

CURRICULUM VITAE

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- **Residency Status:** US Citizen.
- **Education:**
 - Ph.D., July 1974, University of Bucharest, Romania
 - M.S. in Mathematics, June 1970, University of Iasi, Romania
 - M.S. in Electrical Engineering, Polytechnical Institute of Iasi, Romania
- **Memberships:**
 - IEEE, the Computer Society of IEEE, Technical Committee for Multiple-Valued Logic of IEEE
 - Association of Computer Machinery
- **Academic Career:**
 - Tenured Full Professor, UMass-Boston, 1985-present
 - Visiting Professor, Tohoku University, Japan, Jan. 1- April 2, 1998;
 - Honorary Professor, University of Iasi, Romania, 2010-present;
 - Director of the Graduate Program in Computer Science at UMass-Boston since 1984;
 - Associate Professor of Computer Science, UMass- Boston, 1982-1985;
 - Associate Professor, University of Miami, Dept. of Mathematics and Computer Science, 1981-1982;
 - Senior Assistant Professor, University of Jassy, Romania, 1971-1980;
 - Assistant Professor, University of Jassy, Romania, 1970-1971;

Research Fellow, Computer Center of the University of Jassy, Romania, 1965-1970.

- **Courses taught:** Data Mining, Database Management Systems, Data Models, Relational Databases, Semantics of Programming Languages, Artificial Intelligence, Higher Level Languages, Theory of Computation, Formal Languages, Compilers, Logic and various introductory programming courses.
- **Other Activities:**
 - Member of the Program Committee of the major datamining conferences: KDD, PKDD, ICDM, DAWAK, EGC
 - General Chair of the 32nd International Symposium for Multiple-Valued Logic, Boston, May 2002.
 - Managing Editor of *Multiple-Valued Logic - An International Journal*, a new journal, published by Gordon-Breach.
 - Program Co-chair of the 30th International Symposium for Multiple-Valued Logic, Oregon, May 2000.
 - Program Co-chair of the 28th International Symposium for Multiple-Valued Logic, Japan, May 1998.
 - General Co-Chairman of the 26th International Symposium for Multiple-Valued Logic, Santiago de Compostela, Spain, May 1996.
 - General Chairman of the 24th International Symposium for Multiple-Valued Logic, Boston, Massachusetts, May 1994.
 - Chairman of the Technical Committee of the Computer Society/IEEE (elected at the 19th annual meeting, May 1988, Spain).
 - General Chairman of the 17th International Symposium for Multiple-Valued Logic, Boston, Massachusetts.
 - Reviewer for the Computer Science Accreditation Board of IEEE/ACM.
 - Reviewer for the Finnish Academy of Sciences
- **Current Research Interests:** Information-theoretical methods in data mining (clustering, association rules, interestingness), algebraic aspects of multi-valued logic, semantic aspects of databases.
- **Ph.D. students:**
 - Laurentiu Cristofor (April 2002)
 - Dana Cristofor (April 2002)
 - Szymon Jaroszewicz (July 2004)
 - Richard Butterworth (May 2006)

LIST OF PUBLICATIONS

BOOKS

1. Mathematical Tools for Data Mining, Springer Verlag, 2008.
2. Theory of Formal Languages with Applications, (with Richard Tenney), World Scientific, 1999.
3. Relational and Object-Relational Databases (with Richard Tenney), in preparation.
4. Relational Database Systems, Academic Press, 1995 (with Richard Tenney).
5. Mathematical Foundations of Computer Science. vol. I: Sets, Relations, Induction in Computer Science (with Peter Fejer), Springer Verlag, New York, 1990.
6. Mathematical Foundations of Computer Science. vol. II: Logic Foundations, (with Peter Fejer), in preparation, to appear at Springer Verlag.
7. Introduction aux Structures Algébriques, (2 vols.), ERPI, Montreal, Canada, 1992.
8. Formal Languages and Compiling Techniques, Editura Didactica si Pedagogica, Bucharest, 1978, 360p.
9. Elements of General Coding Theory (with C. Reischer), University "A.I. I Cuza" Jassy, 1973, 136p. (in Romanian).
10. Introduction to Algebraic Coding Theory (with I. Creanga), Editura Didactica si Pedagogica, Bucharest, 1975 (in Romanian), 248p.
11. The Architecture of the Computing System FELIX C-256 (with A. Budel), University of Jassy, 1976.
12. Foundations of Computer Science (I), Univ. of Jassy, 1979, 465 p. (with J. Jucan)

