

6. Rezultatele cercetării desfășurate în anul 2016

Articole ISI publicate în reviste din străinătate = 35

1. **V. Barbu**, Generalized solutions to nonlinear Fokker-Planck equations, *Journal of Differential Equations*, vol. 261 (2016), 2446-2471. ISI. **FI=1.821**
2. **V. Barbu**, M. Röckner, D. Zhang, Stochastic nonlinear Schrödinger equations, *Nonlinear Analysis*, 136 (2016), 168-194. ISI, **FI=1.125**.
3. **V. Barbu**, S. Bonaccorsi, L. Tubaro, Stochastic differential equations with variable structure driven by multiplicative Gaussian noise and sliding mode dynamic, *Math. Control Signals Syst.*, (2016), 28:26, doi 10.1007/s00498-016-0178-1. ISI, **FI=0.927**
4. **V. Barbu**, L. Beznea, Measure-valued branching processes associated with Neumann nonlinear semiflows, *Journal of Mathematical Analysis and Applications*, 441 (2016), 167-182. ISI. **FI=1.014**
5. **V. Barbu**, F. Cordoni, L.Di Persio, Optimal control of stochastic FitzHugh-Nagumo equation, *International Journal of Control*, dx.doi.org/10.1080/ 00207179.2015.1096023. ISI. **FI=1.880**
6. **D. Ieșan**, R. Quintanilla, On chiral effects in strain gradient elasticity, *European Journal of Mechanics A/ Solids* vol. 58, n. July-August, 2016, 233-246. **FI: 2.453**
7. **D. Ieșan**, Deformation of chiral cylinders in the gradient theory of porous elastic solids, *Mathematics and Mechanics of Solids*, vol.21, n.9, 2016, 1138-1148. **FI: 1.836**.
8. **D. Ieșan**, R. Quintanilla, Strain gradient theory of chiral Cosserat thermoelasticity without energy dissipation, *J. Math. Anal. Appl.* vol. 437, n.2, 2016, 1219–1235. ISI. **FI: 1.014**
9. **S. Anița**, Stabilization of a predator-prey system with nonlocal terms, *Mathematical Modelling of Natural Phenomena* (Cambridge University Press) 10 (6) (2015), 6-16 (ISI), **FI= 0.813**.
10. L.-I. Anița, **S. Anița**, Note on some periodic optimal harvesting problems for age-structured population dynamics, *Applied Mathematics and Computation* (Elsevier) 276 (2016), 21-30 IS, **FI=1.345**.
11. **O. Cârjă**, T. Donchev, A.I. Lazu, Generalized solutions of semilinear evolution inclusions, *SIAM J. Optim.*, 26, (2016), 1365-1378, **FI=1.829**.
12. O. Benniche, **O. Cârjă**, Approximate and near weak invariance for nonautonomous differential inclusions, *J. Dyn. Control Syst.*, (2016), doi:10.1007/s10883-016-9312-0, **FI=0.422**.
13. O. Benniche, **O. Cârjă**, Viability for quasi-autonomous semilinear evolution inclusions, *Mediterranean Journal of Mathematics*, (2016), doi:10.1007/s00009-016-0739-z, **FI=0.599**.
14. **C.Lefter**, Internal feedback stabilization of nonstationary solutions to semilinear parabolic systems., *J. Optim. Theory Appl.* 170, No. 3, 960-976 (2016). ISI. **FI=1.160**
15. L. Maticiuc, **A. Rășcanu**, On the continuity of the probabilistic representation of a semi-linear Neumann–Dirichlet problem, *Stochastic Processes and their Applications*, 126 (2)

