



ACADEMIA ROMÂNĂ
Institutul de Statistică Matematică și Matematică Aplicată
“GHEORGHE MIHOC- CAIUS IACOB”
Casa Academiei Române, Calea 13 Septembrie nr.13
050711 București
Telefon: (+40-1) 021.318.24.33

DARE DE SEAMĂ PE ANUL 2015

Capitole in carti

1. **A.M. Morega**, A. Negoias, M. Morega, Chapter XX: *Heat Transfer Analysis of Spherical Cell Photovoltaic Modules used in Energy Harvesting Applications*, in *Book on Renewable Energy*, Cambridge Scholars Publishing, 2015

Articole apărute în reviste din străinatate cotate ISI

1. **Aida Toma**, Samuela Leoni-Aubin, (2015) *Robust portfolio optimization using pseudodistances*, PLoS ONE, 10, 10, 1-26. (**FI: 3.234, SRI 2.251**)
2. Silvia Dedu, **Aida Toma**, (2015) *An integrated risk measure and information theory approach for modeling financial data and solving decision making problems*, Procedia Economics and Finance, 22, 531-537
3. **Răducan, A. M., Vernic, R., Zbăganu, Gh.**, *Recursive calculation of ruin probabilities at or before claim instants for non-identically distributed claims*, ASTIN Bulletin 45 (2), 421-443, 2015 (**FI 2014: 0.738**).
4. **Răducan, A. M., Vernic, R., Zbăganu, Gh.**, *On the ruin probability for nonhomogeneous claims and arbitrary inter-claim revenues*, Journal of Computational and Applied Mathematics 290, 319-333, 2015. (**FI 2014: 1.266**).
5. Vinicius da Silva Almendra, **Denis Enăchescu, Cornelia Enăchescu**, *Ranking computer science conferences using self-organizing maps with dynamic node splitting*,

6. **Rădulescu M.**, Rădulescu C.Z., A portfolio theory approach to software vendor selection, Studies in Informatics and Control, Vol. 24, No. 4, (2015), 8p. (FI : 0.905)
7. Anurag Jayswal, **Ioan Stancu-Minasian**; Jonaki Banerjee; **Andreea Mădălina Stancu**: *Sufficiency and duality for optimization problems involving interval-valued invex functions in parametric form*. Operational Research. An international Journal (ORIJ) 15(2015)1, 137-161. (FI: 0,311)
8. **V. Preda**, S. Dedu, C. Gheorghe, (2015) *New classes of Lorenz curves by maximizing Tsallis entropy under mean and Gini equality and inequality constraints*, Physica A, Volume 436, 925-932. (FI=1,732, SRI=1,032)
9. **V. Preda**, M. Sheraz, (2015) *Risk-neutral densities in entropy theory of stock options using Lambert function and a new approach*, Proceedings of the Romanian Academy, 16, 1, 20-27. (FI=1,658, SRI=0,369)
10. P.G. Popescu, E.I. Slusanschi, **V. Preda**, (2015) *Towards a new bond for a matrix norm*, Carpathian Journal of Mathematics, 31, 2, 255-260. (FI=0,792, SRI=0,377)
11. Adriana Octaviana Dulamea, **Voicu Boșcaiu**, Maria Mirela Sava, *Disability status and dental pathology in multiple sclerosis patients*, Multiple Sclerosis and Related Disorders, Elsevier Vol 4, Issue 6, 567-571, (FI : 0,884)
12. **Carabineanu A.**, *A conformal mapping approach for investigating the free-boundary seepage from symmetric channels*, Complex Var. Elliptic Eq., Vol.60, Issue 9, 1190-1204, 2015, (FI: 0.610).
13. Minodora Manu, **Stelian Ion**, *Characterisic soil mite's communities (Acari: Gamasina) for some natural forests from Bucegi Natural Park Romania*, Periodicum Biologorum, VOL. 116, No 3, 303-312, 2014, (FI: 0.139)
14. L. Beznea, M. Deaconu, and **O. Lupascu**, *Branching processes for the fragmentation equation*, Stochastic Processes and their Applications, Vol. 125, 1861–1885, 2015, (F.I.: 1.056)
15. G. Fragnelli, **G. Marinoschi**, R.M. Mininni, S. Romanelli, *Identification of a diffusion coefficient in strongly degenerate parabolic equations with interior degeneracy*, J. Evol. Equ.*., 15, 27-51, 2015, DOI: 10.1007/s00028-014-0247-1, (FI: 0.783)
16. V. Barbu, A. Favini, **G. Marinoschi**, *Nonlinear parabolic flows with dynamic flux on the boundary*, J. Differential Equations, 258, 6, 2160–2195, 2015, (FI: 1.680)

17. Popa C., Preclik T., Ruede U., *Regularized solution of LCP problems with application to rigid body dynamic*, Numerical Algorithms, 69 (2015), 145 – 156, (**FI: 1.005**)
18. Cindea Nicolae, **Micu Sorin**, Roventa Ionel, Tucsnak Marius: *Particle supported control of a fluid-particle system*, Journal de Mathématiques Pures et Appliquées 104 (2) (2015), 311-353. DOI 10.1016/j.matpur.2015.02.009, (**FI: 2.271**)

