

CURRICULUM VITAE

Daniela Zaharie

Professor

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Education:

1992-1997: PhD in Mathematics (Probability and Statistics) at West University of Timisoara, Romania, Thesis title: Stochastic Models of Neural Networks and Applications

1983-1987: BSc in Computer Science at West University of Timisoara, Romania

Professional experience:

2009-present: Professor at the Department of Computer Science, Faculty of Mathematics and Computer Science, West University of Timisoara.

1999-2009: Associate professor at the Chair of Probability Theory and Applied Mathematics (1999 - 2000) and Department of Computer Science (2001-2009), Faculty of Mathematics and Computer Science, West University of Timisoara.

1992-1999: Lecturer at the Chair of Probability Theory and Applied Mathematics, Faculty of Mathematics and Computer Science, West University of Timisoara.

1990-1992: Assistant professor at the Chair of Informatics, Faculty of Mathematics and Computer Science, West University of Timisoara

1987-1990: Computer programmer, Computing Centre, IAEM Timisoara.

Languages: english (good), french (satisfactory).

Programming languages: C/C++, Java, Fortran, Python, Mathematica, MatLab/SciLab, R

Research experience:

Topics of interest:

- evolutionary computing and other nature inspired metaheuristics
- artificial neural networks
- data mining

- machine learning
- image processing
- high performance computing
- computational statistics
- computational modeling in systems biology

Research projects: 3 (team leader), 16 (team member)

Papers: more than 90 (see Appendix for a list of selected papers)

Researcher ID: C-4265-2011, **ORCID:** <http://orcid.org/0000-0003-3388-6058>

Citations of the papers:

- [ISI](#) (h-index=6, around 200 citations)
- [Scopus](#) (h-index=7, around 350 citations)
- [Scholar Google](#) (h-index=15, i10-index=19, around 1300 citations)

Invited talks:

- [Summer School on Image Processing](#), SSIP 2016, Szeged, Hungary, 7-16 July 2016
- [Workshop on Stochastic Geometry and Big Data](#), INRIA – Sophia Antipolis, 24 November, 2015
- [Scientific seminar of the Computer Vision Center](#), University Autònoma de Barcelona, 18 April, 2013
- 18th [International Conference on Soft Computing](#), Brno, June 27-29, 2012
- [IDEAS Research Seminar](#), Robert Gordon University Aberdeen, 17 May, 2011
- [Doctoral Summer School](#) “Evolutionary Computing Optimization and Data Mining”, Iasi, 2010-2014, 2017

Awards: “[Professor Zdzisław Pawlak Best Paper Award](#)” awarded by the Polish Information Processing Society at the Symposium “Advances in Artificial Intelligence and Applications (AAIA)”, 2007

Academic services:

2016-2017: vicedean of the Faculty of Mathematics and Computer Science

2012-2015: member of the Senate of the West University of Timisoara

2004-2015: member of the consultative council of the Faculty of Mathematics and Computer Science

2017 – present: responsible of the master programme in Bioinformatics

2008-present: responsible of the undergraduate studies programme in Applied Informatics and of the European Computer Science double degree programme

2011-2012, 2015-2016: member of CNATDCU

2004-2012: Chancellor of the Computer Science Department

Professional associations:

Member of:

[Romanian Association for Artificial Intelligence](#)
[IEEE CIS Task Force on Differential Evolution](#)

Editorial activities:

Co-editor:

- [Annals of West University of Timisoara](#) (series on Mathematics and Computer Science)
- Proceedings of the Symposium of Symbolic and Numeric Algorithms for Scientific Computing – [SYNASC](#) series



Member of the Editorial board:

- [Soft Computing. A Fusion of Foundations, Methodologies and Applications](#)
- [Swarm and Evolutionary Computing](#)

Reviewing activities:

Journals: IEEE Transactions on Evolutionary Computing, IEEE Transactions on Systems, Man and Cybernetics, Applied Soft Computing, Information Sciences, Applied Mathematics and Computation, Soft Computing, Neurocomputing, Memetic Computing, Journal of Global Optimization, Computational Intelligence, Evolutionary Computation, Computational Optimization and Applications, Patterns Analysis and Applications, Central European Journal on Computer Science etc.

