

Daniela Zaharie

CONTACT INFORMATION	Department of Computer Science West University of Timișoara blvd. V. Pârvan, 4 300223, Timișoara, Romania	+40 729 639 576 daniela.zaharie@e-uvt.ro
BIRTH DATE & PLACE	1 September 1965, Arad	
RESEARCH INTERESTS	Evolutionary computing and other nature inspired metaheuristics, artificial neural networks, data mining, machine learning, image processing, high performance computing, computational statistics, computational models in biology	
EDUCATION	Faculty of Mathematics and Computer Science, West University of Timișoara, Romania Habilitation, West University of Timisoara, Computer Science, 2017 • Thesis Topic: <i>Analysis of Differential Evolution Algorithms. From Theoretical Properties to Practical Insights</i> Ph.D., West University of Timisoara, Mathematics (Probability Theory and Statistics, 1992-1997) • Thesis Topic: <i>Stochastic Models of Neural Networks and Applications</i> B.S., West University of Timisoara, Mathematics, specialization in Informatics, 1987 (valedictorian)	
PROFESSIONAL EXPERIENCE	Professor Department of Computer Science, Faculty of Mathematics and Computer Science, West University of Timisoara Associate Professor Department of Computer Science, Faculty of Mathematics and Computer Science, West University of Timisoara Chair of Probability Theory and Applied Mathematics, Faculty of Mathematics and Computer Science, West University of Timisoara Lecturer Chair of Probability Theory and Applied Mathematics, Faculty of Mathematics and Computer Science, West University of Timisoara Assistant professor Chair of Informatics, Faculty of Mathematics, West University of Timisoara Analyst-programmer Computing Centre, IAEM Timisoara	2009 to present 1999 to 2009 2001 to 2009 1999 to 2001 1992 to 1999 1990 to 1992 1987 to 1990
TEACHING ACTIVITY	• <i>Lectures (undergraduate):</i> Algorithms and Data Structures (2015-present), Algorithmics (2003-2014), Algorithms and programming (1993-2001), Neural Networks (1996-2007), Statistics (1996-1999), Scientific Computing (1999-2000), Introduction in Informatics (1993-1996), Artificial Intelligence(1993-1996).	

- *Lectures (master)*: Data mining (Romanian and English, 2015-present), Algorithms and Data Structures for Bioinformatics (Romanian, 2017-2018), Metaheuristic Algorithms (Romanian and English, 2015-present), Neural and Evolutionary Computing (Romanian and English), 2007-2014), Biostatistics and bioinformatics (2007-2016).

ACADEMIC
SERVICES

dean of the Faculty of Mathematics and Computer Science
December 2021

October 2018 to

vicedean of the Faculty of Mathematics and Computer Science January 2016 to October 2017

member of the Senate of the West University of Timisoara 2012 to 2015, October 2017 to October 2018, January 2022 to present

member of the consultative council of the Faculty of Mathematics and Computer Science

2004-2015, 2017 to October 2018

member of the consultative council of the Department of Computer Science

2004-2015, 2017 to October 2018

responsible of the undergraduate studies programme in Applied Informatics

2008 to 2019

responsible of the master studies programme in Bioinformatics

2017 to present

responsible of the master studies programme in Big Data - Data Science, Analytics and Technologies

2018 to present

member of CNATDCU Informatics 2011 to 2012, 2015 to 2016

EDITORIAL ACTIVITIES

Co-editor:

- Annals of West University of Timisoara (series on Mathematics and Computer Science) (since 2010)
 - Proceedings of the Symposium of Symbolic and Numeric Algorithms for Scientific Computing - SYNASC series (since 2005)

Associate Editor:

- Soft Computing. A Fusion of Foundations, Methodologies and Applications (since 2018)

Member of the Editorial board:

- Soft Computing. A Fusion of Foundations, Methodologies and Applications (2013-2017)
 - Swarm and Evolutionary Computing (since 2015)
 - Pattern Analysis and Applications (since 2019)

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, NISCO, NaBIC, SOCO, FedCSIS, SACI, CompStat, IADIS-Data Mining etc.)