Articole apărute în reviste cotate ISI, România

1. **Vernic, R.**, *On a conjecture related to the ruin probability for nonhomogeneous insurance claims*, Analele Universității "Ovidius" Constanța, seria Matematică 23 (3), 209-220, 2015. (**FI 2014: 0.333**)
2. **A. Carabineanu**, *A simplified mathematical theory of MHD power generators*, An. Univ. Ovidius Constanta, 29-40, (**FI : 0.333**).
3. **Anca Veronica Ion**, *Study of the behaviour of proliferating cells in leukemia modelled by a system of delay differential equations*, An. St. Univ. Ovidius Constanta, Vol. 23(3),2015, 65-81, (**FI : 0.333**).
4. **Stelian Ion, Dorin Marinescu, Anca Veronica Ion, Stefan Gicu Cruceanu**, Virgil Iordache, *Water flow on vegetated hill. 1D shallow water equation type model*, An. St. Univ. Ovidius Constanta, Vol. 23(3),2015, 83-96, (**FI : 0.333**)
5. I. R. Ionescu, **O. Lupascu**, *Onset of a dense avalanche on a plane slope*, Proc. Romanian Academy-Series A, VOL. 16, 405--412 (2015). (**FI: 1,658**).
6. **A.M. Morega**, C. Savastru, M. Morega, *Measuring the hemodynamic flow in the brachial-ulnar-radial arterial system*, An. St. Univ. Ovidius Constanta, 2015, 113-128, (**FI : 0.333**).
7. Bobe A., Nicola A., **Popa C.**, *Weaker hypothesis for the general projection algorithm with corrections*, Annals of "Ovidius" Univ. Constanta, Series Mathematics, vol XXIII(3) (2015), 9-16; (**FI: 0.333**)
8. Carp D., **Popa C.**, Serban C., *Modified Han algorithm for inconsistent linear inequalities*, Carpathian Journal of Mathematics, 31(1) (2015), 42 - 56; (**FI: 0.642**)

Articole publicate în reviste din străinătate (BDI)

1. Ungureanu, D., **Vernic, R.**, *On a fuzzy cash flow model with insurance applications*, Decisions in Economics and Finance 38 (1), 39-54, 2015.

2. M. Sheraz, S. Dedu, **V. Preda**, (2015) *Entropy measures for assessing volatile markets*, Procedia Economics and Finance, 22, 655-662.
3. **Stancu-Minasian, I.M. and Stancu, Andreea Mădălina**, *New global semiparametric sufficient efficiency conditions in multiobjective fractional programming with generalized $(F, b, \phi, \rho, \theta)$ -univex n-set functions*. Journal of Statistics and Management Systems **17**(2014)5&6, 409-431 (nu a fost raportată în 2014).
4. Anurag Jayswal, **Ioan Stancu-Minasian**; Sarita Choudhury: *Second order duality for variational problems involving generalized convexity*. Opsearch **52**(2015)3, 582-596

Proceeding internațional indexat IEEE si ISI

1. **Rădulescu M.**, Rădulescu C.Z., *A multi-objective crop planning model with environmental constraints*. Proc. Int. Conf. Ag. Eng., AgEng2014, Zurich. Eur. Soc. Ag. Eng. (EurAgEng), (2014), 7 p. ISBN: 978-0-9930236-0-6.
2. **Frunzulică Florin, Dumitrache Alexandru**, Suătean, Bogdan, *Numerical Investigations of Passive Flow Control Elements for Vertical Axis Wind Turbine*, AIP Conference Proceedings; Dec. 2014, Vol. 1637 Issue 1, p331.
3. **Dumitrache Alexandru, Frunzulică Florin**, · D.E. Crunceanu, *Influence of unsteady flow on the aerodynamics and aeroacoustics of vertical axis wind turbines*, AIP Conference Proceedings 03/2015; 1648. DOI:10.1063/1.4912705.
4. **Frunzulică Florin, Dumitrache Alexandru**, Suătean, Bogdan, *Numerical investigations on dynamic stall control with passive elements*, AIP Conference Proceedings 03/2015; 1648. DOI:10.1063/1.4912700.
5. Bogos, Stefan; **Dumitrache Alexandru; Frunzulică Florin**, *Turbulence Models in CFD Simulation of Low-Reynolds Number Airfoils Flow*, AIP Conference Proceedings; 2015, Vol. 1648 Issue 1, p1-4.
6. Marius Stoia-Djeska and **Florin Frunzulică**, *Sensitivities Calculation for Unsteady Flow Problems*, PAMM – Proc. Appl. Math. Mech. 15, 689-690 (2015) / DOI 10.1002/pamm.201510334
7. **Ion, S., Marinescu, D., Cruceanu, S.G.**, *Mathematical modeling of the erosion processes in hydrographic basins*, Advanced Topics in Electrical Engineering, (ATEE), 2015, Page(s):552- 555.
8. **T. C. Ionescu** and O. V. Iftime, *On moment matching of transfer functions and their derivatives*, Proc. Of European Control Conference, pp. 340-345, 2015

Articole apărute în reviste B+

1. Mădălina Duțu, **Voicu Boșcaiu**, Dan Corneci. – Prognostic factors in sepsis. Using PIRO model in describing sepsis, *Romanian Journal of Medical Practice* 10.1, VOL. X, NR. 1, 38 41-46, 2015, CNCSIS: B+
2. **D. Popescu**, Iuliana Pasol , S. Miclos, *Spectral analysis of electrical activity of the triceps branchii muscle contraction*, Rom. J. Biophys., 13-34, **25** (1), 2015,
3. Ecaterina Maries, A.G. Popescu, **D. Popescu**, *The pulsatory liposomes releasing of the neurotransmitters inside to interneuronal synaptic cleft may be a possible device for the depression treatment*, Rom. J. Biophys., 117-129, **25** (2), 2015

Articole apărute în reviste ale Academiei Române (EAR), care nu sunt ISI

1. **M. Buiculescu** –*Quasi-stationary distributions : an application of the revival technique*. Revue Roumaine Math. Pures Appl. **60** (2015), 93-99.

