

PERSONAL INFORMATION

Sebastian ANIȚA

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Nationality Romanian

February 2001 – Present

Professor at the Faculty of Mathematics, Alexandru Ioan Cuza University of Iași (Romania)
<http://www.math.uaic.ro>, Bulevardul Carol I, nr.11, 700506, Iași, România
 Courses: Differential Equations, Partial Differential Equations, Differential Systems and Applications in Sciences, Mathematical Models in Sciences, Mathematical Analysis

October 1996 – January 2001

Associate Professor at the Faculty of Mathematics, Alexandru Ioan Cuza University of Iași (Romania)
 Courses: Differential Equations, Optimal Control Theory

October 1990 – September 1996

Assistant Professor at the Faculty of Mathematics, Alexandru Ioan Cuza University of Iași (Romania)
 (asistent: October 1990-September 1993, lector: October 1993-September 1996)
 Courses: Differential Equations, Optimal Control Theory, Mathematical Analysis

September 1987 – September 1990

Teacher of Mathematics at School nr. 4, Pascani (Romania)
 I taught Mathematics for secondary school students

WORK EXPERIENCE

1991 PhD - Thesis "Analysis and Control of Nonlinear Population Dynamics with Diffusion"
 Alexandru Ioan Cuza University of Iași (Romania)
 PhD Adviser: Acad. Prof. Viorel BARBU

1983 – 1987 Faculty of Mathematics, Alexandru Ioan Cuza University of Iași (Romania). Graduated with 10 (greatest grade).

1979- 1983 Liceul "Alexandru Ioan Cuza" Iași, Liceul National Iasi, Liceul "Mihai Viteazul" Bucuresti, Liceul "Nicolae Balcescu" Bucuresti (Romania)

December 1995- March 1996 NATO-CNR fellowship at Universita di Trento (Italia)

March 1998- August 1998 Postdoctoral fellowship at Universite de Pau (France)

EDUCATION AND TRAINING

PERSONAL SKILLS

Languages	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
French	C2	C2	C2	C1	C1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Mother tongue Romanian

Communication skills Good communication skills gained through my experience as teacher and professor.

Organisational / managerial skills Director of the Doctoral School of Mathematics at Alexandru Ioan Cuza University of Iasi (2004-2008 and 2012- present).
 Director of several research grants.
 I was in Organizing and Scientific Committees of several national and international conferences on Mathematics

Digital competence Competent with Matlab, Latex and most Microsoft Office programmes

ADDITIONAL INFORMATION

Academic honors and awards Gheorghe Lazar Prize of the Romanian Academy for Mathematics in 2000

Visiting positions University of Trento (1996: 1 month, 1997: 1 month), University Bordeaux 1 (1999: 1 month, 2002: 1 month, 2003: 1 month), University Bordeaux 2 (2002: 1 month, 2005: 1 month, 2006: 1 month), University Paul Sabatier, Toulouse (2001: 1 month), University Francois Rabelais, Tours (2012: 1 month, 2013: 1 month, 2014: 1 month), INRIA Bordeaux (2010: 1 month), Northwestern University, Evanston (2001: 6 months).
 Other research fellowships: Technical University of Vienna, University of Milano, IRMA-CNR Bari, ICTP Trieste, University Claude Bernard Lyon, Bielefeld University, Ruprecht-Karls University Heidelberg

Membership in professional associations President of the Romanian Mathematical Society (SSMR) branch Iasi (2012-2020)
 Member of the national board of the Romanian Mathematical Society (2012-2018)

Editorial board Archives of Control Sciences (ISI journal), ISSN: 1230-2384 - eISSN: 2300-2611 (since 2021)
 Mathematical Population Studies (ISI journal), Taylor and Francis, ISSN: 0889-8480 - eISSN: 1547-724X (since 2021)
 Journal of Optimization Theory and Applications (ISI journal), Springer, ISSN: 0022-3239 (since 2025)

Publications and citations I have published over 90 monographs and research papers in Mathematics. I have been cited over 1500 times (see scholar.google.ro)

SELECTIVE LIST OF PAPERS

Monographs:

[M1] S. Anița, Analysis and Control of Age-Dependent Population Dynamics, Kluwer Academic Publishers, Dordrecht, 2000.

[M2] S. Anița, V. Arnăutu, V. Capasso, An Introduction to Optimal Control Problems in Life Sciences and Economics. From Mathematical Models to Numerical Simulation with MATLAB, Birkhauser, New York, 2011.

[M3] S. Anița, V. Capasso, S. Scacchi, Mathematical Modeling and Control in Life and Environmental Sciences. Regional Control Problems, Birkhauser, Springer Nature, 2024.