Conferences: at least 10 international conferences/year (including CEC, GECCO, FOGA, ANTS, IEEE SMC, IEEE SSCI, HAIS, NICSO, NaBIC, SOCO, FedCSIS, SACI, CompStat, IADIS-Data Mining etc.)

Research activity evaluation:

- Evaluation of research projects submitted to the Romanian Agency for Scientific Research
- Review of research applications submitted to the National Research Foundation from South Africa
- Evaluation of applications for academic positions (9 for universities in Romania; 1 for Budapest University of Technology and Economics, Hungary; 1 for Robert Gordon University, Aberdeen, UK; 1 for Arab Open University, Kuwait)

PhD theses: reviewer of 46 theses in Romania (from 6 universities), 4 theses in France, 5 theses in Finland, 1 thesis in Netherlands, 1 thesis in Spain and 1 thesis in South Africa.

APPENDIX:

Publications in journals:

1. D. Zaharie, R.D. Moleriu, F.A. Mic - Modeling the development of the post-natal mouse thymus in the absence of bone marrow progenitors, *Scientific Reports* **6**, Article number: 36159 (2016), doi:10.1038/srep36159, 2016.
2. J. Li, A. Agathos, D. Zaharie, J. M. Bioucas-Dias, A. Plaza, X. Li - Minimum Volume Simplex Analysis: A Fast Algorithm for Linear Hyperspectral Unmixing, *IEEE Transactions on Geoscience and Remote Sensing*, Volume:53, Issue: 9, Pages 5067 - 5082, 2015.
3. R.D. Moleriu, D. Zaharie, L.C. Moatar-Moleriu, A.T. Gruia, A.A. Mic, F.A. Mic - Insights into the mechanisms of thymus involution and regeneration by modeling the glucocorticoid-induced perturbation of thymocyte populations dynamics, *Journal of Theoretical Biology*, Volume 348, Pages 80-99, 2014.
4. G. Iuhasz, V. Negru, D. Zaharie - Neuroevolution based multi-agent system with ontology based template creation for micromanagement in real-time strategy games, *Information Technology and Control*, Volume 43, Issue 1, pp. 98-109, 2014.
5. D. Petcu, S. Panica, M. Frîncu, M. Neagul, D. Zaharie, G. Macariu, D. Gorgan, T. Stefanut - Experiences in building a Grid-based platform to serve Earth observation training activities , *Computer Standards & Interfaces*, Volume 34, Issue 6, Pages 493-508, 2012.
6. D. Petcu, S. Panica, M. Neagul, M. Frîncu, D. Zaharie, R. Ciorba, A. Dinis - Earth observation data processing in distributed systems, *Informatica. An International Journal of Computing and Informatics*, Slovenian Society Informatika, vol. 34 (4), pg. 463-476, 2010.
7. F. Zamfirache, D. Zaharie, C. Craciun - Nature inspired metaheuristics for task scheduling in static and dynamic computing environments, *Scientific Bulletin of Politehnica University of Timisoara, Transactions on Automatic Control and Computer Science*, vol 55(69), nr. 3, pp. 133-142, 2010
8. D. Zaharie - Influence of crossover on the behavior of the Differential Evolution Algorithm, *Applied Soft Computing*, vol 9, issue 3, pg. 1126-1138, 2009.
9. C. Chira, A. Gog, D. Zaharie, D. Dumitrescu - Complex Dynamics in a Collaborative Evolutionary Search Model, *Creative Mathematics and Informatics*, vol. 17, no. 3, pg. 346-356, 2008.
10. D. Petcu, D. Gorgan, F. Pop, D. Tudor, D. Zaharie - Satellite Image Processing on a Grid-Based Platform, *International Journal of "Computing"*, 2008, Vol. 7, Issue 2, pg. 51-58, 2008.
11. D. Lungeanu, D. Zaharie, S. Holban, E. Bernad, M. Bari, R. Noaghiu - Exploratory Analysis of Medical Coding Practices: the Relevance of Reported Data Quality in Obstetrics-Gynaecology, in *Stud Health Technol Inform. Amsterdam: IOS Press, ISBN 978-1-58603-864-9, ISSN 0926-9630*, pg. : 839-844, 2008.
12. N. Bonchis, St. Balint, D. Zaharie - The Ramsey optimal growth model on finite horizon. *An. Univ. Vest Timis., Ser. Mat.-Inform.* 45, No. 1, 59-76, 2007.
13. D. Zaharie - Extensions of Differential Evolution Algorithms for Multimodal Optimization, *Analele Univ. Timisoara* vol. XLII, ISSN 1224-970X, Timisoara, pg. 331-345, 2004.
14. C. Jichici, V. Negru, D. Pop, D. Zaharie, H. Popa - A Predictive Model for Learning Objects Quality Evaluation , *Sci. Ann. Cuza Univ.* 15, Iasi, pp.153-166, 2004.
15. D. Zaharie - Multi-objective Optimization with Adaptive Pareto Differential Evolution, in *Memoriile Sectiilor Stiintifice, Seria IV, Tomul XXVI*, pp. 223-239, Ed. Academiei Romane, 2003.
16. D. Zaharie - Parameter Adaptation in Differential Evolution by Controlling the Population Diversity, *Analele Univ. Timisoara*, vol. XXXX, issue 2, 2002.