MONOGRAPHS

1. Algebraic Methods in Computer Science * Automata Theory (with I Creanga and C. Reischer), Editura Junimea, Jassy, 300 pages (in Romanian) 1973.
2. Algebraic Methods in Computer Science ** Formal languages (with I. Creanga, C. Reischer) Editura Junimea Jassy, 1974, 235 p. (in Romanian).

3. Context-free Languages (with C. Reischer), Univ. “Al. I. Cuza”, Jassy, 1973, 106p. (in Romanian).
4. Algebraic Theory of Semigroups with Applications (with I. Creanga), Editura Technica, Bucharest, 1977, 256p. (in Romanian).
5. Sur quelques techniques Booleenes dans les systemes combinatoires et sequentielles (with C. Reischer), Monographies de Mathematiques de l’UQTR, no. 5, 1978, 78p.

PAPERS

1. A New Metric Splitting Criterion for Decision Trees (with Szymon Jaroszewicz) to appear in the Journal of Parallel, Emerging and Distributed Computing.
2. On Feature Extraction through Clustering (with Richard Butterworth and Gregory Piatetsky-Shapiro), Proceedings of ICDM 2005, pp. 581–584 Houston, Texas, November 2005.
3. Biclustering of Gene Expression Data Based on Local Nearness (with J. Aguilar-Ruiz and Domingo Savio Rodriguez) Proceedings of EGC 2006, Lille, France, January 2006, pp. 681–692.
4. On the Ranges of Algebraic Functions in Lattices (with S. Rudeanu) to appear at Studia Logica.
5. Semi-Supervised Incremental Clustering of Categorical Data (with N. Singla), Proceedings of EGC 2005, Paris, France, pp. 189-200.
6. Semi-Supervised Incremental Clustering of Categorical Data (with N. Singla), Proceedings of EGC 2005, Paris, France, pp. 189-200.
7. Metric Incremental Clustering of Nominal Data (with N. Singla and M. Kuperberg), Proceedings of ICDM 2004, Brighton, UK, pp. 523-527
8. Interestingness of Frequent Itemsets Using Bayesian Networks as Background Knowledge (with S. Jaroszewicz), Proceedings of KDD 2004, Seattle, pp. 178–186.
9. A Greedy Algorithm for Supervised Discretization (with R. Butterworth, D. S. Santos and Lucila Ohno-Machado), Journal of Biomedical Informatics, vol. 37(4), pp. 285–292.
10. Measures on Boolean polynomials and their applications in data mining (with S. Jaroszewicz and I. G. Rosenberg), Applied Discrete Mathematics (volume on Discrete Mathematics and Data Mining, vol. 144,1, pp. 123–139 (in book form in the Topics in Discrete Mathematics series)

