

SCIENTIFIC WORKS

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BOOKS AND CHAPTERS IN BOOKS:

1. *Jordan algebras, Jordan coalgebras and unification theories*, **Editions Universitaires Europeennes**, 2017, ISBN: 978-3-639-62347-5, 72 pagini.
2. *Non-linear Equation, Quantum Groups and Duality Theorems*, **VDM Verlag**, 2009, ISBN-10: 363917156X, ISBN-13: 978-3639171563, 72 pagini.
3. *On Models for Transdisciplinarity*, capitolul 5 in **TRANSDISCIPLINARITY AND SUSTAINABILITY**, Editor: Basarab Nicolescu, **TheATLAS Publishing**, ISBN: 0-9778129-5-2 (published in the United States of America, Lubbock, Texas), 2012, pg 52-56.
4. *Non-linear Equation, Quantum Groups and Duality Theorems*, **Ph.D. Thesis**, SUNY at Buffalo (2001).

EDITED VOLUMES:

5. *Hopf Algebras, Quantum Groups and Yang-Baxter Equations 2017*, **Axioms**, Special Issue, Guest Editor: Dr. Florin Felix Nichita
[http : //www.mdpi.com/journal/axioms/special_issues/hopf_algebras_2017](http://www.mdpi.com/journal/axioms/special_issues/hopf_algebras_2017)
6. *Hopf Algebras, Quantum Groups and Yang-Baxter Equations 2016*, **Axioms**, Special Issue, Guest Editor: Dr. Florin Felix Nichita
[http : //www.mdpi.com/journal/axioms/special_issues/hopf_algebras_2016](http://www.mdpi.com/journal/axioms/special_issues/hopf_algebras_2016)
7. *Hopf Algebras, Quantum Groups and Yang-Baxter Equations 2015*, **Axioms**, Special Issue, Guest Editor: Dr. Florin Felix Nichita
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9. *Hopf Algebras, Quantum Groups and Yang-Baxter Equations 2013*, **Axioms**, Special Issue, Guest Editor: Dr. Florin Felix Nichita
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ARTICLES:

11. *On transcendental numbers: new results and a little history*, **Axioms**, 2018, 7, 15 (with Solomon Marcus).
12. *On Jordan algebras and unification theories*, **Revue Roumaine de Mathematiques Pures et Appliquees** 61(4), 2016, 305-316.
13. *Yang-Baxter Equations, Computational Methods and Applications*, **Axioms**, 2015, 4, 423-435.
14. *Yang-Baxter Equations, Informatics and Unifying Theories*, **Proceedings of the International Conference on Systems, Control, Signal Processing and Informatics**, Barcelona 2015, RECENT ADVANCES ON ELECTROSCIENCE AND COMPUTERS (Editori: Nikos E. Mastorakis, Imre Rudas, Marina V. Shitikova, Yuriy S. Shmality), 2015, 218-227 (with Radu Iordanescu and Ion M. Nichita).
15. *The Yang-Baxter equation, (quantum) computers and unifying theories*, **Axioms**, 3, no. 4: 360-368 (with Radu Iordanescu and Ion M. Nichita).
16. *Non-associative algebras, Yang-Baxter equations, and quantum computers*, **Bulgarian Journal of Physics**, vol.41 n.2, 2014, 71-76 (with Radu Iordanescu and Ion M. Nichita).
17. *On Jordan (co)algebras*, **Revue Roumaine de Mathematiques Pures et Appliquees** 59(4), 2014, 401-409.
18. *On Transcendental Numbers*, **Axioms**, 2014; 3(1):64-69.
19. *Yang-Baxter systems, algebra factorizations and braided categories*, **Axioms**, 2013, 2(3), 437-442.
20. *Algebra Structures Arising from Yang-Baxter Systems*, **Communications in Algebra**, Volume 41, Issue 12, 2013, pages 4442-4452 (with Barbu R. Berceanu and Calin Popescu).
21. *Semi-entwining structures and their applications*, **ISRN Algebra**, volume 2013, 9 pag. (with Bartosz Zielinski and Deepak Parashar).
22. *Lie algebras and Yang-Baxter equations*, **Bulletin of the Transilvania University of Brasov**, Series III: Mathematics, Informatics, Physics, Vol. 5 (54), 2012, Special Issue: **Proceedings of the Seventh Congress of Romanian Mathematicians**, Brasov, 2011, Editura Academiei Publishing House and Transilvania Univ. of Brasov Publishing House, 195-208.
23. *Symmetries, Projections and Yang-Baxter equations*, **ACAM: Automation, Computers, Applied Mathematics**, Vol. 21 (2012), No. 1, pp. 101-110 (with Vasile Pop).