17. D. Zaharie - On the Explorative Power of Differential Evolution Algorithms, *Analele Univ. Timisoara*, vol. XXXIX, pp.249-260, 2001
18. D. Zaharie - On an evolutionary algorithm for global optimization, *Analele Univ.Timisoara*, vol. XXXVIII, fasc. 2, pg. 203-216, 2000.
19. D. Zaharie - Iterated morphological operators implemented through cellular neural networks, *Analele Univ.Timisoara*, vol. XXXVII (special issue on Computer Science), pg. 169-178, 1999.
20. O. Francois, D. Zaharie - Markovian Perturbations of Discrete Iterations. Lyapunov Functions, global minimization and associative memory, *Mathematical and Computer Modelling*, 29, pp. 81-94, 1999.
21. D.Zaharie - Some Properties of Binary Stochastic Networks, *Analele Universitatii din Bucuresti*, 1999.
22. D. Zaharie - A Class of Adaptive Recurrent Neural Networks and Image Enhancement, *Analele St. ale Universitatii Al. I. Cuza, Iasi, seria Informatica*, tom VIII, pg. 177-185, 1998.
23. D. Zaharie - On Stochastically Perturbed Differential Systems, *Annali dell'Universita di Ferrara, Sez. VII, Sc.Mat.*, vol. XLII, pp. 77-85, 1996.
24. D. Zaharie - A Markovian Study of Recurrent Neural Networks with Stochastic Dynamics, *Informatica, Lithuanian Academy of Science, Vilnius*, vol. 7, nr. 2, pp. 255-266, 1996.
25. D. Zaharie - Learning Algorithms for Feedback Neural Networks with Stochastic Dynamics, *Analele Universitatii din Timisoara*, vol. XXXIII, fasc. 2, seria Matematica-Informatica, pp. 287-299, 1995.
26. D. Zaharie - On the Stochastic Modelling of Feedback Neural Networks, *Analele Universitatii din Timisoara*, vol. XXXI, fasc. 2, seria Matematica-Informatica, pp. 281-297, 1993.
27. D. Zaharie - On the Models of Random Automata, *Analele Universitatii din Timisoara*, vol. XXVIII, fasc. 2-3, seria Stiinte Matematice, pp. 211-222, 1990.