Articole apărute în reviste din tara care nu sunt ISI

1. R. Trandafir, **V. Preda**, S. Demetriu, I. Mierluș-Mazilu (2015) *The transmuted generalized Pareto distribution. Statistical inference and simulation results*, “Mircea cel Batran” Naval Academy Scientific Bulletin **18** (2015), 2, 411-418.

Comunicări prezentate la manifestări științifice internaționale

1. Robe-Voinea, E., **Vernic, R.**, *What if different types of claims simultaneously affect an insurance portfolio?*, A 18-a Conferință a Societății de Probabilități și Statistică din România, București, Universitatea din București, 8 mai 2015.
2. **Răducan, A.-M., Vernic, R., Zbăganu, Gh.**, *On the ruin probability for nonhomogeneous Erlang claims and arbitrary inter-claim revenues. Computational aspects*, A 18-a Conferință a Societății de Probabilități și Statistică din România, București, Universitatea din București, 8 mai 2015
3. **Răducan, A.-M., Vernic, R., Zbăganu, Gh.**, *On a conjecture related to the ruin probability for nonhomogeneous Erlang claims and arbitrary inter-claim revenues*, Conferința Internațională de Actuariat și Asigurari, ASE, 22 iunie 2015.

4. Robe-Voinea, E., **Vernic, R.**, *On the recursive evaluation of a certain multivariate compound distribution*, The 8th Congress of Romanian Mathematicians, June 28-July 1, 2015, "Alexandru Ioan Cuza" University of Iasi.
5. Robe-Voinea, E., **Vernic, R.**, *A recursive procedure for a compound risk model with compound-type severity distributions*, The 12th Balkan Conference on Operational Research BALCOR 2015, 9-13 September 2015, Constanta, Romania.
6. **Vernic, R.**, *Evaluating the ruin probability in a nonhomogeneous risk process*, First Romanian-Turkish Mathematics Colloquium, October 14-15, 2015, Constanta, Romania.
7. **Rădulescu M.**, Rădulescu C.Z., *Single period portfolio selection models with transaction costs and initial holdings*, 13th EUROPT Workshop on Advances in Continuous Optimization, 2015, Edinburgh
8. **Rădulescu M.**, Rădulescu C. Z., *Portfolio selection models with proportional transaction costs and initial holdings*, 27th European Conference on Operational Research, 2015, Glasgow.
9. **Rădulescu M.**, Radulescu C. Z., *Multiobjective portfolio selection models with complementarity constraints*, MCDM 2015 – 23rd International Conference on Multiple Criteria Decision Making, 2015, Hamburg.
10. **Rădulescu M.**, Radulescu C. Z., *Portfolio selection models with transaction costs and initial holdings. An approach that takes into account complementarity constraints*, A 18-a Conferință a Societății de Probabilități și Statistică din România, București, Universitatea din București, 8 mai 2015
11. **Aida Toma**, Amor Keziou, *Empirical divergence estimates in moment condition models: robustness properties*, A 18-a Conferință a Societății de Probabilități și Statistică din România, București, Universitatea din București, 8 mai 2015
12. **Aida Toma**, Amor Keziou, *Empirical divergence estimates in moment condition models: robustness properties*, 16th Conference of the Applied Stochastic Models and Data Analysis International Society & Demographic Analysis and Research International Workshop, Piraeus, Grecia (30 Iunie - 4 Iulie 2015).
13. **Aida Toma**, Amor Keziou, *Empirical divergence estimates in moment condition models: robustness properties*, 8th International Conference of the ERCIM WG on Computational and Methodological Statistics (CM Statistics 2015), Senate House, University of London, Londra, Anglia (12 - 14 Decembrie 2015).
14. **Cornelia Enăchescu, Denis Enăchescu**, Diana Milcent, *Statistical Models for predicting Repetitive Hospitalization of Adolescents with Psychiatric Problems*, A 18-a

Conferință a Societății de Probabilități și Statistică din România, București, Universitatea din București, 8 mai 2015

15. C.M. Noaică, **Denis Enăchescu**, *An Iris Recognition System Based on a Modified Adaptive Resonance Network*, Proc. DACS 2015, Bucharest, Romania, June 26-27, 2015
16. **Udrea Păun**, *Swapping method and Gibbs sampler*, A 18-a Conferință a Societății de Probabilități și Statistică din România, București, Universitatea din București, 8 mai 2015
17. **Luiza Bădin**, Valentin Patilea, Leopold Simar, *Confidence Intervals for Efficiency Scores in Non-Convex Technologies*, 8th International Conference on Computational and Methodological Statistics, CFE-Ercim 2015, 11-14 December, London, United Kingdom.
18. Anamaria Aldea, **Luiza Bădin**, Carmen Lipară, *Efficiency of Investment banks during the financial crisis: a conditional frontier analysis*, International Conference on Operations Research (OR 2015), 1 - 4 September 2015, Vienna, Austria.
19. **Luiza Bădin**, Valentin Patilea, Leopold Simar, *Confidence Intervals for Efficiency Scores in Non-Convex Technologies*, International Workshop on the Econometrics and Statistics of Efficiency Analysis: Recent Developments and Perspectives, 20-21 June 2015, Lecce, Italy.
20. **Luiza Bădin**, Cinzia Daraio, Leopold Simar, *Bandwidth Selection Issues for Nonparametric Conditional Efficiency Estimation: A Monte-Carlo Investigation*, 14th European Workshop on Efficiency and Productivity Analysis (EWEPA14), 15-18 June 2015, Helsinki, Finland
21. **Voicu Boșcaiu**, *Tools for population mean estimation using information on auxiliary variable*, A 18-a Conferință a Societății de Probabilități și Statistică din România, 8 mai 2015, Universitatea din București, Facultatea de Matematică și Informatică, București
22. **Andreea Mădălina Stancu; I.M. Stancu-Minasian**: *On interval-valued programming problem*. A 18-a Conferință a Societății de Probabilități și Statistică din România, 8 mai 2015, Universitatea din București, Facultatea de Matematică și Informatică, București.
23. **Andreea Mădălina Stancu; I.M. Stancu-Minasian**: *Semiparametric sufficient efficiency conditions in multiobjective fractional programming with generalized n-set functions*. The 12th Balkan Conference on Operational Research, BALCOR 2015, 9-13 Septembrie 2015, Constanța, România
24. **V. Preda**, A. Bătătorescu, I. Antonescu (2015) *Approximate convexity in multiobjective programming*, The 12th Balkan Conference on Operational Research, 9-13 September 2015.

