**LISTA DE LUCRĂRI ȘTIINȚIFICE**

**FACULTATEA DE ȘTIINȚE EXACTE**

**Prof.univ.dr. Sorin NĂDĂBAN**

1. **Teza de doctorat**

 *„Teorie spectrală pe spaţii Hilbert factor”*, susţinută în anul 2000 la Universitatea de Vest din Timișoara, sub coordonarea domnului profesor Dumitru Gașpar.

1. **Brevete de invenţie**
2. **Cărţi**
3. **Apărute în edituri recunoscute CNCS**
4. **S. Nădăban**, *Matematici aplicate în economie*, Editia a II-a, Editura Mirton, Timişoara, 2012, 180 pag., ISBN: 978-973-52-1275-9.
5. **S. Nădăban**, *Calculus- Elemente de calcul diferenţial şi integral*, Editura Mirton, Timişoara, 2010, 133 pag., ISBN: 978-973-52-0931-5.
6. **S. Nădăban**, *Matematici aplicate în economie*, Editura Mirton, Timişoara, 2010, 200 pag., ISBN: 978-973-52-0917-9.
7. **S. Nădăban**, *MathEco-exerciţii şi probleme,* Editia a II- a, Editura Mirton, Timişoara, 2008, 207 pag., ISBN: 978-973-52-0466-2.
8. **S. Nădăban**, A. Şandru, *Algoritmica grafurilor – Sinteze de curs şi aplicaţii,* Editura Mirton, Timişoara, 2007, 265 pag., ISBN: 978-973-52-0249-1.
9. **S. Nădăban**, *MathEco-exerciţii şi probleme,* Editura Mirton, Timişoara, 2007, 183 pag., ISBN: 978-973-52-0219-4.
10. **S. Nădăban**, *Teoria Probabilitǎţilor şi Statisticǎ Matematicǎ,* Editura Didacticǎ şi Pedagogicǎ, Bucureşti, 2007, 338 pag, ISBN: 978-973-30-1743-1.
11. **S. Nădăban**, *MathEco-Analizǎ Matematicǎ,* Ediţia a 2-a, Editura Mirton, Timişoara, 2004, 290 p, ISBN: 973-661-492-1.
12. **S. Nădăban**, *MathEco-Analiză Matematică,* Editura Mirton, Timişoara, 2001, 290 pag., ISBN: 973-585-421-X.
13. **S. Nădăban**, *Spectral Theory on Quotient Spaces,* Editura Universitǎţii de Vest din Timişoara, Colecţia Monografii Matematice, Vol 73, 2001, 148 pag.
14. **Coordonarea unor volume colective publicate în edituri recunoscute CNCS**
15. I. Dzitac, **S. Nădăban** (2022). Fuzzy Logic and Soft Computing–Dedicated to the Centenary of the Birth of Lotfi A. Zadeh (1921-2017). (This book is a reprint of the Special Issue **[Fuzzy Logic and Soft Computing – Dedicated to the Centenary of the Birth of Lotfi A. Zadeh (1921-2017)](https://www.mdpi.com/journal/mathematics/special_issues/fuzzy_logic_soft_computing_dedicated_centenary_birth_Lotfi_A_Zadeh%22%20%5Ct%20%22_blank)** that was published in ***[Mathematics](https://www.mdpi.com/journal/mathematics%22%20%5Ct%20%22_blank)***) ISBN 978-3-0365-5587-4 (Hbk); ISBN 978-3-0365-5588-1 (PDF)
[**https://doi.org/10.3390/books978-3-0365-5588-1**](https://doi.org/10.3390/books978-3-0365-5588-1)
16. **S. Nădăban**, A. Palcu, C. Stoica, M. Tomescu, *Proceedings of the International Symposium „Research and Education in an Innovation Era”* – *Sections: Mathematics & Computer Science,* 5th Edition, Arad 05-07 November 2014, Editura Universităţii „Aurel Vlaicu”, Arad, 95 pag., ISSN 2065 2569.
