

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 Informathics, University „Alexandru Ioan Cuza” Iași, 2002

II. BOOKS (chapters of books) AND DIDACTIC MATERIAL (selected)

1. Talmaciu, M. - A recognition algorithm and some optimization problems on weakly quasi-threshold graphs, Advanced Intelligent Computational Technologies and Decision Support, Systems Studies in Computational Intelligence, Publisher: Springer International Publishing, Editors: Roumen Kountchev, Barna Iantovics Volume 486, Series ISSN: 1860-949X, 2014, pp 211-217.

2. Mihai Talmaciu, Elena Nechita, and Barna Iantovics, On Confidentially Connected-Free Graphs, Book Title: Advances in Intelligent Analysis of Medical Data and Decision Support Systems, DOI: 10.1007/978-3-319-00029-9_16, Print ISBN: 978-3-319-00028-2, Online ISBN: 978-3-319-00029-9, Series Title: Studies in Computational Intelligence, Series Volume: 473, Series ISSN: 1860-949X, Publisher: Springer International Publishing, Editors: Roumen Kountchev, Barna Iantovics, 473, 2013, pp 179-187.

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.

4. Mihai Talmaciu, Alina-Mihaela Patriciu – Numerical Calculus, Publishing House PIM, Iași, 2008, ISBN: 978-606-520-013-5.

5. Mihai Talmaciu – Graphs’ Algorithmic, Publishing House ALMA MATER, Bacău, 2008, ISBN: 978-973-1833-76-7.

6. Elena Nechita, Gloria Cerasela Crișan, Mihai Talmaciu – Parallel and Distributed Algorithms, Publishing House ALMA MATER, Bacău, 2007, ISBN: 978-973-8392-81-6.

7. Mihai Talmaciu, Iulian Marius Furdu – Algorithms and Data Structures, Publishing House ALMA MATER, Bacău, 2008, ISBN: 978-973-1833-71-2.

8. Mihai Talmaciu – Numerical Methods, Publishing House Tehnica-Info, Chișinău, 2005, ISBN: 9975-63-270-X.

9. Mihai Talmaciu, Alina-Mihaela Patriciu, Recipiente numerice in Pascal si C, EduSoft, 2005, 973-87655-2-8.

10. Mihai Talmaciu, Metode numerice, Colecția Științe Inginerești, Alma Mater, 2007, ISBN 978-973-8392-98-4.

11. Mihai Talmaciu, Alina-Mihaela Patriciu, Analiză numerică cu exemple în limbajele C și Pascal, EduSoft, 2005, 973-87655-2-8.

Electronic support

1. Mihai Talmaciu, Introduction in particular classes of graphs – Combinatorial optimization, Lecture notes, Vasile Alecsandri University of Bacău, 2013

