References

[1] F.M. Ablayev. Possibilities of probabilistic on-line counting machines. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 1–4. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[2] G.P. Agibalov. Functional systems on semilattices. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 5–9. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[3] V.B. Alekseyev. Recognition of properties in k-valued logic and approximate algorithms. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 10–13. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[4] A.A. Alexanyan. Linearized disjunctive normal forms of boolean functions. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 14–16. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[5] Ju.A. Alpin, B.S. Kotchkarev, and R.G. Mubarakzianov. On a stable generating of random sequences by probabilistic automata. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 17–20. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[6] S.V. Alyoshin. Automata classes induced by post classes. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of*

the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987), volume 278 of *LNCS*, pages 21–23. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[7] A.E. Andreev. Effective lower bounds for complexity of some classes of schemes. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 24–29. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[8] A.V. Anisimov and V.A. Oleshchuk. Stable finite automata mappings and church-rosser systems. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 30–33. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[9] M.M. Arslanov. The recursion theorem, approximations, and clasifying index sets of recursively enumerable sets. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 34–37. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[10] A.D. Astakhov. Duality of functions and data in algorithms description. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 38–40. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[11] G.V. Babikov. On direct methods of realization of normal algorithms by turing machines. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, page 41. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[12] D.N. Babin. Verbal operation on automaton. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 42–44. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[13] A.S. Barashko. The new way of probabilistic compact testing. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 45–47. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[14] M.Yu. Baryshev, L.P. Zhil'tzova, and A.A. Markov. Computational problems in alphabetic coding theory. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 48–50. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[15] S.A. Bogomolov. On the synthesis of "irredundant" automata from a finite set of experiments. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 51–52. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[16] A.A. Bolotov. On the equivalence problem of states for cellular automata. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 53–54. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[17] L. Budach. Arsenals and lower bounds. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 55–64. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[18] R.G. Bukharajev, A.I. Enikeev, and I.I. Makarov. Chain-like model of programs communication. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 65–67. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[19] R.G. Bukharajev and I.R. Nasirov. Structor automata. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 68–73. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[20] B.A. Buyevich. On a-completeness for some classes of bounded determinate functions. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 74–77. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[21] G.E. Cejtlin and E.L. Jushchenko. Structure synthesis of parallel programs (methodology and tools). In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 78–81. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[22] B.S. Chlebus, M. Chrobak, and K. Diks. Saturating flows in networks. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 82–91. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[23] I.P. Cuhrov. On the number of dnf maximal relatively arbitrary measures of complexity. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*,

volume 278 of *LNCS*, pages 92–94. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[24] J. Dassow and H. Jürgensen. Soliton automata. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 95–102. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[25] H.F. de Groote, J. Heintz, S. Möhler, and H. Schmidt. On the complexity of lie algebras. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 172–179. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[26] A.I. Enikeev. On development of dialogue concurrent systems. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 103–108. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[27] S.M. Ermakov and B.B. Pokhodzey. Discrete analogue of the neumann method is not optimal. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 109–112. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[28] S.M. Ermakov and A.S. Rasulov. A simplest probability model of asynchronous iterations. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 113–115. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[29] Yu.L. Ershov, S.S. Goncharov, and D.I. Sviridenko. Semantic foundations of programming. In L. Budach, R.G. Bukharajev, and O.B.

Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 116–122. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[30] N.V. Evtushenko. Conditions for existence of nontrivial parallel decompositions of sequential machines. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 123–126. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[31] A.B. Frolov. On the digital system diagnostics under uncertainty. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 127–131. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[32] N.Z. Gabbasov. The implicating vector problem and its applications to probabilistic and linear automata. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 132–136. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[33] E.E. Gasanov. Some asymptotic evaluations of complexity of information searching. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 137–139. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[34] I.B. Gashkov and V.M. Sidelnikov. Codes, connected with a fraction linear functions group and their decoding. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 145–149. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[35] S.B. Gashkov. On the complexity of approximate realization of continuous functions by schemes and formulas in continuous bases. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 140–144. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[36] D. Geidmanis. On the capabilities of alternating and nondeterministic multitape automata. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 150–154. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[37] A. Gibbons and W. Rytter. Fast parallel algorithms for optimal edge-colouring of some tree-structured graphs. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 155–162. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[38] M.I. Grinchuk. On the complexity of elementary periodical functions realized by switching circuits. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 163–166. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[39] H.-D.O.F. Gronau. Efficient algorithmic construction of designs. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 167–171. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[40] I.S. Grunsky. A characterization of sequential machines by means of their behaviour fragments. In L. Budach, R.G. Bukharajev, and

