Gheorghe MOROȘANU

BORN: April 30, 1950, Darabani, Botoșani County, Romania

ADDRESS: *Babeș-Bolyai* University**,** Department of Mathematics, 1 Mihail Kogălniceanu Str., 400084 Cluj-Napoca, Romania
Email: gheorghe.morosanu@ubbcluj.ro

EMPLOYMENT

- Since 2021: Research Professor, *Babeș-Bolyai* University, Cluj-Napoca, Romania
- 2015-2021: Invited Professor, *Babeș-Bolyai* University, Cluj-Napoca, Romania
- 2002-2020: Full Professor, Central European University, Budapest, Hungary
- 2001-2002: Researcher, University of Stuttgart, Germany
- 1995-2004: Researcher (part-time position), *Octav Mayer* Institute of Mathematics, Romanian Academy, Iași Branch
- 1991-2004: Full Professor, *Alexandru Ioan Cuza* University, Iași, Romania
- 1990-1991: Associate Professor, *Alexandru Ioan Cuza* University, Iași, Romania
- 1980-1990: Assistant Professor and Lecturer, *Alexandru Ioan Cuza* University, Iași, Romania
- 1978-1980: Researcher, *Alexandru Ioan Cuza* University, Iași, Romania
- 1974-1978: Teacher of Mathematics, High School No. 5, Iași, Romania (including 6 months of mandatory military service in 1974-1975)

OTHER APPOINTMENTS

- 2004-2012: Head of the Department of Mathematics and Its Applications, Central European University, Budapest
- 2003-2004: Acting Head of the Department of Mathematics and Its Applications, Central European University, Budapest
- 1999-2001: Member of Committee No. 1 (for Mathematics and Natural Sciences) of the National Council for Scientific Research, Ministry of Education, Romania
- 1992-1996: Head of the Department of Differential Equations, Faculty of Mathematics, *Alexandru Ioan Cuza* University, Iași, Romania
- 1990-1991: Chancellor, Faculty of Mathematics, *Alexandru Ioan Cuza* University, Iași, Romania

TEACHING EXPERIENCE

I have taught various courses at different universities such as: Calculus, Linear Algebra, Linear Programming, Real Analysis, Functional Analysis, Ordinary Differential Equations, Partial Differential Equations, Integral Equations, Evolution Equations, Calculus of Variations, Control Theory, Semigroups of Linear Operators, and others.

Visiting Professorship Positions: University of Jyväskylä, Finland (1989); Ohio University, Athens, Ohio, USA (1998 and 2000)

PhD Supervision: The following individuals have completed their PhD dissertations under my supervision or co-supervision: Muhammad AHSAN (2013), Panait ANGHEL (1999), Narcisa APREUTESEI (1999), Luminița BARBU (1998), Oganeditse A. BOIKANYO (2011), Cristian COCLICI (1998), Nicușor COSTEA (2015), Paul GEORGESCU (2008), Tihomir GYULOV (2010), Alexandru KRISTÁLY (2010), Gabriela Lorelai LITCANU (2001), Rodica LUCA (1995), Mihai MIHĂILESCU (2010), Viorica Venera MOTREANU (2003), and András SERÉNY (2008).

Habilitation Supervision : Luminița BARBU (COSMA), *Ovidius* University, Constanța, Romania; Cornel PINTEA, *Babeș-Bolyai* University, Cluj-Napoca, Romania; Cristian VLADIMIRESCU, University of Craiova, Craiova, Romania

In addition, I have been an advisor to many other students and young researchers.

SCIENTIFIC ACTIVITY

Main fields of interest: Ordinary Differential Equations, Partial Differential Equations, Nonlinear Analysis, Evolution Equations, Calculus of Variations, Fluid Mechanics, Asymptotic Analysis, Various topics in Applied Mathematics

PhD Defense: January 16, 1981, thesis title: *Qualitative Problems for Nonlinear Differential Equations of Accretive Type in Banach Spaces*

PhD Supervisors: Adolf Haimovici and Viorel Barbu

Publications: I have authored or co-authored 16 books (published by Birkhäuser, Chapman & Hall / CRC, Kluwer, Springer, Editura Academiei Române, etc.), over 150 research articles, and many contributions to conference volumes.

INTERNATIONAL RECOGNITION AND DIFFUSION

I am frequently invited to give talks and lecture series on my own results. I also organize or co-organize from time to time scientific events such as:

- 2024 (May 30-31): The sixth meeting of the "Romanian Itinerant Seminar on Mathematical Analysis and Its Applications", *Babeș-Bolyai* University, Cluj-Napoca, Romania: https://www.cs.ubbcluj.ro/rismaa-2024
- 2023 (May 26-28): The fifth meeting of the "Romanian Itinerant Seminar on Mathematical Analysis and Its Applications", University of Craiova, Craiova, Romania: http://rismaa.ucv.ro
- 2018 (April 20-21): The first meeting of the "Romanian Itinerant Seminar on Mathematical Analysis and Its Applications", *Babeș-Bolyai* University, Cluj-Napoca, Romania: http://www.cs.ubbcluj.ro/1st-rismaa
- 2017 (April 4): Workshop on Applied Mathematics, *Alexandru Ioan Cuza* University, Iași, Romania

- 2011 (September 19-25): Symposium on *Linear and Nonlinear Operators and Applications*, in the framework of the International Conference of Numerical Analysis and Applied Mathematics (ICNAAM), Halkidiki, Greece
- 2011 (May 21): Workshop on Applied Mathematics, Central European University, Budapest
- 2010 (October 29): Workshop on Applied Analysis, Central European University, Budapest
- 2008: Workshop on Calculus of Variations and Optimization, Central European University, Budapest
- 2007: Student Workshop on Some Topics in Applied Mathematics, Central European University , Budapest
- 2007: Workshop on Applied Evolution Equations, Central European University, Budapest
- 2006: New Trends in Applied Mathematics, Central European University, Budapest
- 2006: Recent Advances in Calculus of Variations, Central European University, Budapest
- 1990: International Conference on Differential Equations and Control Theory, *Alexandru Ioan Cuza* University, Iași, Romania

