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Teaching degree: Lect. dr.

The institution where the holder is: Technical University of Cluj-Napoca

Faculty: Faculty of Automation and Computers Science

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T H E L I S T

of scientific works in the field of the teaching post

A – Title of the thesis: Directions of mathematical analysis treated on graphs and networks

Scientific guide: Prof. dr. doc. Elena Popoviciu

„Babes-Bolyai” University Cluj-Napoca

Public presentation: 29.06.2002

B – Books and chapters in published books

Books

1. D. Marian, Rețele. Aplicații în cercetarea științifică și în practică, Ed. Mediamira, Cluj-Napoca, 2002, ISBN 973-9357-06-7, 145 pagini.
2. D. Marian, Analiza matematica, Ed. Mega, Cluj-Napoca, 2010, ISBN 978-606-543-091-4, 206 pagini.
3. D. Marian, Analiza matematica. Culegere de probleme, Ed. Mega, Cluj-Napoca, 2011, ISBN 978-606-543-218-5, 241 pagini.
4. D. Marian, Mathematical Analysis, Ed. Mega, Cluj-Napoca, 2012, ISBN 978-606-543-285-7, 253 pagini.
5. D. Marian, Lectii de analiza matematica, Ed. Mega, Cluj-Napoca, 2013, ISBN 978-606-543-421-9, 253 pagini.

Chapters in published books

1. D. Marian, L. Blaga, Differential Equations. Theory and Problems, Ed. Mediamira, 2014, 220 pagini
2. D. Marian, S. A. Ciplea, N. Lungu, Th.M. Rassias, Hyers-Ulam stability for differential equations and partial differential equations via Gronwall Lemma, Approximation Theory and Analytic Inequalities volume, Springer 2021, 59-69, arXiv:2001.07756
3. S. A. Ciplea, N. Lungu, D. Marian, Th.M. Rassias, On Hyers-Ulam-Rassias stability of a Volterra-Hammerstein functional integral equation, Approximation and Computation in Science and Engineering volume edited by N.J. Daras and Th.M. Rassias, Springer 2022, arXiv:2001.07760, Part of the book series: [Springer Optimization and Its Applications](#) (SOIA, volume 180), ISBN: 978-3-030-84122-5

C – ISI/BDI indexed papers, B+ published

c1) Articles /studies published in specialized journals of international circulation recognized (ISI)

