

# Brief CV

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**Current occupation:** Since February 2008 - Professor of Mathematics, Department of Mathematics, Technical University “Gh. Asachi” of Iași.

## **Academic Backgrounds:**

- 1999 – Ph.D. in Mathematics, University “Al. I. Cuza” Iași, Romania; Advisor – Prof. Dr. G. Moroșanu; The title of the Thesis – Differential Equations of Monotone Type and Applications;

## **Research interests:**

- Nonlinear Analysis and its applications to evolution and difference equations in Hilbert spaces; nonlinear partial differential equations;
- Asymptotic approximations, singularly perturbed problems;
- Optimal control theory;
- Normal solvability, Fredholm operators, index, properness;
- Mathematical Biology

## **Recent publications:**

1. N. Apreutesei, A. Ducrot, V. Volpert, Competition of species with intra-specific competition, *Math. Model. Nat. Phenom.*, 3 (2008), no. 4, 1-27.

2. N. Apreutesei, G. Dimitriu, Optimal control for Lotka-Volterra systems with a hunter population, *Lecture Notes in Computer Science (LNCS)*, vol. 4818 (2008), Springer, 277-284 (proceedings of the Sixth International Conference on Large Scale Scientific Computations, June 4-9, 2007, Sozopol, Bulgaria).

2. G. Apreutesei, N. Apreutesei, Continuous dependence on data for bilocal difference equations, *J. Difference Equ. Appl.* 15 (2009), no. 5, 511-527.

3. N. Apreutesei, V. Volpert, Solvability conditions for infinite systems of difference equations, *J. Difference Equ. Appl.* 15 (2009), no. 7, 659-678.
4. N. Apreutesei, A. Ducrot, V. Volpert, Travelling waves for integro-differential equations in population dynamics, *Discrete Cont. Dynam. Systems B*, 11 (2009), no. 3, 541-561.
5. N. Apreutesei, The time optimal control problem for a prey-predator system, *Bul. Inst. Politehnic Iasi*, 55 (59) (2009), fasc. 3, 31-41.
6. N. Apreutesei, An optimal control problem for prey-predator system with a general functional response, *Appl. Math. Letters*, 22 (2009), no. 7, 1062-1065.
7. N. Apreutesei, G. Apreutesei, A Trotter-Kato type result for a second order difference inclusion in a Hilbert space, *J. Math. Anal. Appl.*, 361 (2010), no. 1, 195-204.
8. N. Apreutesei, B. Djafari Rouhani, Elliptic regularization for the semi-linear telegraph system, *Nonlin. Anal., Theory, Methods, Appl.*, 72 (2010), 3049 – 3061.
9. N. Apreutesei, N. Bessonov, V. Volpert, V. Vougalter, Spatial Structures and Generalized Travelling Waves for an Integro-Differential Equation, *Discrete Cont. Dynam. Systems B*, 13 (2010), no. 3, 537-557.
10. N. Apreutesei, Optimal control for predator-prey system with prey-dependent functional response, to appear in *Dyn. Systems Appl.*
11. G. Apreutesei, N. Apreutesei, A note on the continuous dependence on data for second order difference inclusions, to appear in *J. Difference Equ. Appl.*
12. G. Apreutesei, N. Apreutesei, Second order difference inclusions of monotone type, to appear in *Mathematica Bohemica*, 2010.
13. G. Dimitriu, N. Apreutesei, R. Stefanescu, Numerical Simulations with Data Assimilation Using an Adaptive POD Procedure, to appear in *Lecture Notes Comput. Sci.*, 2010 (proceedings of 7th International Conference on “Large Scale Scientific Computations” LSSC’09 , 4-8 iunie 2009, Sozopol, Bulgaria).