1. Mihai Talmaciu, Anamaria Agapin – Operational Research, University of Bacău, 2008

2. Mihai Talmaciu – Special Chapters on Graphs, University of Bacău, 2008

3. Mihai Talmaciu – The Architecture of Calculus Systems - I.F.R, University of Bacău, 2006

4. Mihai Talmaciu – Informathics for Accounting and Audit - Master, University of Bacău, 2006

5. Mihai Talmaciu – New Information and Communication Technologies - Master, University of Bacău, 2006

III. PAPERS

Papers Published in Thomson ISI: Web of Science; ISI Proceedings

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.
2. Mihai Talmaciu, Elena Nechita, Barna Iantovics, Recognition and Combinatorial Optimization Algorithms for Bipartite Chain Graphs, Computing and Informatics, ISSN 1335-9150, Vol 32, No 2 , pp. 313-329, 2013.
3. Mihai Talmaciu, Determination of the Optimally Efficient Sets in Special Classes of Graphs, Studies in Informatics and Control, ISSN 1220-1766, vol. 21 (4), pp. 447-452, 2012.
4. Elena Nechita, Mihai Talmaciu, Carmen Muraru- A bayesian approach for the assessment of risk probability. Case study for digital risk probability, Environmental Engineering and Management Journal, 11(12), 2012, 2249-2256, ISSN 1582-9596
5. 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.
6. Nechita, E; Talmaciu, M; Timofti, I, et al., Study Concerning The Access To Online Educational Resources And The Use Of Online Collaborative Instruments, 6th International Seminar on the Quality Management in Higher Education, 2010, volume 2, page 567-570.
7. Talmaciu M., Nechita E., On Polar, Trivially Perfect Graphs, International Journal of Computers Communications & Control, ISSN 1841-9836, 5(5): 939-945, 2010.
8. Talmaciu M., Nechita E., Some Combinatorial Optimization Problems for Weak-Bisplit Graphs, SIC, 4, 2010, page 427-434.
9. Talmaciu, M., Nechita, E., Crisan, G.C. - A Recognition Algorithm for a Class of Partitionable Graphs that Satisfies the Normal Graph Conjecture, Studies In Informatics And Control, Vol. 18, Issue 4, Page. 349-354, 2009
10. Talmaciu, M., Nechita, E. - An Algorithm For The Bisection Problem On Trivially Perfect Graphs International Conference on Bi-Inspired Computational Methods Used for Difficult Problems Solving - Development of Intelligent and Complex Systems, Date: NOV 05-07, 2008 Petru Maior Univ, Tg Mures Romania & Romanian Acad Bucharest Romania, Advanced Bio-Inspired Computational Methods Pages: 87-93, 2008 (the short version of paper 12)
11. Nechita, E., Muraru, C.V., Talmaciu, M., Mechanisms In Social Insect Societies And Their Use In Optimization. A Case Study For Trail Laying Behavior, International Conference on Bi-Inspired Computational Methods Used for Difficult Problems Solving - Development of Intelligent and Complex Systems, Date: NOV 05-07, 2008 Petru Maior Univ, Tg Mures Romania & Romanian Academy Bucharest Romania, Advanced Bio-Inspired Computational Methods, Pages: 176-183, 2008 (the short version of paper 13)
12. Talmaciu, M., Nechita, E., An Algorithm for the Bisection Problem on Trivially Perfect Graphs, Conference Information: International Conference on Bio-Inspired Computational Methods Used for Difficult Problems Solving - Development of Intelligent and Complex Systems, Date: NOV 05-07, 2008 Petru Maior Univ, Tg Mures Romania & Romanian Acad Bucharest Romania, Source: BICS 2008: Proceedings Of The 1st International Conference On Bio-Inspired Computational Methods Used For Solving Difficult Problems-Development Of Intelligent And Complex Systems Volume: 1117 Pages: 60-66, 2008 (the long version of paper 10)
13. Nechita, E., Muraru, C.V., Talmaciu, M., Mechanisms in Social Insect Societies and their Use in Optimization. A Case Study for Trail Laying Behavior, Conference Information: International Conference on Bio-Inspired Computational Methods Used for Difficult Problems Solving - Development of Intelligent and Complex Systems, Date: NOV 05-07, 2008 Petru Maior University, Targu Mures Romania & Romanian Acad Bucharest ROMANIA, BICS 2008: Proceedings Of The 1st

International Conference On Bio-Inspired Computational Methods Used For Solving Difficult Problems-Development Of Intelligent And Complex Systems Volume: 1117 Pages: 171-179, 2008 (the long version of paper 11)

14. Nechita, E., Crisan, G.C., Talmaciu, M., Cooperative Ant Colonies for Vehicle Routing Problem with Time Windows. A Case Study in the Distribution of Dietary Products, 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: 48-52, 2008

15. 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

16. Talmaciu, M., Nechita, E., Recognition algorithm for antenna-free graphs, International Journal Of Computers Communications & Control Volume: 3 Pages: 508-511, 2008

17. Talmaciu, M., Nechita, E., Recognition algorithm for diamond-free graphs, Informatica, ISSN(print:0868-4952; online:1822-8844), Volume: 18, Issue:3, Pages: 457-462, 2007

18. Crisan, G.C., Nechita, E., Talmaciu, M., How often does the Parrondo effect appear?, Fluctuation And Noise Letters, ISSN (print: 0219-4775, online: 1793-6780), Volume: 7 Issue: 2 Pages: C19-C25, 2007

19. Crisan, GC; Nechita, E; Talmaciu, M, et al., Using centrality indices in Ant Systems, International Journal Of Computers Communications & Control Volume: 1 Pages: 146-149, 2006

20. Nechita, E., Talmaciu, M., Crisan, G.C., Recognizing dart-free graphs, International Journal Of Computers Communications & Control Volume: 1 Pages: 332-335, 2006.