I have visited many institutions for research purposes such as: International Centre for Theoretical Physics (ICTP), Trieste, Italy (1984, 1985); University of Jyväskylä, Finland (1995, 1996, 1997, 1998, and 1999); University of Stuttgart, Germany (1997 (DAAD Fellowship), 1999, 2000, 2001, and 2002); Ohio University, Athens, Ohio (1988 and 2000); Technical University, Munich, Germany (2002); University of Rousse, Bulgaria (2010, 2012); *Babeș-Bolyai* University, Cluj-Napoca, Romania (2013, 2014, 2015); University of Iowa, Iowa City, IA, USA (2016, 2021, 2022, 2023, 2024); *Ovidius* University, Constanța, Romania (2016, 2019); University of Craiova, Romania (2017); *Simion Stoilow* Mathematics Institute of the Romanian Academy (2017), and many others.

I have cooperated with many (over 45) researchers on various topics in my fields of interest or neighboring fields and disciplines, including biology, chemistry, economics, engineering, mechanics, physics.

I have been director or investigator for several grants as follows:

- 2007: Director of the grant *Applied Evolution Equations*, Central European University, Budapest
- 2001-2002 (15 months): Investigator, DFGWe659 - *Conservation Laws and Electromagnetic Fields*, University of Stuttgart, Germany
- Between 1991-2000 I was director of several grants offered by the Romanian Ministry of Education or the Romanian Academy
- In addition, I have been a member of the research teams of other Romanian grants.

AWARDS AND HONORS

- 2021: ***Nicolae Teodorescu* Prize** of the Academy of Romanian Scientists (for the book Functional Analysis for the Applied Sciences, Universitext, Springer, 2019)
- 2019: **Professor Honoris Causa** of the *Babeș-Bolyai* University, Cluj-Napoca, Romania
- 2017: **Doctor Honoris Causa** of the University of Craiova, Romania
- 2016: **Doctor Honoris Causa** of the *Ovidius* University, Constanța, Romania

- 2008: **Egyetemi Tanár (University Professor)**, appointed by the President of Hungary
- 2007: **Honorary Citizenship** of Darabani (my hometown)
- 1985: **Distinguished Assistant Professor**, Ministry of Education, Romania
- 1983: ***Gheorghe Lazăr* Prize** of the Romanian Academy (for outstanding contributions to the theory of hyperbolic partial differential systems)

PUBLICATIONS

Gheorghe Moroșanu

(a) Books

· .Books in English

1. Nonlinear Evolution Equations and Applications, D. Reidel, Dordrecht - Boston - Lancaster - Tokyo, 1988.

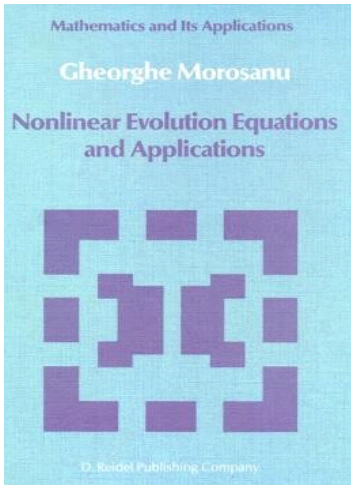
2. Nonlinear Evolutions. Stability Theory and Applications, Reports on Appl. Math. and Computing, No. 5, University of Jyväskylä, Finland, 1990.

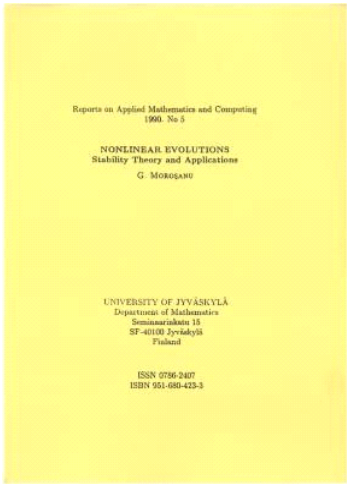
3. Monotonicity Methods for Partial Differential Equations, Budapest Univ. of Technology and Economics, 1999 (with S. Sburlan).

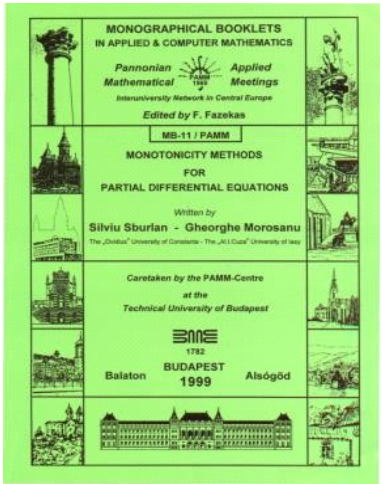
4. Functional Methods in Differential Equations, Chapman & Hall / CRC, Boca Raton - London - New York - Washington, D.C., 2002 (with V.-M. Hokkanen).

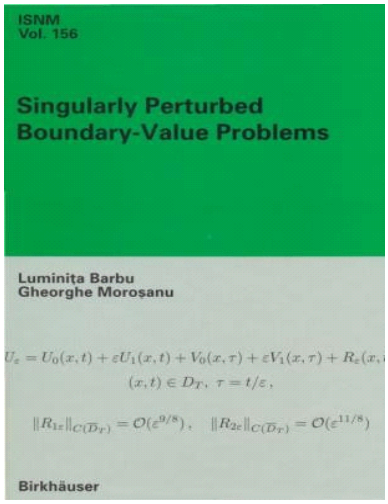
5. Singularly Perturbed Boundary Value Problems, Birkhäuser, Basel - Boston - Berlin, 2007 (with L. Barbu).