25. **V. Preda**, S. Dedu, I. Dănilă (2015) *Second Order Entropy Optimization with Applications to Survival Models*, The 16th Conference of the Applied Stochastic Models and Data Analysis International Society, Piraeus, 30 June – 4 July 2015.
26. **V. Preda**, S. Dedu, C. Gheorghe (2015) *New classes of Lorenz curves by using the entropy maximization principle under Gini equality and inequality constraints*, The 12th Balkan Conference on Operational Research, 9-13 September 2015.
27. **V. Preda**, S. Dedu, B. Biolan (2015) *Nonsmooth interval semi-infinite optimization problem using Limiting subdifferentials*, The 12th Balkan Conference on Operational Research, 9-13 September 2015.
28. R. Trandafir, **V. Preda** (2015) *Transmuted probability distributions – a survey*, A 18-a Conferință a Societății de Probabilități și Statistică din România, București, 8 Mai 2015.
29. S. Gramatovici, **V. Preda** (2015) *A survey on Hölder continuity of solutions to Ky Fan inequality*, The 12th Balkan Conference on Operational Research, 9-13 September 2015.
30. S. Dedu, **V. Preda** (2015) *The Power Log-Lindley distribution, with applications to lifetime data modeling*, The 19th International Congress on Insurance: Mathematics and Economics, Liverpool, 24-26 June 2015.
31. C. Niculescu, **V. Preda** (2015) *Multiobjective optimization involving higher-order generalized convex functions*, A 18-a Conferință a Societății de Probabilități și Statistică din România, București, 8 Mai 2015.
32. S. Dedu, **V. Preda**, M. Sheraz (2015) *New Lorenz curves by maximizing quadratic entropy under inequality constraints*, The 16th Conference of the Applied Stochastic Models and Data Analysis International Society, Piraeus, 30 June – 4 July 2015.
33. R. Trandafir, **V. Preda**, S. Demetriu, I. Mierluș-Mazilu (2015) *The transmuted generalized Pareto distribution. Statistical inference and simulation results*, The 12th Balkan Conference on Operational Research, 9-13 September 2015.
34. S. Dedu, **V. Preda** (2015) *Optimization under various uncertainty measures for insurance and Stop-Loss reinsurance models*, A 18-a Conferință a Societății de Probabilități și Statistică din România, București, 8 Mai 2015.
35. M. Sheraz, **V. Preda**, S. Dedu (2015) *The minimal weighted Kaniadakis entropy martingale measure for valuation problems in financial markets*, The 3rd International Conference Economic Scientific Research – Theoretical, Empirical and Practical Approaches, Bucharest, 3-4 December 2015.
36. M. Drăgan, **V. Preda**, S. Dedu (2015) *Estimation algorithms for information measures and applications to some network problems*, The 16th Conference of the Applied

Stochastic Models and Data Analysis International Society, Piraeus, 30 June – 4 July 2015.

37. M. Sheraz, S. Dedu, **V. Preda** (2015) *Volatility analysis of Shanghai Composite Index and financial crises*, The 3rd International Conference Economic Scientific Research – Theoretical, Empirical and Practical Approaches, Bucharest, 3-4 December 2015.
38. **A.M. Răducan, R. Vernic, Gh. Zbăganu**, *How common sense can be misleading in insurance?* , the 23rd Conference of Applied and Industrial Mathematics, 17 -20 septembrie 2015, Universitatea Ştefan cel Mare, Suceava
39. **Adrian Carabineanu**, *The Application of the Boundary Element Method to the Theory of MHD Faraday Generators*, European Conference on Numerical Mathematics and Advanced Applications, Ankara, 14-18 Sept. 2015
40. **Adrian Carabineanu**, *Steady flow of a perfectly conducting fluid past a thin airfoil*, The First Romanian - Turkish Mathematics Colloquium, 14-18 Oct. 2015, Constanta
41. **Adrian Carabineanu**, *The Numerical Study of the MHD Faraday Generators*, The 36th “Caius Iacob” Conference on Fluid Mechanics and its Technical Applications, 29 - 30 october, 2015, Bucharest.
42. **Adrian Carabineanu**, *Aerodynamics coefficients of a thin oscillating airfoil in subsonic flow*, The Eighth Congress of Romanian Mathematicians, 24 iunie -1 iulie, Iasi, 2015.
43. **Stefan-Gicu Cruceanu, Dorin Marinescu, and Stelian Ion**, *Numerical scheme for water flow on real topography with porosity and friction influences*, The 23rd Conference on Applied and Industrial Mathematics, September 17-20, 2015, Suceava, Romania.
44. **Horia Dumitrescu, Vladimir Cardos, Alexandru Dumitrache**, Ion Malaele, *Turbulent Boundary Layer at Large Reynolds*, The 36th “Caius Iacob” Conference of Fluid Mechanics and its Technical Applications, Bucharest, 29-30 October 2015.
45. I. Malael, **H. Dumitrescu, V. Cardos**, *The evaluation of the boundary vorticity by URANS and LES methods*, 3rd International Workshop on Numerical Modelling in Aerospace Sciences – NMAS 2015 , Bucharest.
46. **H. Dumitrescu, V. Cardos, I. Malael, A. Dumitrache**, *Why is important the concentrated vorticity for VAWTs ?*, 14th World Renewable Energy Congress –WREC 2015, Bucharest.
47. **H. Dumitrescu, V. Cardos, A. Dumitrache**, I. Malel, *Turbulent boundary layer at large Re*, The 36th „Caius Iacob Conference”, Bucharest 2015.

