

LIST OF PAPERS

I. PHD THESIS

1. Decomposition Problems in Graph Theory, with Applications in Combinatorial Optimization, Scientific Coordinator, Professor Elefterie Olaru PhD, Faculty of Informatics, University „Alexandru Ioan Cuza” Iași, 2002

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3. Mihai Talmaciu and Elena Nechita, Optimization problems in diamond-free graphs, Advanced Computational Technologies, Editors: Călin Enăchescu, Florin Gheorghe Filip, Barna Iantovics, Romanian Academy Publishing House, 185-192, 2012, Bucharest, ISBN 978-973-27-2256-5.

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1. Mihai TALMACIU, Victor LEPIN, Algorithms for the Recognition of Net-free Graphs and for Computing Maximum Cardinality Matchings in Claw-free Graphs, [Studies in Informatics and Control](#), ISSN 1220-1766, vol. 23 (2), pp. 183-188, 2014.
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3. Mihai Talmaciu, Victor Lepin, *The recognition algorithms for chair-free graphs (short)*, presented at International scientific conference [DISCRETE MATHEMATICS, GRAPH THEORY AND THEIR APPLICATIONS](#), (DIMA-2013), Minsk, Belarus, November, 11-14, 2013, pg. 53-55.
4. Mihai Talmaciu, Sergiu Cataranciuc, *The recognition algorithms for murky unbreakable graphs (short)*, presented at International scientific conference DISCRETE MATHEMATICS, GRAPH THEORY AND THEIR APPLICATIONS, (DIMA-2013), Minsk, Belarus, November 11-14, 2013, pg. 52-53.
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1) [Manea, Liliana Rozemarie; Sandu, Ion; Curteza, Antonela, Clothing Comfort Under Dynamic Conditions in the Evaluation of Some Biometrics Parameters I.The Evaluation of Energetic](#)

Consumption and Functional Frequency, MATERIALE PLASTICE Volume: 52 Issue: 3 Pages: 312-316 Published: SEP 2015, FI:0,824.

2) Iulian Furdu, The impact of Internet of Things in Cloud Computing: Present and Perspectives (L'internet des objets et son impact dans le Cloud Computing: présent et perspectives), Proceedings of francophone multidisciplinary colloquium on materials, environment and electronics, pag. 50-54, ISSN 2343-9092, ISSN-L 2343-9092, <http://pubs.ub.ro/?pg=revues&rev=plumee>.

VII) The paper Talmaciu, M., Nechita, E., A recognition algorithm for trivially perfect graphs, Scientific Studies & Research. Series Mathematics, v.17, p. 239-244, 2007. is citable in:

1) Iulian Furdu, The impact of Internet of Things in Cloud Computing: Present and Perspectives (L'internet des objets et son impact dans le Cloud Computing: présent et perspectives), Proceedings of francophone multidisciplinary colloquium on materials, environment and electronics, pag. 50-54, ISSN 2343-9092, ISSN-L 2343-9092, Scientific Publications - University of Bacau [Revues] (scientific reviews, abstracts and articles).

VIII) The paper C. Croitoru, M. Talmaciu, On Confidentially connected graphs, Bul. Stiint. Univ. Baia Mare, Ser. B Matematică-Informatică (actual: Carpathian Journal of Mathematics), Vol. VI(2000), Second International Conference on Applied Mathematics, October 2000, Nr.1, ISSN: 1584 – 2851, 13-16, (factor de impact 2012: 1,190). is citable in:

1) Vârlan Simona, Using Internet of Things to Improve Patient Awareness in Drug Administration, Proceedings of francophone multidisciplinary colloquium on materials, environment and electronics, pag. 140-142, ISSN 2343-9092, ISSN-L 2343-9092, <http://pubs.ub.ro/?pg=revues&rev=plumee>.

IX) The paper Talmaciu, M; Nechita, E, On partitionable, confidentially connected and unbreakable graphs, Analele Scientifice ale Universitatii Ovidius Constanta - Seria Matematica, ISSN (print:1224-1784; electronic:1844-0835),Vol:19, Issue:1, 2011, page: 263-273. is citable in:

1) Vârlan Simona, Using Internet of Things to Improve Patient Awareness in Drug Administration, Proceedings of francophone multidisciplinary colloquium on materials, environment and electronics, pag. 140-142, ISSN 2343-9092, ISSN-L 2343-9092, <http://pubs.ub.ro/?pg=revues&rev=plumee>.