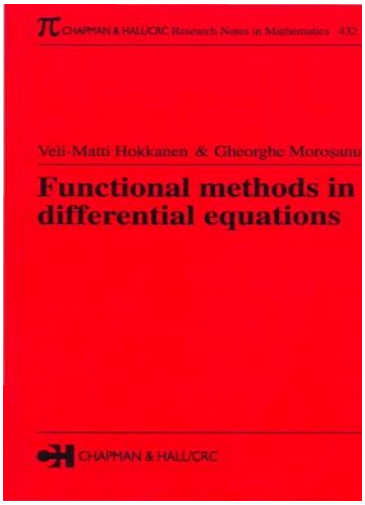
6. Functional Analysis for the Applied Sciences, Universitext, Springer, 2019.

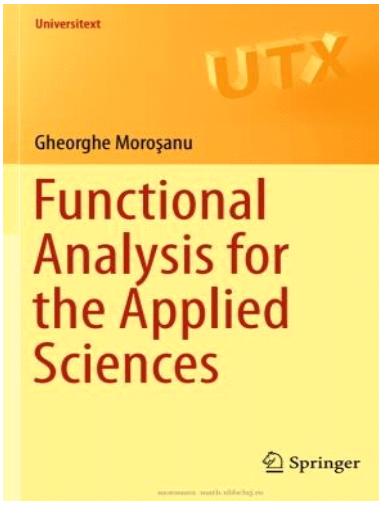












· Books in Romanian

1. Problems in Differential Equations, "Alexandru Ioan Cuza" University, Iași, 1985.

2. Nonlinear Evolution Equations and Applications, Editura Academiei, Bucharest, 1986.

3. Differential Equations. Applications, Editura Academiei, Bucharest, 1989.

4. Mathematics. Tests in Algebra and Analysis, "Gr. T. Popa" University of Medicine and Pharmacy, Iași, 1998 (with Dumitru Dorobanțu, Gabriela Georgescu and Paul Georgescu).

5. Mathematics. Collection of Exercises in Algebra and Analysis, Editura Tehnică, Chișinău, 1998 (with Dumitru Dorobanțu and Gabriela Georgescu).

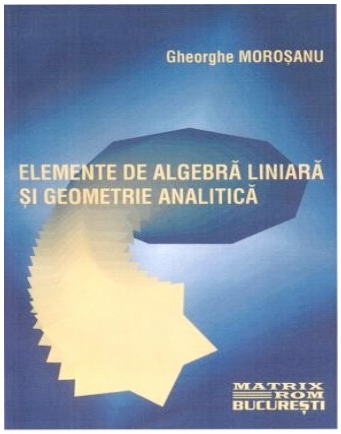
6. Functional Methods in the Study of Boundary Value Problems, Series of Math. Monographs, No. 70, Editura Univ. Timișoara, 1999.

7. Mathematics Assessment Grids. Admissions 1999, Editura Sedcom Libris, Iași, 1999 (joint work, under the editorship of Eugen Popa).

8. Asymptotic Analysis of Some Nonlinear Boundary Value Problems, Editura Academiei, Bucharest, 2000 (with L. Barbu).

9. Second Order Differential Equations in Hilbert Spaces, Matrix Rom, Bucharest, 2000 (with N. Apreutesei-Dumitriu).

10. Elements of Linear Algebra and Analytic Geometry, Matrix Rom, Bucharest, 2000.



(b) Papers in Periodicals

1. Asymptotic behaviour of resolvent for a monotone set in a Hilbert space, Atti Accad. Naz. Lincei 61 (1977), 565-570.

2. Second order difference equations of monotone type, Numer. Funct. Anal. Optim. 1 (1979), 441-450.

3. Asymptotic behaviour of solutions of differential equations associated to monotone operators, Nonlinear Anal. 3 (1979), 873-883.

4. Existence for nonlinear differential systems of hyperbolic type, An. Ştiinţ. Univ. A. I. Cuza, Iaşi, Mat. (N.S.) 26 (1980), 345-352.

5. Stability of solutions of nonlinear boundary value problems for hyperbolic systems, Nonlinear Anal. 5 (1981), 61-70.

6. Mixed problems for a class of nonlinear differential hyperbolic systems, J. Math. Anal. Appl. 83 (1981), 470-485.

7. Existence for a nonlinear hyperbolic system, Nonlinear Anal. 5 (1981), 341-353 (with Viorel Barbu).

8. Asymptotic dosing problem for evolution equations in Hilbert spaces, An Ştiinţ. Univ. A.. I. Cuza, Iaşi. Mat. (N.S.) 28 (1982), 127-137.

9. On a class of nonlinear differential hyperbolic systems with non-local boundary conditions, J. Differential Equations 43 (1982), 345-368.

10. The study of the evolution of some self-organized chemical systems, J. Chemical Physics 82 (1985), 3685-3691 (with G. Bourceanu)

11. Asymptotic behavior of solutions of second order difference equations associated to monotone operators, Numer. Funct. Anal. Optim. 8 (1985-86), 419-434 (with E. Mitidieri).

12. Nonlinear boundary value problems for a class of hyperbolic partial differential systems, Atti Sem. Mat. Fis. Univ. Modena 34 (1985-86), 295-316 (with D. Petrovanu).

13. Nonlinear monotone boundary conditions for parabolic equations, Rend. Istit. Mat. Univ. Trieste 18 (1986), 136-155 (with D. Petrovanu).

14. Variational solutions for elliptic boundary value problems, An. Ştiinţ. Univ. A. I. Cuza, Iaşi, Mat. (N.S.) 35 (1989), 237-244 (with D. Petrovanu).

15. Optimal control of biharmonic variational inequalities, An. Ştiinţ. Univ. A. I. Cuza, Iaşi, Mat. (N.S.) 35 (1989), 153-170 (with Zheng-Xu He).

16. Time periodic solutions for a class of partial differential hyperbolic systems, An. Ştiinţ. Univ. A. I. Cuza, Iaşi, Mat. (N.S.) 36 (1990), 93-98 (with D. Petrovanu).

17. Well-posed nolinear problems in integrated circuits modeling, Circuits Systems Signal Process 10 (1991), 53-69 (with C. Marinov, and P. Neittaanmäki).

