

PERSONAL

Date/Place of birth: 27.10.1968 / Cluj-Napoca, Romania

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<http://www.ase.ro/ase/studenti/index.asp?item=Detalii%20profesori&ID=969>

EDUCATION

Faculty: Mathematics, The University of Bucharest

Specialization: Probability Theory, Stochastic Processes

Graduation: 1993, University Diploma in Mathematics

PhD: 2002, PhD in Mathematics - Statistics and Probabilities: "Analysis of probabilistic models used in Evolutionary Computation"- coordinator Prof. Ioan Cuculescu.

WORKING EXPERIENCE

- 2004 – to date: Bucharest University of Economic Studies, Dept. of Applied Mathematics – Conferentiar universitar since 2007 - Conferentiar is a permanent (teaching) position, equivalent to Associate Professor, C3 or W3 (www.ase.ro).
- 2002 – 2004: Fraunhofer Institute for Autonomous Intelligent Systems, Sankt Augustin, Germany (www.ais.fraunhofer.de) – Post-Doc Researcher.
- 2001 – 2002: Institute for Mathematical Statistics and Applied Mathematics, Romanian Academy, Bucharest (www.csm.ro) – Researcher.
- 1993 – 2001: National R&D Institute for Microtechnologies, Bucharest (www.imt.ro) - Researcher; Head of Computational Intelligence Lab. since 1998.

National research experience:

- "Multi-criterial modelling of decision process under uncertainty, with application to portfolio management", CNCSIS PNII Program IDEI, 2009-2011, UEFISCU-CNCSIS: 878000 LEI – member of the research team.
- "Bounded Rational Expectations and Intelligent Techniques in Relational Marketing: Estimating Financial Markets' Efficiency as Function of Customer Lifetime Value" - CNCSIS A Grant no. 1202/2007 – member of the research team.
- "Stochastic Modelling and Convergence Conditions for Continuous Evolutionary Algorithms" – CNCSIS AT Grant no. 1/2002 – project manager.
- "Bio-mimetic Computational Techniques for analysing nano-structured porous media and molecular magnetism" – MCT contract 2000-2001 – project manager.
- "Intelligent Techniques (Genetic Algorithms, Fuzzy Logic, Neural Networks) with application in Intelligent Systems" – MCT contract 1998-1999 – project manager.
- "Enhanced Genetic Algorithms. Application to information analysis in economics" -Grant of the Romanian Academy 3041GR/1997-1998 – project manager.

International research experience:

- German Academic Exchange Service (DAAD) research grant at TU Dortmund, Germany, *Stochastic Analysis and Convergence Times for Continuous Evolutionary Algorithms*, December 2010-January 2011.

- National Science Foundation NATO-COBASE Grant at Computer Science, University of Montana, Missoula, USA, *Markovian Analysis of Different Types of Genetic Algorithms*, June-August 2000.
- Visiting researcher of the Collaborative Research Center “*Computational Intelligence*” (SFB 531), Computer Science XI, Dortmund University: September-December 1999, res. January-July 2002.

Other remarks:

- Scientific Secretary of the Romanian Society for Probability and Statistics – since 2012.
- Member of the European Cooperation in Science and Technology (COST) – since 2009.
- Expert for the National Research Council, Romania (www.cnsc-uefiscdi.ro) – since 2011.
- Visiting ERASMUS-SOCRATES professor at TU Gelsenkirchen, Germany, September 2006.
- Member of the ResearchGate (www.researchgate.net/profile/Alexandru_Agapie/)
- Reviewer for international journals and conferences such as: *IEEE Trans. on Evolutionary Computation*, *Evolutionary Computation Journal*, *International Journal of Computer Mathematics*, res. *GECCO (Genetic and Evolutionary Computation Congress) 1999-2004*, *PPSN (Parallel Problems Solving from Nature) 2000-2010*, *FOGA (Foundations of Genetic Algorithms) 2002*.
- Invited participation at the Dagstuhl Seminar on The Theory of Evolutionary Algorithms, 2000-2002, Schloss Dagstuhl, Germany.
- Student Fellowship Award at the *IEEE International Conference on Evolutionary Computation (ICEC)*, Nagoya, Japan, 1996.