X) The paper Talmaciu, Mihai; Nechita, Elena; Iantovics, Barna, RECOGNITION AND COMBINATORIAL OPTIMIZATION ALGORITHMS FOR BIPARTITE CHAIN GRAPHS, COMPUTING AND INFORMATICS Volume: 32, Issue: 2, Pages: 313-329, Published: 2013 is citable in:

1) Manea, Liliana Rozemarie; Sandu, Ion; Curteza, Antonela, Clothing Comfort Under Dynamic Conditions in the Evaluation of Some Biometrics Parameters I.The Evaluation of Energetic

Consumption and Functional Frequency, MATERIALE PLASTICE Volume: 52 Issue: 3 Pages: 312-316 Published: SEP 2015, FI:0,824.

XI) The paper Talmaciu, M., Nechita, E., A Hybrid Algorithm for the Bisection Problem in O-graphs, Conference Information: 12th World Multi-Conference on Systemics, Cybernetics and Informatics/14th International Conference on Information Systems Analysis and Synthesis, Date: JUN 29-JUL 02, 2008 Orlando FL, WMSCI 2008: 12th World Multi-Conference On Systemics, Cybernetics And Informatics, Vol V, Proceedings Pages: 57-60, 2008. is citable in:

1) Tomozei Cosmin, New Aspects Regarding Mobiles Devices Programmation, Proceedings of francophone multidisciplinary colloquium on materials, environment and electronics, pag. 138-140, ISSN 2343-9092, ISSN-L 2343-9092, Scientific Publications - University of Bacau [Revue] (scientific reviews, abstracts and articles).

XII) The paper E. Olaru, M. Talmaciu, A Class of Partitionable Graphs, Bulletin Mathematique de la Societe des Sciences Mathematiques de Roumanie, volume 48 (96), no. 3/2005, ISSN: 1220-3874, (factor impact 2012: 0,585), 313-317. is citable in:

1) Tomozei Cosmin, New Aspects Regarding Mobiles Devices Programmation, Proceedings of francophone multidisciplinary colloquium on materials, environment and electronics, pag. 138-140, ISSN 2343-9092, ISSN-L 2343-9092, Scientific Publications - University of Bacau [Revue] (scientific reviews, abstracts and articles).

XIII) The paper M. Talmaciu. The normal graph conjecture is true for minimal unbreakable graphs. Sci. Stud. Res. Ser. Math. Inform., 19(2):445-454, 2009. is citable in:

1) Seyed Saeed Changiz Rezaei, Seyyed Aliasghar Hosseini, Bojan Mohar, Almost All Regular Graphs are Normal, arXiv:1511.07591v1 [math.CO] 24 Nov 2015.

XIV) Mihai Talmaciu, *Verification on the normal graph conjecture on particular classes of graphs*, Scientific Studies and Research, Series Mathematics and Informatics, Vol. 23 (2013), No. 1, 187-193. is citable in:

1) Seyed Saeed Changiz Rezaei, Seyyed Aliasghar Hosseini, Bojan Mohar, Almost All Regular Graphs are Normal, arXiv:1511.07591v1 [math.CO] 24 Nov 2015.

IV. SCIENTIFIC RESEARCH CONTRACTS

Member or leader in scientific research contracts

1. Structural properties and algorithmic complexity of graph theory problems - Bilateral Cooperation between the Romanian Academy ("Vasile Alecsandri" University of Bacau is partner) and the National

Academy of Sciences of Belarus and Belarusian Republican Foundation for Fundamental Research, ("AR-FRBCF", 2016-2017) - leader of the Romanian.

2. Decomposition of graphs and solving discrete optimization problems - Bilateral Cooperation between the Romanian Academy ("Vasile Alecsandri" University of Bacau is partner) and the National Academy of Sciences of Belarus and Belarusian Republican Foundation for Fundamental Research, ("AR-FRBCF", 2014-2015) - leader of the Romanian.

3. Classes of graphs, complexity of problems and algorithms - Bilateral Cooperation between the Romanian Academy ("Vasile Alecsandri" University of Bacau is partner) and the National Academy of Sciences of Belarus and Belarusian Republican Foundation for Fundamental Research, ("AR-FRBCF", 2012-2013) - leader of the Romanian.