18. The study of some problems from the theory of integrated circuits, Memoriile Secţiilor Ştiinţifice ale Academiei Române, Ser. IV, t. XIV (1991), No. 2, 187-193 (in Romanian).

19. On a class of nonlinear hyperbolic systems, Memoriile Secţiilor Ştiinţifice.ale Academiei Române, Ser. IV, t. XIV (1991), No. 2, 219-237 (with R. Luca).

20. Consistent models for electrical networks with distributed parameters, Math. Bohem. 117 (1992), 113-122 (with C. Marinov).

21. Hyperbolic problems in integrated circuit modelling, Stud. Cerc. Mat. 44 (5) (1992), 355-373 (with R. Luca).

22. Une équation intégro-différentielle de la théorie de la capillarité, C.R. Acad. Sci. Paris, t. 319, Série I (1994), 1171-1174 (with A. Corduneanu).

23. An integro-differential equation from the capillarity theory, Libertas Math. 14 (1994), 115-123 (with A. Corduneanu).

24. Multiple orthogonal sequence method and applications, An. Ştiinţ. Univ. "Ovidius" Constanţa, Ser. Mat. 2 (1994), 188-200 (with S. Sburlan).

25. Periodic solutions for a class of functional equations, An. Ştiinţ. Univ. "Ovidius" Constanţa, Ser. Mat. 3 (1995), 38-43 (with A. Corduneanu).

26. Some remarks on the phase field equations, Libertas Math. 15 (1995), 159-164.

27. On a problem arising in capillarity theory, An Ştiinţ. Univ. "Ovidius" Constanţa, Ser. Mat. 3 (1995), 127-137.

28. A nonlinear integro-differential equation related to a problem from capillarity theory, Comm. Appl. Nonlinear Anal. 3 (1996), 51-60 (with A. Corduneanu).

29. On the system x'=A(t)x with A(t) symmetric or antisymmetric, Bul. Techn. Institute, Iaşi, T. 42 (46), Sect. I (1996), 35-39 (with A. Corduneanu).

30. A variational approach to a problem arising in capillarity theory, J. Math. Anal. Appl. 206 (1997), 442-447.

31. On the commutation, symmetricity and unitarity of the evolution operators, PanAmerican Math. J. 7 (1997), 1-14 (with V.-M. Hokkanen).

32. An application of the Fourier method in acoustics, Advances in Math. Sciences and Appl., Gakkotosho, Tokyo, Vol. 7 (1997), No. 1, 69-77 (with V.-M. Hokkanen, P. Joulain, V. Locquet, G. Bourceanu)..

33. On a boundary value problem for a second order differential equation, An. Ştiinţ. Univ. "Ovidius" Constanţa, Ser. Mat. 5 (1997), 89-94 (with D. Zofotă).

34. Asymptotic analysis of the telegraph equations with non-local boundary value conditions, PanAmerican Math. J. 8 (1998), No. 4, 13-22 (with L. Barbu).

35. Differentiability with respect to delay, Differential Integral Equations 11 (1998), No. 4, 589-603 (with V.-M. Hokkanen).

36. The singular limit of telegraph equations, Comm. Appl. Nonlinear Anal. 5 (1998), No. 1, 91-106 (with A. Perjan).

37. On the commutation, symmetricity and unitarity of linear evolution operators, An. Ştiinţ. Univ. "Ovidius" Constanţa, Ser. Mat. 6 (1998), 75-84 (with Veli-Matti Hokkanen).

38. On a degenerate second order boundary value problem, An. Ştiinţ. Univ. "Ovidius" Constanţa, Ser. Mat. 6 (1998), 141-152.

39. The Fourier method for abstract differential equations and applications, Comm. Appl. Analysis 3 (1999), No. 2, 173-188 (with P. Georgescu and V. Grădinaru).

40. A class of nonlinear parabolic boundary value problems, Math. Sci. Res. Hot-Line 3 (1999), No. 4, 1-22 (with V.-M. Hokkanen).

41. Regularity of solutions of the telegraph system with nonlinear boundary conditions, PanAmerican Math. J. 9 (1999), No.3, 17-29 (with S. Azicovici and N.H. Pavel).

42. A class of degenerate multivalued second order boundary value problems, J. Math. Anal. Appl. 236 (1999), 1-24 (with A. Panait and D. Zofotă).

43. One-dimensional singularly perturbed coupled boundary value problems, Math. Sci. Res. Hot-Line 3 (1999), No. 10, 1-21 (with C. Coclici and W.L.Wendland).

44. Un problème aux limites pour une équation différentielle non linéaire du deuxième ordre, Bulletin de la Classe des Sciences de l'Académie Royale de Belgique, 6e serie, Tome X, 1-6, 1999, 79-88 (avec Daniela Zofotă).

45. On a nonlinear second order differential operator, Comm. Appl. Nonlinear Anal. 6 (1999), No. 4, 1-16 (with S. Aizicovici and N.H. Pavel).

46. On the viscous-viscous and the viscous-inviscid interaction in Computational Fluid Dynamics, Computing and Visualization in Sci. 2 (1999), 95-105 (with C. Coclici and W.L. Wendland).

47. A first order asymptotic expansion of the solution of a singularly perturbed problem for the telegraph equations, Appl. Anal. 72 (1999) (1-2), 111-125 (with L. Barbu).

48. The coupling of hyperbolic and elliptic boundary value problems with variable coefficients, Math. Meth. Appl. Sci. 23 (2000), 401-440 (with C. Coclici and W.L. Wendland).

49. On a class of singularly perturbed coupled boundary value problems, Math. Sci. Res. Hot-Line 4 (2000) (6), 25-37 (with L. Barbu).

50. A class of singularly perturbed, coupled, evolutionary boundary value problems, Math. Sci. Res. Hot-Line 4(8) (2000), 63-76 (with L. Barbu and C. Coclici).