17. **S. Nădăban**, A. Palcu, C. Stoica, M. Tomescu, *Proceedings of the International Symposium „Research and Education in an Innovation Era”* – *Sections: Mathematics and Computer Science,* Fourth Edition, Arad 8-9 November 2012, Editura Universităţii „Aurel Vlaicu”, Arad, 125 pag., ISSN 2065 2569.
18. **S. Nădăban**, C. Stoica, *Concursul de Matematică „Caius Iacob”,* Editura Universităţii „Aurel Vlaicu”, Arad, 2010, 83 pag., ISBN 978-973-752-461-4.
19. **S. Nădăban**, M.L. Tomescu, *Proceedings of the International Symposium „Research and Education in an Innovation Era”* – *Sections: Computer Science, Mathematics, Didactics,* Third Edition, Arad 11-12 November 2010, Editura Universităţii „Aurel Vlaicu”, Arad, 249 pag., ISSN 2065 2569.
20. **S. Nădăban**, C. Stoica, *Proceedings of the International Symposium „Research and Education in an Innovation Era”* - *Section Mathematics and Computer Science,* Second Edition, Arad 20-21 November 2008, Editura Universităţii „Aurel Vlaicu”, Arad, 244 pag., ISSN 2065 2569.
21. **S. Nădăban**, C. Stoica, *Proceedings of the International Symposium „Research and Education in an Innovation Era”* - *Section Mathematics and Computer Science*, Arad 16-18 November 2006, Editura Mirton, Timişoara, 254 pag., ISBN 978-973-52-0108-1.
22. **Capitole în cărţi publicate în edituri din străinătate**
23. **S. Nădăban**, S. Dzitac, I. Dzitac, *Fuzzy Normed Linear Spaces*. In: Shahbazova S., Sugeno M., Kacprzyk J. (eds) Recent Developments in Fuzzy Logic and Fuzzy Sets. Studies in Fuzziness and Soft Computing, vol 391. Springer, 2020.
24. **Articlole în extenso, publicate în reviste din fluxul știinţific internaţional principal**

**I. Articole ştiinţifice publicate în reviste de specialitate cotate ISI**

1. B. Stanojevic, **S. Nădăban***, Empiric solutions to full fuzzy linear programming problems using the generalized “min” operator,*Mathematics **2023,** 11, 4864.  <https://doi.org/10.3390/math11234864>
2. **S. Nădăban,** *Fuzzy Continuous Mappings on Fuzzy F-Spaces*,  Mathematics **2022**, 10, 3746. https://doi.org/10.3390/math10203746
3. T. Binzar, F. Pater, **S. Nădăban**, *Fixed-Point Theorems in Fuzzy Normed Linear Spaces for Contractive Mappings with Applications to Dynamic-Programming*, Symmetry, 14,**2022**, Art. Nr. 1966. <https://doi.org/10.3390/sym14101966>
4. **S. Nădăban***, Fuzzy Logic and Soft Computing—Dedicated to the Centenary of the Birth of Lotfi A. Zadeh (1921–2017)*, Mathematics, 10, **2022**, Art. Nr. 3216. https://doi.org/10.3390/math10173216
5. S. Dzitac, H.Oros, D.Deac, **S. Nădăban,** Fixed point theory in fuzzy normed linear spaces: a general view, International Journal of Computers Communications & Control, 16(6), 2021, Art.nr. 4587, DOI: 10.15837/ijccc.2021.6.4587
6. S. Dzitac, **S. Nădăban,** Soft computing for decision-making in fuzzy environments: A tribute to professor Ioan Dzitac, Mathematics, 9(14), 2021. Art.nr. 1701, DOI: 10.3390/math9141701
7. B. Stanojevic, M. Stanojevic, **S. Nădăban,** Reinstatement of the extension principle in approaching mathematical programming with fuzzy numbers, Mathematics, 9(11), 2021, Art.nr. 1272, DOI: 10.3390/math9111272
8. R. Saadati, C. Park, D. O’Regan, **S. Nădăban**, *n-Expansively super-homogeneous and (n, k)-contractively sub-homogeneous fuzzy control functions and stability results with numerical examples*, Advances in Difference Equations, 2021:153, 2021. <https://doi.org/10.1186/s13662-021-03287-y>
9. **S. Nădăban,** *From Classical Logic to Fuzzy Logic and Quantum Logic: A General View,* International Journal of Computers Communications & Control, 16(1) 2021. <https://doi.org/10.15837/ijccc.2021.1.4125>.