11. A Metric Approach to Building Decision Trees Based on Goodman-Kruskal Association Index (with S. Jaroszewicz), PAKDD 2004, Sydney, Australia, May 2004, LNAI 3056, Springer-Verlag, pp. 181–190
12. A Graph-Theoretical Approach to Boolean Interpolation of Non-Boolean Functions (with S. Rudeanu), Proceedings of the 34th International Symposium for Multiple-Valued Logic, Toronto, May 2004, published by IEEE Computer Society, pp. 245–250
13. Evolutionary Strategy for Learning Multiple-Valued Logic Functions (with A. Ngom and I. Stojmenovic), Proceedings of the 34th International Symposium for Multiple-Valued Logic, Toronto, May 2004, IEEE Computer Society, pp. 154–160
14. A Metric Approach to Supervised Discretization (with R. Butterworth), EGC 2004, Clermont-Ferrand, France, January 2004, Revue des Nouvelles Technologies de l'Information, RNTI-E-2, vol. 1, pp. 197–203
15. The Goodman-Kruskal Coefficient and Its Applications in the Genetic Diagnosis of Cancer (with S. Jaroszewicz, W. Kuo and L. Ohno-Machado), Transactions for Biomedical Engineering. vol. 51, no. 7, pp. 1095–1102, July 2004.
16. Generating an Informative Cover for Association Rules (with L. Cristofor), Proceedings of the 2002 IEEE International Conference on Data Mining, Maebashi, Japan, 2002, pp. 597-600
17. Entropy and Decision Trees, EGC 2003 - Journees francophones d'Extraction et de Gestion de Connaissances, January 2003, Lyon, France (with S. Jaroszewicz), pp. 369-380
18. Approximation of Non-Boolean Functions by Boolean Functions and Applications in Non-standard Computing, in Proceedings of the 2002 International Symposium on New Paradigm Computing, December 2002, Sendai, Japan, pp. 27–31 (invited talk)
19. Several Remarks on Non-Boolean Functions over Boolean Algebras, Proc. of the International Symposium for Multiple-Valued Logic, Meiji University, Tokyo, May 2003, pp. 163–168
20. An Algebraic Approach to Entropy in "Beyond Two: Theory and Applications of Multiple-Valued Logic", M. Fitting and E. Orłowska (editors), Springer-Verlag, Heidelberg, New York, 2003, pp. 101-115.
21. Support Approximations using Bonferroni-Type Inequalities (with S. Jaroszewicz), Principles of Data Mining and Knowledge Discovery, PKDD 2002, Helsinki, August 2002, Lecture Notes in Artificial Intelligence, vol. 2431, pp. 212–224, Springer Verlag, Berlin, 2002.

22. Finding Median Partitions Using Information-Theoretical Algorithms (with D. Cristofor), *Journal of Universal Computer Science*, vol 8, no.2, 153–172.
23. An Inclusion-Exclusion Result for Boolean Polynomials and Its Applications in Data Mining (with S. Jaroszewicz and I. Rosenberg), *Proceedings of the Discrete Mathematics and Data Mining Workshop*, Washington, April, 2002 (SIAM DM Meeting), pp. 165-173.
24. An Information-Theoretical Approach to Clustering Categorical Databases Using Genetic Algorithms (with Dana Cristofor), *Proceedings of the Workshop on Clustering High-Dimensional Data and Its Applications*, Washington, April, 2002 (SIAM DM Meeting), pp. 37-46.
25. On Functions Defined on Free Boolean Algebras (with I. Rosenberg and S. Jaroszewicz), *Proceedings of the ISMVL 2002*, Boston, Massachusetts, IEEE Computer Society, Los Alamitos, California, pp. 192–201.
26. Mining for Purity Dependencies in Relational Databases (with L. Cristofor and D. Cristofor), *EGC 2000*, Montpellier, January 19-23 (best paper award received from The French Association for Artificial Intelligence).
27. An Axiomatization of Partition Entropy (with S. Jaroszewicz) *Transactions on Information Theory*, July 2002, vol. 48 (7), pp. 2138–2142 (a preliminary form appeared in the *Proceedings of the 31st ISMVL*, Warsaw, Poland, May 2001, pp. 259-266).
28. Impurity Measures in Databases (with L. Cristofor and D. Cristofor), *Acta Informatica*, 38 (2002), pp. 307-324.
29. Pruning Redundant Association Rules Using Maximum Entropy Principle (with S. Jaroszewicz), *Proceedings of PAKDD*, Taipei, May 2002, *Lecture Notes in Artificial Intelligence*, vol. 2336, Springer Verlag, pp. 135–147.
30. A General Measure of Rule Interestingness (with S. Jaroszewicz), in *Principles of Data Mining and Knowledge Discovery*, PKDD 2001, Freiburg, Germany, *Lecture Notes in Artificial Intelligence*, Springer-Verlag, pp. 253–266.
31. An Axiomatization of Generalized Entropy of Partitions (with S. Jaroszewicz), *Proceedings of the 31st ISMVL*, Poland, May 2001, pp. 259–266.
32. Evolutionary Strategy for Learning Multiple-Valued Logic Functions (with A. Ngom and I. Stojmenovic), in *Multiple-Valued Logic*, 2001, vol. 6, pp. 1–17.