1. D. Marian, I. R. Peter, C. Pinte, A class of generalized monotone operators, *J. Math. Anal. Appl.* 2015, 421 (2), 1827-1843. DOI: 10.1016/j.jmaa.2014.08.017. Print ISSN: 0022-247X, Online ISSN: 1096-0813 (SRI max 1.164/2017).
2. D. Marian, I. R. Peter, C. Pinte, Operations with monotone operators and the monotonicity of the resulting operators, *Monatshefte für Mathematik*, 2016, 81, 143-168. DOI: <https://doi.org/10.1007/s00605-015-0820-x>. Print ISSN 0026-9255, Electronic ISSN 1436-5081 (SRI max 1.124/2017).
3. D. Marian, S. A. Ciplea, N. Lungu, Ulam-Hyers stability of a parabolic partial differential equation, *Demonstr. Math.* 2019, 52, 475-481. ISSN: 2391-4661 (SRI max 0.561/2021).
4. D. Marian, N. Lungu, Ulam-Hyers-Rassias stability of some quasilinear partial differential equations of first order, *Carpathian J. Math.*, 2019, 35(2), 165-170. DOI: <https://www.jstor.org/stable/26898767>. ISSN 1584-2851, Electronic ISSN 1843-4401 (SRI max 0.664/2020).
5. D. Marian, S. A. Ciplea, N. Lungu, On Ulam--Hyers Stability for a System of Partial Differential Equations of First Order, *Symmetry*. 2020, 12(7), 1060; <https://doi.org/10.3390/sym12071060>. ISSN: 2073-8994 (SRI max 0.687/2021).
6. D. Marian, S. A. Ciplea, N. Lungu, Optimal and Nonoptimal Gronwall Lemmas, *Symmetry* 2020, 12(10), 1728; <https://doi.org/10.3390/sym12101728> ISSN: 2073-8994 (SRI) (SRI max 0.687/2021).
7. D. Marian, S. A. Ciplea, N. Lungu On the Ulam-Hyers Stability of Biharmonic Equation, *U.P.B. Sci. Bull., Series A.* 2020, 82 (2), 141-148. Print **ISSN: 1223-7027**, Online **ISSN: 2286-3672** (SRI max 0.322/2021).
8. D. Marian, S. A. Ciplea, N. Lungu, On a functional integral equation, *Symmetry*. 2021, 13(8), 1321; <https://doi.org/10.3390/sym13081321>. ISSN: 2073-8994 (SRI max 0.687/2021).
9. D. Marian, S. A. Ciplea, N. Lungu, Ulam-Hyers stability of Darboux-Ionescu problem, *Carpathian J. Math.* 2021, 37(2), 211-216; DOI: 10.37193/CJM.2021.02.07. ISSN 1584-2851, Electronic ISSN 1843-4401 (SRI max 0.664/2020).
10. D. Marian, S. A. Ciplea, N. Lungu, Hyers-Ulam Stability of Euler's Equation in the Calculus of Variations, *Mathematics* .2021, 9(24), 3320; <https://doi.org/10.3390/math9243320>. **ISSN: 2227-7390** (SRI max 0.634/2021).
11. D. Marian, Semi-Hyers–Ulam–Rassias Stability of the Convection Partial Differential Equation via Laplace Transform. *Mathematics*. 2021, 9(22), 2980. <https://doi.org/10.3390/math9222980>. **ISSN: 2227-7390** (SRI max 0.634/2021).
12. D. Marian, Laplace Transform and Semi-Hyers–Ulam–Rassias Stability of Some Delay Differential Equations. *Mathematics*. 2021, 9(24), 3260. <https://doi.org/10.3390/math9243260D>. **ISSN: 2227-7390** (SRI max 0.634/2021).
13. D. Inoan, D. Marian. Semi-Hyers–Ulam–Rassias Stability of a Volterra Integro-Differential Equation of Order I with a Convolution Type Kernel via Laplace Transform. *Symmetry*. 2021, 13 (11), 2181. <https://doi.org/10.3390/sym13112181>. ISSN: 2073-8994 (SRI max 0.687/2021).
14. D. Marian, S. A. Ciplea, N. Lungu, N. Hyers–Ulam–Rassias Stability of Hermite's Differential Equation. *Mathematics*. 2022, 10, 964. <https://doi.org/10.3390/math10060964>. **ISSN: 2227-7390** (SRI max 0.634/2021).
15. D. Marian, S. A. Ciplea, N. Lungu, Hyers–Ulam Stability of a System of Hyperbolic Partial Differential Equations *Mathematics*. 2022, 10(13), 2183; <https://doi.org/10.3390/math10132183>. **ISSN: 2227-7390** (SRI max 0.634/2021).
16. Marian, D.; Ciplea, S.A.; Lungu, N. Hyers–Ulam Stability of Order k for Euler Equation and Euler–Poisson Equation in the Calculus of Variations. *Mathematics*. 2022, 10(15), 2556. <https://doi.org/10.3390/math10152556>. **ISSN: 2227-7390** (SRI max 0.634/2021).