48. **Alexandru Dumitrache, Tudor Corneliu Ionescu**, *Determination of the potential flow spectrum in a wind tunnel nozzle by means of singularities method*, The 36th "Caius Iacob" Conference of Fluid Mechanics and its Technical Applications, Bucharest, 29-30 October 2015.
49. **Al. Dumitrache, F. Frunzulică, H. Dumitrescu**, B. Suatean, *Influences of some parameters on the performance of a small vertical axis wind turbine*, **World Renewable Energy Congress 14 - WREC XIV**, University POLITEHNICA of Bucharest, Bucharest – Romania, June 8 – 12, 2015.
50. Mohamed Louzani, Aurelian Craciunescu, El Hassan Aroudam, **Alexandru Dumitrache**, *Identification of Solar Cell Parameters with Firefly Algorithm*, 2nd Int. Conf. On Mathematics and Computers in Aciences and Industry – MCSI 2015 Sliema, Malta, August 17-19, 2015.
51. **Florin Frunzulică**, Cosmin Oncescu, **Alexandru Dumitrache** and Adela Vintea, *Study of the Modelling of an Electromagnetic Launcher of Fire Extinguishing Load*, The 13th International Conference of Numerical Analysis and Applied Mathematics 2015 – ICNAAM 2015, 23-29 September, Rodos, Greece.
52. **Florin Frunzulică**, Alexandru Cismilianu, Alexandru Boros, **Alexandru Dumitrache** and Bogdan Suatean, *A New Vertical Axis Wind Turbine Design for Urban Areas*, The 13th International Conference of Numerical Analysis and Applied Mathematics 2015 – ICNAAM 2015, 23-29 September, Rodos, Greece.
53. **Florin Frunzulică**, Ion Predoiu, Marius Stoia, **Alexandru Dumitrache** and Aida Bulucea, *Flapping wing as an alternative method of harvesting energy from wind*, 2nd Int. Conf. On Mathematics and Computers in Aciences and Industry – MCSI 2015 Sliema, Malta, August 17-19, 2015.
54. **Cecil P. Grunfeld**, *On a class of abstract kinetic equations in ordered spaces*, The 36th "Caius Iacob" Conference on Fluid Mechanics and its Technical Applications, 29-30 October, 2015, Bucharest, Romania.
55. **Anca Ion**, *Qualitative and numerical study of a system of delay differential equations modeling leukemia*, The Eighth Congress of Romanian Mathematicians, June 26- July 1, 2015, Iasi, Romania.
56. **Anca Ion**, *On the computation of an approximation of the center manifold for delay differential equations, with a single constant delay*, CAIM 2015, Suceava, 17-20 septembrie, 2015.
57. Virgil Iordache, Radu Lăcătușu, Marilena Onete, **Ion Stelian**, Aurora Neagoe, Răzvan Orza, Gabriel Burtea, Florian Bodescu, Daniel Scărdeanu, *Public georeferenced data sets for coupling plant scale and catchment scale*, International Conference –

Environment at a Crossroads: SMART approaches for a sustainable future Bucharest, November 12-15, 2015

