

Dr. Dan Tudor Vuza
List of Works

Papers

- 1. *On some inequalities* (in Romanian). *Gazeta Mat. seria B* 7 (1973), 392 - 394.
- 2. *On a class of rational functions* (in Romanian). *Gazeta Mat. seria B* 8 (1976), 286 - 290.
- 3. *On the representation of linear maps on vector and affine spaces*. In the volume "Students' Scientific Contributions" (in Romanian), p. 191 - 197. The Lithograph of the University of Bucharest, 1976.
- 4. *An abstract theory for the measurability in Jordan's sense* (in Romanian). *Studii si Cercetari mat.* 30, 2 (1978), 237 - 248.
- 5. *Sur les homomorphismes invariants par rapport à un monoïde*. *Rev. Roum. Math. Pures Appl.* 23, 10 (1978), 1607 - 1616.
- 6. *A generalization of Ghika's rings* (in Romanian). *Studii si cercetari mat.* 31, 2 (1979), 251- 274.
- 7. *Sur les espaces vectoriels réticules complexes*. *Rev. Roum. Math. Pures Appl.* 25, 4 (1980), 663 - 674.
- 8. *Sur les ouverts à frontière lisse dans un espace de Hilbert* (in collaboration with N. Buruiana). *Bull. Math. Soc. Sci. Math. R.S.R.* 25, 1 (1981), 9 - 13.
- 9. *A characterization of Hilbert space using s_n and d_n numbers*. *Analele Univ. Craiova* 9 (1981), 11 - 12.
- 10. *The Hahn - Banach extension theorem for modules over ordered rings*. *Rev. Roum. Math. Pures Appl.* 27, 9 (1982), 989 - 995.
- 11. *Aspects mathématiques dans la théorie modale d'Anatol Vieru*. *Rev. Roum. Math. Pures Appl.* 27, 2 (1982), 219 - 248.
- 12. *Aspects mathématiques dans la théorie modale d'Anatol Vieru II*. *Rev. Roum. Math. Pures Appl.* 27, 10 (1982), 1091 -1099.
- 13. *Aspects mathématiques dans la théorie modale d'Anatol Vieru III*. *Rev. Roum. Math. Pures Appl.* 28, 7 (1983), 665 - 673.
- 14. *Aspects mathématiques dans la théorie modale d'Anatol Vieru IV*. *Rev. Roum. Math. Pures Appl.* 28, 8 (1983), 757 - 773.
- 15. *Classes modales partitionnantes*. *Muzica* 5 (1983), 45 - 47.
- 16. *The perfect M - tensor product of perfect Banach lattices*. In *Proceedings of the First Romanian - GDR Seminar on Banach Space Theory and its Applications* (Bucharest 1981), p. 272 - 295. *Lecture Notes in Mathematics*, vol. 991, Springer, Berlin - Heidelberg - New York - Tokyo 1983.
- 17. *Strongly lattice - ordered modules over function algebras I*. *Analele Univ. Craiova* 11 (1983), 52 - 63.
- 18. *Strongly lattice - ordered modules over function algebras II*. *Analele Univ. Craiova* 12 (1984), 1 - 9.
- 19. *Principal modules of linear maps and their applications*. In *Proceedings of the Second International Conference on Operator Algebras, Ideals and their Applications in Theoretical Physics* (Leipzig 1983), p. 212 - 219. *Teubner Texte Math.* vol. 67, Teubner, Leipzig 1984.
- 20. *Propriétés des suites périodiques utilisées dans la pratique modale*. *Muzica* 2 (1984), 44 - 48.
- 21. *Ideals and bands in principal modules*. *Arch. Math.* 45 (1985), 306 - 322.
- 22. *La propriété faible de Fatou et la propriété d'Egoroff*. *C. R. Acad. Sci. Paris* 301 (1985), 115 - 117.
- 23. *Sur les treillis vectoriels, en tant que modules principaux sur une f algèbre*. *C. R. Acad. Sci. Paris* 301 (1985), 797 - 800.
- 24. *The theory of principal modules and its applications to linear operators on Riesz spaces*. *Semesterbericht Funktionalanalysis*, p. 211 - 222, Tübingen, Sommersemester 1985 and *Analele Univ. Craiova* 13 (1985), 1 - 11.
- 25. *En forant le domaine* (in collaboration with Anatol Vieru). *Muzica* 4 (1985), 43 - 48.