51. On some singularly perturbed nonlinear boundary value problems, Reports of the Department of Mathematical Information Technology, Series B. Scientific Computing, No. B 8/2000, 1-17 (with L. Barbu and P. Neittaanmäki).

52. Existence and regularity for a class of nonlinear hyperbolic boundary value problems, J. Math. Anal. Appl. 266 (2002), 432-450 (with V.-M. Hokkanen).

53. Closed range mild solution operators and nonconvex optimal control via orthogonality, Nonlinear Anal. 49 (2002), No. 2, Ser. A: Theory Methods, 247-264 (with J.K. Kim and N.H. Pavel).

54. High regularity of the solution of a nonlinear parabolic boundary value problem, Electronic J. Differential Equations, Vol. 2002 (2002), No. 48, pp. 1-12 (with L. Barbu and W.L. Wendland).

55. Existence and high regularity of the solution of a nonlinear parabolic problem with algebraic-differential boundary conditions, Math. Nachrichten 259 (2003), 74-83 (with W.L.Wendland).

56. Asymptotic analysis of a two-dimensional coupled problem for compressible viscous flows, Discrete and Cont. Dynamical Systems 10 (2004), 137-163 (with C. Coclici, J. Heiermann and W.L. Wendland).

57. First order asymptotic expansion for a singularly perturbed, coupled parabolic-parabolic problem, Nonlinear Funct. Anal. Appl. 10 (2004), No. 1, 99-116 (with L. Barbu and J.K. Kim).

58. On some mathematical modelling of the self-field MPD thrusters, ZAMM 84 (2004), No. 9, 598-631 (with C. Coclici, J. Heiermann, and W.L. Wendland).

59. On a singularly perturbed, coupled parabolic-parabolic problem, Asymptotic Analysis 40 (2004), No. 1, 67-81 (with L. Barbu).

60. Stability for a damped nonlinear oscillator, Nonlinear Anal. 60 (2005), 303-310 (with C. Vladimirescu).

61. Stability for a nonlinear second order ODE, Funkcialaj Ekvacioj 48 (2005), 49-56 (with C. Vladimirescu).

62. Mountain pass type solutions for discontinuous perturbations of the vector p-Laplacian, Nonlinear Funct. Anal. Appl. 10 (2005), 591-611 (with P. Jebelean).

63. On a coupled parabolic-parabolic problem with a small parameter, Int. J. Appl. Math. Sci. 2 (2005), No. 2, 207-219 (with L. Barbu).

64. An extension of the Jordan-von Neumann theorem, Gazeta Matematică, Ser. A, XXII (CII) (2005), No. 2, 154-157.(with C. Vladimirescu).

65. Ordinary p-Laplacian systems with nonlinear boundary conditions, J. Math. Anal. Appl. 313 (2006), 738-753 (with P. Jebelean).

66. Existence for a semilinear sixth-order ODE, J. Math. Anal. Appl. 321 (2006), 86-98 (with Tihomir Gyulov and Stepan Tersian).

67. A telegraph system with time-dependent boundary conditions, Math. Sci. Res. J. 10 (2006), No. 7, 177-187 (with András Serény).

68. Global stability for a stage-structured predator-prey model, Math. Sci. Res. J. 10 (2006), No. 8, 214-228 (with Paul Georgescu).

69. Quasilinear elliptic problems in R^N involving oscillatory nonlinearities, J. Differential Equations 235 (2007), 366-375 (with Alexandru Kristály and Stepan Tersian).

70. Homoclinic solutions of a fourth-order travelling wave ODE, Portugaliae Math. 64 (2007), 281-301 (with Diko Souroujon and Stepan Tersian).

71. On a nonsmooth fourth order boundary value problem, Nonlinear Analysis, TMA 67 (2007), 2800-2814 (with Tihomir Gyulov).

72. Pest regulation by means of impulsive controls, Appl. Math. Comp. 190 (2007), 790-803 (with Paul Georgescu).

73. Flow invariance of semilinear evolution equations under generalized dissipativity conditions, Nonlinear Analysis TMA 68 (2008), 443-455 (with Paul Georgescu).

74. Impulsive perturbations of a three-trophic prey-dependent food chain system, Math. Comput. Modelling 48 (2008), 975-997 (with Paul Georgescu).

75. Optimal placement of a deposit between markets: a Riemann-Finsler geometrical approach, J. Opt. Theory Appl. 139 (2008), 263-276 (with Alexandru Kristály and Ágoston Róth).

76. Eigenvalue problems in anisotropic Orlicz-Sobolev spaces, C.R. Acad. Sci. Paris, Ser. I, 347 (2009), 521-526 (with Mihai Mihăilescu and Vicenţiu Rădulescu).

77. A necessary and sufficient condition for input identifiability for linear time-invariant systems, Appl. Math. Letters 22 (2009), 823-826 (with Tihomir Gyulov).

78. Modified Rockafellar's algorithms, Math. Sci. Res. J. 13 (5) (2009), 101-122 (with O.A. Boikanyo).

79. Multiplicity results for double eigenvalue problems involving the p-Laplacian, Taiwanese J. Math. 13 (2009), no. 13, 1095-1110 (with Hannelore Lisei and Csaba Varga).

80. Existence and multiplicity of solutions for an anisotropic elliptic problem involving variable exponent growth conditions, Appl. Anal. 89 (2010), No. 2, 257-271 (with Mihai Mihăilescu).

81. A proximal point algorithm converging strongly for general errors, Optim. Letters 4 (2010), 635-641 (with O.A. Boikanyo).

82. On a class of boundary value problems involving the p-biharmonic operator, J. Math. Anal. Appl. 367 (2010), 43-57 (with Tihomir Gyulov).

83. On an eigenvalue problem for an anisotropic elliptic equation involving variable exponents, Glasgow Math. J. 52 (2010), 517-527 (with Mihai Mihăilescu).

84. Eigenvalue problems for anisotropic elliptic equations: an Orlicz-Sobolev space setting, Nonlinear Anal. 73 (2010), 3239-3253 (with Mihai Mihăilescu and Vicenţiu Rădulescu).