Research activity evaluation:

- Evaluation of research projects submitted to the Romanian Agency for Scientific Research
- Evaluation of research applications submitted to the National Research Foundation from South Africa (3 applications)
- 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 De Montfort University, UK; 2 for Arab Open University, Kuwait)

PhD theses evaluation: reviewer of 50 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.

INVITED TALKS
AND TUTORIALS

- GECCO 2021 - workshop AABOH (invited talk on "Patterns of Population Dynamics in Differential Evolution: Merging Theoretical and Empirical Results"), 11 July 2021
- Spring course - CRoNos COST Action IC1408 - Computationally-Intensive methods for the robust analysis of non-standard data - Limassol, Cyprus 13-17 April 2019 - tutorial on "Machine Learning Methods for Multivariate Data"
- Summer School on Image Processing,SSIP 2016, Szeged, Hungary, 7-16 July 2016 - talk on "Bio-inspired Metaheuristics and Image Processing"
- Workshop on Stochastic Geometry and Big Data, INRIA - Sophia Antipolis, 24 November, 2015 - talk on "Scalability of Population-based Metaheuristics"
- Scientific seminar of the Computer Vision Center, University Autonoma de Barcelona, 18 April, 2013 - talk on "Differential Evolution: Properties and Applications"
- 18th International Conference on Soft Computing, Brno, June 27-29, 2012 - talk on "Differential Evolution: from Theoretical Analysis to Practical Insights"
- IDEAS Research Seminar, Robert Gordon University Aberdeen, 17 May, 2011 - talk on "Differential Evolution. Theoretical Properties and Applications in Optimization and Data Mining"
- Doctoral Summer School "Evolutionary Computing Optimization and Data Mining", Iasi, 2010-2014, 2017-2019

AWARDS

"Professor Zdzislaw Pawlak Best Paper Award" awarded by the Polish Information Processing Society at the Symposium AAIA, 2007

RESEARCH
PROJECTS

- POC/163/1/3/: Advanced computational statistics for planning and monitoring in production environments, 2022-2023.
- PN-III-P1-1.2-PCCDI-2017-0361: Bioeconomic approach to antimicrobial agents - use and resistance, 2018-2020 (local team leader)
- RO-PNIII-CERC-CO-PED-2016: MANeUvEr - Management Agency for Cloud Resources, 2017-2018
- H2020: SESAME Net - Supercomputing Expertise for Small And Medium Enterprises, H2020-EINFRA, 2015-2017
- H2020: VI-SEEM - a unified Virtual Research Environment for South Eastern

- Europe and Eastern Mediterranean, H2020-EINFRA, 2015-2017
- FP7: HOST - High Performance Computing Service Center, 2012-2014
 - FP7: HP-SEE - High-Performance Computing Infrastructure for South East Europe's Research Communities, 2010 - 2012
 - RO-PNII-ID-PCE: AMICAS - Automated Management in Cloud and Sky Computing Environments, 2012-2016
 - RO-PNII-ID-PCE: REVISAL - Modelling and simulation of the dynamics of thymocyte populations and the cellular components of medulla under normal and pathological conditions, 2012-2016
 - FP7: SPRERS - Strengthening the Participation of Romania at European R&D in Software Services, 2010-2011
 - ESA-Pecs: GiSHEO - On Demand Grid Services for Higher Education and Training in Earth Observation, 2009-2010
 - RO-PN - II: Asistsys - Integrated system for patients with severe neuromotor problems, 2009-2011
 - RO-PN - II: NatComp - New natural computing models for complexity and complex problems solving, 2007-2009 (local team leader)
 - RO-CEEX: MaternQual - Integrated system for complex evaluation of risk factors and prediction in obstetrics, 2006-2008 (local team leader)
 - RO-CEEX: GRIDMOSI - Virtual organization based on Grid technology for high performance modelling, simulation and optimization, 2005 -2008
 - RO-CEEX: MedioGrid - Parallel and distributed graphical processing on Grid infrastructure of geographical and environmental data, 2005 -2008
 - RO-CEEX: SIAPOM - Integrated system for analysis and optimal multi-disciplinary design, 2006-2008
 - RO-CNCS, ViaSan: Bio-View - software for simulating biological processes, 2004-2005
 - RO-CNCS: Stochastic modelling, approximation theory and numerical approaches with applications in turbulence and economy, 2002-2004