- 26. *Sur le rythme périodique*. Revue Roumaine de Linguistique - Cahiers de Linguistique Théorique et Appliquée 22, 1 (1985), 73 - 103. Reprinted in Musikometrika I (editor : M.G. Boroda), p. 83 - 126. Studienverlag Dr. N. Brockmeyer, Bochum 1988.
- 27. *Mathematical methods in music*. In the volume "Mathematics in the Present and Future World", p. 277 - 286 (in Romanian; collective volume coordinated by Academician Caius Iacob). The Romanian Academy Publishing House, 1985.
- 28. *Ideal properties of order bounded operators on ordered Banach spaces which are not Banach lattices*. In Proceedings of the 9 International Conference on Operator Theory (Timisoara and Herculane 1984), p. 353 - 368. Operator Theory: Advances and Applications, vol. 17, Birkhäuser, Basel - Boston Stuttgart 1986.
- 29. *Opérateurs oru - compacts*. C. R. Acad. Sci. Paris 303 (1986), 707 - 710.
- 30. *Aspects mathématiques dans la théorie modale d'Anatol Vieru V*. Rev. Roum. Math. Pures Appl. 31, 5 (1986), 399 - 413.
- 31. *Les structures modales, instrument d'étude des modes et des rythmes*. Revue Roumaine de Linguistique - Cahiers de Linguistique Théorique et Appliquée 23, 1 (1986), 55 - 68.
- 32. *On some results of Buskes, Dodds, de Pagter and Schep*. Analele Univ. Craiova 14 (1986), 10 - 16.
- 33. *Oru - compact operators*. In Proceedings of the 9-th International Conference on Operator Theory (Bucharest 1985), p. 333 - 354. Operator Theory: Advances and Applications, vol. 24, Birkhäuser, Basel - Boston - Stuttgart 1987.
- 34. *Les composantes d'un opérateur positif*. C. R. Acad. Sci. Paris 304 (1987), 291 - 294.
- 35. *Strongly modular and strongly latticial classes of operators*. Rev. Roum. Math. Pures Appl. 32, 7 (1987), 631 - 671.
- 36. *Characterization of regular Riesz spaces using oru - compact operators*. Arch. Math. 51 (1988), 547 - 560.
- 37. *Alfsen - Effros type order relations defined by vector norms* (in collaboration with C. P. Niculescu). Rev. Roum. Math. Pures Appl. 33, 9 (1988), 751 - 766.
- 38. *Some Mathematical Aspects of David Lewin's Book Generalized Musical Intervals and Transformations*. Perspectives of New Music 26, 1 (1988), 258 - 287.
- 39. *Factorization of convolution operators* (in collaboration with I. M. Popovici). Analele Univ. Craiova 16 (1988), 1 - 8.
- 40. *Opérateurs de type convolution*. C. R. Acad. Sci. Paris 308 (1989), 265 - 268.
- 41. *Characterization of Carleman operators*. Proc. Kon. Ned. Akad. van Wetensch. 92, 3 (1989), 343 - 354.
- 42. *Continuity properties of the distance constant function* (in collaboration with F. Pop). J. Operator Theory 22 (1989), 73 - 84.
- 43. *Elements of mathematical theory of rhythm* (in Romanian). Tribuna Musicologica 2 (1989), 89 - 114.
- 44. *Factoring compact operators and approximable operators* (in collaboration with I. M. Popovici). Z. Anal Anwend. 9, 3 (1990), 221 - 233.
- 45. *Uniform continuity and uniform convergence*. Demonstratio Math. 23, 1 (1990), 113 - 121.
- 46. *Supplementary sets and regular complementary unending canons* (Part One). Perspectives of New Music, 29, 2 (1991), 22 - 49.
- 47. *Supplementary sets and regular complementary unending canons* (Part Two). Perspectives of New Music, 30, 1 (1992), 184 - 207.
- 48. *Supplementary sets and regular complementary unending canons* (Part Three). Perspectives of New Music, 30, 2 (1992), 102 - 125.
- 49. *Supplementary sets and regular complementary unending canons* (Part Four). Perspectives of New Music, 31, 1 (1993), 270 - 305.
- 50. *On L-M duality in real Banach spaces* (in collaboration with C.P. Niculescu). Rev. Roum. Math. Pures Appl. 38, 3 (1993), 275 - 279.