58. **Stelian Ion**, *Water flow on vegetated hill. Shallow water equations model*, The Eighth Congress of Romanian Mathematicians, June 26- July 1, 2015, Iasi, Romania
59. **Stelian Ion**, *Mathematical Modeling of Subsurface and Surface Water Flow*, The 23rd Conference on Applied and Industrial Mathematics, September 17-20, 2015, Suceava, Romania.
60. **Stelian Ion, Dorin Marinescu, Stefan-Gicu Crceanu**, *Riemann Problem for Shallow Water Equation with Porosity*, The 36th "Caius Iacob" Conference, October 29-30, 2015, Bucharest, Romania.
61. **Tudor Cornelius Ionescu**, Orest Vasile Iftimie, **Alexandru Dumitrache**, *Model reduction by moment matching for boundary control PDEs*, The 36th "Caius Iacob" Conference of Fluid Mechanics and its Technical Applications, Bucharest, 29-30 October 2015.
62. **T. C. Ionescu**, O. V. Iftime and D. Matignon, *Towards, moment matching of a perturbed Wave PDE*, SIAM meeting, Paris, France, 2015.
63. **T. C. Ionescu**, O. V. Iftime and **A. Dumitrache**, *Model reduction by moment matching for boundary control PDEs*, 36th Caius Iacob Conference on Fluid Mechanics and its Technical Applications, 2015.
64. **G. Marinoschi**, *An optimal control approach to the optical flow problem*, New advances in PDE's, Inverse Problems and Control Theory, Parma, July 6-11, 2015
65. **G. Marinoschi**, *An inverse problem for recovering the diffusion coefficient in a parabolic diffusion equation*, The 36th "Caius Iacob" Conference of Fluid Mechanics and its Technical Applications, October, 2015.
66. **A.M. Morega**, A.M. Sandoiu, M. Morega, *On the thermography mapping of anatomic media with capillaries and larger vessels blood flow*, IEEE International Conference on e-Health and Bioengineering, EHB 2015, November 19-21, 2015, Iasi, Romania, (IEEE eXplore).
67. D.M. Ciuculete, **A.M. Morega**, *Numerical simulation of transdermal transport through iontophoresis*, IEEE International Conference on e-Health and Bioengineering, EHB 2015, November 19-21, 2015, Iasi, Romania, (IEEE eXplore).
68. J.B. Dumitru, **A.M. Morega**, M. Morega, *Flow patterns in the magnetic fluid core of a miniature planar spiral transforme*, Proc. of the XXXVIth "Caius Iacob" Conference on Fluid Mechanics and its Technical Applications, 2015, 29-30 October, Bucharest, Romania, ISSN 2067-4414, ISSN-L 2067-4414.

69. I. Dobrin, S. Kulikov, A. Cernikov, A. Buzdavin, O. Culicov, **A.M. Morega**, A. Nedelcu, M. Morega, I. Popovici, A. Dobrin, *A 4 T HTS Magnetic Field Generator, Conduction Cooled, for Neutron Physics Spectrometr*, The 12th European Conference on Applied Superconductivity EUCAS 2015, ESAS, European Society for Applied Superconductivity, 6-10 September, 2015, Lyon, France.
70. D. Enache, I. Dobrin, **A.M. Morega**, S. Apostol, *Superconductive dipolar electromagnets for particle accelerators. Two constructive models*, International Conference and Exhibition on Electromechanical and Power Systems, SIEMEN, 6 October 2015, Craiova, Romania / 8-9 october 2015, Chisinau, Rep. of Moldova.
71. D. Enache, I. Dobrin, **A.M. Morega**, S. Apostol, *Numerical studies on a DC, limited angle, torque motor*, International Conference and Exhibition on Electromechanical and Power Systems, SIEMEN, 6 October 2015, Craiova, Romania / 8-9 october 2015, Chisinau, Rep. of Moldova.
72. **A.M. Morega**, M. Popa, M. Morega, L. Pazslaru-Danescu, *Shape and structure optimization of a magnetostrictive cored actuator*, Constructal Law & Second Law Conference 2015, CLC 2015, Parma (Italy), 18-19 May.
73. **A.M. Morega**, I. Dobrin, M. Morega, A. Nedelcu, V. Stoica, *Design and numerical simulations of a superconducting dipolar electromagnet cooled by conduction*, The 9th International Symposium on Advanced Topics in Electrical Engineering, May 7-9, 2015, Bucharest, Romania, (IEEE eXplore).
74. **A.M. Morega**, G. Robello, M. Morega, L. Paslaru-Danescu, *Numerical study of the stator motion in a piezoelectric ultrasonic motor*, The 9th International Symposium on Advanced Topics in Electrical Engineering, May 7-9, 2015, Bucharest, Romania, (IEEE eXplore).
75. L. Paslaru-Danescu, **A.M. Morega**, V. Stoica, M. Morega, I. Dobrin, *A new electronic active system for protection to quench hazard in high temperature superconducting coils*, The 9th International Symposium on Advanced Topics in Electrical Engineering, May 7-9, 2015, Bucharest, Romania, (IEEE eXplore).
76. L. Paslaru-Danescu, **A.M. Morega**, M. Morega, R. Chihaia, M. Popa, L. Flore, *A new electronic active system for protection to quench hazard in high temperature superconducting coils*, The 9th International Symposium on Advanced Topics in Electrical Engineering, May 7-9, 2015, Bucharest, Romania, (IEEE eXplore).
77. **A.M. Morega**, N. Tanase, M. Morega, D. Comeaga, C. Ilie, *Bending mode cantilever actuators for micro-electromechanical systems*, The 9th International Symposium on Advanced Topics in Electrical Engineering, May 7-9, 2015, Bucharest, Romania, (IEEE eXplore).