Linguistic competence: English (very good), German (good), French (fair)

Computer competence: Maple, Matlab, Pascal

List of publications

Books

1. EVOLUTIONARY ALGORITHMS – MODELING AND CONVERGENCE (in English), A. Agapie, Publishing House of the Romanian Academy, Bucharest, 2007.

Journal Articles

1. CONVERGENCE OF EVOLUTIONARY ALGORITHMS ON THE N-DIMENSIONAL CONTINUOUS SPACE, A. Agapie, M. Agapie, G. Rudolph, G. Zbaganu, *IEEE Transactions on Cybernetics*, IEEE Press, 2013, DOI: [10.1109/TCYB.2013.2257748](https://doi.org/10.1109/TCYB.2013.2257748)
2. EVOLUTIONARY ALGORITHMS FOR CONTINUOUS-SPACE OPTIMISATION, A. Agapie, M. Agapie, G. Zbaganu, *International Journal of Systems Science*, Taylor & Francis, 44(3), 2013, pp.502-512.
3. SIMPLE FORM OF THE STATIONARY DISTRIBUTION FOR 3D CELLULAR AUTOMATA IN A SPECIAL CASE, A. Agapie, *Physica A (Statistical Mechanics and its Applications)*, Elsevier 389(13), 2010, pp. 2495-2499.
4. LIMIT BEHAVIOR OF THE EXPONENTIAL VOTER MODEL, A. Agapie, R. Hons, Ad. Agapie, *Mathematical Social Sciences*, Elsevier, 59(3), 2010, pp. 271-281.
5. ESTIMATION OF DISTRIBUTION ALGORITHMS ON NON-SEPARABLE PROBLEMS, A. Agapie, *International Journal of Computer Mathematics*, Taylor & Francis 87 (3), 2010, pp. 491-508.

6. STATIONARY DISTRIBUTION FOR A MAJORITY VOTER MODEL, *A. Agapie, Th. aus der Fuenten*, Stochastic Models, Taylor and Francis 24 (4), 2008, pp. 503-512.
7. TRANSITION FUNCTIONS FOR EVOLUTIONARY ALGORITHMS ON CONTINUOUS STATE-SPACE, *A. Agapie, M. Agapie*, Journal of Mathematical Modelling and Algorithms, Springer 6 (2), 2007, pp.297-315.
8. MARKOV CHAIN ANALYSIS FOR ONE-DIMENSIONAL ASYNCHRONOUS CELLULAR AUTOMATA, *A. Agapie, R. Höns, H. Mühlenbein*, Methodology and Computing in Applied Probability, 6(2), Springer, 2004, pp.181-201.
9. SOFT COMPUTING MODELING OF MICROBIAL METABOLISM, *R. Chiurtu, A. Agapie, M. Buzoianu, F. Oltean, M. Giuclea, R. Vasilco*, Top. Comput. Math. 9, 2003, pp.359-368.
10. THEORETICAL ANALYSIS OF MUTATION-ADAPTIVE EVOLUTIONARY ALGORITHMS, *A. Agapie*, Evolutionary Computation, 9(2), 2001, MIT Press, pp.127-146.
11. GENETIC ALGORITHMS – THEORY AND APPLICATIONS, *A. Agapie*, International Journal of Computing Anticipatory Systems, vol.7, 2000, pp.35-44.
12. GENETIC ALGORITHMS: THEORETICAL ASPECTS AND APPLICATIONS, *A. Agapie, M. Giuclea, F. Fagarasan, H. Dediu*, Romanian Journal of Information Science and Technology, vol.1, 1, 1998, pp.3-21.
13. MODELLING GENETIC ALGORITHMS: FROM MARKOV CHAINS TO DEPENDENCE WITH COMPLETE CONNECTIONS, *A. Agapie*, Lecture Notes in Computer Science 1498, 1998, Springer, pp.3-12.
14. GENETIC ALGORITHMS: MINIMAL CONDITIONS FOR CONVERGENCE, *A. Agapie*, Lecture Notes in Computer Science 1363, Springer, 1998, pp.183-193.
15. A GENETIC ALGORITHM FOR A FITTING PROBLEM, *A. Agapie, F. Fagarasan, B. Stanciulescu*, in Nuclear Instruments & Methods in Physics Research A 389, North-Holland, 1997, pp.288-292.