O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 180–184. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[41] J. Hartmanis. Some observations about *np* complete sets. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 185–196. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[42] A. Hemmerling. Three-dimensional traps and barrages for cooperating automata (extended abstract). In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 197–203. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[43] K. Indermark and H. Klaeren. Efficient implementation of structural recursion. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 204–213. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[44] M.A. Iordanskii. Minimal numberings of the vertices of trees-approximate approach. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 214–217. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[45] M. Jantzen, M. Kudlek, K.-J. Lange, and H. Persen. Dyck_1-reductions of context-free languages. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 218–227. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[46] S.P. Jukna. Information flow and width of branching programs (extended abstract). In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 228–230. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[47] L.M. Karahanjan and A.A. Sapozhenko. On some operations of partial monotone boolean function simplifying. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 231–233. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[48] N.A. Karpova. On complexity of computations with limited memory. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 234–235. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[49] K.V. Kolyada. On the problem of completeness for the regular mappings. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 236–238. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[50] A.D. Korshunov. The number and the structure of typical sperner and k-non-separable families of subsets of a finite set. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 239–243. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[51] N.K. Kossovsky. A criterion of polynomial lower bounds of combinational complexity. In L. Budach, R.G. Bukharajev, and O.B. Lupanov,

editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 244–245. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[52] V.E. Kotov and L.A. Cherkasova. On generalized process logic. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 246–250. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[53] W. Kowalczyk and P. Urzycyn. Verification of programs with higher-order arrays. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 251–258. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[54] V.A. Kozlovskiy. On the complexity of analyzing experiments for checking local faults of an automaton. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 259–262. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[55] K. Kriegel and S. Waack. Exponential lower bounds for real-time branching programs. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 263–267. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[56] V.B. Kudrjavtzev. On the conditions of supplementicity in functional systems. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 268–271. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[57] N.N. Kuzjurin. On one approximate algorithm for solving systems of linear inequalities with boolean variables. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, page 272. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[58] S.E. Kuznetsov, N.N. Nurmeev, and F.I. Salimov. The problem of minimal implicating vector. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 273–278. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[59] R.Kh. Latypov. Built-in self-testing of logic circuits using imperfect duplication. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 279–283. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[60] A.A. Letichevsky. Algebrae with approximation and recursive data structures. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 284–287. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[61] I.A. Lomazova. Procedural implementation of algebraic specifications of abstract data types. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 288–292. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[62] S.A. Lozkin and M.A. Koshkin. On the complexity of realizing some systems of the functions of the algebra of logic by contact and generalized contact circuits. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on*

Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987), volume 278 of *LNCS*, pages 293–296. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[63] S.A. Lozkin and A.A. Semenov. On construction of a complete system of compression functions and on complexity of monotone realization of threshold boolean functions. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 297–300. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[64] Yu. Matijasevich. Diophantine complexity. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, page 301. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[65] C. Meinel. The power of nondeterminism in polynomial-size bounded-width branching programs. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 302–309. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[66] M.V. Men'shikov and S.A. Zuev. Estimation algorithms of infinite graphs percolation threshold. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 310–313. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[67] V.Yu. Mikhailov. A solving of problem on technological models. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 314–317. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[68] G.E. Mints. Some formal systems of the logic programming. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 318–322. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[69] M.Iu. Moshkov. On the programs with finite development. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 323–327. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[70] G.L. Movsisian and Zh.G. Margarian. d-representing code problem solution. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 328–331. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[71] R.G. Mubarakzianov. Metric properties of random sequence. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 332–333. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[72] V.I. Mukhin. Adaptive strategies for partially observable controlled random series. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 334–338. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[73] Il.R. Nasyrov. The degrees of nondeterminism in pushdown automata. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*,