33. Generalized Entropy and Projection Clustering of Categorical Data, in Principles of Data Mining and Knowledge Discovery, the 4th European Conference, PKDD 2000, Lyon, Lecture Notes in Artificial Intelligence, 1910, Springer-Verlag, pp. 619–625. (with D. Cristofor, L. Cristofor)
34. Impurity Measures and Applications to Classification and Clustering, with Dana and Laurentiu Cristofor, presented at the Int. Conf. on Advances in Infrastructure for Electronic Bussiness, Science, and Education, Scuola Superiore G.R. Romoli (Telecom – Italia), Aquila, Italy, August 2000
35. Mining for Purity Dependencies in Databases (with Dana Cristofor and Laurentiu Cristofor), submitted.
36. Data Mining of Weak Functional Decompositions (with S. Jarosiewicz) in the Proceedings of the 30th International Symposium for Multiple-Valued Logic, Portland, Oregon, pp. 77-82
37. On Information-Theoretical Aspects of Relational Databases (with S. Jarosewicz), in Finite vs. Infinite, Springer-Verlag, pp. 301–322
38. Galois Connections and Data Mining, Journal of Universal Computer Sciene, Springer Verlag, vol.6, no.1, pp. 60-74 (with L. Cristofor and D. Cristofor),
39. Boolean Completeness in Two-valued Set Logic, Multi. Val. Logic, 2000, vol. 5, pp. 267–280 (with I. Stojmenovic and R. Tosic)
40. On Axiomatization of Conditional Entropy of Functions between Finite Sets, Proc.of the 29th ISMVL, Freiburg, Germany, pp. 24–31 (with S. Jarosiewicz)
41. Automatic Data Restructuring, Journal of Universal Computer Sciene, vol. 5, no, 4, pp. 243-286 (with S. Ginsburg and Nan Shu).
42. Learning with Permutably Homogeneous Perceptrons, Proc.of the 28th ISMVL, Fukuoka, Japan, pp. 161–167 (with A. Ngom, I. Stojenovic, C. Reischer)
43. A Characterization of Boolean Collections of Set-Valued Functions (with C. Reischer, I. Stojmenovic, R. Tosic), Information Sciences, 99, 195–204, 1997.
44. Functional Entropy and Decision Trees, Proc.of the 28th ISMVL, Fukuoka, Japan, pp. 257–264 (with V. Shmerko, V. Cheushev, S. Yanushkiewicz)
45. Information Estimations for Logical Functions, with V. Shmerko (Poland) et al., presented at ACS'97, the 4th Int. Conf. of Applications of Computer Systems, Szczecin, Poland, Nov. 1997.

