

2005-2006

### ISI Journals

- 1) **Mioara Buiculescu**, *Exponential decay parameters associated with excessive measures*. Séminaire de Probabilités 38 (in honor of J. Azéma). Lecture Notes in Mathematics 1857, Springer 2005, pp135-145.
- 2) Caterina Cusulin, Mimmo Iannelli, **Gabriela Marinoschi**, *Age-structured diffusion in a multi-layer environment*, *Nonlinear Analysis: Real World Applications*, 6, 1, pp. 207-223, 2005. **FI=1.194.**
- 3) **Gabriela Marinoschi**, *A free boundary problem describing the saturated-unsaturated flow in a porous medium. II. Existence of the free boundary in the 3-D case*. *Abstract and Applied Analysis*, 2005:8, pp. 813-854, 2005 (revista ISI).
- 4) **Gabriela Marinoschi**, Gengsheng Wang, *Identification of the Rain Rate for a Boundary Value Problem of a Rainfall Infiltration in a Porous Medium*. *Numerical Functional Analysis and Optimization*, 23, 2, pp. 189-205, 2006. **FI=0.405.**
- 5) **Gabriela Marinoschi**, Gengsheng Wang, *Identification of the Rain Rate for a Boundary Value Problem of a Rainfall Infiltration in a Porous Medium. II. Determination of the conditions of optimality*, *Numerical Functional Analysis and Optimization*, 23, 2, pp. 207-236, 2006, **FI=0.405.**
- 6) **Mihai Popescu**, *Control of nonlinear systems in singular problems*. *Nonlinear Analysis (USA)* vol. 63, nr. 5-7 pp. 1985-1997, 2005.
- 7) **Mihai Popescu**, *Study of the optimality of singular arcs for transfer trajectories*, *Journal Nonlinear Studies (USA)* Vol 13, No 3, (2006), pp. 221-238, ISSN: 1359-8678.
- 8) **Mihai Popescu**, Fernard Pelletier, *Courbes optimales pour une distribution affine*, *Bulletin des sciences mathématiques*, (FRANCE), vol. 129 (2005), pp. 701-725, ISSN: 0007-4497.
- 9) **Mihai Popescu**, **Alexandru Dumitrache**, *On the optimal control of affine nonlinear control*. *Mathematical Problems in Engineering (USA)*, nr. 4, pp. 465-475, 2005.
- 10) **Marius Rădulescu**, Rădulescu S., Rădulescu C.Z., *Sustainable production technologies which take into account environmental constraints*. *European J. Oper. Research*, (2007), pp. 1-11. Factor impact 0.918 (2006)
- 11) **Aurel Spătaru**, Li, D., *Refinement of convergence rates for tail probabilities*. *J. Teor. Probab.* 18, pp. 933-947 (2005).
- 12) **Aurel Spătaru**, Li, D., *A converse to precise asymptotic results*. *Statistics & Probab. Letters* 76, pp. 503-506 (2006).
- 13) **Aurel Spătaru**, *Strengthening classical results on convergence rates in strong limit theorems*. *Probab. Theory Relat. Fields* 136, 1-18 (2006).
- 14) **I.M. Stancu-Minasian**, *A sixth Bibliography of Fractional Programming*. *Optimization* 55 (2006) 4, pp. 405-428.
- 15) **Marcel. O. Vlad**, Peter Oefner, John Ross, *Transition Event Statistics in Genetics and Disordered Kinetics. Theoretical Approaches for Extracting Rate*