Chapters in books

28. D. Zaharie, D. Lungeanu, F. Zamfirache - Interactive Search of Rules in Medical Data Using Multiobjective Evolutionary Algorithms, chapter in *Genetic and Evolutionary Computation: Medical Applications*, Stephen Smith and Stefano Cagnoni (eds), John Wiley & Sons, pp 133-148, 2010
29. D. Petcu, D. Zaharie, M. Neagul, S. Panica, M. Frincu, D. Gorgan, T. Stefanut and V. Bacu - Remote Sensed Image Processing on Grids for Training in Earth Observation , in *Yung-Sheng Chen (Ed.), Image Processing, INTECH*, chapter 8, pp 115-140, 2009.

Papers published in proceedings of conferences

30. D. Zaharie and F. Micota - Revisiting the analysis of population variance in Differential Evolution algorithms , 2017 IEEE Congress on Evolutionary Computation (CEC), San Sebastian, 2017, pp. 1811-1818, doi: 10.1109/CEC.2017.7969521
31. M. Erascu, F. Micota, D. Zaharie - A scalable hybrid approach for applications placement in the cloud, 2015 Conference on Grid, Cloud & High Performance Computing in Science (ROLCG), 28-30 October 2015, 10.1109/ROLCG.2015.7367232, 2015.
32. R. Dogaru, F. Micota, D. Zaharie - Searching for Taxonomy-based Similarity Measures for Medical Data, 7th Balkan Conference in Informatics, BCI 2015, 2-4 September, DOI:10.1145/2801081.2801102, 2015.
33. R. Dogaru, F. Micota, D. Zaharie - Taxonomy-based dissimilarity measures for profile identification in medical data , *SISY 2015*, 10.1109/SISY.2015.7325369, pg. 149-154, 2015.
34. L. Moatar-Moleriu, V. Negru, D. Zaharie - Evolutionary Estimation of Parameters in Computational Models of Thymocyte Dynamics, *LSSC'13*, June, Sozopol, Springer LNCS 8353, pg. 264-271, 2014.
35. D. Zaharie, L. Moatar-Moleriu, V. Negru - Particularities of Evolutionary Parameter Estimation in Multi-stage Compartmental Models of Thymocyte Dynamics, *GECCO'13*, July 6–10, Amsterdam, pg. 303-310, 2013.