21. 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, 313-317.

22. 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.

Papers Published in Speciality Reviews BDI Indexed

1. Mihai Talmaciu, Fast algorithms of dually chordal graphs, Scientific Studies and Research, Series Mathematics and Informatics, Vol. 25 (2015), No. 1, 77-86.

2. Mihai Talmaciu, Combinatorial Optimization Algorithms for P_4 -Sparse Graphs, ROMAI J., v.10, no.2(2014), 169–174.

3. M. Talmaciu, On {claw,antenna,net}-free graphs, Scientific Studies and Research, Series Mathematics and Informatics, Vol. 24 (2014), No. 1, 129 –139.

4. Mihai Talmaciu, *Investigations on the bisection problem*, Scientific Studies and Research, Series Mathematics and Informatics, Vol. 23 (2013), No. 1, 171-178.

5. 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, 179-186.

6. Mihai Talmaciu, Optimization Problems On Quasi-Threshold Graphs, Scientific Studies and Research, Series Mathematics and Informatics, Vol. 21 (2011), No. 1, 225 – 232.

7. Talmaciu, M., Nechita, E. - Optimization problems on threshold graphs, Acta Universitatis Apulensis, ISSN 1582-5329, 2011, Special Issue on Understanding Complex Systems, Eds. Barna Iantovics, Ladislav Hluchy and Roumen Kountchev, 62-73.

8. Mihai Talmaciu - The normal graph conjecture is true for minimal unbreakable graphs, Scientific Studies and Research, Series Mathematics and Informatics, Proceedings of „Gheorghe Vranceanu” International Conference on Mathematics and Informatics ICMI 2, Bacău, 445-454, 2009.
9. Doina Păcurari, Mircea Muntean, Mihai Talmaciu – Combinatorial optimization algorithms for polar graphs and their application in finance, , Scientific Studies and Research, Series Mathematics and Informatics, Proceedings of „Gheorghe Vranceanu” International Conference on Mathematics and Informatics ICMI 2, Bacău, 493-498, 2009.
10. Talmaciu, M., Nechita, E. - A recognition algorithm for bull-free graphs, University of Bacău, Scientific Studies and Research), Proceedings of Conference of Mathematics and Informatics Bacău, 2007, pag. 233-243.
11. Talmaciu, M., Nechita, E. - A recognition algorithm for trivially perfect graphs, University of Bacău, Scientific Studies and Research), Proceedings of Conference of Mathematics and Informatics Bacău, 2007, pag. 245-250.
12. Talmaciu, M. - On the quasi-weakly decomposition of graphs, University of Bacău, Scientific Studies and Research), 17 (2007), Mathematics’ Series, pag.237-246.
13. Talmaciu, M., Croitoru C. - Structural Graph Search, Scientific Studies and Research), Proceedings of International Conference on Mathematics and Informatics ICMI 45, Bacău, 573-588, 2006.

Papers Published in the Volumes of some Scientific International Manifestations

1. M. Talmaciu, V.V. Lepin, On Doubly Chordal Graphs, Международная научная конференция, Дискретная математика, алгебра и их приложения, 14–18 сентября 2015, Минск, Республика Беларусь, ISBN 978-986-6499-86-2, pg. 163-164.
2. V.V.Lepin, M.Talmaciu, O.I.Duginov, *Computation of the vertex covering number of a graph, each block of which is a complete graph or a complete bipartite graph or a wheel or a power of a cycle or a power of a path*, INTERNATIONAL CONGRESS ON COMPUTER SCIENCE: INFORMATION SYSTEMS AND TECHNOLOGIES, Proceedings of the International Congress, Republic of Belarus, Minsk, November, 4-7,2013, pg. 565-570.
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.
5. Talmaciu, M., Nechita, E. – Combinatorial optimization for split graphs, 2nd International Conference on e-Health and Bioengineering - EHB 2009, 17-18th, September, 2009, Iași-Constanța, Romania, 55-58, 2009
6. Talmaciu, M., Nechita, E. - Optimization problems on threshold graphs, Understanding Intelligent and Complex Systems, Tg. Mures, 61-68, 2009
7. Talmaciu, M. - Bisection Problem on $\{P_4, K_{1,3}\}$ -free Graphs, 32nd Annual Congress of the American Romanian Academy of Art and Sciences (ARA), Wentworth Institute of Technology, Boston, PROCEEDINGS, 596-598, 2008