**REFEREED
PUBLICATIONS**

- 28 papers in journals
- 75 papers in conference proceedings
- 2 book chapters
- the list of publications is in Appendix A

CITATIONS

- Web of Science: around 450 citations, h-index=8 (ResearcherID: AAA-9896-2019)
- SCOPUS: around 640 citations, h-index=9 (<https://orcid.org/0000-0003-3388-6058>)
- Scholar Google: >1900 citations, h-index=16

SOFTWARE SKILLS

- C, C++, Java, NetLogo, Pascal, Python, Lisp, MATLAB, Mathematica, R

LANGUAGES

- English (average), French (basic)

**PROFESSIONAL
ASSOCIATIONS**

Member of:

- Romanian Association for Artificial Intelligence (<http://aria-romania.org/>)
- Romanian Society of Bioinformatics (<http://www.rsbi.ro/>)
- IEEE Computational Intelligence Society

Appendix A.

Publications in journals:

1. M. Erașcu, F. Micota, D. Zaharie, Scalable optimal deployment in the cloud of component-based applications using optimization modulo theory, mathematical programming and symmetry breaking, Journal of Logical and Algebraic Methods in Programming, Volume 121, 2021, <https://doi.org/10.1016/j.jlamp.2021.100664>.
2. (WoS-article) K. Miok, B. Škrlj, D. Zaharie, M. Robnik-Sikonja. To BAN or Not to BAN: Bayesian Attention Networks for Reliable Hate Speech Detection. Cognitive Computation (2021). <https://doi.org/10.1007/s12559-021-09826-9>
3. (WoS-article) 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.
4. (WoS-article) 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.
5. (WoS-article) 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.
6. (WoS-article; proceedings paper) 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.
7. (WoS-article) 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.
8. 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.
9. 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
10. (WoS-article) D. Zaharie - Influence of crossover on the behavior of the Differential Evolution Algorithm, Applied Soft Computing, vol 9, issue 3, pg. 1126-1138, 2009.
11. 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.
12. 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.
13. 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.
14. D. Zaharie - Extensions of Differential Evolution Algorithms for Multimodal Optimization, Analele Univ. Timisoara vol. XLII, ISSN 1224-970X, Timisoara, pg. 331-345, 2004.
15. 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.
16. D. Zaharie - Multi-objective Optimization with Adaptive Pareto Differential Evolution, in Memoriile Secțiilor Științifice, Seria IV, Tomul XXVI, pp. 223-239, Ed. Academiei Române, 2003.

17. D. Zaharie - Parameter Adaptation in Differential Evolution by Controlling the Population Diversity, Analele Univ. Timisoara, vol. XXXX, issue 2, 2002.
18. D. Zaharie - On the Explorative Power of Differential Evolution Algorithms, Analele Univ. Timisoara, vol. XXXIX, pp.249-260, 2001.
19. D. Zaharie - On an evolutionary algorithm for global optimization, Analele Univ.Timisoara, vol. XXXVIII, fasc. 2, pg. 203-216, 2000.
20. D. Zaharie - Iterated morphological operators implemented through cellular neural networks, Analele Univ.Timisoara, vol. XXXVII (special issue on Computer Science), pg. 169-178, 1999.
21. ([WoS-article](#)) 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.
22. D.Zaharie - Some Properties of Binary Stochastic Networks, Analele Universitatii din Bucuresti, 1999.
23. 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.
24. D. Zaharie - On Stochastically Perturbed Differential Systems, Annali dell'Universita di Ferrara, Sez. VII, Sc.Mat., vol. XLII, pp. 77-85, 1996.
25. 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.
26. 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.
27. 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.
28. 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

1. D. Zaharie, D. Lungceanu, 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
2. 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