46. Completeness Criteria in Set-Valued Logic Under Composition with Union and Intersection, Proceedings of the 27th International Symposium for Multiple-Valued Logic, May 1997, pp. 75–82.
47. A Characterization of the Information Content of a Classification (with K. Baclawski), Information Processing Letters, vol 57 (1996), pp. 211–214.
48. Several Remarks on the Complexity of Set-Valued Switching Functions, Proceedings of the 26th International Symposium for Multiple-Valued Logic, Santiago de Compostela, Spain, 1996 (with C. Reisher)
49. A Categorical Approach to Database Semantics, Math. Struct. in Computer Science (1994), v. 4, pp. 147-183 (with K. Baclawski and W. White)
50. Functional Entropy, Proceedings of the 23rd International Symposium for Multiple-Valued Logic, Sacramento, CA, 1993 with C. Reischer, pp. 100-104.
51. Functional Completeness and Set Completeness in Set Logic, Proceedings of the 23rd International Symposium for Multiple-Valued Logic, Sacramento, CA, 1993 with I. Stojmenovic and R. Tosic, pp. 251-257.
52. Several Remarks on Algebraic Entropy, with C. Reischer and I. Stojmenovic, Proceedings of the 24th International Symposium for Multiple Valued Logic, Boston, 1994, pp. 319-322.
53. Enumeration of Functions and Bases of Three-Valued Set Logic under Compositions with Boolean functions with Janos Demetrovics, Corina Reischer and Ivan Stojmenovic, Proceedings of the 24th International Symposium for Multiple Valued Logic, Boston, 1994, pp. 164-171.
54. An Algebraic Approach to Object-Oriented Databases, Information Systems, vol. 17, 1992, no.1, pp. 33-47.
55. On the Implementation of Set-Valued Non-Boolean Switching Functions (with C. Reischer), Proc. of the 21st International Symposium for Multiple-Valued Logic, Victoria, B.C., Canada.
56. Bio-algebras, Proceedings of the 20th International Symposium for Multiple-Valued Logic, Charlotte, North-Carolina, 1990, pp. 48-53.
57. On Intersections of Isotone Clones of P_k (with M. Miyakawa, I.G. Rosenberg, I. Stojmenovic), Proceedings of the 20th International Symposium for Multiple- Valued Logic, Charlotte, North-Carolina, 1990, pp. 248-254.
58. Chain-based Ockham Algebras, Proceedings of the 19th International Symposium for Multiple-Valued Logic, Guangzhou, China, May 1989 (with C. Reischer), pp. 456-462.

59. Content-Related Interval Queries on Object Histories, (with Seymour Ginsburg and Xiaoyang Wang, *Information and Computation*, vol. 103, no.1, pp. 30-67.
60. Multiple-Valued Logic, article in *Encyclopaedia of Science and Technology*, Marcel Dekker, New York, vol.24, pp. 287-294.
61. An Algebraic Semantics of Database Schemas, *Information Systems*, vol. 14, no. 1, pp. 65-77, 1989 (with D. Stefanescu).
62. An Algebraic Point of View of the Data Structures of Database Systems (with C. Reischer), *Discrete Applied Mathematics* **24**, 1989, pp. 247-260.
63. Several Remarks on the Impact of Relational Databases on Combinatorics, *Congressus Numerantium*, vol.67 (1988), pp. 187-196 (with C.Reischer).
64. An Iterative Characterization of Post Algebras, *Proceedings of the 18th International Symposium on Multiple-Valued Logic*, Palma, May 1988, pp. 124-128 (with C. Reischer).
65. Algebraic Aspects of Multiple-valued Logic, *Proceedings of the 18th International Symposium on Multiple-Valued Logic*, Palma, May 1988, pp. 266-276 (with Ivo Rosenberg).
66. Pair Algebras and Relational Databases, *Congressus Numerantium* 55(1986), pp. 181-186.
67. Towards an Abstract Theory of Dependency Constraints in Relational Databases, *Information Sciences*, 41(1987), pp. 43-60. (with H. Jurgensen)
68. A Functional Characterization of Post Algebras, *Proceedings of the 17th International Symposium on Multiple-Valued Logic*, 1987, pp. 8-13. (with C. Reischer)
69. A Completeness Criterion by Functional Equations, *Proceedings of the 17th International Symposium on Multiple-Valued Logic*, 1987, pp. 2-5. (with C. Reischer and D. Schweigert)
70. Collections of Sets and Intractable Problems in Relational Databases, *Congressus Numerantium*, vol. 59(1987), pp. 291-296.
71. Association Algebras and Periodic Analogs of Semiautomata, *MathematicæNotæ*, pp.71-80, vol. XXXI, 1984-1986, Argentina (with C. Reischer and L.Martin).