4. Hybrid Complex Medical Systems, ComplexMediSys - Programme: Capacities /Type III – Bilateral Cooperation Romania – Slovakia, Partner Institution: The Slovak Academy of Science and University Petru Maior, Financement Contract no 476/07.03.2011, – member

5. POSDRU /86/1.2/5/63545 of 22.09.2010, TEORO – Occupational Therapy and Applied Inginy in Equipment for Rehabilitation and Assistive Technology – European University specializations, newly introduced in Romania, for a society based on knowledge and equality of chances. Project Coordinator – University “Vasile Alecsandti” of Bacau, 5 partners, one from Holland (European Project), Financement 14530252,9 lei – member.

6. Project Type: Electronic Health Records for the Next Generation Medical Decision Support in Romanian and Bulgarian National Healthcare Systems, The Acronim of the Proposal: NextGenElectroMedSupport, Program: Capacities /Type III, Bilateral Collaboration in Romanian and Bulgarian National Healthcare Systems, Project Manager: Prof. Roumen Kountchev PhD Technical University from Sofia , Bulgaria, Romania – Manager: Barna Iantovics, Coordinating Institution: University Petru Maior, Partner Institution 1: National Institute of Chemistry and Petrochemistry, ICECHIM, Bucharest, Partner Institution 2: University of Medicine and Pharmacy of Targu Mures, Partner Institution 3: University Lucian Blaga of Sibiu, Co: Technical University of Sofia, Financement Contract no 461CB/ 23.10.2010, – member.

7. CEEX 76-2 / 2006 Iași, The Institute of Theoretical Informatics, the Subsidiary of The Romanian Academy – Computational Methods of High Performance in the Shaping and Optimization of Nanomagnetic Materials, 2006 -2009 – member.

8. CEEX 109/2006 University of Bacău – Bioenergetic Valorification of the Production Potential of *Hyppophae rhamnoides* ssp. *Carpathica* through Complex Characterization of Species, the Source of Ecological Harvest for a Durable Agriculture, 2006-2009 – member.

9. "The Implementation of Statistical Checking of the Parts of the Civilian Aviation. The Comparative Analysis of Results Obtained with the Specifications of the Customers", University of Bacău, beneficiary: SC AEROSTAR SA Bacău, 2008 – member.
10. "The Testing of Informatical Libraries", Research Contract no. 2826 /2008, University of Bacău beneficiary: S.C. DEDEMAN S.R.L. Bacău – manager.
11. Technology of High Performance to Increase the Durability of Parts. The Program 4-Partnership in Proritary Areas, 71-94/2007, University of Bacău.
12. Modernization and Consolidation of the Group of Laboratories Research Infrastructure on Cold Plastic Deformation of Metallically Tables (Boards). The Program Capacities. 115 /1/2007, University of Bacău.
13. Grant type A, no. 1231, A Study on the Increase of the Functional Level of the Autistic Child through physical exercise to stimulate sensorial-motrical, 2007-2008, Financement 1930000 RON – member.
14. "Thechico-Economical Study on the Opportunity of Diversification of the Production of PVC", University of Bacău, beneficiary: S.C. SUNCONFORT SRL Bacău.
15. CEEEX M1-C2 3289/2006 – Complex Research-Development Project. Integrated Technology of Fabrication of the Parts Resulted from the Thin Methalical Tables (TIF / PTMS), University of Bacău.
16. Grant 6407/2013, Thematic Fund Partnership and Expert Fund Partnership Block Grant: BLISS-Bacau and Lugano- "Teaching Informatics for a Sustainable Society", ID :PF10, 37800 CHF – member.

Scientific Research Proposals

1. PNCDI III, Cooperare bilaterala Romania - Moldova - The discrete mathematical structures in elaboration of methods and algorithms for solving socio-economic applied problems – director de proiect.
2. Structural properties and algorithmic complexity of graph theory problems - Bilateral Cooperation between the Romanian Academy ("Vasile Alecsandri" University of Bacau is partner) and the National Academy of Sciences of Belarus and Belarusian Republican Foundation for Fundamental Research - leader of the Romanian.
3. Decomposition of graphs and solving discrete optimization problems - Bilateral Cooperation between the Romanian Academy ("Vasile Alecsandri" University of Bacau is partner) and the National Academy of Sciences of Belarus and Belarusian Republican Foundation for Fundamental Research - leader of the Romanian.