1. C. Zaharia, R. Muresan and D. Zaharie, "Can Association Rules be Used to Improve Additive Bayesian Network Models?", 2021 International Conference on e-Health and Bioengineering (EHB), 2021, pp. 1-4, doi: 10.1109/EHB52898.2021.9657656.
2. R. Muresan, C. Zaharia and D. Zaharie - Using Additive Bayesian Networks and Association Rules in Antimicrobial Resistance Analysis, 2020 International Conference on e-Health and Bioengineering (EHB), Iasi, Romania, 2020, pp. 1-4, doi: 10.1109/EHB50910.2020.9280255.
3. D. Rotovei, D. Zaharie, V. Negru and D. Pop - A decision support system for B2B CRM Systems using belief rules, 2020 IEEE 16th International Conference on Intelligent Computer Communication and Processing (ICCP), Cluj-Napoca, Romania, 2020, pp. 131-138, doi: 10.1109/ICCP51029.2020.9266259.
4. D.N. Doan, D. Zaharie, D. Petcu - Auto-scaling for a Streaming Architecture with Fuzzy Deep Reinforcement Learning. In: Schwardmann U. et al. (eds) Euro-Par 2019: Parallel Processing Workshops. Euro-Par 2019. Lecture Notes in Computer Science, vol 11997. Springer, Cham, 2020.

5. (WoS-Proceedings Paper) C. Zaharia, R. Muresan, R. Moleriu, D. Zaharie - Analysis of Association Measures Used to Discover Antimicrobial Resistance Patterns, 2019 E-Health and Bioengineering Conference (EHB), 2019.
6. (WoS-Proceedings Paper) K. Miok, D.N. Doan, M. Robnik-Sikonja, D. Zaharie - Multiple Imputation for Biomedical Data using Monte Carlo Dropout Autoencoders, 2019 E-HEALTH AND BIOENGINEERING CONFERENCE (EHB), 2019.
7. (WoS-Proceedings Paper) K. Miok, D.N. Doan, D. Zaharie, M. Robnik-Sikonja - Generating Data using Monte Carlo Dropout. ICCP 2019: 509-515, 2019.
8. K. Miok, D. Nguyen-Doan, B. Škrlj, D. Zaharie, M. Robnik-Šikonja - Prediction Uncertainty Estimation for Hate Speech Classification/*em>*, In: Martin-Vide C., Purver M., Pollak S. (eds) Statistical Language and Speech Processing. SLSP 2019. Lecture Notes in Computer Science, vol 11816, pp 286-298, 2019.
9. (WoS-Proceedings Paper) F. Micota, M. Erascu and D. Zaharie - Constraint Satisfaction Approaches in Cloud Resource Selection for Component Based Applications. IEEE 14th International Conference on Intelligent Computer Communication and Processing (ICCP), pg. 443-450, DOI: 10.1109/ICCP.2018.8516639, 2018.
10. M. Erascu, F. Micota and D. Zaharie - Influence of Variables Encoding and Symmetry Breaking on the Performance of Optimization Modulo Theories Tools Applied to Cloud Resource Selection, LPAR-22 Workshop and Short Paper Proceedings, Editors: G. Barthe, K. Korovin, S. Schulz, M. Suda, G. Sutcliffe and M. Veanes, Kalpa Publications in Computing, Volume 9, 2018
11. (WoS-Proceedings Paper) 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.
12. (WoS-Proceedings Paper) 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.
13. 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.
14. (WoS-Proceedings Paper) 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.
15. (WoS-Proceedings Paper) 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.
16. (WoS-Proceedings Paper) 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.
17. 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
18. 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.
19. (WoS-Proceedings Paper) 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.
20. (WoS-Proceedings Paper) A. Toma, S. Panica, D. Zaharie, D. Petcu - Computational Challenges in Processing Large Hyperspectral Images, 2012 5TH ROMANIA TIER 2 FEDERATION GRID, CLOUD and HIGH PERFORMANCE COMPUTING SCIENCE (RO-LCG)