10. T. Binzar, F. Pater, S. Nădăban, *Fuzzy bounded operators with application to Radon transform,* Chaos, Solitons & Fractals, 141, Article number: 110359, 2020, <https://doi.org/10.1016/j.chaos.2020.110359>.
11. T. Binzar, F. Pater, **S. Nădăban**, *A study of boundedness in fuzzy normed linear spaces*, Symmetry- Basel, 11(7), Article number: 923, 2019.  **<https://doi.org/10.3390/sym11070923>**
12. **S. Nădăban**, *Some fundamental properties of fuzzy linear relations between vector spaces*, Filomat, **30(1) (2016)**, 41-53.
13. **S. Nădăban***, Fuzzy b-metric spaces,* International Journal of Computers Communications & Control, **11(2) (2016)**, 273-281.
14. **S. Nădăban**, I. Dzitac, *Some properties and applications of fuzzy quasi-pseudo-metric spaces*, Informatica, **27 (1) (2016)**, 141-159.
15. **S. Nădăban**, *Fuzzy pseudo-norms and fuzzy F-spaces*, Fuzzy Sets and Systems, **282 (2016)**, 99–114.
16. T. Bînzar, F. Pater, **S. Nădăban,** *On fuzzy normed algebras,* Journal of Nonlinear Sciences & Applications (JNSA), **9(9) (2016)**, 5488-5496. IF: 1,34
17. **S. Nădăban**, *Fuzzy continuous mappings in fuzzy normed linear spaces,* International Journal of Computers Communications & Control*,* **10 (6) (2015)**, 834-842.
18. **S. Nădăban**, *Fuzzy euclidean normed spaces for data mining applications,* International Journal of Computers Communications & Control*,* **10 (1) (2015)**, 70-77.
19. **S. Nădăban**, I. Dzitac, *Atomic decompositions of fuzzy normed linear spaces for wavelet applications*, Informatica, **25 (2014)**, 643-662.
20. A. Palcu, **S. Nădăban**, A. Şandru, *Some on the Boson Mass Spectrum in a 3-3-1 Gauge Model,* Romanian Journal of Physics, **56 (2011)**, 673-681.
21. **ISI Proceedings**
22. **S. Nădăban,** D. Deac (2023). *Nonstandard Fuzzy Sets: A General View*. In: Dzitac, S., Dzitac, D., Filip, F.G., Kacprzyk, J., Manolescu, MJ., Oros, H. (eds) Intelligent Methods Systems and Applications in Computing, Communications and Control. ICCCC 2022. Advances in Intelligent Systems and Computing, vol 1435. 208-218, Springer, Cham. https://doi.org/10.1007/978-3-031-16684-6\_17
23. A. Szabo, T. Bînzar**, S. Nădăban**, F. Pater, *Some properties of fuzzy bounded sets in fuzzy normed linear spaces*, Proceedings of the International Conference on Numerical Analysis and Applied Mathematics (ICNAAM-2017), Book Series: AIP Conference Proceedings, Volume 1978, Article Number: UNSP 390009-1. DOI: 10.1063/1.5043993
24. A. Szabo, T. Bînzar**, S. Nădăban**, F. Pater, *[Strict inclusions between some classes of fuzzy relations](http://aip.scitation.org/doi/abs/10.1063/1.4992603),* Proceedings of the International Conference on Numerical Analysis and Applied Mathematics 2016 (ICNAAM-2016), Book Series: AIP Conference Proceedings, Volume 1863, Article Number: UNSP 430007-1. DOI: 10.1063/1.4992603.