pages 339–342. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[74] V.N. Noskov. Statistically effective algorithms for automata control. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 343–346. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[75] V.I. Pereyaslavsky. Linear test procedures of recognition. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 347–348. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[76] I.G. Perfilyeva. Evaluation of cardinalities of some families of ξ-classes in $p\aleph_0$. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 349–353. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[77] A.S. Podkolzin. On the temporal complexity of boolean mappings realizations in two-dimensional homogeneous automata. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 354–358. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[78] R.I. Podlovčenko. On approximate solution of the problem of equivalent transformations of programs. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 359–363. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[79] S. Rajasekaran and J.H. Reif. Randomized parallel computation. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 364–376. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[80] N.P. Redkin. On checking correctness of some classes of control systems. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 377–382. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[81] I.K. Rystsov. The parallel complexity of some arithmetic and algebraic operations. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 383–385. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[82] A.A. Safarian. On difficulties of solving a problem of decomposition of the system of boolean equations. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 386–388. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[83] A.A. Sapozhenko. The number of fuzzy monotone functions. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 389–390. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[84] V.Yu. Sazonov. Bounded set theory and polynomial computability. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages

391–395. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[85] V.L. Selivanov. Index sets of factor-objects of the post numbering. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 396–400. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[86] N.A. Shkalikova. On realization of boolean functions by schemes consisting of checked elements. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 401–405. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[87] L.A. Sholomov. The complexity of the sequential choice mechanism. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 406–408. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[88] V.D. Soloviev. Nondeterministic finite algorithmic procedures as the models of abstract computability. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 409–411. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[89] V.R. Solovieva. The reducibility of random sequences by automata. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 412–413. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[90] S.A. Stepanov and I.E. Shparlinskiy. On structure complexity of normal basis of finite field. In L. Budach, R.G. Bukharajev, and O.B. Lupanov,

editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 414–416. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[91] V.A. Stetsenko. On comparison of boolean bases. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 417–419. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[92] E. Stöhr. A tradeoff between pagenumber and width of book embeddings of graphs. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 420–423. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[93] A.S. Strogalov. On metric properties of automata and ϵ-approximation of automaton mappings. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 424–427. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[94] E.A. Sumenkov. Algorithmization of obtaining the converse comparison theorems based on solving a logical equation. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 428–431. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[95] A.A. Sytnik. Synthesis of universal finite automats. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 432–434. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[96] V.A. Taimanov. On cartesian powers of p_2. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, page 435. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[97] D. Taimina. Complexity gaps of turing machines on infinite words. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 436–439. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[98] G. Tel. Distributed infimum approximation. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 440–447. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[99] B. Thalheim. On the number of keys in relational databases. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 448–455. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[100] A.B. Ugol'nikov. Complexity and depths of formulas realizing functions from closed classes. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 456–461. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[101] D. Uhlig. Reliable networks from unreliable gates with almost minimal complexity. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume

278 of *LNCS*, pages 462–469. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[102] F.I. Validov. On the standard and pseudostandard star height of regular sets. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 470–471. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[103] S.N. Vassiljev. To automation of theorem synthesis. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 472–476. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[104] E.G. Vorobeva. On efficiency of prefix word-encoding of binary messages. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 477–478. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[105] A.A. Voronkov. Deductive program synthesis and markov's principle. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 479–482. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[106] V.M. Zacharov and S.E. Kuznetsov. Complexity of the problem of approximation of stochastic matrix by rational elements. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 483–487. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[107] V.A. Zakharov. To the functional equivalence of turing machines. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 488–491. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[108] M.V. Zakhar'yashchev. Theorem proving in intermediate and modal logics. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 492–496. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[109] A.D. Zakrevskii. The analysis of concurrent logic control algorithms. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 497–500. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.

[110] N.K. Zamov. On a connection between the resolution method and the inverse method. In L. Budach, R.G. Bukharajev, and O.B. Lupanov, editors, *Proceedings of the International Conference on Fundamentals of Computation Theory, FCT'87 (Kazan, USSR, June 1987)*, volume 278 of *LNCS*, pages 501–505. Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo-Hong Kong, 1987.