- Distributions from Experimental Data.* Journal of Physical Chemistry B, 110, 18945-18952 (2006).
- 16) **Marcel O. Vlad**, G.F. Cerofolini, D. Macolo, *A model for oxidation kinetics in air at room temperature of hydrogen-terminated (1 0 0) Si.* Journal of Applied Physics, 100, 054308 (2006).
  - 17) **Marcel O. Vlad**, Stefan E. Szedlaczek, Nader Pourmand and L. Luca Cavalli-Sforza, Peter J. Oefner, John Ross, *Fisher Theorems for multivariable, time and space-dependent systems, with applications to population genetics and chemical kinetics.* Proceedings of the National Academy (USA) 102, 9848-9853 (2005).
  - 18) **Marcel O. Vlad**, Gianfranco Cerofolini, Peter J. Oefner and John Ross, *Random rate processes with random energy barriers.* Journal of Physical Chemistry, 109, 21228-21234 (2005).
  - 19) **Marcel O. Vlad**, John Ross, *Exact solutions for the entropy production of several Irreversible processes.* Journal of Physical Chemistry, 109, 10607-10612 (2005).
  - 20) **Marcel O. Vlad**, Arjang Hassibi, Christopher Contag, Maryam Hafezi, Thomas H. Lee, Ronald W. Davis & Nader Pourmand, *Bioluminescence regenerative cycle (BRC) system: Theoretical considerations for nucleic acid quantification assays.* Biophysical Chemistry 116, pp. 175-185 (2005).
  - 21) **Marcel O. Vlad**, Vlad T. Popa, E. Segal and John Ross, *Multiple Rate-Determining Steps for Nonideal and Fractal Kinetics.* Journal of Physical Chemistry B, 109(6) pp. 2455–2460 (2005).
  - 22) Gheorghiuță Zbăganu, *A family of inequalities originating from coding of messages.* Linear Algebra and its applications, 395(2005) 1-82, împreună cu Joel E. Cohen, Johannes H B Kemperman.

### Non-ISI Journals

1. **Voicu Boșcaiu** (with Guja Cornelia, Dumitrașcu Anda, Baciuc Adina, Debrețin Mirela, Pavel Alina), *Choroid plexus – pineal gland correlations. Medical anthropology-computed tomography studies. Intracranial physiological calcification.* Acta Endocrinologica, Romanian Academy, vol.I, January-March, 2005, pp. 1-19.
2. **Mioara Buiculescu**, *Harris recurrence of a Markov process on an absorbing set.* Rev. Roumaine Math. Pures Appl. **50** (2005) 3, 253-259.
3. **Alexandru Dumitrache**, *Numerical methods and proper orthogonal decomposition of flapping airfoil.*, Proceedings of the Fifth EUROMECH Nonlinear Dynamics Conference, ENOC2005, Eindhoven, Netherlands, 7-12 August 2005, pg. 923-932 (ISBN 90 386 2667 3), 2005.
4. **Alexandru Dumitrache, Horia Dumitrescu**, *Noise prediction model for wind turbines*, in Series on Mathematical Modelling of Environmental and Life Sciences Problems, Proceedings of Fourth Workshop on Mathematical Modelling of Environmental and Life Sciences, 7-10 September, 2005, Constanta, Ed. Academiei Romane, pg. 79-86 (ISBN (10) 27 1358 5), 2006.
5. **Horia Dumitrescu**, Maria Alexandrescu, Nicu Alexandrescu, *Boundary layer state and flow field structure on wind turbines blades*, Proceedings of the Romanian Academy, Series A, Vol.6, Nr.3, pp 219-228, 2005.