85. New competition phenomena in Dirichlet problems, J. Math. Pures Appl. 94 (2010), 555-570 (with Alexandru Kristály).

86. Four parameter proximal point algorithms, Nonlinear Anal. 74 (2011), 544-555 (with O.A. Boikanyo).

87. Eigenvalues of the Laplace operator with nonlinear boundary conditions, Taiwanese J. Math. 15 (3) (2011), 1115-1128 (with Mihai Mihăilescu).

88. Inexact Halpern-type proximal point algorithm, J. Global Optim. 51 (2011), 11-26 (with O.A. Boikanyo).

89. On the method of alternating resolvents, Nonlinear Anal. 74 (2011), 5147–5160 (with O.A. Boikanyo).

90. Equations involving a variable exponent Grushin-type operator, Nonlinearity, 24 (2011), 2663-2680 (with M. Mihăilescu and D. Stancu-Dumitru).

91. Multi parameter proximal point algorithms, J. Nonlinear Convex Anal. 13 (2) (2012), No. 2, 221-231 (with O.A. Boikanyo).

92. A generalization of the regularization proximal point method, J. Nonlinear Anal. Appl. (electronic), 2012 (2012) (with O.A. Boikanyo).

93. The method of alternating resolvents revisited, Numer. Funct. Anal. Optim., 33 (11) (2012), 1280-1287 (with O.A. Boikanyo).

94. Elliptic-like regularization of semilinear evolution equations, J. Math. Anal. Appl. 396 (2012), 759-771 (with M. Ahsan).

95. A contraction proximal point algorithm with two monotone operators, Nonlinear Anal. 75 (2012), 5686-5692 (with O.A. Boikanyo).

96. Strong convergence of a proximal point algorithm with bounded error sequence, Optimization Letters 7 (2013), 415-420 (with O.A. Boikanyo).

97. An existence result for a nonhomogeneous problem in R^2 related to nonlinear Hencky-type materials, Nonlinear Analysis RWA 14 (2013), 1466-1476 (with M. Mihăilescu).

98. Asymptotically periodic solutions for differential and difference inclusions in Hilbert spaces, Electronic J. Differrential Equations 2013 (6) (2013), 1-6 (with Figen Özpinar).

99. A multiplicity result for an elliptic anisotropic differential inclusion involving variable exponents, Set-Valued Var. Anal. 21 (2013), No. 2, 311-332 (with N. Costea).

100. Second-order differential equations on R_+ governed by monotone operators, Nonlinear Anal. 83 (2013), 69-81.

101. A dimension-depending multiplicity result for the Schrödinger equation, Dynamic Systems Appl. 22 (2013), No. 2-3, 325-335 (with A. Kristály).

102. Strong convergence of the method of alternating resolvents, J. Nonlinear Convex. Anal. 14 (2013), 221-229 (with O.A. Boikanyo).

103. Periodic forcing for some difference equations in Hilbert spaces, Bull. Belgian Math. Soc. Simon Stevin 20 (2013), 821-829 (with Figen Özpinar).

104. Strong and weak solutions to second order differential inclusions governed by monotone operators. Set-Valued Var. Anal. 22 (2014), No. 2, 521–531 (with H. Khatibzadeh).

105. Existence results for second-order monotone differential inclusions on the positive half-line, J. Math. Anal. Appl. 419 (2014), 94–113.

106. Existence for second order differential inclusions on R_+ governed by monotone operators. Adv. Nonlinear Stud. 14 (2014), 661–670.

107. Asymptotic expansions for elliptic-like regularizations of semilinear evolution equations. J. Differential Equations 257 (2014), No. 8, 2926-2949 (with M. Ahsan).

108. Asymptotically periodic solutions to some second order evolution and difference equations, Appl. Anal. 94 (2015), No. 5, 1042-1050 (with H. Khatibzadeh).

109. On a class of second-order differential inclusions on the positive half-line, Z. Anal. Anwend. 34 (2015), No.1, 17-26.

110. On second-order differential equations associated with gradients of pseudoconvex functions, Gazeta Mathematică, Ser. A, Vol. XXXII (CXII) (2015), no. 3-4, 1-7.

111. Eigenvalues of $-\Delta_p$-Δ_q under Neumann boundary condition, Canadian Math. Bull. 59 (2016), No. 3, 606-616 (with Mihai Mihăilescu).

112. Eigenvalues of $-(\Delta_p + \Delta_q)$ under a Robin-like boundary condition, Ann. Acad. Rom. Sci., Ser. Math. Appl. 8 (2016), No. 2, 114-132 (with Tihomir Gyulov).

113. Elliptic-like regularization of semilinear evolution equations and applications to some hyperbolic problems, J. Math. Anal. Appl. 449 (2017), No. 2, 966-978 (with L. Barbu).

114. Invariant sets and attractors for Hanusse-type chemical systems with diffusions, Comput. Math. Appl. 73 (2017), No. 8, 1815-1823 (with Mihai Nechita)

115. A splitting method for approximating zeros of the sum of two monotone operators, J. Nonlinear Convex Anal. 18 (2017), No. 4, 763-776 (with H. Khatibzadeh and S. Ranjbar).

116. Elliptic-like regularization of a fully nonlinear evolution inclusion and applications, Comm. Contemp. Math. 19 (2017), No. 5, 1650037, 16 pp. (with L. Barbu).

117. Steklov-type eigenvalues of $\Delta_p + \Delta q$, Pure Appl. Funct. Anal. 3 (2018), No. 1, 75-89 (with N. Costea).

118. Weak solvability for Dirichlet partial differential inclusions, Adv. Differential Equations 23 (2018), No. 7-8, 523-554 (with N. Costea and C. Varga).

119. Eigenvalues of the negative (p,q)-Laplacian under a Steklov-like boundary condition, Complex Var. Elliptic Equ. 64 (2019), No. 4, 685-700 (with L. Barbu).