Research papers:

1. S. Anița, Approximating linear optimal control problems via Trotter formula, Nonlinear Analysis; Theory, Methods and Applications, 12 (1988), 375-388.
2. S. Anița, Optimal control of a nonlinear population dynamics with diffusion, Journal of Mathematical Analysis and Applications, 152 (1990), 176-208.
3. S. Anița, Existence and uniqueness for the population dynamics with nonlinear diffusion, Differential and Integral Equations, 4 (1991), 835-850.
4. S. Anița, N. Damean, A problem of measurement of the temperature solved using the one-dimensional heat equation, International Journal of Heat and Mass Transfer, 36 (1993), 1043-1048.
5. S. Anița, Optimal control of parameter distributed systems with impulses, Applied Mathematics and Optimization, 29 (1994), 93-107.
6. S. Anița, M. Iannelli, M.-Y. Kim, E.-J. Park, Optimal harvesting for periodic age-dependent population dynamics, SIAM Journal on Applied Mathematics, 58 (1998), 1648-1666.
7. S. Anița, Optimal harvesting for a nonlinear population dynamics, Journal of Mathematical Analysis and Applications, 226 (1998), 6-22.
8. S. Anița, A. Boussouar, An identification problem for an anchovy larva model, Nonlinear Analysis; T. M. A.- B, 37 (1999), 613-626.
9. S. Anița, V. Barbu, Null controllability of nonlinear convective heat equations, ESAIM: Control, Optimization and Calculus of Variations, 5 (2000), 157-173.
10. S. Anița, V. Barbu, Local exact controllability of a reaction-diffusion system, Differential and Integral Equations, 14 (2001), 577-587
11. B. Ainseba, S. Anița, M. Langlais, Internal stabilizability of some diffusive models, Journal of Mathematical Analysis and Applications, 265 (2002), 91-102.

12. S. Anița, V. Capasso, A stabilizability problem for a reaction-diffusion system modelling a class of spatially structured epidemic systems, *Nonlinear Analysis; T. M. A.- B*, 3 (2002), 453-464.
13. S. Anița, D. Tătaru, Null controllability for the dissipative semilinear heat equation, *Applied Mathematics and Optimization*, 46 (2002), 97-105.
14. B. Ainseba, S. Anița, M. Langlais, Optimal control for a nonlinear age-structured population dynamics model, *Electronic Journal of Differential Equations*, 28 (2003), 1-9.
15. S. Anița, J.-P. Raymond, Positive stabilization of a parabolic equation by controls localized on a curve, *Journal of Mathematical Analysis and Applications*, 286 (2003), 107-115.
16. B. Ainseba, S. Anița, Internal exact controllability of the age and space structured population dynamics, *Electronic Journal of Differential Equations*, 112 (2004), 1-11.
17. B. Ainseba, S. Anița, Internal stabilizability for a reaction-diffusion problem modeling a predator prey system, *Nonlinear Analysis; Theory, Methods and Applications*, 61 (4) (2005), 491-501.
18. B. Ainseba, S. Anița, Internal nonnegative stabilization for some parabolic equations, *Communications on Pure and Applied Analysis*, 7 (3) (2008), 491-512.
19. S. Anița, V. Capasso, A stabilization strategy for a reaction-diffusion system modelling a class of spatially structured epidemic systems (think globally, act locally), *Nonlinear Analysis; Real World Applications*, 10 (4) (2009), 2026-2035.
20. S. Anița, W. Fitzgibbon, M. Langlais, Global existence and internal stabilization for a class of predator-prey systems posed on noncoincident spatial domains, *Discrete and Continuous Dynamical Systems - B* 11 (4) (2009), 805-822.
21. S. Anița, V. Capasso, On the stabilization of reaction-diffusion systems modelling a class of man-environment epidemics: a review, *Mathematical Methods in the Applied Sciences* 33 (10) (2010), 1235-1244.
22. S. Anița, V. Capasso, Stabilization of a reaction-diffusion system modelling a class of spatially structured epidemic systems via feedback control, *Nonlinear Analysis: Real World Applications*, 13 (2) (2012), 725-735.
23. S. Anița, V. Capasso, Stabilization of a reaction-diffusion system modelling malaria transmission, *Discrete and Continuous Dynamical Systems B*, 17 (6) (2012), 1673-1684.
24. S. Anița, V. Capasso, H. Kunze, D. La Torre, Optimal control and long-run dynamics for a spatial economic growth model with physical capital accumulation and pollution diffusion, *Applied Mathematics Letters*, 26 (2013), 908-912.
25. S. Anița, J. Casas, C. Suppo, Impulsive spatial control of invading pests by generalist predators, *Mathematical Medicine and Biology*, 31 (3) (2014), 284-301.
26. S. Anița, Zero-stabilization for some diffusive models with state constraints, *Mathematical Modelling of Natural Phenomena*, 9 (4) (2014), 6-19.