6. **Horia Dumitrescu, Maria Alexandrescu, Nicu Alexandrescu**, *Aerodynamic analysis of a straight-bladed Darrieus rotor including dynamic stall effects*. Rev. Roum. Scie. Techn. Méc. Appl, 50(4-6), 2005.
7. **Horia Dumitrescu, Florin Frunzulică**, *Low – frequency noise prediction of wind turbines*. Proceedings of the Romanian Academy, Series A, Vol.6, nr.1, pp 39-46, 2005.
8. **Horia Dumitrescu, Vladimir Cardoso**, *Singular points for three –dimensional separation*. Bulletin of the Transilvania University of Braşov, Series B, 13 (48), 2006, pp 63-69, 2006.
9. **Cornelia Enăchescu**, *Statistical methods for establishing the risk factors in the involuntal osteoporosis*. Lecture Notes of the International Centre of Biocybernetics, World Health Organization collaborating Centre for Research and Training in Biocybernetics and Biomedical Engineering, Edited by Polish Academy of Science, Warsaw, Poland, (2005), pp. 19-24.
10. **Cornelia Enăchescu** (with D.Enăchescu), *Estimating an Endpoint of a Distribution in the presence of Observation Errors using Support Vector Machines*. Rev. Roumaine Math.Pures Appl., **50**, 4, (2005) pp. 343-355.
11. **Cornelia Enăchescu**, *Some practical problems of compartmental modelling*. Math. Reports, **8(58)** (2006) pp. 137-150.
12. **Cornelia Enăchescu** (with D.Enăchescu), *A multilayer perceptron network for the foetal weight prediction*. Analele Univ. Buc., seria inf, XLV, (2006), pp. 73-84.
13. **Marius Iosifescu** (with I. Sebe), *An exact convergence rate in a Gauss-Kuzmin-Lévy problem for some continued fraction expansion*. AIP Conf. Proc. - May 10, 2006 - Volume 835, pp. 90-109, MATHEMATICAL ANALYSIS AND APPLICATIONS: International Conference on Mathematical Analysis and Applications.
14. **Marius Iosifescu** (with U. Herkenrath), *On positive Harris recurrence for a class of Markov chains*. Math. Reports **7(57)** (2005), pp. 305-313.
15. **Stelian Ion**, Anca Veronica Ion and **Dorin Marinescu**, *A Comparative Study of Non-Fickean Diffusion in Binary Fluids*. Anal. Univ. Bucuresti, series Mathematics, anul LV (2006), pp. 91-98.
16. **Stelian Ion** and **Dorel Homentcovschi**, *Fundamental Solutions of Oscillatory Compressible Stokes Equations*. Anal. Univ. Bucuresti, series Mathematics, anul LV(2006), pp. 99-110.
17. **Valentin Ionescu**, *On Boolean product of completely positive Maps*. Proceedings of The Romanian Academy, Series A, vol. 7, no. 2, 2006, pp. 85-91.
18. **Dorin Marinescu**, *On the Approximation of the Solutions of a Kinetic Model of Fermions*. Anal. Univ. Bucuresti, series Mathematics, anul LV (2006), pp.175-184.
19. **Gabriela Marinoschi**, *On a nonlinear boundary value problem related to infiltration in unsaturated media*. New Trends in Continuum Mechanics (Ed. M. Suliciu, Proceedings of the International Conference 8-12 September, 2003, Constanta), Theta Publishing, pp. 175-184, 2005.
20. **Gabriela Marinoschi**, *Mathematical models of nonlinear saturated-unsaturated infiltration in porous media*. Mathematical Reports, 8, 3, 2006, pp. 287-307.