25. **S. Nădăban**, S. Dzitac, I. Dzitac, *Fuzzy TOPSIS: A general view,* Promoting Busines Analytics ond Quantitive Management of Technology: 4th International Conference on Information Technology and Quantitative Management (ITQM 2014), Procedia Computer Science, **91 (2016)**, 823-831. DOI 10.1016/j.procs.2016.07088
26. **S. Nădăban**, S. Dzitac, *Neutrosophic TOPSIS: A general view*, 6th International Conference on Computer Communications and Control (ICCCC), IEEE Xplore **2016**, 250-253.
27. **S. Nădăban**, I. Dzitac,  [*Special Types of Fuzzy Relations*](http://www.sciencedirect.com/science/article/pii/S1877050914004785)*,* Information Technology and Quantitative Management (ITQM 2014), [Procedia Computer Science,](http://www.sciencedirect.com/science/journal/18770509) **31C (2014)**, 552-557.
28. **Articole ştiinţifice publicate în reviste de specialitate indexate în baze de date internaţionale**
29. **S. Nădăban** , *Fuzzy quasi-b-metric spaces,* Annals of West University of Timisoara - Mathematics and Computer Science, vol.58, no.2, 2022, pp.38-48. <https://doi.org/10.2478/awutm-2022-0015>
30. L. Popa, L. Sida, **S. Nădăban,** [*Matrix Representations of Fuzzy Quaternion Numbers*](http://www.uav.ro/stiinte_exacte/journal/index.php/TAMCS/article/view/160)*,* Theory and Applications of Mathematics & Computer Science, **1(1)(2017)**, 59-71.
31. **S. Nădăban**, T. Bînzar, F. Pater, C. Ţerei, S. Hoară, *Katsaras’s type fuzzy norm under triangular norms*, Theory and Applications of Mathematics & Computer Science, **5(2) (2015**), 148–157.
32. P. Gașpar, **S. Nădăban**, L. Sida, *On vector valued periodic distributions*, Theory and Applications of Mathematics & Computer Science, **2(1) (2012)**, 1-9. [Zbl. 1288.60016]
33. **S. Nădăban***, Isomorphism Theorems for Quotient Hilbert Spaces,* Analele Universitǎţii de Vest din Timişoara, Seria Matematică-Informatică, **45(2) (2007)**, 93-98. [MR 2978028]
34. **S. Nădăban**, *On the Spectrum of a Morphism in Quotient Hilbert Spaces,* Surveys in Mathematics and its Applications, **1 (2006)**, 13-22. [Zbl 1147.47006] [MR 2274288]
35. **S. Nădăban**, *A Special Subcategory in the Category of Quotient Banach Spaces,* Analele Universitǎţii de Vest din Timişoara, Seria Matematică-Informatică, **43(1) (2005)**, 73-82. [Zbl 1119.47309][MR 2363336]
36. **S. Nădăban**, *Fredholm Pairs Associated to Fredholm Complexes,* Proceedings of the Scientific Communications Meeting of „Aurel Vlaicu” University, Third Edition, Arad, **14A (1996)**, 99-103. [Zbl 0916.47011] [MR 1667978]
37. **Publicaţii in extenso, apărute în volumele unor conferinţe internaţionale de specialitate**
38. L. Popa, L. Sida, **S. Nădăban** ,I. Dzitac***,*** *Why Need for Fuzzy Logic in High School?,*Proceedings of the International Symposium „Research and Education in an Innovation Era”, 7th Edition, Arad, May 17th-20th, 2018, pag. 100-104.
39. L.Sida, L. Popa, **S. Nădăban,** On Fuzzy quaternion numbers, Proceedings of the International Symposium „Research and Education in an Innovation Era”, 6th Edition, Arad 8-10 December 2016, pag. 116-119.
40. **S. Nădăban**, A. Palcu, M. Tomescu, *Fuzzy metrizability of topological vector spaces,* Proceedings of the International Symposium „Research and Education in an Innovation Era”, 4th Edition, Arad 8-9 November **2012**, pag. 1-6.
41. A. Palcu, **S. Nădăban**, A. Şandru, M. Tomescu, *Is the global symmetry Le-Lμ-LT suitable for the neutrino sector in gauge models?,* Proceedings of the International Symposium „Research and Education in an Innovation Era”, 4th Edition, Arad 8-9 November **2012**, pag.97-104.