27. S. Anița, V. Capasso, H. Kunze, D. La Torre, Dynamics and optimal control in a spatially structured economic growth model with pollution diffusion and environmental taxation, *Applied Mathematics Letters*, 42 (2015), 36-40.
28. S. Anița, Stabilization of a predator-prey system with nonlocal terms, *Mathematical Modelling of Natural Phenomena*, 10 (6) (2015), 6-16.
29. S. Anița, V. Capasso, A.-M. Moșneagu, Regional control in optimal harvesting problems of population dynamics, *Nonlinear Analysis*, 147 (2016), 191-212.
30. S. Anița, V. Capasso, G. Dimitriu, Controlling an alien predator population by regional controls, *Nonlinear Analysis: Real World Applications*, 46 (2019), 82-97.
31. S. Anița, V. Capasso, A. Moșneagu, Global eradication for spatially structured populations by regional control, *Discrete and Continuous Dynamical Systems - Series B*, 24 (6) (2019), 2511-2533.
32. S. Anița, V. Capasso, G. Dimitriu, Regional control for a malaria model with spatial structure, *Mathematical Methods in the Applied Sciences*, 42 (8) (2019), 2909-2933.
33. S. Anița, A. Mosneagu, Optimal harvesting for age-structured population dynamics with size-dependent control, *Mathematical Control and Related Fields*, 9 (4) (2019), 607-621.
34. S. Anița, V. Capasso, Regional control for spatially structured mosquito borne epidemics. Malaria as a working example, *Vietnam Journal of Mathematics*, 49 (1) (2021), 21-35.
35. S. Anița, V. Capasso, S. Scacchi, Regional control for spatially structured mosquito borne epidemics. Part II: Computational issues, *Vietnam Journal of Mathematics*, 49 (1) (2021), 189-206.
36. S. Anița, V. Capasso, S. Scacchi, Controlling the spatial spread of Xylella epidemic, *Bulletin of Mathematical Biology*, 83 (4) (2021), Article number: 32.
37. S. Anița, M. Banerjee, S. Ghosh, V. Volpert, Vaccination in a two-group epidemic model, *Applied Mathematics Letters* 119 (2021), 107197.
38. S. Anița, V. Capasso, M. Montagna, S. Scacchi, Predators as a possible strategy for controlling a Xylella epidemic?, *Mathematical Modelling of Natural Phenomena*, 17 (2022), 42.
39. E. Venturino, S. Anița, D. Mezzanotte, D. Occorsio, A high order numerical scheme for a nonlinear nonlocal reaction-diffusion model arising in population theory, *Journal of Computational and Applied Mathematics*, 451 (2024), 116082.
40. S. Anița, T. Baci, V. Capasso, Eradicating an alien predator population in a seasonal environment, *Mathematical Methods in the Applied Sciences*, 48 (8) (2025), 9126-9139.
41. S. Anița, V. Capasso, S. Scacchi, Pollution control for a spatially structured economic growth system, *Archives of Control Sciences*, (2026), to appear.

SELECTIVE LIST OF GRANTS

1. Executive Programme of Scientific and Technological Cooperation between Italy and Romania, Bilateral project. Title of the project: ``Reaction-Diffusion Equations, Theory, Methods and Related Optimal Control Problems" (2006-2008), director of the Romanian team (the director of the Italian team was V. Capasso).
2. Brancusi project with University Bordeaux 2 and University Lyon 1: ``Reaction-Diffusion Systems in Population Dynamics" (2007-2008), member of the Romanian team (director of the Romanian team: N. Dumitriu, director of the French team: V. Volpert).
3. CNCSIS Grant A 83/2004: ``Stabilization of Parabolic Systems" (2002-2004), Grant director.
4. CNCSIS Grant A 1416/2005: ``Control and Stabilization of Reaction-Diffusion Systems. Optimizing the Position and Shape of the Support of the Control" (2005-2007), Grant director.
5. CNCSIS Grant ID 381/2007: ``Optimal Control and Stabilization of Continuous Models of Population Dynamics" (2007-2010), Grant director.
6. Grant CEEEX 5-D11-36/2005: ``Analysis and Control of Differential Systems" (2005-2008), member of the team (Grant director: V. Barbu).
7. CNCS Grant PN-II-ID-PCE-2012-4-0270, ``Optimal Control and Stabilization of Nonlinear Parabolic Systems with State Constraints. Applications in Life Sciences and Economics" (2013-2016), Grant director.
8. CA COST Action CA16227: ``Investigation and Mathematical Analysis of Avant-garde Disease Control via Mosquito Nano-Tech-Repellents" (2017-2022), member of the management committee (manager of the Romanian team).