Conferences Papers

1. CYCLIC AND CHAOTIC BEHAVIOR IN GENETIC ALGORITHMS, *A.H. Wright, A. Agapie*, in Proc. of Genetic and Evolutionary Computation Conference (GECCO), San Francisco (CA): Morgan Kaufman, 2001, pp. 718-724.
2. CONVERGENCE PROPERTIES OF SOME MULTI-OBJECTIVE EVOLUTIONARY ALGORITHMS, *G. Rudolph, A. Agapie*, in A. Zalzal et al. (eds.), Proc. of Congress on Evolutionary Computation (CEC 2000), Piscataway (NJ): IEEE Press, 2000, pp.1010-1016.
3. GENETIC ALGORITHMS AS RANDOM SYSTEMS WITH COMPLETE CONNECTIONS, *A. Agapie*, in Proc. of the Genetic and Evolutionary Computation Conference (GECCO'99), Orlando, Florida, 1999, vol.1, p.770.
4. ADAPTIVE GENETIC ALGORITHMS – MODELING AND CONVERGENCE, *A. Agapie*, in Proc. of Congress on Evolutionary Computation (CEC'99), Washington DC, 1999, vol.1, pp.729-735.
5. GENETIC ALGORITHMS, SCHEMATA CONSTRUCTION AND STATISTICS, *A. Agapie, D. Caragea*, in LNCS series 1226, B.Reusch (Ed.), Computational Intelligence. Theory and Applications. Proc. of the Int. Conf. 5th Fuzzy Days, Dortmund, Germany, Springer, 1997 pp.16-23.

6. GENETIC ALGORITHMS FOR SOLVING SYSTEMS OF FUZZY RELATIONAL EQUATIONS, *A. Agapie, M. Giuclea*, in Proc. of 7th International Fuzzy Systems Association World Congress (IFSA'97), Prague, Czech Republic, 1997, vol. 2, pp.379-382.
7. FORECASTING THE ECONOMIC CYCLES BASED ON AN EXTENSION OF THE HOLT-WINTERS MODEL. A GENETIC ALGORITHMS APPROACH, *Adriana Agapie, A.. Agapie*, in Proc. of the IEEE/IAFE Int. Conf. On Computational Intelligence for Financial Engineering (CIFEr'97), New York, 1997, pp.96-99.
8. GA FOR DECEPTIVE PROBLEMS: INVERTING SCHEMATA BY A STATISTICAL APPROACH, *A.. Agapie, H. Dediu*, in Proc. of IEEE International Conference on Evolutionary Computation, (ICEC'96) Nagoya, Japan, 1996, pp.336-340.
9. HIGH PERFORMANCE GA BASED ON STATISTICAL MACROEVOLUTION, *M.Gh. Negoita, A. Agapie*, in Proc. of the 3rd European Congress on Intelligent Techniques and Soft Computing (EUFIT '95), Aachen, Germany, 1994, vol.1, pp.442-446.
10. THE FUSION OF GENETIC ALGORITHMS AND FUZZY LOGIC. APPLICATIONS IN EXPERT SYSTEMS AND INTELLIGENT CONTROL, *M.Gh.. Negoita, A.. Agapie, F.Fagarasan*, in Proc. of IEEE/Nagoya University WWW Conference on Fuzzy Logic and Neural Networks/Genetic Algorithms, Nagoya, Japan, 1994, pp.130-133.
11. APPLICATIONS OF GENETIC ALGORITHMS IN SOLVING FUZZY RELATIONAL EQUATIONS, *M.Gh. Negoita, A.. Agapie, F. Fagarasan*, in Proc. of the 2nd European Congress on Intelligent Techniques and Soft Computing (EUFIT '94), Aachen, Germany, 1994, vol.3, pp. 1126-1130.