4. Classes of graphs, complexity of problems and algorithms - Bilateral Cooperation between the Romanian Academy ("Vasile Alecsandri" University of Bacau is partner) and the National Academy of Sciences of Belarus and Belarusian Republican Foundation for Fundamental Research - leader of the Romanian.
5. Geometric Graphs: Analysis, Algorithms and Applications (EuroG2A3) EuroGIGA (Graphs in Geometry and Algorithms) EUROCORES Programme Project number: 10-EuroGIGA-OP-010 Project Leader: Mihai TALMACIU (RO).
6. A 'User' Use Case called SMART SOCIETY, to enable the societal dimension of the European Future Internet Initiative, PROPOSAL Number 284656 (SMART SOCIETY), Coordinator (Project): Prof.Yair Sharon, Director ICTAF, Tel Aviv University, Participants: Public Computing BV PCOMP Hilversum, Netherlands; Interdisciplinary Centre for Technology Analysis & Forecasting ICTAF Tel Aviv Israel; Reading University IMSS Reading, United Kingdom; Piedmont Economic & Social Research Institute IRES Piemonte Turin, Italy; New University of Lisbon (UNINOVA) UNINOVA Lisbon, Portugal; Vienna University of Technology TU WIEN Vienna; Austria, Muenster University WWU Muenster, Germany; National Technical University of Athens NTUA Athens, Greece; Istituto di Analisi dei Sistemi ed Informatica (IASI) CNR Rome, Italy; Sheffield University USFD Sheffield, United Kingdom; Department of Sociology and Social Research TRNT Trento, Italy; Leicester University ULEIC Leicester, United Kingdom; Petru Maior University ` UPM Tg.Mures, Romania; Lavinia Interactive LVN Madrid Spain - member
7. Bio-Inspired Evolution of the Complex Systems. Bio-Inspired Evolution of the Complex Systems – Grant - James S. McDonnell Foundation, USA, Marty 2009 – member.
8. Combinatorial and Heuristic Methods in Biology – IDEI – Exploratorial Research Project 2008 – manager.
9. Simulation of the behavior of social animals and using the identified methods for solving some NP-complete optimization problems – IDEI – Exploratorial Research project 2008 – member.
10. Algorithms and software products in combinatorial optimization. Applications – CEEX 2006 – responsible partner.
11. Research on the implementation of an informatical sistem in the management of risks specific to Romania, on an administrative-teritorial level– CEEX 2006 – member.

Grants gained before 2005

1. Perfect Graphs and Connected Problems. Structure Problems in the Theory of Perfect, Partitionable, Non-Decomposable Graphs' Theory and Classes of Asociated Hipergraphs. Applications of the theory of

graphs in algebraic problems, language theory and informatics. Algorithmical problems in the theory of perfect graphs. Structure problems in the Theory of Perfect, Partitionable, Non-Decomposable Graphs' Theory and Classes of Associated Hipergraphs . Scientific Research Contract no. 7007/1997, between the Ministry of Education – DGISCSU and the University “Dunărea de Jos” from Galați. Theme no.29/280- unique step.

2. The Theory of Graphs and of Other Combinatorial Structures: Structure Problems in the Perfect, Partitionable, Non-Decomposable Graphs' Theory and Classes of Associated Hipergraphs. Scientific Research Contract with the Ministry of Education. Programme Code 12, Domain Code 12,99 (graphs and combinatorial structures). Steps- 4 :1993, 1994, 1995, 1996.

3. Perfect Graphs and Connected Problems. Study of the Structure of a Class of Perfect Graphs: Graphs Critically Imperfect. Algebraic study of some graph operations. Problems of decomposition. Algorithmical problems in the theory of perfect graphs. Research Contract no.4007/1995, between the Ministry of Education – DGISCSU and the University “Dunărea de Jos” from Galați.

4. The Theory of Graphs and Other Combinatorial Structures. Results on Perfect Graphs' Structure and some operations with graphs. Research Contract no. 3007/1994, between the Ministry of Education – DGISCSU and the University “Dunărea de Jos” from Galați, theme B 24, faze 2/1994.

5. The Theory of Graphs and Other Combinatorial Structures. Research Contract no. 5007/1993 between the Ministry of Education – DGISCSU and the University “Dunărea de Jos” from Galați, position 25, Documentation.

Professor Mihai Talmaciu PhD