72. Iterative Properties of Transformations of Finite Sets and Their Applications to Multivalued Logic, in *Dynamical Systems and Cellular Automata*, J. Demongeot, editor, pp. 369-375, Academic Press, 1985 (with C. Reischer).
73. Iterative Properties on Multivalued Switching Functions, *IEEE Tr. on Computers*, pp. 173-178, v. C53 (with C. Reischer).
74. Iterative Characterizations of Boolean Algebras, *Discrete Applied Mathematics*, 15(1986), pp.111-117 (with C. Reischer).
75. Multivalued Dependencies in Relational Databases and Boolean Algebras, *Libertas Mathematica*, v.6(1986), pp.183-191.
76. Decompositions of Multiple-Valued Switching Functions and Relational Databases in *Proc. of the 14th International Symposium on Multiple-Valued Logic*, Kingston, Ont. pp.109-114.
77. Graph Theory as a Source of Difficult Problems for Relational Databases, *Congressus Numerantium*, 50(1985), pp.309-318.
78. Graph Functions of Boolean Functions, *IEEE Tr. on Computers*, vol. C33(1984), pp.97-99 (with C. Reischer).
79. On Time-Varying Networks of Time-Varying Semiautomata, *Atti della Accademia Nazionale dei Lincei*, s.VIII, v. LXXIV, f.2 (1983).
80. Roots of n -valued Switching Functions, *Proceedings of the 13th International Symposium on Multiple-Valued Logic*, Kyoto, pp.183-190, 1983.
81. Outer Measures on Finite Sets and Integrity Constraints in Relational Databases, *Libertas Mathematica*, 4(1984), pp. 125-130 (with C. Godfrey).
82. On a Construction in Universal Algebra Inspired by Automata Theory, *Libertas Matematica*, 2(1982), pp.113-119.
83. Several Remarks on the Complexity of Graph Computations, *An. St.Univ. "Al.I.Cuza"*, v.XXVIII, s.Ia, 1982, pp.89-96.
84. Context-Sensitive Languages and Computations, *Proc. of the ACM Conference*, Knoxville, Tenn., April, 1987, pp.23-39.
85. Several Remarks on Iteration Properties of Switching Functions, *Proc. of the 12th Symposium on Multiple-Valued Logic*, Paris, 1982, pp. 244-248.
86. Polylocal Languages, *Proceedings of the Frege Conference*, Univ. of Jena, 1978, pp. 449-457.