120. A proximal point algorithm revisited and extended, J. Optim. Theory Appl. 182 (2019), No. 3, 1120 -1129 (with A. Petruşel).

121. Asymptotic behavior of solutions to a second-order gradient equation of pseudo-convex type, J. Convex Anal. 26 (2019), No. 4, 1175-1186 (with H. Khatibzadeh).

122. A nonlinear elliptic eigenvalue-transmission problem with Neumann boundary condition, Ann. Mat. Pura Appl. (4) 198 (2019), No. 3, 821–836 (with L. Barbu and C. Pintea).

123. Stability for a system of two coupled nonlinear oscillators with partial lack of damping, Nonlinear Anal. RWA 45 (2019), 609-619 (with C. Vladimirescu).

124. Two-parameter second-order differential inclusions in Hilbert spaces, Ann. Acad. Rom. Sci. Ser. Math. Appl. 12 (2020), No. 1-2, 274-294 (with A. Petruşel).

125. Stability for systems of 1-D coupled nonlinear oscillators, Nonlinear Anal. RWA 59 (2021), 103242, 22 pp. (with C. Vladimirescu).

126. Full description of the eigenvalue set of the Steklov (p.q)-Laplacian, J. Differential Equations 290 (2021), 1-16 (with L. Barbu).

127. On a Steklov eigenvalue problem associated with the (p,q)-Laplacian, Carpathian J. Math. 37 (2021), No. 2, 161-171 (with L. Barbu).

128. Large time behavior of solutions to a system of coupled nonlinear oscillators via a generalized form of Schauder-Tychonoff fixed point theorem, Fixed Point Theory 23 (2022), No. 2, 591-605 (with C. Vladimirescu).

129. Eigenvalues of the (p,q,r)-Laplacian with a parametric boundary condition, Carpathian J. Math. 38 (2022), No. 3, 547-561 (with L. Barbu).

130. On a delay integro-differential equation in Banach space, Discrete Contin. Dyn. Syst. S er. S, 16 (2023), No. 6, 1596-1609 (with A. Petruşel).

131. On the eigenvalue set of the (p,q)-Laplacian with a Neumann-Steklov boundary condition, Differential Integral Equations 36 (2023), 487-452 (with L. Barbu).

132. An eigenvalue problem involving the (p,q)-Laplacian with a parametric boundary condition, Mediterr. J. Math. 20 (2023), No. 4, Paper No. 232, 18 pp. (with L. Barbu and A. Burlacu).

133. Qualitative analysis of a mechanical system of coupled nonlinear oscillators, Electron. J. Qual. Theory Differ. Equ. 2023, No. 16, 1-26 (with C. Vladimirescu).

134. On eigenvalue problems governed by the (p,q)-Laplacian, Stud. Univ. Babeş-Bolyai Math. 68 (2023), No. 1, 63-76 (with L. Barbu).

135. Qualitative properties of the solutions of a mechanical system of vibration reduction through a generalized variant of the Krasnoselskii fixed point theorem, Appl. Anal. Optim. 7 (2023), No. 2, 115-133 (with C. Vladimirescu).

136. Full description of the spectrum of a Steklov-like eigenvalue problem involving the (p,q)-Laplacian, Ann. Acad. Rom. Sci., Ser. Math. Appl. 15 (2023), No. 1-2, 30-44 (with C. Vladimirescu).

137. On a nonlinear transmission eigenvalue problem with a Neumann-Robin boundary condition, Math. Meth. Appl. Sci.(2023), 1-12, DOI 10.1002/mma.9563 (with L. Barbu and A. Burlacu).

138. On an eigenvalue problem associated with the (p,q)-Laplacian, An. Ştiinţ. Univ. "Ovidius" Constanţa, Ser. Mat. 32 2024, No. 1, 45-63 (with L. Barbu and A. Burlacu).

139. Second-order differential inclusions with two small parameters, Nonlinear Anal. RWA 77 (2024) 104061 (with L. Barbu and I.V. Vîntu).

140. On a second-order delay integro-differential equation in Banach spaces, Discrete Contin. Dyn. Syst. Ser. S, doi:10.3934/dcdss.2024156 (with A. Petruşel).

141. Stability for a nonlinear second order ODE with coefficient functions in $W^{1,1}_{loc}(0, \infty)$, Differential Integral Equations 38 (2025), No. 5-6 (2023), 399-416 (with C. Vladimirescu).

142. An overview of research on evolution equations governed by subdifferential operators, Ann. Acad. Rom. Sci., Ser. Math. Appl. 17 (2025), No. 1, 5-14.

143. Stability for systems of coupled nonlinear oscillators described by second-order ODEs with coefficient functions in $W^{1,1}_{loc}(0, \infty)$, Analysis Appl., in press (with C. Vladimirescu)

144. Two-parameter second-order differential inclusions with antiperiodic conditions, in preparation (with L. Barbu and I.V. Vîntu).

(c) Papers in Proceedings Volumes

1. Regularity of solutions of variational inequalities in Hilbert spaces, in vol. Variational Inequalities and Optimization Problems, Proceedings of a Summer School, Constanţa (Romania), 1979, pp. 125-130.

2. Second order difference equations associated to monotone operators and the proximal point algorithm, in vol. Functional Equations, Approximation and Convexity, Cluj-Napoca (Romania), 1979, pp. 115-118 (in Romanian).

3. Asymptotic stability of solutions to nonlinear boundary value problems for a class of hyperbolic systems, in vol. Itinerant Seminar on Functional Equations, Approximation and Convexity, Iaşi (Romania), 1979, pp. 19-21 (in Romanian).

4. On a class of nonlinear differential hyperbolic systems, in vol. Differential Equations and Applications, Proceedings of the Second Conference, Rousse, Bulgaria, 1982, pp. 515-518.

5. Existence and regularity of solutions for a class of partial differential hyperbolic systems, in vol. Proceedings of the Workshop on Differential Equations and Control Theory, Iaşi,1983, pp. 78-103.