42. **S. Nădăban**, A. Palcu, M. Tomescu, *On Fuzzy Banach Spaces,* Proceedings of the International Symposium „Research and Education in an Innovation Era”, Third Edition, Arad 11-12 November **2010**, 133-138.
43. **S. Nădăban**, A. Şandru, C. Fifor, *Sequences in Ordered Fields,* Proceedings of the International Symposium „Research and Education in an Innovation Era”, Third Edition, Arad 11-12 November **2010**, 230-236.
44. M. Tomescu, **S. Nădăban**, A. Palcu, *Intelligent Control System,* Proceedings of the International Symposium „Research and Education in an Innovation Era”, Third Edition, Arad 11-12 November **2010**, 89-97.
45. A. Palcu, **S. Nădăban**, A. Şandru, *SU(4) – a suitable candidate for the extension of the Standard Model,* Proceedings of the International Symposium „Research and Education in an Innovation Era”, Third Edition, Arad 11-12 November **2010**, 114-123.
46. **S. Nădăban**, *Duality in Quotient Hilbert Spaces*, Proceedings of the International Symposium „Research and Education in an Innovation Era”, Second Edition, Arad 20-21 November **2008**, 101-106.
47. **S. Nădăban**, *Paraclosed Morphisms in Quotient Hilbert Spaces,* Proceedings of the International Symposium „Research and Education in an Innovation Era”, Arad 16-18 November **2006**, 74-81.
48. **Alte lucrări și contribuţii știinţifice**
49. **S. Nădăban**, *Positive Morphisms of Quotient Hilbert Spaces,* Bulletins for Applied & Computer Mathematics, BAM-CXII/**2008**, Nr 2358, Technical University of Budapest, pag. 67-76.
50. **S. Nădăban**, *The Local Spectrum of a Multi-morphism on Quotient Fréchet Spaces,* Proceedings of the 9th National Conference of the Romanian Mathematical Society, Lugoj 6-7 May, **2005**, pag. 236-248.
51. **S. Nădăban**, *On the Category qH,* Analele Universitǎţii „Aurel Vlaicu” din Arad, Seria Matematicǎ-Informaticǎ, **2004**, pag. 48-53.
52. **S. Nădăban**, *Examples of Morphisms Between Quotient Hilbert Spaces,* Proceedings of the National Conference on Mathematical Analysis and Applications, Timişoara 12-13 December, **2000**, pag. 215-221.
53. **S. Nădăban**, *Shifturi speciale,* Studia Universitatis „Vasile Goldiş”, seria A, **6 (1996)**, 244-249.
54. **S. Nădăban,** *Spectrul operatorilor în spaţii Banach factor,* Studia Universitatis „Vasile Goldiş”, seria A, **6 (1996)**, 250-255.
55. **S. Nădăban**, M. Nagy, *Joint Spectra for a Family of Paraclosed Morphisms on Quotient Banach Spaces,* Bulletins for Applied Mathematics, 1285/**1996**, Technical University Budapest, pag. 461-468.
56. M. Nagy, **S. Nădăban**, *A Statistical Point of View on the Repeatability of Heat Storage Measurements,* Bulletins for Applied Mathematics, 1284/**1996**, Technical University Budapest, pag. 453-460.
57. **Participări la conferinţe naţionale și internaţionale**
	* 1. S.Nădăban, D. Deac, Nonstandard Fuzzy Sets: A General View, 9th International Conference on Computers Communications and Control ICCCC2022, Oradea, Romania, May 16-20, 2022.
		2. L. Popa, L. Sida, **S. Nădăban** ,I. Dzitac**,** *Some Remarks on Fuzzy Hilbert Space,* International Symposium „Research and Education in an Innovation Era”, 8th Edition, Arad, May 23th-25th, 2019.
		3. L. Popa, L. Sida, **S. Nădăban** ,I. Dzitac***,*** *Why Need for Fuzzy Logic in High School?,*International Symposium „Research and Education in an Innovation Era”, 7th Edition, Arad, May 17th-20th.