87. Several Remarks on the Complexity of Graph Computations, An. St. Univ. Iasi, t.XXVII, pp.89-96.
88. On the Behavior of Time-Variant Semiautomata, An. St. Univ. Iasi, t. XXII, s.Ia, f.1, pp.187-192.
89. Computing with Scattered-Context Grammars with Regular Restrictions, Foundations of Control Engineering, v.3(1978), no.4, pp.177-190.
90. Context-Sensitive Languages and Ackermann's Functions, Foundations of Control Engineering, v.5(1980), no.2, 91-103.
91. Even Initial Feedback Vertex Set Problem is NP-complete, Information Proc. Letters, v.8(1979), no.2, pp.64-66.
92. Computing of Graphs of Relations Using Generative Grammars, R.A.I.R.O., Informatique Theorique (Theoretical Computer Science), vol.14(1980), pp. 279-299.
93. Semiadmissible Categories and Context-Sensitive Languages, An. St.Univ. "Al. I. Cuza", t.XXVI, f.1, 155-161.
94. Posets and Free Semigroups, An.St. Univ. "Al.I.Cuza", t.XXIV, f.1, 1978, pp. 33-48.
95. Computing Grammars and Context-Sensitive Languages, R.A.I.R.O., Informatique Theorique (Theoretical Computer Science), vol.12(1978), pp. 33-48 (with S. Istrail).
96. On The Reduction Theory of Semilatticial Semiautomata, An.St.Univ. "Al.I. Cuza", t.XXII, fl. pp.107-116.
97. Decomposition of Time-Variant Automata, An.St.Univ. "Al.I.Cuza", t.XXII(1976), f2, pp.243-248.
98. On Cardinal Sequential Outer Measures, An.St.Univ. "Al.I.Cuza", t.XX(1974), f2, pp. 433-452.
99. A New Approach of Some Problems Concerning Polynomials over Finite Fields, Information and Control, 22(1973), 503-511 (with C. Cazacu).
100. On A Class of Linear Automata, Res. Rept.CORR75-79, University of Waterloo, Dept. of Combinatorics and Optimization (with C. Reischer).
101. On a Latticial Condition of Unique Decipherability, Seminar on System Theory, pp.117-121 (in Romanian).
102. On a Formalization of Abstract Modular Networks, Bul. Inst. Polit. Iasi, t.XX(1974), f.1-2, pp.8-14.

103. On Some Properties of Linear Boolean Automata, An. St. Univ. "Al.I.Cuza", t.XX(1974), f.1, pp.167-172.
104. On The Realization of The Automaton Related to the Extension of A Semigroup, Bul. Inst. Polit. Iasi, t. XIX(XXIII)(1973), pp.141-148.
105. On Some Measures Induced by Semiautomata on The Free Input Semigroup, Atti Accad. Nazionale Dei Lincei, vol. LV(1975), pp. 4-9.
106. On Some Extensions of Lie Algebras, Matem. Casopis, Bratislava, t.22(1972) f1, pp. 19-28 (with C. Reischer).
107. On The Existence of A Periodic Analogue of Finite Connected Automata, IEEE Tr. on Computers, vol. C-21, 2(1972), pp. 208-210 (with C. Reischer).
108. Lattice Characterizations for Codes, Atti Accad. Naz. dei Lincei, Ser.I, vol. LII(1972), pp. 287-290.
109. Cascades of Linear Boolean Automata, An. St. Univ. Iasi "Al.I.Cuza", t.XVIII(1972), f.1, pp.235-242.
110. Associative Algebraic Structures in the Set of Boolean Functions and Some Applications in Automata Theory, IEEE Tr. on Computers, vol. C20(1971), pp. 298-304 (with C. Reischer).
111. Linear Boolean Automata, Wiss.Z.Tech.Hochsch. Ilmenau, East Germany, t.17(1971) 3, pp. 83-96.
112. On a Colouring Problem of Strong Connected Graphs, Bul. Inst. Polit. Iasi, t.XVII(XXI), f2, 1971, pp.13-17.
113. On the Matrix Equation $PAP^T = B$ in the Two Element Boolean Algebra and some Applications to Graph Theory, An. St. Univ. Iasi, t. XVII, f.2, 1971, 263-274.
114. On a Boolean Representation of Reed-Muller Codes, An. St. Univ. Iasi, t.XVI, f1, 1970, pp.192-198.
115. On the Reduced Form of Linear Boolean Automata, An. Univ. Iasi, t.XVI, f2, 1970, pp.479-485.
116. Nouveau principe de construction d'un generateur d'impulsions a sequence programmable pour l'etude des ferites CHR, Bul. Inst. Polit. Iasi, t.XV, f3-4, 1969, pp.55-62. (with C.Sandu).
117. On the Commutativity of Superposition of Boolean Functions and Several Iteration Properties, An.St.Univ. Iasi, t.XV, f2, 1969, pp.449-455.

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Consulting in design issues for relational databases for private industry and government.