17. D. Inoan, D. Marian. Semi-Hyers–Ulam–Rassias Stability via Laplace Transform, for an Integro-Differential Equation of the Second Order. *Mathematics*. 2022, *10*(11), 1893. <https://doi.org/10.3390/math10111893>. ISSN: 2227-7390. (SRI max 0.634/2021).
18. Sunday, J.; Shokri, A.; Marian, D. Variable Step Hybrid Block Method for the Approximation of Kepler Problem. *Fractal Fract.* 2022, *6*(7), 343. <https://doi.org/10.3390/fractalfract6060343>. ISSN: 2504-3110 (SRI max 0.735/2020).
19. Yakubu, D.G., Shokri, A., Kumleng, G.M. and Marian, D., 2022. Second Derivative Block Hybrid Methods for the Numerical Integration of Differential Systems. *Fractal Fract.* 2022, *6*(7), 386; <https://doi.org/10.3390/fractalfract6070386> ISSN: 2504-3110 (SRI max 0.735/2020).
20. Juraev, D.A.; Shokri, A.; Marian, D. Solution of the Ill-Posed Cauchy Problem for Systems of Elliptic Type of the First Order. *Fractal Fract.* 2022, *6*(7), 358. (SRI max 0.735/2020). <https://doi.org/10.3390/fractalfract6070358>. ISSN: 2504-3110
21. Juraev, D.A.; Shokri, A.; Marian, D. Regularized Solution of the Cauchy Problem in an Unbounded Domain. *Symmetry*, 2022, *14*(8), 1682. <https://doi.org/10.3390/sym1408168>. ISSN: 2073-8994 (SRI max 0.687/2021).
22. Jurraev, D.A.; Shokri, A.; Marian, D. On an Approximate Solution of the Cauchy Problem for Systems of Equations of Elliptic Type of the First Order. *Entropy*, 2022, *24* (7), 968. <https://doi.org/10.3390/e24070968>. ISSN: 1099-4300 (SRI max 1.541/2018).
23. Juraev, D.A.; Shokri, A.; Marian, D. On the Approximate Solution of the Cauchy Problem in a Multidimensional Unbounded Domain. *Fractal and Fractional*, 2022, *6* (7), 403. <https://doi.org/10.3390/fractalfract6070403>. ISSN: 2504-3110 (SRI max 0.735/2020).
24. Inoan, D.; Marian, D. Semi-Hyers–Ulam–Rassias Stability of Some Volterra Integro-Differential Equations via Laplace Transform. *Axioms*. 2023, *12*, 279. <https://doi.org/10.3390/axioms12030279>. ISSN: 2075-1680 (SRI max 0.602/2021).
25. Inoan, D.; Marian, D. Semi-Hyers-Ulam-Rassias stability for an integro-differential equation of order n . *Demonstr. Math.* 2023, *56*(1). <https://doi.org/10.1515/dema-2022-0198>. ISSN: 2391-4661 (SRI max 0.561/2021).
26. Ciplea, S.A.; Lungu, N.; Marian, D.; Rassias, T. Hyers-Ulam stability of a general linear partial differential equation. *Aequationes Mathematicae* 2023, 1-9. DOI: 10.1007/s00010-023-00960-3. Print ISSN 0001-9054, Electronic ISSN 1420-8903 (SRI max 0.670/2021).

C2) Studies published at conferences indexed in international reference databases in the field of (DBLP, ACM, IEEE, SCOPUS)

1. D. Marian (Cîrdan), Circular distance in directed networks, *Studia Univ. „Babes-Bolyai”, Informatica*. 1997, *42*(2), 67-73. Online ISSN: 2065-9601
2. D. Marian, The fundamental transformation formula of divided differences on undirected networks, *Studia Univ. 'Babes-Bolyai", Informatica*. 1998, *43*(2), 73-82. Online ISSN: 2065-9601
3. D. Marian, The linear normed space $S(G)$ of the networks attached to a graph G , *Studia Univ. "Babes-Bolyai", Informatica*. 1999, *44*(1), 51-61. Online ISSN: 2065-9601
4. D. Marian, Convex Functions of Order n on Undirected Networks, *Rev. d'Anal. Num. Theor. l'Approx*, 2000, *29* (2), 151-160. ISSN: 2457-6794
5. D. Marian, Roughly d -convex functions on undirected tree networks, *Mathematica Moravica*. 2001, *5*, 95-101. ISSN: 1450-5932
6. D. Marian, Roughly E -Convex Functions, *Matematyka z.* 2001, *25*, 190, 121-129. ISSN: 1232-7867
7. D. Marian, Functions with bounded E - d -variation on undirected tree networks, *Rev. Anal. Numér. Théor. Approx.* 2002, *31*(2), 179-186. ISSN 2457-6794

8. D. Marian, Some Types Of Convex Functions On Network, Rev. d'Anal. Num. Theor. l'Approx.. 2009, 38 (1), 51-63. ISSN: 2457-6794
9. D. Marian, On h-E-Convexity, Automation Computers Applied Mathematics. 2010, 19 (2), 305-312. ISSN 1221-437X
10. D. Marian, h-Strongly E-Convex Functions, Rev. d'Anal. Num. Theor. l'Approx. 2011, 40(1), 47-51. ISSN 1222-9024. ISSN: 2457-6794
11. D. Marian, h-Semi Strongly E-Convex Functions. Automation Computers Applied Mathematics. 2011, 20 (1), 33-40. ISSN 1221-437X

D — Studies published in journals and conference volumes with referees (not indexed)