21. **Udrea Păun**, *Blocks method in finite Markov chain theory*. Rev. Roumaine Math. Pures Appl. 50 (2005), pp. 205-236.
22. **Udrea Păun**, *Ergodicity coefficients of several matrices*. Math. Reports 7(57) (2005), pp. 125-148.
23. **Udrea Păun**, *General Delta-ergodic theory of finite Markov chains*. Math. Reports 8(58) (2006), 83-117.
24. **Udrea Păun**, *General Delta-ergodic theory: Delta-stability, basis, and new results*. Math. Reports 8(58) (2006), pp. 219-238.
25. **Dumitru Popescu, Stelian Ion**, A.G. Popescu, Nicoleta Neacsu, M.L.Flonta, *The effect of lipid bilayer hydration on transbilayer pores appearance*. Romanian J. Biophys., vol.16, 2006, nr.1, 2006, pp. 39-56.
26. **Dumitru Popescu**, C.N. Zaharia, **Stelian Ion**, M.L.Flonta, *Compensation of the neurotransmitters deficiency in the synaptic cleft*. Romanian J. Biophys., vol.16, 2006, nr.3, pp. 189-204.
27. C.N. Zaharia, **Dumitru Popescu**, *Docking simulation of hypericine molecule on a supposed active site of serotonin transporter*. 2006, Studies and Researches in Virology, vol.36, 1 2006, pp. 45-51.
28. **Dumitru Popescu**, C.N. Zaharia, *Mathematical modelling of the drug delivery by liposomes used as carriers to the target place*. Studies and Researches in Virology, vol.36, 2, 2006, 133-137.
29. **Mihai Popescu, Alexandru Dumitrache**, *Optimality and non optimality singular control for transfer trajectorie*. Dynamical Systems Theory and Applications, (Poland), vol. 3, pp. 355-362, 2005.
30. **Mihai Popescu**, *Optimal control in linear and nonlinear pursuit problems*. An International Series of Scientific Monograph and Text Books "Mathematical Problems in Engineering, Aerospace and Sciences", Cambridge Scientific Publishers Ltd. (USA), (2006).
31. **Mihai Popescu**, *Control of nilpotent systems in singular problems*. Cambridge Scientific Publishers Ltd. (USA), pp. 531-539, 2005.
32. **Mihai Popescu**, Fernard Pelletier, *Contrôle optimal pour une classe des systemes bilineaires*. Rev. Roum. Sci. Tech. Mec. Appl, Tome 50, No. 1-3, pp. 77-86, 2006.
33. **Mihai Popescu**, *Necessary conditions in singular optimal control*, Rev. Roum. Sci. Tech. Mec. Appl, Tome 50, Nr. 4-6, pp. 135-143, 2006.
34. **Mihai Popescu, Alexandru Dumitrache**, *Study of optimality singular control for orbital transfer*. Rev. Roum. Sci. Tech. Mec. Appl, Tome 51, No. 2, pp. 189-199, 2006.
35. **Mihai Popescu, Alexandru Dumitrache**, *Orbital stability periodical solutions for autonomous nonlinear systems*, Rev. Roum. Sci. Tech. Mec. Appl, Tome 51, Nr. 3, 2006.
36. **Mihai Popescu**, *Optimal control in linear pursuit problems*, Analele Universității București, (2006).
37. **Mihai Popescu**, *On the optimal control of quadratic functionals for off line nilpotent systems*. Proceedings of 1st International Conference Computational Mechanics and Virtual Engineering COMEC, 20-22 oct., Brașov, pp. 403-407, ISBN: 973-635-593-4, 2005.

38. **Mihai Popescu**, *On the optimal control of bilinear systems*. International Conference of New Trends in Continuum Mechanics, Constanța, Theta Series in Advanced Mathematics, pp. 231-239, ISBN 973-85432-5-8, 2005.
39. **Mihai Popescu**, *Optimal control for bilinear nilpotent systems*. 31st Conference C. Iacob of Fluid Mechanics Mathematical Modeling Nonlinear Dynamical Systems and Tehnical Appl., Brașov, oct. 19-21 2006, Published by Transilvania University Press, pp. 299-305, ISSN: 1223-964 X, 2006.
40. **Mihai Popescu**, Fernard Pelletier, *The optimal damping of tranzitory answers in pursuit problems*. Publication LAMA, Université Savoie et CNRS France, No. 05-12b, pp. 1-22 2005.
41. **Mihai Popescu**, Fernard Pelletier, *Optimal singular control for systems involving parameters*. Publication LAMA 5127, pp. 1-27, Université de Savoie et CNRS France, UMR, pp. 1-17, 2006.
42. **Mihai Popescu**, *Control of nonlinear systems in singular problems*. Anual Scientific Conference GAMM, March. 28 – Aprilie. 1, Luxembourg, Electronic-PAMM, ISSN 1521-4001, 2005.
43. **Dumitru Popescu, Stelian Ion**, A.G. Popescu, Nicoleta Neacsu, *The effect of lipid bilayer hydration on transbilayer pores appearance*. 2005, Romanian Biophys. J., vol.15, nr.3-4.
44. Beatrice Macri, **Dumitru Popescu**, Maria-Luiza Flonta, Gheorghe Stoian, *Efectul hipericinei asupra membranelor lipidice*. 2005, Studii și cercetări de virusologie, vol.35, 1, 57-63.
45. **Dumitru Popescu, Stelian Ion**, A.G. Popescu, Nicoleta Neacșu, M.L.Flonta, *The effect of lipid bilayer hydration on transbilayer pores appearance*. Romanian J. Biophys., vol.16, 2006, nr.1, 2006, pp. 39.
46. C.N. Zaharia, **Dumitru Popescu**, *Docking simulation of hypericine molecule on a supposed active site of serotonine transporter*. Studies and Researches in Virology, vol.36, 2, 2006, pp. 85-92.
47. **Dumitru Popescu**, C.N. Zaharia, S. Ion, M.L.Flonta, *Compensation of the neurotransmitters deficiency in the synaptic cleft*. Romanian J. Biophys., vol.16, nr.3, pp. 189-204.
48. **Stelian Ion and Dumitru Popescu**, *Minimum Free Energy Configuration of the Planar Lipidic Bilayer. Analytical Solutions*. In Series on Mathematical Modelling of Environmental and Life Sciences Problems, Proceeding of Fourth workshop, Septembrie 2005, Constanta, Ed. Academiei Romane, 2006, pp. 95-102.
49. Beatrice Macri, **Dumitru Popescu**, Maria-Luiza Flonta, Gheorghe Stoian, *Efectul hipericinei asupra membranelor lipidice*. Studii și cercetări de virusologie, vol.35, 1, 2005, 57-63.
50. **Dumitru Popescu**, C.N. Zaharia, Ecaterina Maries, *Rolul simetriei structurale a unor molecule inserate in bistratul lipidic*. Studii și cercetări de virusologie, vol.35, 2, 2005, 173-178.
51. **Marius Rădulescu**, Rădulescu M., Rădulescu S., Alexandrescu P., *On Schur inequality and Schur functions*. Annals of University of Craiova, Math. Comp. Sci. Ser., 32, (2005), pp. 202-208. ISSN: 1223-6934.