78. M.Morega, **A.M. Morega**, A. Sandoiu1, *Sensitivity to parameters variation in numerical simulation of microwave thermotherapy*, The 9th International Symposium on Advanced Topics in Electrical Engineering, May 7-9, 2015, Bucharest, Romania, (IEEE eXplore).
79. N. Tanase, **A. M. Morega**, C. Ilie, M. Popa, M. Popescu, *Sistem de stocare a energiei cinetice pe principiul rotii volante, cu sustentie magnetica FESS*, Simpozionul de Masini Electrice, SME 14, Octombrie, 2015, FIE-UPB, Bucuresti ISSN 2067-4147.
80. **A.M. Morega**, M. Morega, L. Paslaru-Danescu, M. Popa, *Simularea functionarii rotorului unui motor piezoelectric cu unda calatoare*, Simpozionul de Masini Electrice, SME 14, Octombrie, 2015, FIE-UPB, Bucuresti ISSN 2067-4147.
81. **A.M. Morega**, I. Dobrin, M. Morega, D. Enache, *Infasurare supraconductoare pentru camp magnetic uniform, intens*, Simpozionul de Masini Electrice, SME 14, Octombrie, 2015, FIE-UPB, Bucuresti ISSN 2067-4147.
82. **C. Popa**, *The Extended Kaczmarz Iteration - Recent Developments*, Workshop on Sparse Tomographic Reconstruction: Theoretical and Numerical Aspects, March 19-20 2015, Heidelberg Collaboratory for Image Processing (HCI), University of Heidelberg, Germany
83. **C. Popa**, *on single projection Kaczmarz extended type algorithms*, Numerical Algebra, Matrix Theory, Differential-Algebraic Equations, and Control Theory" 6-9 May 2015, TU Berlin, Berlin, Germany
84. **C. Popa**, *On Single Projection Kaczmarz Extended-Type Algorithms*, The Eighth Congress of Romanian Mathematicians, June 26 - July 1, 2015, Iasi, Romania
85. I. Pomparau, D. Carp, **C. Popa**, *Weaker assumptions for convergence of extended block Kaczmarz and Jacobi projection algorithms*, First Romanian – Turkish Colloquium on Mathematics, Constanta, 14 – 18 octombrie 2015.
86. **Micu Sorin**, *Approximation of the exact control for the beam equation*, International Workshop ‘From Open to Closed Loop Control’, Mariatrost Graz Austria, 22-26 Iunie 2015.
87. **Micu Sorin**, *Stabilization of a system of dispersive equations modelling water waves*, 6-th Workshop “Partial differential equations, optimal design and numerics”, Benasque, Spania, 23 August – 5 Septembrie, 2015.

Conferințe naționale

1. **Laurențiu Vasile**, *E-live în zilele noastre*, Conferinta Natională de Educatie Matematică, Societatea de Științe Matematice din România

2. Laurențiu Vasile, *Matematica si/sau Matematica + Informatica*, Scoala de Vara a S.S.M.R., Societatea de Științe Matematice din România
3. Elena Caceaune, V. Boșcaiu, N. Caceaune, C. Ionescu-Tîrgoviște, *Diagnostic criteria of nonalcoholic fatty liver disease generated by the binary tree classificaton*, Congresul National al Societății Române de Diabet, Nutritie si Boli Metabolice, 20-23 Mai 2015, Sibiu

Lista lucrărilor publicate pe Internet

1. Laurențiu Vasile, *Contributii in teoria bazelor de date*, teză de doctorat, Univ. din București, <http://fmi.unibuc.ro/ro/pdf/2015/doctorat/rezumatVASILE.pdf>.

Lucrări acceptate spre publicare

1. Asimit, A., Furman, E. and Vernic, R., *Statistical inference for a new class of multivariate Pareto distributions*. Communications in Statistics – Simulation and Computation, online. (**FI 2014: 0.325**).
2. Asimit, A., Vernic, R. and Zitikis, R., *Background risk models and stepwise portfolio construction*. Methodology and Computing in Applied Probability, online. (**FI 2014: 0.913**).
3. Vernic, R., *Optimal investment with a constraint on ruin for a fuzzy discrete-time insurance risk model*. Fuzzy Optimization and Decision Making, online. (**FI 2014: 2.163**).
4. L. Beznea and O. Lupascu, *Measure valued discrete branching Markov processes*, Transactions Amer. Math. Soc, DOI: <http://dx.doi.org/10.1090/tran/6514> (2015), online, (**FI : 1.095**).
5. I. R. Ionescu and O. Lupascu, *Modeling shallow avalanche onset over complex basal topography*, Advances in Computational Math., DOI: 10.1007/s10444-015-9407-2 (2015), online (**FI: 1.487**).
6. G. I. Sebe, *A near-optimal solution to the Gauss-Kuzmin-Lévy problem for theta-expansions*. Va apărea în Journal of Number Theory. Manuscript number: JNT-D-15-00274R1
7. R. Ionescu, B. Alexe, M. Leordeanu, M. Popescu, D. Papadopoulos, V. Ferrari, *How hard can it be? Estimating image difficulty*. Lucrare trimisă la conferința IEEE Conference on Computer Vision and Pattern Recognition, June 2016.

8. **Udrea Păun**, *Other results on the Markovian inequality $P(X_s \in A, X_{s+1} \in A_{+1}, \dots, X_t \in A) \leq \alpha(Q_{s,t})$* . Rev. Roumaine Math. Pures Appl. --acceptata, apare in 2016.

Lucrări trimise spre publicare

1. **Agapie** et al., *An instrument for measuring the Romanian entrepreneurship climate*. Trimis la South African Journal of Business Management.
2. **M. Iosifescu**, *On the probability distribution of the reverse continued fraction expansion of a number in the unit interval* (submitted).
3. **A. M. Răducan, R. Vernic, Gh. Zbăganu**, *On a conjecture related to the ruin probability for non-homogeneous exponentially distributed claims*. (submitted)
4. **A. M. Răducan, R. Vernic, Gh. Zbăganu**, *How common sense can be misleading in ruin theory*. (submitted)
5. **A. M. Răducan, R. Vernic, Gh. Zbăganu**, *Upper and lower bounds for a finite-type ruin probability in a nonhomogeneous risk process* (submitted)
6. **Udrea Păun**, *G method in action: from exact sampling to approximate one* -- trimisa (ESAIM: Probability and Statistics).
7. **Udrea Păun**, *G method in action: fast exact sampling from set of permutations of order n according to Mallows model through Cayley metric* -- trimisa (Brazilian Journal of Probability and Statistics).
8. **Udrea Păun**, *G method in action: fast exact sampling from set of permutations of order n according to Mallows model through Kendall metric* -- trimisa (Markov Processes and Related Fields).
9. **M. Buiculescu**, *On the existence of quasi-stationary distributions and uniformly integrable operators* (submitted)
10. **M. Buiculescu**, *Quasi-ergodicity for simultaneously irreducible Markov processes*.
11. **Laurențiu Vasile**, *Join operations in NOSQL databases*
12. **Laurențiu Vasile**, *Similarity join and random databases*
13. **M. Beldiman**, *A weighted equilibrium problem*
14. **V. Ionescu** -Realization of the amalgamated conditionally monotone or anti-monotone independence.