Presentations at international conferences

1. Mihai Talmaciu, Victor Lepin, On Doubly Chordal Graphs (short), presented at International Conference “Discrete Mathematics, Algebra and their Applications”, Minsk, Belarus, September, 14-18, 2015.

2. Mihai Talmaciu, Victor Lepin, Fast recognition of chair-free graphs, presented at ICGT 2014, Grenoble, France, 9th International colloquium on graph theory and combinatorics, June 30-July 4, 2014, 24-24.
3. Mihai Talmaciu, Efficient Determination of Biclique Partitions and their Applications in Network Security Risk Assessment, presented at Second International Conference on Natural and Anthropropic Risks ICNAR 2014, 04-07 June 2014, Bacau, Romania.
4. 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.
5. 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.
6. Mihai Talmaciu, *Investigations on the bisection problem*, presented at "Gheorghe Vrănceanu" National Conference on Mathematics and Informatics, Bacău, România, 31th of May, 2013.
7. Mihai Talmaciu, *Verification on the normal graph conjecture on particular classes of graphs*, presented at "Gheorghe Vrănceanu" National Conference on Mathematics and Informatics, Bacău, România, 31th of May, 2013.
8. Mihai Talmaciu, Elena Nechita, and Barna Iantovics, On Confidentially Connected-Free Graphs, MedDecSup '2012, International Workshop on Next Generation Intelligent Medical Decision Support Systems, Sofia, 2012
9. Talmaciu, M. - A recognition algorithm and some optimization problems on weakly quasi-threshold graphs, MedDecSup 2011, International Workshop on Next Generation Intelligent Medical Decision Support Systems, Tg. Mures, 2011
10. Talmaciu, M., Nechita, E. - Optimization problems on threshold graphs, Understanding Intelligent and Complex Systems, Tg. Mures, 2009
11. Mihai Talmaciu - The normal graph conjecture is true for minimal unbreakable graphs, Scientific Studies and Research, Proceedings of International Conference on Mathematics and Informatics ICMI 2009 Bacău, 2009
12. E. Nechita, M.Talmaciu, G.C.Crisan - Recognizing Dart-Free Graphs, Proceedings of ICCCC International Journal of Computers, Communications & Control, 2006
13. Mihai Talmaciu, Cornelius Croitoru - Structural Graphs Search, ICMI45, Bacău, 2006
14. M. Talmaciu- A Class of Partitionable Graphs with Maximum Number of Edges, The 7th Balkan Conference on Operational Research, Constanța, Romania, 2005
- 15.C. Croitoru, E. Olaru, M. Talmaciu, Some results recording the P_4 and P_5 –structure of perfect graphs, Tribute Session „40 years of superior Higher mathematical education in Bacău”, Bacău, November 2001.
- 16.C. Croitoru, E. Olaru, M. Talmaciu, Visibility properties and forbidden hole in graphs Tribute Session „40 years of superior Higher mathematical education in Bacău”, Bacău, November 2001..
- 17.C. Croitoru, E. Olaru, M. Talmaciu, On the (A,N,R) Decomposition of Gaphs, "CONDIF 2000" , Galați, 2000.

Papers published before 2005 in Recognized Speciality Reviews

1. M. Talmaciu, A Class of Partitionable Graphs with Maximum Number of Edges, The 7th Balkan Conference on Operational Research, Constanța, Romania, May, 2005.
2. M. Talmaciu, On a k-clique-join of a class of partitionable graphs, Computer Science Journal of Moldova, vol. 13, no. 1(37), 2005, 37-46.
3. C. Croitoru, C. Frăsinaru, E. Olaru, M.Talmaciu, Hardly perfect graphs, Scientific Annals of the "Alexandru Ioan Cuza" University of Iași, Computer Science Section, ISSN: 1843 – 8121, Tome XIV, 2004, 12-22.