- 51. *Interpolation and approximation from the M - theory point of view* (in collaboration with C.P. Niculescu and G. Paltineanu). Rev. Roum. Math. Pures Appl. 38, 6 (1993), 531 - 544.
- 52. *A survey of the theory of principal modules and its applications to the theory of regular operators*. Rev. Roum. Math. Pures Appl. 38, 10 (1993), 861-892.
- 53. *Modern methods for compressing fingerprints images* (in Romanian; in collaboration with D. Tâlvescu). Analele Univ. Craiova 7 (1994), 107 - 117.
- 54. *Supplementary sets - theory and algorithms*. Muzica 1 (1995), 75 - 99.
- 55. *Interpolating ideals in locally convex lattices* (in collaboration with G. Paltineanu). Rev. Roum. Math. Pures Appl. 41, 5 - 6 (1996), 379 - 396.
- 56. *An alternate proof of a result of Johnstone and Silverman concerning wavelet threshold estimators for data with correlated noise* (in collaboration with U. Amato). Rev. Roum. Math. Pures Appl. 41, 7 - 8 (1996), 431 - 438.
- 57. *Differential Representation of Measures and Functions* (in collaboration with G. Isac). J. Math. Analysis and Appl. 206 (1997), 518 - 531.
- 58. *Besov regularization, thresholding and wavelets for smoothing data* (in collaboration with U. Amato). Numer. Funct. Anal. and Optimiz. 18, 5 - 6 (1997), 461 - 493.
- 59. *Wavelet Approximation of a Function from Samples Affected by Noise* (in collaboration with U. Amato). Rev. Roum. Math. Pures Appl. 42, 7 - 8 (1997), 481 - 493.
- 60. *Fully Adaptive Wavelet Regularization for Smoothing Data* (in collaboration with U. Amato and M.R. Occorsio). In Proceedings of the Third International Conference on Functional Analysis and Approximation Theory, Acquafredda di Maratea (Potenza, Italy), September 1996, Vol. I, p. 207-222. Suppl. Rendiconti del Circolo Matematico di Palermo, Serie II, 52 (1998).
- 61. *A Generalization of the Bishop Approximation Theorem for Locally Convex Lattices of AM Type* (in collaboration with G. Paltineanu). In Proceedings of the Third International Conference on Functional Analysis and Approximation Theory, Acquafredda di Maratea (Potenza, Italy), September 1996, Vol. II, p. 687-694. Suppl. Rendiconti del Circolo Matematico di Palermo, Serie II, 52 (1998).
- 62. *Smoothing Data with Correlated Noise by Wavelet Regularization* (in collaboration with U. Amato). Rev. Roum. Math. Pures Appl. 43, 3 - 4 (1998), 253 - 275.
- 63. *Wavelet simultaneous approximation from samples affected by noise* (in collaboration with U. Amato). Computers & Mathematics with applications, 36, 5 (1998), 101-111.
- 64. *A Mathematica Algorithm for the Computation of the Coefficients for the Finite Interval Wavelet Transform* (in collaboration with U. Amato). Rev. Roum. Math. Pures Appl. 44, 5 - 6 (1999), 707-736.
- 65. *Smoothing data: when finite and infinite dimensional help between each other* (in collaboration with U. Amato). In Finite Versus Infinite (editors: C. Calude and G. Paun), p. 1-16. Springer, 2000.
- 66. *Optimization of Synchronous Detection Signal Processing Circuits for Intensity-Modulated Optical Sensors* (in collaboration with M. Vlădescu), Proceedings of the 23rd International Spring Seminar on Electronics Technology, Budapest University of Technology and Economics, May 2000, 395-400.
- 67. *Signal Processing Method for Optical Sensors - Implementation, Simulation and Experimental Results* (in collaboration with M. Vlădescu), Proceedings of the 5th International Symposium on Microelectronic Technologies and Microsystems, Pitesti, June 2001, 195-200.
- 68. *Intensity Modulated Optical Sensor with Enhanced Signal Processing Capabilities* (in collaboration with M. Vlădescu), Proceedings of the 10th International Scientific and Applied Science Conference Electronics Et'2001, Sozopol, Bulgaria, September 2001, 151-156.
- 69. *On Some Properties of Periodic Sequences in Anatol Vieru's Modal Theory* (in collaboration with M. Andreatta), Tatra Mt. Math. Publ., 23 (2001), 1-15.
- 70. *A Generalization of a Theorem of Bernard concerning Frontal Sets* (in collaboration with C. P. Niculescu and G. Paltineanu), Supplemento ai Rendiconti del Circolo Mat. Palermo, Serie II, 68 (2002), 699-710.