6. Well-posed nonlinear problems in the theory of electrical networks with distributed and lumped parameters, in vol. Proceedings of the Seventeenth IASTED International Symposium on SIMULATION AND MODELLING, June 19-22, 1989, Lugano, Switzerland, ACTA Press, Anaheim-Calgary-Zurich, 1989, pp. 345-348 (with C. Marinov and P. Neittaanmäki).

7. Parabolic problems associated to integrated circuits with time dependent sources, in vol. Differential Equations and Control Theory (V. Barbu, editor), Pitman Research Notes in Math. Series 250, Longman Scientific and Technical, Boston-London- Melbourne, 1991, pp. 208-216.

8. Asymptotic properties of solutions to evolution equations, in vol. Optimization, Optimal Control and Partial Differential Equations (edited by V. Barbu et al.), International Series of Mathematics, Vol. 107, Birkhauser, Basel, 1992, pp. 53-62 (with R. Luca).

9. Nonlinear boundary value problems for a class of hyperbolic systems, in vol. Evolution Equations, Control Theory and Biomathematics, Proc. of the Han-sur-Lesse Conference (Ph. Clement and G. Lumer, Editors), Lecture Notes in Pure and Appl. Math. 155, Marcel Dekker, New York, 1994, pp. 327-336.

10. On a second order boundary value problem related to capillary surfaces, in vol. Analysis, Numerics and Applications of Differential and Integral Equations, Pitman Res. Notes in Math. Series 379, Longman,1998, pp. 149-152.

11. An inverse problem for the telegraph system, in vol. Proceedings of ENUMATH 1999, The Third European Conference on Numerical Mathematics and Advanced Applications (P. Neittaanmaki, T. Tiihonen and P.Tarvainen, Editors), World Scientific, Singapore 2000, pp. 303-307 (with V.-M. Hokkanen and P. Neittaanmäki).

12. Multi-model formulations for compressible viscous plasma flows in MPD-accelerators, European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS Computational Fluid Dynamics Conference 2001, Swansea, Wales, UK, 4-7 September 2001 (with C. A. Coclici, J. Heiermann, and W. L.Wendland).

13. Asymptotic analysis of the telegraph system with nonlinear boundary conditions, in vol. Differential Equations and Control Theory (proceedings of a conference held at Ohio University, Athens, Ohio, 2000), Lecture Notes in Pure and Appl. Math. 225 (edited by S.Aizicovici and N.H. Pavel), Dekker, New York, 2002, pp. 63-76 (with L. Barbu, E. Cosma and W. L. Wendland).

14. Asymptotic analysis of coupled problems for compressible flows, in vol. Numerical Mathematics and Advanced Applications - Proceedings of ENUMATH 2001, the 4th European Conference on Numerical Mathematics and Advanced Applications, Ischia, July 2001 (F. Brezzi et al, Editors), Springer-Verlag, 2003, pp. 55-64 (with C.A. Coclici, J. Heiermann and W. L. Wendland).

15. Singularly perturbed, transmission parabolic problems, in vol. Computational and Asymptotic Methods - Proceedings of the International Conference on Boundary and Interior Layers, Toulouse, July 5-9, 2004.

16. Evolutionary boundary value problems with singular perturbations, the 4th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS), Jyväskylä, Finland, July 24-28, 2004 (with Alexandru Murgu).

17. Singularly perturbed BVPs for the telegraph system, in vol. International Conference on Numerical Analysis and Applied Mathematics (ICNAAM) 2006 (T. E. Simos et al., Editors), WILEY-VCH Verlag GmbH & Co. KGaA, Veinheim, 2006, pp. 247-250.

18. Quasilinear elliptic equations involving variable exponents, in vol. Numerical Analysis and Applied Mathematics. International Conference on Numarical Analysis and Applied Mathematics (ICNAAM) 2008, Psalidi, Kos, Greece, 16-20 September 2008, (T. E. Simos et al., Editors), American Institute of Physics, Melville-New York, 2008, pp. 384-387 (with M. Mihăilescu).

19. New advances in the study of the proximal point algorithm, in Numerical Analysis and AppliedMathematics. International Conference on Numarical Analysis and Applied Mathematics (ICNAAM) 2010, Rhodes, Greece, 19-25 September 2010 (T. E. Simos et al., Editors), Vol. III, American Institute of Physics, Melville-New York, 2010, pp. 1707-1710.

20. Proximal point methods revisited, in Numerical Analysis and Applied Mathematics. International Conference on Numerical Analysis and Applied Mathematics (ICNAAM) 2011, Halkidiki, Greece, 19-25 September 2011 (T. E. Simos et al., Editors), Vol. A, American Institute of Physics, Melville-New York, 2011, pp. 893-896 (with O.A. Boikanyo).

21. Some regularizations of semilinear evolution equations, in vol. International Conference on Nonlinear Difference and Differential Equations and their Applications, NODDEA'2012, Ruse, Bulgaria, October 3-6, 2012, Edited by J. Chaparova and T. Gyulov., 2012, pp. 1-6 (with M. Ahsan).

(d) In memoriam

1. Professor Adolf Haimovici (1912 –1993), An. Ştiinţ. Univ. A. I. Cuza, Iaşi, Mat. (N.S.) 39 (1993), 5-8 (with G. Bantaş and N. Luca).

2. Professor Constantin Corduneanu and the Iasi School of Differential Equations, Libertas Math. (N.S.) 38 (2018), No. 2, 1-4.

(e) Miscellaneous

1. Do we need Mathematics?, Ann. Univ. Craiova, Ser. Math. Comput. Sci., 44 (2) (2017), 173-178.

2. On Professor Jong Kyu Kim (Kyungnam Univ., Korea) on the occasion of his retirement (on May 6, 2017), published in a Korean journal.

3. Academician Constantin Corduneanu at the age of 90, Recreaţii Matematice XIX (2018), No. 2, 93-95. (in Romanian).

4. On an alternating series, Recreații Matematice XIX (2018), No.2, 130-132 (in Romanian)