52. **Aurel Spătaru**, *Refinement of convergence rates for tail probabilities*. Annals of University of Craiova, Math. Comp. Sci. Ser. **32**, 1-6 (2005).
53. **I.M. Stancu-Minasian** (with Vasile Preda, Miruna Beldiman and Andreea Mădălina Stancu), *Multiobjective programming problems with generalized V-type-I univexity and related n-set functions*. Proc. Romanian Acad. Ser. A, 6 (2005) 3, 183-191.
54. **I.M. Stancu-Minasian** (with Andreea Mădălina Stancu), *Optimality and duality in nonlinear programming involving  $\rho$ -semilocally b-preinvex and related functions*. Math. Reports 8 (58) (2006) 4, pp. 459-474.
55. **I.M. Stancu-Minasian** (with Andreea Mădălina Stancu), *Optimality conditions for nonlinear programming with mixed constraints and  $\rho$ -locally arcwise connected functions*. Proc. Romanian Acad. Ser.A, 7 (2006) 1, 3-9.
56. **I.M. Stancu-Minasian** (with Ștefan Țigan and Eugenia Maria Iacob), *Monotonic balanced optimization problem*. Annals of the Tiberiu Popoviciu Seminar of Functional Equations, Approximation and Convexity. Vol. 3, 2005, pp. 183-197.
57. **Gheorghiță Zbăganu**, *Instantaneous Interest Rates and Hazard Rates*. Proceedings of the Romanian Academy Series A, Vol 6, no. 1/2005, pp. 31-38.
58. **Gheorghiță Zbăganu**, *Life Insurance Plans and Stochastic Orders*. Proceedings of the Romanian Academy Series A, Vol 6, no. 2/2005, pp. 103-115.
59. **Gheorghiță Zbăganu**, *Branching Processes and Insurance*. Proceedings of the Romanian Academy Series A, Vol 7, no. 2/2006, pp. 93-103.
60. **Gheorghiță Zbăganu**, *On infinite Bernoulli Convolutions*. Proceedings of the Romanian Academy Series A, Vol 7, no. 3/2006, 177-182.
61. **Gheorghiță Zbăganu**, *Loss Functions, Lottery Evaluation and Premium Principles*. Mathematical Reports, 8(58), 3(2006), pp. 343-383.