4. M. Talmaciu, Sequential NP5, IP5, MP5 Graphs, Scientific Annals of the University of Bucharest, Informatics, Year LII-2003, 103-108.
5. C. Croitoru, E. Olaru, M. Talmaciu, A new class of perfect graphs : Locally $\{C_5, C_5 \pm e\}$ -free, Scientific Studies and Research, Nr. 12, 97-104, Mathematics Series, University of Bacău, 2002.
6. C. Croitoru, E. Olaru, M. Talmaciu, Visibility properties and forbidden holes in graphs, Scientific Annals of the "Alexandru Ioan Cuza" University of Iași, Computer science Section, ISSN: 1843 – 8121, Tome X, 2001, 45-53.
7. M. Talmaciu, (S,C,R) Decomposition in graphs and (S,C)-oriented graphs, Pakistan Journal of Applied Sciences 1(2): 195-202, 2001.
8. C. Croitoru, C. Radu, M. Talmaciu, On Gem-free (α, ω) - partitionable graphs, Pakistan Journal of Applied Sciences 1(2): 183-188, 2001.
9. C. Croitoru, E. Olaru, M. Talmaciu, On Quasi-Triangulated Graphs, Pakistan Journal of Applied Sciences 1(2): 177-182, 2001.
10. C. Croitoru, E. Olaru, M. Talmaciu, Confidentially connected graphs, The Annal of the University "Dunărea de Jos" of Galați, Fascicle II, Mathematics, Physics, Theoretical Mecanics, Supplement to Tome XVIII (XXIII) 2000, Proceedings of the International Conference "The Risk in Contemporary economy", "Section Mathematical Models and Method in Economy", 17-18.

Cited in Thomson ISI: Web of Science; ISI Proceedings of papers published in Thomson ISI: Web of Science; ISI Proceedings

I) The paper Elena Nechita, Mihai Talmaciu, Carmen Muraru- A bayesian approach for the assessment of risk probability. Case study for digital risk probability, Environmental Engineering and Management Journal, 11(12), 2012, 2249-2256, ISSN 1582-9596 (factor de impact 2011: 1.004) , is citable in:

- 1) Moraru, Roland Iosif; Babut, Gabriel Bujor; Cioca, Lucian Ionel, RATIONALE AND CRITERIA DEVELOPMENT FOR RISK ASSESSMENT TOOL SELECTION IN WORK ENVIRONMENTS, ENVIRONMENTAL ENGINEERING AND MANAGEMENT JOURNAL, Volume: 13 Issue: 6, Pages: 1371-1376 Published: JUN 2014, FI:1,065.
- 2) Oniga, Ersilia; Diac, Maximilian, Metric And Non-Metric Cameras Calibration For The Improvement Of Real-Time Monitoring Process Results, Environmental Engineering & Management Journal (EEMJ) . Apr, 2013, Vol. 12 Issue 4, p719-726. 8p. 2 Color Photographs, 1 Diagram, 2 Charts, 3 Graphs.
- 3) Crișan, Gloria Cerasela , On The Robustness Of Ant Colony Optimization, Scientific Studies & Research. Series Mathematics & Informatics . 2013, Vol. 23 Issue 1, p23-28. 6p.
- 4) Adrian Grozavu, Sergiu Pleșcan, Mihai Ciprian Mărgărint, INDICATORS FOR THE ASSESSMENT OF EXPOSURE TO GEOMORPHOLOGIC AND HYDROLOGIC PROCESSES, Environmental Engineering and Management Journal, November 2013, Vol.12, No. 11, 2203-2210.

II).The paper Talmaciu Mihai; Nechita, Elena, Some Combinatorial Optimization Problems for Weak-Bisplit Graphs, Studies in Informatics and Control, Volume: 19 Issue: 4 Pages: 427-434, 2010, 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.
- 2) Horng, Shih-Cheng; Yang, Feng-Yi; Lin, Shieh-Shing, Embedding evolutionary strategy in ordinal optimization for hard optimization problems, Applied Mathematical Modelling, 2012 –Elsevier, Volume: 36, Issue: 8, Pages: 3753-3763, 2012.
- 3) R Soto, E Monfroy, Syntax Extensions for a Constrained-Object Language via Dynamic Parser Cooperation (*), Studies in Informatics and Control, Volume: 21, No. 1, 41-48, 2012.
- 4) MI Bocicor, IG Czibula, A Distributed Q-Learning Approach to Fragment Assembly, Studies in Informatics and Control, 221-232,2011.