36. G. Iuhasz, V. Negru, D. Zaharie - Neuroevolution based multi-agent system for micromanagement in real-time strategy games, Proceedings of the Fifth Balkan Conference in Informatics, pg 32-39, ACM doi:10.1145/2371316.2371324, 2012
37. D. Zaharie - Differential Evolution: from Theoretical Results to Practical Insights, in Proc. of 18th International Conference on Soft Computing, June 27-29, Brno, Czech Republic, pg. 126-131, 2012.
38. A.C. Zăvoianu, G. Kronberger, M. Kommenda, D. Zaharie, M. Affenzeller - Improving the Parsimony of Regression Models for an Enhanced Genetic Programming Process, LNCS 6927, pp. 264-271, 2012.
39. D. Petcu, D. Zaharie, S. Panica, A.S. Hussein, A. Sayed; H. El-Shishiny, Fuzzy clustering of large satellite images using high performance computing, Proc. SPIE 8183, High-Performance Computing in Remote Sensing, 818302 (12 October 2011); doi: [10.1117/12.898281](https://doi.org/10.1117/12.898281), 2011
40. D. Zaharie, L. Perian, V. Negru - A View Inside the Classification with Non-Nested Generalized Exemplars, IADIS European Conference on Data Mining, 24-26 July, Rome, Italy, pg.19-26, 2011
41. D. Zaharie, L. Perian, V. Negru, F. Zamfirache - Evolutionary pruning of non-nested generalized exemplars, in Proc. of the 6th IEEE International Symposium on Computational Intelligence and Informatics, Timisoara, 19-21 mai 2011, pg 57-62, 2011.
42. F. Zamfirache, M. Frincu, D. Zaharie - Population based Metaheuristics for Tasks Scheduling in Heterogenous Distributed Systems, in I. Dimov, S. Dimova, N. Kolkovska (eds), Proc. of NMA 2010 Conference, LNCS 6046, pg. 321-327, 2011.
43. D. Dumitrescu, R. Lung, R. Nagy, D. Zaharie, A. Bartha, D. Logofatu - Evolutionary Detection of New Classes of Equilibria: Application in Behavioral Games. PPSN (2)'2010. pp.432~441, 2010
44. D. Dumitrescu, R. Lung, R. Nagy, D. Zaharie, A. Bartha - Exploring evolutionary detected fuzzy equilibria: A link between normative theory and real life, Proceedings of the 12th Annual Genetic and Evolutionary Computation Conference, GECCO '10 , pp. 539-540, 2010
45. F. Zamfirache, D. Zaharie, C. Craciun - Evolutionary task scheduling in static and dynamic environments, ICCO-CONTI 2010 - IEEE International Joint Conferences on Computational Cybernetics and Technical Informatics, Proceedings , art. no. 5491336, pp. 619-624, 2010
46. I. Zaharie, D. Zaharie - On The Non-Isothermal Crystallization of Fe₆₀Gd₅Cr₁₅B₂₀ Amorphous Alloys, in A. Angelopoulos, T. Fildisis (eds), AIP Conference Proceedings Volume 1203, 7th International Conference of the Balkan Physical Union pp. 335-340, 2010
47. C. Craciun, M. Nicoara, D. Zaharie, Enhancing the Scalability of Metaheuristics by Cooperative Coevolution, in I. Lirkov, S. Margenov, and J. Wasniewski (Eds.): Proc. of LSSC 2009, LNCS 5910, pp. 310-317, 2010.
48. M. Neagul, S. Panica, D. Petcu, D. Zaharie, D. Gorgan - Web and grid services for training in Earth observation , Proceedings of the 5th IEEE International Workshop on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications, IDAACS'2009 , art. no. 5342986, pp. 241-246, 2009.
49. Gog, C. Chira, D. Dumitrescu, D. Zaharie - Analysis of Some Mating and Collaboration Strategies in Evolutionary Algorithms, in V. Negru et al. (eds), Proceedings of SYNASC 2008, IEEE Computer Society, pp 538-542, 2009.
50. D. Zaharie - Statistical properties of differential evolution and related random search algorithms, in Paula Brito (ed.) Proceedings of International Conference on Computational Statistics Porto, Portugal, August 24-29, Physica-Verlag HD, ISBN978-3-7908-2083-6, pg. 473-485, 2008.
51. D. Zaharie, D. Petcu, S. Panica - A Hierarchical Approach in Distributed Evolutionary Algorithms for Multiobjective Optimization , in I. Lirkov, S. Margenov, J. Wasniewski (eds) Proc. of LSSC 2007 – 6th International Conference on Large Scale Computing, LNCS 4818, ISBN-10 3-540-78825-5 Springer, pp. 505-514, 2008.