- 71. *Relations between AC and Transient Simulations of Synchrononous Detection Circuits Used in Optical Sensors* (in collaboration with M. Mocanu), U.P.B. Sci.Bull., Series C, 64, 2 (2002), 51 – 66.
- 72. *Training Program in Electronic Passive Components Education* (in collaboration with P. Svasta, V. Golumbeanu, C. Ionescu, N. Codreanu, D. Leonescu and M. Vladescu), Proceedings of the Electronic Components and Technology Conference, San Diego 2002, 780-787.
- 73. *On some theoretical and computational aspects of Anatol Vieru's periodic sequences* (in collaboration with M. Andreatta and C. Agon). In *Soft Computing - A Fusion of Foundations, Methodologies and Applications*, Volume 8, Number 9, p. 588 – 596, Springer, 2004.
- 74. *Synchronization of Several RFID Readers at Low Antenna Distances with Avoidance of Mutual Disturbances*, SIITME 2005 Conference Proceedings, Cluj-Napoca, September 2005, 108-112.
- 75. *Collision Classification, a Procedure for Reduction of False Collisions in Identification of Multiple Transponders*, SIITME 2005 Conference Proceedings, Cluj-Napoca, September 2005, 65-69.
- 76. *Anatol Vieru : formalisation algébrique et enjeux esthétiques* (in collaboration with M. Andreatta, C. Agon, and C. Cazaban). In *Penser la musique avec les mathématiques? - Actes du séminaire Mathématiques/musique/philosophie*, Ircam/Delatour, Paris, 2006.
- 77. *An RFID Reader Based on the Atmel AT91SAM7S64 Micro-Controller* (in collaboration with E. Gelinotte, R. Frosch and L. Pascu), Proceedings of the 1st Electronics Systemintegration Technology Conference, Dresden, September 2006, 1158-1165.
- 78. *Improving the Reliability of Detection of RFID Tags by Synchronous Demodulation with Programmable Phase Shift* (in collaboration with R. Frosch), SIITME 2006 Conference Proceedings, Iași, September 2006, 183-187.
- 79. *The Patient's Family, between the Right to Know the Truth and the Medical Secret* (in Romanian), *Revista Română de Bioetică*, 4, 3 (2006), 20-38.
- 80. *Electronics and Medicine – Perspectives and Promises for A Developing Country*, *Romanian Journal of Diabetes, Nutritions and Metabolic Diseases*, 14, 1 (2007), 34-42.
- 81. *A Long Range RFID Reader Based on the Atmel AT91SAM7S64 Micro-Controller* (in collaboration with R. Frosch and H. Koeberl), 30th ISSE 2007 Conference Proceedings, Cluj, May 2007, 445-450.
- 82. *A Low Cost Reader for Anticollision and Animal Identification* (in collaboration with R. Frosch, H. Koeberl and Damien Boissat), SIITME 2008 Conference Proceedings, Predeal, September 2008, 36-40.
- 83. *Simulation of Multiple ISO/IEC 18000-2:2004 Transponders with the AT91SAM7S64 Controller* (in collaboration with R. Frosch), SIITME 2008 Conference Proceedings, Predeal, September 2008, 41-45.
- 84. *An RFID Tag Simulator Based on the Atmel AT91SAM7S64 Micro-Controller* (in collaboration with S. Chițu and P. Svasta), 33th ISSE 2010 Conference Proceedings, Warsaw, May 2010, 229-234.
- 85. *RFID Readers for the HDX Protocol - Design, Simulation and Testing* (in collaboration with R. Frosch), 16th SIITME 2010 Conference Proceedings, Pitesti, September 2010, 47-52.
- 86. *An RFID Tag Simulator for the FDX and HDX Protocols* (in collaboration with S. Chițu and P. Svasta), 16th SIITME 2010 Conference Proceedings, Pitesti, September 2010, 53-58.
- 87. *A Current-Driven RFID Reader with Automatic Antenna Tuning* (in collaboration with R. Frosch and M. Vlădescu), IEEE 17th SIITME 2011 Conference Proceedings, Timișoara, October 2011, 299-304.
- 88. *Transmission line effects in Class D amplifiers – The peak control function as a design tool* (in collaboration with R. Frosch and M. Vlădescu), IEEE 18th SIITME 2012 Conference Proceedings, Alba Iulia, October 2012, 53-58.
- 89. *Computation of a directional coupler for RFID systems* (in collaboration with R. Frosch and M. Vlădescu), IEEE 18th SIITME 2012 Conference Proceedings, Alba Iulia, October 2012, 303-308.

