LISTA DE LUCRĂRI ȘTIINȚIFICE
Prof.univ.dr. Sorin NĂDĂBAN

A) 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.

B) Brevete de invenţie

C) Cărţi

a) Apărute în edituri recunoscute CNCS

1. **S. Nădăban**, *Matematici aplicate în economie,* Editia a II-a, Editura Mirton, Timişoara, 2012, 180 pag., ISBN: 978-973-52-1275-9.
2. **S. Nădăban**, *Calculus- Elemente de calcul diferenţial şi integral*, Editura Mirton, Timișoara, 2010, 133 pag., ISBN: 978-973-52-0931-5.
3. **S. Nădăban**, *Matematici aplicate în economie*, Editura Mirton, Timişoara, 2010, 200 pag., ISBN: 978-973-52-0917-9.
4. **S. Nădăban**, *MathEco-exerciţii şi probleme,* Editia a II- a, Editura Mirton, Timişoara, 2008, 207 pag., ISBN: 978-973-52-0466-2.
5. **S. Nădăban**, A. Şandru, *Algoritmica grafurilor – Sinteze de curs şi aplicaţii,* Editura Mirton, Timişoara, 2007, 265 pag., ISBN: 978-973-52-0249-1.
6. **S. Nădăban**, *MathEco-exerciţii şi probleme,* Editura Mirton, Timişoara, 2007, 183 pag., ISBN: 978-973-52-0219-4.
7. **S. Nădăban**, *Teoria Probabilităţilor şi Statistică Matematică,* Editura Didactică și Pedagogică, București, 2007, 338 pag, ISBN: 978-973-30-1743-1.
8. **S. Nădăban**, *MathEco-Analiză Matematică,* Ediţia a 2-a, Editura Mirton, Timişoara, 2004, 290 p, ISBN: 973-661-492-1.
9. **S. Nădăban**, *MathEco-Analiză Matematică,* Editura Mirton, Timişoara, 2001, 290 pag., ISBN: 973-585-421-X.
10. **S. Nădăban**, *Spectral Theory on Quotient Spaces,* Editura Universităţii de Vest din Timişoara, Colecţia Monografii Matematice, Vol 73, 2001, 148 pag.

b) Coordonarea unor volume colective publicate în edituri recunoscute CNCS

1. 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)** that was published in ***Mathematics***) ISBN 978-3-0365-5587-4 (Hbk); ISBN 978-3-0365-5588-1 (PDF) **https://doi.org/10.3390/books978-3-0365-5588-1**
2. **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.
3. **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.
4. **S. Nădăban**, C. Stoica, *Concursul de Matematică „Caius Iacob”,* Editura Universităţii „Aurel Vlaicu”, Arad, 2010, 83 pag., ISBN 978-973-752-461-4.
5. **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.
6. **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.

7. **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.

c) Capitole în cărţi publicate în edituri din străinătate

1. **S. Nădăban**, D. Deac, (2024). Fuzzy Functional Analysis—A General View. In: Balas, V.E., Dzemyda, G., Belciug, S., Kacprzyk, J. (eds) Decision Making and Decision Support in the Information Era. Studies in Systems, Decision and Control, vol 534. Springer, Cham. https://doi.org/10.1007/978-3-031-62158-1_17
2. **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.

D) Articlole în extenso, publicate în reviste din fluxul ştiinţific 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.
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. Șandru, *Some on the Boson Mass Spectrum in a 3-3-1 Gauge Model,* Romanian Journal of Physics, **56 (2011)**, 673-681.

II. ISI Proceedings

1. **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
2. 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
3. A. Szabo, T. Bînzar**, S. Nădăban**, F. Pater, *Strict inclusions between some classes of fuzzy relations,* 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.
4. **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
5. **S. Nădăban**, S. Dzitac, *Neutrosophic TOPSIS: A general view,* 6th International Conference on Computer Communications and Control (ICCCC), IEEE Xplore **2016**, 250-253.
6. **S. Nădăban**, I. Dzitac, *Special Types of Fuzzy Relations*, Information Technology and Quantitative Management (ITQM 2014), Procedia Computer Science, **31C (2014)**, 552-557.

III. Articole ştiinţifice publicate în reviste de specialitate indexate în baze de date internaţionale

1. **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
2. L. Popa, L. Sida, **S. Nădăban,** *Matrix Representations of Fuzzy Quaternion Numbers,* Theory and Applications of Mathematics & Computer Science, **1(1)(2017)**, 59-71.
3. **S. Nădăban**, T. Bînzar, F. Pater, *Some fixed point theorems for ϕ-contractive mappings in fuzzy normed linear spaces*, J. Nonlinear Sci. Appl., 10 (2017), 5668–5676. doi:10.22436/jnsa.010.11.05
4. **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.
5. P. Gașpar, **S. Nădăban**, L. Sida, *On vector valued periodic distributions*, Theory and Applications of Mathematics & Computer Science, **2(1) (2012)**, 1-9.
6. **S. Nădăban**, *Isomorphism Theorems for Quotient Hilbert Spaces*, Analele Universităţii de Vest din Timişoara, Seria Matematică-Informatică, **45(2) (2007)**, 93-98.

7. **S. Nădăban**, *On the Spectrum of a Morphism in Quotient Hilbert Spaces,* Surveys in Mathematics and its Applications, **1 (2006)**, 13-22.
8. **S. Nădăban**, *A Special Subcategory in the Category of Quotient Banach Spaces,* Analele Universităţii de Vest din Timişoara, Seria Matematică-Informatică, **43(1) (2005)**, 73-82.
9. **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.

E. Publicaţii in extenso, apărute în volumele unor conferinţe internaţionale de specialitate

1. 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.
2. 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.
3. **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.
4. A. Palcu, **S. Nădăban**, A. Şandru, M. Tomescu, *Is the global symmetry L_e-L_μ-L_T 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.
5. **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.
6. **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.
7. 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.
8. 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.
9. **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.
10. **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.

F. Alte lucrări și contribuţii ştiinţifice

1. **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.
2. **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.
3. **S. Nădăban**, *On the Category qH,* Analele Universităţii „Aurel Vlaicu" din Arad, Seria Matematică-Informatică, **2004**, pag. 48-53.
4. **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.
5. **S. Nădăban**, *Shifturi speciale,* Studia Universitatis „Vasile Goldiş", seria A, **6 (1996)**, 244-249.
6. **S. Nădăban,** *Spectrul operatorilor în spaţii Banach factor,* Studia Universitatis „Vasile Goldiş", seria A, **6 (1996)**, 250-255.
7. **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.
8. 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.

G. 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 Conferinţă Internaţională de Teoria Operatorilor, Timişoara, 2006.
17. **S. Nădăban**, *The Local Spectrum for a Finite Family of Morphisms,* La „30 de ani de Invăţământ superior tehnic", Universitatea „Aurel Vlaicu" din Arad, 2002.
18. **S. Nădăban**, *Asupra spectrului unui morfism pe spaţii factor,* Conferinţa Naţională de Analiză Matematică, Universitatea Babeş-Bolyai din Cluj-Napoca, 2002.
19. **S. Nădăban**, *Asupra unor funcţii de producţie,* „Zilele Academice Arădene", 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.
21. **S. Nădăban**, A. Terescenco, F. Turcu, *The Adjoint of a Morphism Between Quotient Hilbert Spaces,* A 17-a Conferinţă Internaţională de Teoria Operatorilor, Timişoara, 1998.

Data: 12.01.2025