52. D. Zaharie, D. Lungeanu, F. Zamfirache - Interactive Search of Rules in Medical Data Using Multiobjective Evolutionary Algorithms , in Proceedings of the 2008 GECCO Conference Genetic and Evolutionary Computation (workshop MedGEC--medical applications of genetic and evolutionary computation), Atlanta august 2008, ISBN:978-1-60558-131-6, pg. 2065-2072, 2008.
53. D. Lungeanu, D. Zaharie, F. Zamfirache - Influence of Missing Values Treatment on Classification Rules Evolved from Medical Data. In I. Bichindaritz, P. Perner, L. G. Shapiro (Eds.): Advances in Data Mining. 8th Industrial Conference, ICDM 2008, Leipzig, Germany, July 2008, Poster and Workshop Proceedings. Ibal Publishing 2008, ISBN 978-3-940501-03-5, pg. 86-95, 2008.
54. S. Panica, D. Petcu, D. Zaharie - Evolutionary multi-objective optimization on Grid environments, in H. Burkhart (ed.), Procs. PDCN 2008, Parallel and Distributed Computing and Networks - 2008, Innsbruck, 11-14 feb., Acta Press, ISBN 978-0-88986-713-0, editor H. Burkhart, pg. 81-86, 2008.
55. R. Dogaru, D. Zaharie, D. Lungeanu, E. Bernad, M. Bari - A Framework for Mining Association Rules in Data on Perinatal Care, Proceedings of CONTI 2008 (Conference on Technical Informatics, session on Biomedical Informatics), Timisoara 4-6 iunie, vol 1, ISSN 1844-539X, pg. 147-152, 2008.
56. D. Zaharie, D. Lungeanu, S. Holban - Feature ranking based on weights estimated by multiobjective optimization In: J.Roth, J.Gutiérrez, A.P. Abraham (eds.), Proceedings of IADIS First European Conference on Data Mining, 5-7 iulie 2007, Lisabona, ISBN 978-972-8924-40-9, pg. 124-128, 2007.
57. D. Petcu, D. Zaharie, D. Gorgan et al.- MedioGrid: A grid-based platform for satellite image processing, in Proc. of 4th IEEE International Workshop on Intelligent Data Acquisition and Advanced Computing Systems, sep 06-08, 2007 Dortmund, pg: 137-142, 2007.
58. D. Zaharie, S. Panica, M. Stoia-Djeska, M. Dragan, D. Petcu - Airfoil shape optimization by coupling computational fluid dynamics with evolutionary multiobjective optimization, in M. Ganzha, M. Paprzycki, T. Pelech-Pilichowski (eds), Procs. Proceedings of the International Multiconference on Computer Science and Information Technology (IMCSIT 2007), October 15 17, 2007, Wisla, Poland, vol. 2, ISSN 1896-7094, pg. 323-325, 2007
59. D. Zaharie - A comparative analysis of crossover variants in differential evolution in M. Ganzha, M. Paprzycki, T. Pelech-Pilichowski (eds), Proc. of International Multiconference on Computer Science and Information Technology IMCSIT 2007, 15-17 oct., Wisla, Poland, ISSN 1896-7094, pg. 171-181, 2007
60. D. Petcu, D. Zaharie, H. Popa, M. Frincu, A. Eckstein - Grid Services Based on Heuristic Methods for Multi-Objective Optimization Problems, Procs. CSCS-16, 16th Intern. Conference on Control Systems and Computer Science, Bucuresti, 22-25 May, 2007, EdituraPrintech, vol. 2, ISBN 978-973-718-743-7, pg. 136-141, 2007.
61. S. Panica, D. Petcu, D. Zaharie - A Grid-enabled Framework for Evolutionary Multiobjective Optimization, Procs. SACCS 2007, Iasi, 9th Internat. Symposium on Automatic Control and Computer Science, Proceedings, CD version, ISSN 1843-665-X, 2007.
62. D. Zaharie, D. Lungeanu, S. Holban, D. Navolan - Extracting prediction rules from medical data using evolutionary algorithms, Rev Med Chir Soc Med Nat Iasi (ISSN 0048-7848), Vol 111, Nr. 2 Supl.2: pg.197-202, 2007.
63. H. Popa, D.Pop, V. Negru, D. Zaharie - A Multi-Agent System for Knowledge Discovery from Databases, Proc. of SYNASC'07, IEEE Computer Society, ISBN 0-7695-3078-8, pg. 275-281, 2007.
64. D. Zaharie, S. Holban, D. Lungeanu, D. Navolan - A computational Intelligence Approach for Ranking Risk Factors in Preterm Birth. In: Szakal A. (ed.). Proceedings of 4th International Symposium on Applied Computational Intelligence and Informatics - SACI2007, mai 2007, Timisoara, ISBN: 1-4244-1234-X, pg. 135-140, 2007.
65. D. Zaharie, F.Zamfirache, V.Negru, D.Pop, H. Popa - A Comparison of Quality Criteria for Unsupervised Clustering of Documents Based on Differential Evolution, Proc. of International Conference on Knowledge Engineering: Principles and Techniques, Cluj-Napoca, 7-8 iunie, 2007, 114-121, 2007.