24. *On Computational Methods and the Yang-Baxter Equations*, **Advanced computational technologies** (Eds. Calin ENACHESCU, Florin Gheorghe FILIP, Barna IANTOVICS), Romanian Academy Publishing House, 2012, Bucharest, ISBN 978-973-27-2256-5, pg 193-200 (with David Hobby and Barna Laszlo Iantovics).
25. *The duality between corings and ring extensions*, **Axioms**, 2012, 1(2), 173-185; doi:10.3390/axioms1020173 - published online 10 August 2012 (with Bartosz Zielinski).
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27. *Introduction to the Yang-Baxter Equation with Open Problems*, **Axioms**, 2012, 1(1), 33-37; doi:10.3390/axioms1010033.
28. *Yang-Baxter operators from algebra structures and Lie superalgebras*, **Acta Universitatis Apulensis**, No. 29/2012, 325-334 (with Bogdan P. Popovici).
29. *On Models for Transdisciplinarity*, **Transdisciplinary Journal of Engineering and Science**, Vol. 2011, 42-46.
30. *The Energy and the Entropy of Hybrid Multi-Agent Systems*, **Proceedings of ICVL** , International Conference on Virtual Learning, Cluj-Napoca, 28-29 October 2011, Editors: Marin Vlada, Grigore Albeanu, Dorin Mircea Popovici, Univ. Bucharest, 391-394, ISSN 1844-8933 (with Barna L. Iantovics).
31. *Yang-Baxter operators from (G, θ) -Lie algebras*, **Romanian Reports in Physics**, Vol. 63, Number 3, P. 641-650, 2011 (with Bogdan P. Popovici).
32. *Algebraic Models for Transdisciplinarity*, published on-line by Centre International de Recherches et Etudes Transdisciplinaires (CIRET); Pratique de la transdisciplinarite; 2011, <http://basarab.nicolescu.perso.sfr.fr/ciret>.
33. *Asupra unui model algebric pentru transdisciplinaritate (On An Algebraic Model for Transdisciplinarity)*, Institutul pentru Studii Transdisciplinare in Stiinta, Spiritualitate, Societate, <http://it4s.ro/Articles.htm>.
34. Article in "*Intalniri cu Solomon Marcus*" – "*Meetings with Solomon Marcus*", **Spandugino Publishing House** (Eds. L. Spandonide and G. Paun), 2010, 895-896; **Spandugino Publishing House** (Eds. L. Spandonide and G. Paun), 2011, vol. 2, 155-156.
35. *On the (Colored) Yang-Baxter Equation*, **BRAIN. Broad Research in Artificial Intelligence and Neuroscience**, ISSN 2067-3957, Volume 1, July 2010, 33 - 39 (with David Hobby and Barna Laszlo Iantovics).
36. *Inegalitati si elemente de teoria sirurilor (Inequalities and some topics on series theory)*, **Gazeta Matematica**, Seria A, No. 3 / 2009, 214-216 (with Petru Ivanescu).
37. *Knowledge-Based Mobile Agents*, **Proceedings of the International Conference "European Integration between Tradition and Modernity"**, 3-rd edition, 22-23 October 2009, Petru Maior University Press, Targu Mures, 2009, ISSN 1844-2048, 1061-1069 (with David Hobby and Barna Laszlo Iantovics).

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39. *Coloured bialgebras and nonlinear equations*, **Proceedings of the Sixth Congress of Romanian Mathematicians**, Bucharest, 2007, Editura Academiei Publishing House, vol. 1, 65-70, 2009 (with Deepak Parashar).
40. *Some results on the Yang-Baxter equations and applications*, **Romanian Journal of Physics**, Volume 53, Number 9-10, 2008, 1177-1182 (with Bogdan P. Popovici).
41. *New constructions of Yang-Baxter systems*, **AMS Contemporary Mathematics** 442 (2007), 193-200 (with Deepak Parashar).
42. *Asupra unor limite remarcabile de functii (On Some Remarkable Limits of Functions)*, **Gazeta Matematica**, Seria B, No. 1 / 2007, 2-6.
43. *Spectral-parameter dependent Yang-Baxter operators and Yang-Baxter systems from algebra structures*, **Communications in Algebra**, vol. 34(8), 2713-2726, 2006 (with Deepak Parashar).
44. *New solutions for Yang-Baxter systems*, **Acta Universitatis Apulensis**, No. 11 / 2006, 189-195.
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47. *The duality between algebras and coalgebras*, **Ann. Univ. Ferrara - Sez. VII - Sc. Mat.**, vol. LI, 173-181, 2005 (with Samuel D. Schack).
48. *An extension for the Stone duality in the finite case*, **Buletinul Universitatii de Petrol si Gaze din Ploiesti**, No. 1 / 2005, 39-41 (with David M. Clark).
49. *On The Set-Theoretical Yang-Baxter Equation*, **Acta Universitatis Apulensis**, No. 5 / 2003, 97-100.
50. *Some Problems On Combinational Logical Circuits*, **Acta Universitatis Apulensis**, No. 4 / 2002, 139-144 (with Ion M. Nichita).
51. *Self-Inverse Yang-Baxter Operators from (Co)Algebra Structures*, **Journal of Algebra** 218, 738-759 (1999).
52. *Yang-Baxter Operators Arising from (Co)Algebra Structures*, **Communications in Algebra**, Vol. 27 (12), 5833-5845 (1999) (with Sorin Dascalescu).