1. D. Marian (Cîrdan), Roughly d-Convex Functions, Séminaire Itinerant „, Tiberiu Popoviciu" d' Equations Fonctionnelles, Approximation et Convexité, Cluj-Napoca, 21 Mai-26 Mai, (1997), 13-16.
2. D. Marian, Generalized Convex Functions and Mathematical Analysis Networks, Research on Theory of Allure, Approximation, Convexity and Optimization, Séminaire de la Théorie de la Meilleure Approximation, Convexité et Programmation Mathématique, Cluj-Napoca. 1999, 183-206.
3. D. Marian, Properties of the metric polynomial of Lagrange type on undirected networks, Proceedings of the Conference on Analysis, Functional Equations, Approximation and Convexity, Cluj-Napoca, October 15-16, 1999, 152-159.
4. D. Marian, The uniformly approximation of undirected networks, Proceedings of the „Tiberiu Popoviciu" Itinerant Seminar of Functional Equations, Approximation and Convexity, Cluj-Napoca, May 23-29, 2000, 123-131.
5. D. Marian, Behaviours and allures on networks, Séminaire de la Théorie de la Meilleure Approximation, Convexité et Optimisation, Cluj-Napoca, 26 Octobre-29 Octobre, 2000, 183-202.
6. D. Marian, Proprietati ale functiilor poros d-convexe, Seminarul de Teoria Celei Mai Bune Aproximari, Convexitate si Optimizare, Cluj-Napoca, 14 Decembrie, 2000.
7. D. Marian, An Axiomatic Approach to the Theory of E-Convex Functions, Proceedings of the „Tiberiu Popoviciu" Itinerant Seminar of Functional Equations, Approximation and Convexity, Cluj-Napoca, May 22 - May 26, 2001, 97-106.
8. D. Marian, The mean value theorem of divided differences on undirected networks, Proceedings of the „Tiberiu Popoviciu" Itinerant Seminar of Functional Equations, Approximation and Convexity, Cluj-Napoca, May 22 - May 26, 2001, 107-118.
9. D. Marian, σ -Convex functions, Séminaire de la Théorie de la Meilleure Approximation, Convexité et Optimisation, Cluj-Napoca, 29 Novembre, Ed. Srima. 2001, 67-84.
10. D. Marian, The notion of allure defined by Elena Popoviciu in study of convex sets, Proceedings of the „Tiberiu Popoviciu" Itinerant Seminar of Functional Equations, Approximation and Convexity, Cluj-Napoca, May 22 - May 26, 2002.
11. D. Marian, S. Tigan, E. Iacob, Some Remarks on the High Order Convexity of Tberiu Popoviciu Type for Functions of Several Variables, Annals of the Tiberiu Popoviciu Seminar of Functional Equations, Approximation and Convexity. 2009, 7, 119-145.
12. D. Marian, Remarks on E-Strongly Convex Functions, Annals of the Tiberiu Popoviciu Seminar of Functional Equations, Approximation and Convexity. 2017, 15, 27–35.

E – Projects

1. Scientific Consultant in the "Complex Multi-Area Relationships and Applications" Project, within the "Discrete Optimization" Laboratory of the Faculty of Mathematics and Informatics Chisinau, State University of Moldova, 2009.
2. Member of the Research Project regarding the development of new generations of stochastic heuristic algorithms, for solving manufacturing scheduling optimization problems, IDEI type Project, Project Director Mircea Ancau, 2008-2012.
3. Member of the Key To Nature Project, Project Director Mircea Giurgiu, Coordinating Institution: Universita degli Studi di Trieste, Trieste, Italy, Project Type FP7, 03/09/2007 - 02/09/2010
4. Member of the project Didatec POSDRU/87/1.3/S/60891, 2013;
5. Member of the project ROSE CeStii 2018-2022, Acord Grant nr.99/SGU/CI/II/17.12.2018;
6. Member of the project ROSE ACCESTEHNIC 2017-2019;
7. Member of the project ROSE Stem 2019, Acord grant nr. 277 / 25.11.2019;
8. Member of the project ROSE SUCCESIMM 2019-2022, Acord grant: 229/SGU/NC/II;
9. Member of the project CNFIS-FDI-F-2023-0322, TutoR-UTCN, 2023;
10. Member of the project "The House of the Future", Socrates Project, in collaboration with Lithuania and Slovenia 2007.
11. Participation in the project meeting within the School Development Project "The House of the Future", Kedainiu Profesinio Rengimo Centras, Lithuania, 5.03-9.03.2007.

Data
Cluj-Napoca, 5.VI.2023

Semnătura
Lect. Dr. Daniela Marian