66. D. Zaharie, G. Ciobanu - Distributed Evolutionary Algorithms Inspired by Membranes in Continuous Optimization Problems , in H.J. Hoogeboom, G. Paun, G. Rozenberg (eds), Pre-Proceedings of 7th Workshop on Membrane Computing, Leiden, 17-21 iulie, pp. 522-537, 2006.
67. D. Zaharie, D. Petcu - Communication Strategies in Distributed Evolutionary Algorithms for Multi-objective Optimization , Proc. of 7th International Conference on Technical Informatics, Timisoara, june 8-9, vol. 1, pp. 145-150,2006.
68. D. Zaharie - Distributed Clustering Based on Representatives Evolved by Crowding Differential Evolution , in R. Matousek, P. Osmera (eds), Proc. of 12th International Conference on Soft Computing, Brno, may 31 - june 2, pp. 51-56, 2006.
69. D. Zaharie, F. Zamfirache - Diversity Enhancing Mechanisms for Evolutionary Optimization in Static and Dynamic Environments , Proc. of 3rd Romanian-Hungarian Joint Symposium on Applied Computational Intelligence, Timisoara, may 25-26, pp. 460-471,2006.
70. D. Zaharie, F. Zamfirache - Dealing with noise in ant-based clustering , Proc. IEEE Congress of Evolutionary Computation 2005, Edinburgh , 2-5 sept 2005, pg. 2395-2402.
71. D. Zaharie, F. Zamfirache - Ant-based clustering of medical data , HCMC 2005, First East European Conference on "Health Care Modelling and Computation" (eds: F. Gorunescu, E. El-Darzi, M. Gorunescu), pg. 332-343, 2005.
72. D. Zaharie - Density-based clustering with crowding differential evolution , Proc. 7 th Symposium on Symbolic and Numeric Algorithms for Scientific Computing, 25-29 sept. 2005, pg. 72-79, 2005.
73. I.Zaharie, D. Zaharie – Evolutionary optimization of molecular clusters, Proc. of 4th Conference on Isotopic and Molecular Processes, Cluj-Napoca, sept. 22-24, 2005 STUDIA UNIVERSITATIS BABES-BOLYAI, PHYSICA, L, 4a, pg. 447-450, 2005.
74. D. Zaharie - Extensions of Differential Evolution Algorithms for Multimodal Optimization, in D. Petcu et.al (eds.), Proc. of SYNASC'04, 6th International Symposium of Symbolic and Numeric Algorithms for Scientific Computing, Timisoara, september 26-30, pp. 523-534, 2004.
75. D. Zaharie - A Multipopulation Differential Evolution Algorithm for Multimodal Optimization , in R. Matousek, P. Osmera (eds.), Proc. of Mendel 2004, 10th International Conference on Soft Computing, Brno, june 2004, pp. 17-22, 2004.
76. C. Grosan, D. Zaharie - Base Changing Strategies in an Adaptive Representation Evolutionary Algorithm , Proc. of SACI'04 (1st Romanian-Hungarian Joint Symposium on Applied Computational Intelligence, Timisoara, may 2004, pp. 79-88, 2004.
77. D. Zaharie, D. Petcu - Adaptive Pareto Differential Evolution and its Parallelization, Proc. of 5th International Conference on Parallel Processing and Applied Mathematics, Czestochowa, Poland, sept. 2003 , Lecture Notes in Computer Science Volume 3019, pp 261-268, 2004.
78. I.Zaharie, D. Zaharie -On the Determination of the Crystallization Energy in non-Isothermal Processes by using Evolutionary Algorithms, 3rd Conference on Isotopic and Molecular Processes, Cluj-Napoca, sept. 2003, Studia Universitatis Babes-Bolyai, Physica special issue 2, XLVIII, pg. 317-320,2003.
79. D. Zaharie, D. Petcu - Parallel implementation of multi-population differential evolution In Proc. of 2nd Workshop on Concurrent Information Processing and Computing (CIPC'03), Sinaia, Romania, eds. D. Grigoras et al., 2003.
80. D. Zaharie - Control of Population Diversity and Adaptation in Differential Evolution Algorithms, in R. Matousek, P. Osmera (eds.), Proc. of Mendel 2003, 9th International Conference on Soft Computing, Brno, Czech Republic, june 2003, pp. 41-46, 2003.
81. D. Zaharie - Critical Values for the Control Parameters of Differential Evolution Algorithms, in R. Matousek, P. Osmera (eds.), Proc. of Mendel 2002, 8th International Conference on Soft Computing, Brno, Czech Republic, june 2002, pp. 62-67, 2002.

