] Issues of modeling web information systems: Proposal for a document-centric approach, In: Maria Manuela Cruz-CUnha, Joao Eduardo Quintela Varajao, Helmut Krcmar, Vitor Manuel Basto Fernandes (Eds.) *CEN-*



- TERIS 2013 - Conference on ENTERprise Information Systems - aligning technology, organizations and people*, Lisbon, Portugal, 2013, Elsevier, 2013. pp. 340–350. (with B. Molnár)
- [90] Selection process of ERP systems, *Business Systems Research Journal*, **4(1)** (2013), 36–48. (with B. Molnár and Gy.I. Szabó)
- [91] Functional dependencies on extended relations defined by regular languages, *Ann. Math. Artif. Intell.*, DOI 10.1007/s10472-013-9352-z, 2013, pp. 1–39. (with Gy.I. Szabó)
- [92] Facet of modeling web information systems from a document-centric view, *International Journal of Web Portals*, **5(4)** (2013), 57–70. (with B. Molnár)
- [93] The digital universe - An information theoretical analyses, In: Boris Rachev, Angel Smrikarov (Eds.) *CompSysTech '13 Proceedings of the 14th International Conference on Computer Systems and Technologies*, Russe, Bulgaria, 2013, New York: ACM Press, 2013, pp. 1–10.
- [94] ERP-rendszerek a számítási felhőben (cloud computing): A felhőtechnikával összefüggő új ERP-kiválasztási kritériumok elemzése, *Vezetéstudomány*, **44(11)** (2013), 62–68. (with B. Molnár and Gy.I. Szabó)
- [95] Investigation of system of criteria within selection processes for ERP systems: A Middle-European perspective, *Infocommunications Journal*, **6(1)** (2014), 26–35. (with B. Molnár and Gy.I. Szabó)