III). The paper E. Nechita, C.V. Muraru, and M. Talmaciu, Mechanisms in Social Insect Societies and their use in Optimization. A Case Study for Trail Lay-ing Behavior, Proceedings of the Conference on Bio-Inspired Computational Methods Used for Diffcult Problems Solving. Development of Intelligent and Complex Systems, Tg. Mures, American Institute of Physics Proceedings, 2008, pp. 171-179. is citable in:

- 1) Barna Iantovics, Bogdan Cranicu, Complex Mobile Multiagent Systems, Complexity and Intelligence of the Artificial and Natural Complex Systems, Medical Applications of the Complex Systems, Biomedical Computing, 2008. CANS '08, 21-30, IEEE Xplore Digital Library.
- 2) Gloria Cerasela Crisan, Camelia-M. Pintea, Petrica C. Pop, On the Resilience of an Ant-based System in Fuzzy Environments. An Empirical Study, Fuzzy Systems (FUZZ-IEEE), 2014, IEEE International Conference on, Pages: 2588 – 2593, Editor: IEEE.

IV) The paper M. Talmaciu and E. Nechita. Recognition algorithm for diamond-free graphs. Informatica, 18(3):457–462, 2007”. is citable in:

- 1) Fellows, Michael R.; Guo, Jiong; Komusiewicz, Christian; et al., Edited by: Ngo, HQ, Graph-Based Data Clustering with Overlaps, 15th Annual International Conference on Computing and Combinatorics (COCOON 2009) Location: Niagara Falls, NY Date: JUL 13-15, 2009, COMPUTING AND COMBINATORICS, PROCEEDINGS Book Series: Lecture Notes in Computer Science, Volume: 5609 Pages: 516-526 Published: 2009.
- 2) MR Fellows, J Guo, C Komusiewicz, R Niedermeier, J. Uhlmann in the paper Graph-Based Data Clustering with Overlaps, Discrete Optimization, Volume 8, Issue 1, February 2011 - Elsevier, pp 2–17.
- 3) J. Uhlmann Multivariate algorithmics in biological data analysis – books, Von der Fakultat IV Elektrotechnik und Informatik der Technischen Universitat Berlin zur Erlangung des akademischen Grades Doktor der Naturwissenschaften, Dr. rer. nat. genehmigte Dissertation, Berlin 2011.
- 4) Min Chih Lin, Francisco J. Soullignac, Jayme L. Szwarcfiter, Arboricity, h -index, and dynamic algorithms, Theoretical Computer Science, 2012 - Elsevier , Volumes 426–427, Pages 75–90.
- 5) LH Chen, MS Chang, CC Wang, BY Wu , On the Min-Max 2-Cluster Editing Problem, Advances in Intelligent Systems and Applications - Volume 1, Smart Innovation, Systems and Technologies Volume 20, 2013, pp 133-142 – Springer.

V) The paper M. Talmaciu, V. Lepin, Algorithms for the Recognition of Net-free Graphs and for Computing Maximum Cardinality Matchings in Claw-free Graphs, Studies in Informatics and Control, Vol. 23, No. 3, pp. 183-188, 2014. is citable in:

- 1) Cosmin Tomozei, Cristian Amancei, Social sustainability achievement through mobile gis applications development and audit, Informatică Economică, vol. 19, no. 4, pp. 90-99, 2015.
- VI) The paper Talmaciu, M., Nechita, E., Crisan, GC., A recognition algorithm for a class of partitionable graphs that satisfies the normal graph conjecture, Studies in Informatics and Control 18 (4), 2009, p. 349-354. 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.
- 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 [Revues] (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 [Revues] (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 - Programe: 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 Inginery 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. CEEEX 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. CEEEX 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 Metalliclly 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-motricity, 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 Metalic 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 – CEEEX 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– CEEEX 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 algebraical 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 Asociated 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 Asociated 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. Algebraical 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