82. D. Zaharie - On the Statistical Properties of Evolutionary Algorithms for Global Optimization, Proc. of the 9th Symposium of Mathematics and its Applications, "Politehnica" Univ. Timisoara, nov. 2001.
83. D. Zaharie - Recombination Operators for Evolutionary Algorithms, Proc. of the XXVII Summer School of "Mathematics and its Applications in Engineering and Economics", Sozopol, Bulgaria, june 2001.
84. D. Zaharie - Image Processing through Nonlinear Dynamical Systems, Proc. of the 8th Symposium of Mathematics and its Applications, "Politehnica" Univ. Timisoara, nov. 1999, pg. 413-420.
85. D. Zaharie - Nonlinear adaptive filters for image processing implemented through recurrent neural networks, Intern. Conference on Technical Informatics (Conti'98), Timisoara, 29-30 October, Bull. UPT, vol. 43(57), no.4, pp.12-21, 1998.
86. D. Zaharie -- Markovian modelling of stochastic neural networks with binary units, PAMM Conference (PC-122), Constanta, July 26- August 3, Bull. for Applied and Computer Mathematics, 1566-LXXXVI-B, pp.61-68, 1998.
87. D. Zaharie - Asymptotic behaviour of a class of nonlinear adaptive systems applied in image processing, PAMM Conference (PC-122), Arad, July 22-25, Bull. for Applied and Computer Mathematics, 1566-LXXXVI-B, pp.505-514, 1998.
88. D. Zaharie - Networks of Binary Units with Stochastic Threshold, Proc. of the 6th Symposium of Mathematics and its Applications, Timisoara, pp. 204-210, 1995.
89. D. Zaharie, I. Zaharie - Recurrent Neural Networks with Weighted Multiple-Time Step Parallel Dynamics, Proc. of International Conference on Technical Informatics, Timisoara, pp. 159-165, 1994.
90. D. Zaharie, I. Zaharie - Stability of Feedback Neural Networks with Stochastic Synaptic Weights, Proc. of the 6th Symposium of Mathematics and its Applications, Timisoara, pp. 310-317, 1993.

Monographs:

91. D. Zaharie - Mathematical Models of Feedback Neural Networks, Surveys, Lecture Notes and Monographs (Series on Probability, Statistics and Applied Mathematics), Universitatea de Vest, Timisoara, 139 pg., 1996.