		4. A. Szabo, T. Bînzar**, S. Nădăban**, F. Pater, *Some properties of fuzzy bounded sets in fuzzy normed linear spaces,* International Conference on Numerical Analysis and Applied Mathematics (ICNAAM-2017), SEP 25-20, 2017, Greece.
		5. L.Sida, L. Popa, **S. Nădăban,** On Fuzzy quaternion numbers, International Symposium „Research and Education in an Innovation Era”, 6th Edition, Arad 8-10 December 2016.
		6. A. Szabo, **S. Nădăban**, T. Binzar, F. Pater, *Strict inclusions between some classes of fuzzy relations*, 14th International Conference of Numerical Analysis and Applied Mathematics, ICNAAM, 19-25 September 2016, Greece.
		7. **S. Nădăban**, *Neutrosophic sets and their applications to MCDM problems,* 6th International Conference on Computers, Communications and Control, Oradea, 10-14 Mai, 2016.
		8. **S. Nădăban**, *Mulţimi fuzzy*, Conferinta de Matematica „Tiberiu Popoviciu”, Arad, 16 mai 2015.
		9. **S. Nădăban**, T. Bînzar, F. Pater, *Bounded operators on fuzzy Banach spaces,* 25th International Conference on Operator Theory, Timișoara, June 30 – July 5, 2014.
		10. **S. Nădăban**, *Fuzzy Euclidean Normed Spaces,* 5th International Conference on Computers, Communications and Control, Oradea, 6-10 Mai, 2014.
		11. **S. Nădăban**, *A short history of fuzzy normed linear spaces,* International Workshop on Operator Theory and Applications, Arad, 28-30 October, 2013.
		12. **S. Nădăban**, *Fuzzy F-normed linear spaces*, International Workshop on Functional Analysis, Timișoara, October 12-14, 2012.
		13. C. Şchiopu, E.Şișu, V. Udrescu, **S. Nădăban**, C. Fifor, A. Zamfir, *Sistem informatic de operare pentru interpretarea spectrelor de masă a gangliozidelor din creierul uman,* Conferinţa Diaspora în Cercetarea Ştiinţifica Românească, București 17-19 septembrie 2008.
		14. C. Şchiopu, C. Mosoarca, E.Şișu, C. Fifor, **S. Nădăban**, Ž. Vukelic, A. Zamfir, *Optimization of novel in fragmentation techniques for polysialylated glycolipids,* The 5th Conference on Condensed Matter Physics, Timișoara 16-18 July 2008.
		15. C. Şchiopu, E.Şișu, **S. Nădăban**, C. Fifor, Ž. Vukelic, A. Zamfir, *Computer software for the interpretation of brain ganglioside mass spectra,* International Symposium „Research and Education in an Innovation Era”, Second Edition, Arad 20-21 November 2008.
		16. **S. Nădăban**, P. Gașpar, *On Discrete Periodically Correlated Random Fields,* A 21-a Conferinţǎ Internaţionalǎ de Teoria Operatorilor, Timişoara, 2006.
		17. **S. Nădăban**, *The Local Spectrum for a Finite Family of Morphisms,* La „30 de ani de Invǎţǎmânt superior tehnic”, Universitatea „Aurel Vlaicu” din Arad, 2002.
		18. **S. Nădăban**, *Asupra spectrului unui morfism pe spaţii factor,* Conferinţa Naţionalǎ de Analizǎ Matematicǎ, Universitatea Babeş-Bolyai din Cluj-Napoca, 2002.
		19. **S. Nădăban**, *Asupra unor funcţii de producţie,* „Zilele Academice Arǎdene”, Universitatea de Vest „Vasile Goldiş” din Arad, 2001.
		20. **S. Nădăban**, *Local spectral theory for multi-morphisms of quotient Fréchet spaces,* 18th International Conference on Operator Theory, June 27- July 1, 2000, University of the West, Timişoara, România.
58. **S. Nădăban**, A. Terescenco, F. Turcu, *The Adjoint of a Morphism Between Quotient Hilbert Spaces,* A 17-a Conferinţǎ Internaţionalǎ de Teoria Operatorilor, Timişoara, 1998.

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