- 90. *Modeling of spectral output and spectral responsivity of optoelectronic devices for PSpice simulation* (in collaboration with M. Vlădescu), Proc. SPIE 8411, Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies VI, 84112T, 2012.

Technical reports

- 1. *A collection of routines for the wavelet transform of Daubechies type*. Technical Report of Institute for the Applications of Mathematics 122, Naples 1995.

Books and textbooks

- 1. *Problems of Geometry* (in Romanian: in collaboration with N. Buruiana and D. Gogulescu). The Lithograph of the University of Bucharest, 1979.
- 2. *Lessons on Mathematical Theory of Modes* (in Romanian). The Lithograph of the Music Conservatory "Ciprian Porumbescu", Bucharest 1983.
- 3. The chapter *Elements of the Theory of Modules over Ordered Rings*, in the 2-nd volume of the series "Order Structures in Functional Analysis" (in Romanian; collective volume coordinated by Academician Romulus Cristescu). The Romanian Academy Publishing House, Bucharest, 1989.
- 4. The chapter *A Class of Regular Operators*, in the 3-rd volume of the series "Order Structures in Functional Analysis". (in Romanian; collective volume coordinated by Academician Romulus Cristescu). The Romanian Academy Publishing House, Bucharest, 1992.
- 5. The chapter *Frontal Ideals And Antisymmetric Ideals In Locally Convex Lattices* (in collaboration with G. Paltineanu) in the 4-rd volume of the series "Order Structures in Functional Analysis". (in Romanian; collective volume coordinated by Academician Romulus Cristescu). The Romanian Academy Publishing House, Bucharest, 2001.
- 6. The chapter *Strongly Modular And Strongly Latticial Classes Of Regular Operators*", in the 4-rd volume of the series "Order Structures in Functional Analysis". (in Romanian; collective volume coordinated by Academician Romulus Cristescu). The Romanian Academy Publishing House, Bucharest, 2001.
- 7. The chapter *A Low Cost Anticollision Reader* (in collaboration with R. Frosch, H. Koeberl and Damien Boissat), in the volume "Development and Implementation of RFID Technology", I-Tech Education and Publishing, Vienna, 2009, 201-216.
- 8. The chapter *RFID Readers for the HDX Protocol - A Designer's Perspective* (in collaboration with R. Frosch), in the volume "Current Trends and Challenges in RFID", InTech Open Access Publisher, Rijeka, 2011, 229-254.
- 9. The chapter *The Loneliness of a Researcher*, in the volume *Meetings with Solomon Marcus 2*, Spandugino Publishing House, Bucharest, 2011, 753-774.