21. (WoS-Proceedings Paper) 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, 2011
22. 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
23. 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.
24. (WoS-Proceedings Paper) 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.
25. (WoS-Proceedings Paper) L. Mafteiu-Scai, V. Negru, D. Zaharie, O. Aritoni - Average Bandwidth Reduction in Sparse Matrices using Hybrid Heuristics, KEPT 2011: KNOWLEDGE ENGINEERING PRINCIPLES AND TECHNIQUES, Edited by:Frentiu, M; Pop, HF; Motogna, S, p. 379-388, 2011
26. (WoS-Proceedings Paper) 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
27. 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
28. F. Zamfirache, D. Zaharie, C. Craciun - Evolutionary task scheduling in static and dynamic environments, ICCC-CONTI 2010 - IEEE International Joint Conferences on Computational Cybernetics and Technical Informatics, Proceedings , art. no. 5491336, pp. 619-624, 2010
29. (WoS-Proceedings Paper) 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, 2009
30. (WoS-Proceedings Paper) 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.
31. (WoS-Proceedings Paper) Petcu, D., Panica, S Neagul, M., Frincu, M., Zaharie, D; Gorgan, D; Stefanut, T; Bacu, V - GiSHEO: On-line Platform for Training in Earth Observation, PROCEEDINGS OF THE 5TH INTERNATIONAL CONFERENCE ON VIRTUAL LEARNING, ICVL 2010, Edited by:Vlada, M; Albeanu, G; Popovici, DM, pp. 290-296, 2010.
32. (WoS-Proceedings Paper) 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.
33. (WoS-Proceedings Paper) 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.
34. (WoS-Proceedings Paper) 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.
35. (WoS-Proceedings Paper) D. Lungceanu, 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.

36. ([WoS-Proceedings Paper](#)) 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.
37. D. Zaharie, D. Lungceanu, 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.
38. D. Lungceanu, 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. IbaI Publishing 2008, ISBN 978-3-940501-03-5, pg. 86-95, 2008.
39. 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.
40. R. Dogaru, D. Zaharie, D. Lungceanu, 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.
41. D. Zaharie, D. Lungceanu, 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.
42. ([WoS-Proceedings Paper](#)) 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.
43. 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
44. 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
45. 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.
46. 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.
47. D. Zaharie, D. Lungceanu, 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.
48. ([WoS-Proceedings Paper](#)) H. Popa, D.Pop, V. Negru, D. Zaharie - AgentDiscover: 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.
49. ([WoS-Proceedings Paper](#)) D. Zaharie, S. Holban, D. Lungceanu, 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.
50. 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.
 51. ([WoS-Proceedings Paper](#)) 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.
 52. 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.
 53. D. Zaharie - Distributed Clustering Based on Representatives Evolved by Crowding Differential Evolution , in R. Matousek, P. Osmara (eds), Proc. of 12th International Conference on Soft Computing, Brno, may 31 - june 2, pp. 51-56, 2006.
 54. 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.
 55. ([WoS-Proceedings Paper](#)) 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.
 56. 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.
 57. ([WoS-Proceedings Paper](#)) 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.
 58. 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.
 59. 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.
 60. D. Zaharie - A Multipopulation Differential Evolution Algorithm for Multimodal Optimization , in R. Matousek, P. Osmara (eds.), Proc. of Mendel 2004, 10th International Conference on Soft Computing, Brno, june 2004, pp. 17-22, 2004.
 61. 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.
 62. ([WoS-Article; Proceedings Paper](#)) 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.
 63. 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.
 64. ([WoS-Proceedings Paper](#)) 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.
 65. D. Zaharie - Control of Population Diversity and Adaptation in Differential Evolution Algorithms, in R. Matousek, P. Osmara (eds.), Proc. of Mendel 2003, 9th International Conference on Soft Computing, Brno, Czech Republic, june 2003, pp. 41-46, 2003.

66. D. Zaharie - Critical Values for the Control Parameters of Differential Evolution Algorithms, in R. Matousek, P. Osmara (eds.), Proc. of Mendel 2002, 8th International Conference on Soft Computing, Brno,Czech Republic, june 2002, pp. 62-67, 2002.
67. 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.
68. 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.
69. 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.
70. 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.
71. 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.
72. 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.
73. D. Zaharie - Networks of Binary Units with Stochastic Threshold, Proc. of the 6th Symposium of Mathematics and its Applications, Timisoara, pp. 204-210, 1995.
74. 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.
75. 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.