15. **V. Ionescu** -*A universal central limit theorem for operator-valued quantum random variables*
16. **V. Ionescu** - *On conditionally monotone or anti-monotone products of completely positive maps*
17. **V. Ionescu** - *C*-algebraic models for conditionally monotone or anti-monotone products of quantum probability spaces.*
18. Ileana Constantinescu, **Voicu Boșcaiu**, Petru Cianga , Andrei-Antoniu Dinu, Elena Gai, Mihaela Melinte, Ana Moise, *The frequency of HLA alleles in Romanian population*, Immunogenetics, Springer, (**FI: 2.227**)
19. V. Barbu, **G. Marinoschi**, *An Optimal Control Approach to the Optical Flow Problem*, Systems and Control Letters, in press
20. P. Colli, G. Gilardi, **G. Marinoschi**, E. Rocca, *Optimal control for a phase field system with a possibly singular potential*, Mathematical Control and Related Fields, in press (early version <http://arxiv.org/abs/1410.6718v1>)
21. A. Gandolfi, M. Iannelli, **G. Marinoschi**, *The steady state of epidermis: mathematical modeling and numerical simulations*, submitted JMB
22. V. Barbu, P. Colli, G. Gilardi, **G. Marinoschi**, E. Rocca, *Sliding mode control for a nonlinear phase-field system*, SICON, submitted (early version <http://arxiv.org/abs/1506.01665v1>)
23. **G. Marinoschi**, R.M. Mininni, S. Romanelli, *An inverse problem for a strongly degenerate N-dimensional parabolic equation with interior degeneracy*, Inverse Problems, submitted
24. **G. Marinoschi**, A. Martiradonna, *Fish populations dynamics with nonlinear stock-recruitment renewal conditions*, Appl. Math. Comput., submitted
25. **Micu Sorin**, Roventa Ionel, Temereanca Laurentiu, *Approximation of the controls for the linear beam equation*, trimis spre publicare la Mathematics of Control, Signals, and Systems, Ianuarie 2015.
26. **Micu Sorin**, Pazoto Ademir, *Stabilization of a Boussinesq system with localized damping*, Journal d'Analyse Mathematique, Iunie 2015.
27. V. I. R. Niculescu, **D. Popescu**, Ramona Anton, Liana Sandru, *A new family of woods – saxon potentials with complex poles*, Rom. J. Phys, Acceptata ptr. publicare

Lista proiectelor bilaterale cu institute din academii din străinatate

1. **Gabriela Marinoschi**, *Nonlinear partial differential equations (PDE) with applications in modeling cell growth, chemotaxis and phase transition*, in cadrul Acordului de cooperare stiintifica intre CNR si Academia Romana, **IMATI-Pavia, IASI-Roma**, 2014-2016 – director de proiect;
2. **Gabriela Marinoschi**, *Analyse mathématique et control d'un modèle de sélection-mutation et division pour la modélisation de la leucémie chronique du ganglion*, Proiect LEA (Laboratoire Européen Associé Franco-Roumain, parteneri: **Universitatea Paris 13**.
3. **Cornelia Enăchescu**, *New computational techniques for exploratory analysis and their biomedical applications; elaborate prognostic models on the basis of genetic data and censored survival time*, in cadrul Acordului de cooperare stiintifica intre **PAS-IBIB** Polonia si Academia Romana, 2012-2015 – director de proiect

Lista granturilor în curs de derulare în acest an în țară (MEC)

1. **Florin Frunzulica**, Proiect PN-II-PT-PCCA-2013-4-0915, *Lansator electromagnetic pentru stingerea incendiilor violente din foraj și lansării dronelor pentru investigații sau intervenții*, Contr. 299/2013, valoare contract 92453 lei
2. **Horia Dumitrescu**, Proiect no.PN-II-PT-PCCA-2011-3, contr.40/2012, *Hybrid renewable energy system based on VAWT with integrate photovoltaic panels and magnetic suspension*, durata contractului : 36 luni, valoarea contractului 115870 lei,
3. **Stelian Ion**, Proiect PN-II-PT contract 50/2012, *Accounting for the Service-providing units of Plants in the environmental Assessment of plans and projects with Biogeochemical Impact at multiple scales in River basins*, valoare contract 60 000 lei
4. **Marius Rădulescu**, Contract PN-II-ID-PCE-2011-3-0908, Program IDEI_Proiecte de Cercetare Exploratorie_Competitie 2011, etapa 5, *Portfolio selection models and applications*, Director , 2011-2015, valoare contract 125964 lei

Manifestări științifice organizate de institut

1. The 23nd Conference on Applied and Industrial Mathematics, CAIM 2015, Suceava, Romania, September 17-20, 2015.
2. The 36th “Caius Iacob” Conference of Fluid Mechanics and its Technical Applications, Bucharest, 29-30 October 2015

3. A 18-a Conferință a Societății de Probabilități și Statistică din România, București, Universitatea din București, 8 mai 2015.