- 2016, 572–607 (<http://www.sciencedirect.com/science/article/pii/S030441491500229X>).
ISI. **FI=1.193**
16. Benedetti, L. Malaguti, V. Taddei, **I.I. Vrabie**, Semilinear delay evolution equations with measures subjected to nonlocal initial conditions, *Annali di Matematica* (2016) 195:1639–1658 DOI 10.1007/s10231-015-0535-6. ISI. **FI=0.861**.
 17. **I.I. Vrabie**, A local existence theorem for a class of delay differential equations, *Topological Methods in Nonlinear Analysis*, doi: 10.12775/TMNA.2016.023 (first online) ISI. **FI=0.717**
 18. **C. Zălinescu**, Relations between the convexity of a set and the differentiability of its support function, *Optimization* 65 (2016), no. 3, 651-670. ISI. **IF=0.822**
 19. **C. Zălinescu**, On second order generalized convexity, *J. Optim. Theory Appl.* 168 (2016), 802-829. ISI. **IF 1.160**
 20. Ch. Tammer, V.A. Tuan, **C. Zălinescu**, The Lipschitzianity of convex vector and set-valued functions, *TOP* 24 (2016), 273-299. ISI. **IF=0.927**
 21. **C. Zălinescu**, On V. Latorre and D.Y. Gao's paper "Canonical duality for solving general nonconvex constrained problems, *Optim. Lett.* 10 (8) (2016), 1781-1787. ISI. **IF 1.019**
 22. C. Vallee, **C. Zălinescu**, Series of convex functions: subdifferential, conjugate and applications to entropy minimization, *J. Convex Anal.* 23(4) (2016), 1137-1160. ISI. **IF=0.786**
 23. **I.D. Ghiba**, P. Neff, A. Madeo, I. Munch, A variant of the linear isotropic indeterminate couple stress model with symmetric local force-stress, symmetric nonlocal force-stress, symmetric couple-stresses and complete traction boundary conditions, în curs de tipărire, *Mathematics and Mechanics of Solids*, doi:10.1177/1081286515625535, 2016, **FI=1.836**.
 24. A. Madeo, P. Neff, **I.D. Ghiba**, G. Rosi, Reflection and transmission of elastic waves at interfaces embedded in non-local band-gap metamaterials: a comprehensive study via the relaxed micromorphic model, *Journal of the Mechanics and Physics of Solids*, 95, 2016, 441-479. ISI. **FI=3.875**
 25. A. Madeo, **I.D. Ghiba**, P. Neff, I. Munch. A new view on boundary conditions in the Grioli-Koiter-Mindlin-Toupin indeterminate couple stress model, *European Journal of Mechanics A/Solids*, 59. 2016, 294-322. ISI. **FI=1.418**
 26. **I.D. Ghiba**, P. Neff, R.J. Martin, An ellipticity domain for the distortional Hencky-logarithmic strain energy, accepted, *Proceedings of the Royal Society A*, 471, doi: 10.1098/rspa.2015.0510, 2016, **FI=1.935**.
 27. P. Neff, I. Munch, **I.D. Ghiba**, A. Madeo, On some fundamental misunderstandings in the indeterminate couple stress model. A comment on recent papers of A.R. Hadjesfandiari and G.F. Dargush, *International Journal of Solids and Structures*, 81, 2016, 233-243. ISI. **FI= 2.081**
 28. P. Neff, **I.D. Ghiba**. Loss of ellipticity in additive logarithmic finite strain plasticity, accepted, *International Journal of Non-Linear Mechanics*, 81, 2016, 122-128. ISI. **FI= 1.920**
 29. P. Neff, **I.D. Ghiba**. The exponentiated Hencky-logarithmic strain energy. Part III: Coupling with idealized isotropic finite strain plasticity, *Continuum Mechanics and Thermodynamics*, 28, 2016, 477-487. ISI. **FI= 1.849**
 30. R.J. Martin, **I.D. Ghiba**, P. Neff, *Rank-one convexity implies polyconvexity for isotropic, objective and isochoric elastic energies in the two-dimensional case*, în curs de tipărire,

Proceedings of the Royal Society of Edinburgh, Section: A Mathematics, 2016, **FI=0.983**.

31. **S. Chirita**, C. D'Apice, V. Zampoli, The time differential three-phase-lag heat conduction model: Thermodynamic compatibility and continuous dependence, *International Journal of Heat and Mass Transfer*, vol. 102, (2016), 226-232. ISI. **FI=2.857**
32. **S. Chirita**, A. Danescu, On the propagation waves in the theory of thermoelasticity with microtemperatures, *Mechanics Research Communications*, vol. 75 (2016), 1-12. ISI. **FI=1.400**
33. C. D'Apice, **S. Chirita**, Plane harmonic waves in the theory of thermoviscoelastic materials with voids, *Journal of Thermal Stresses*, vol. 39, (2016), 142-155. (SI) **FI=1.41**
34. **S. Chirita**, On the time differential dual-phase-lag thermoelastic model, *Meccanica*, Published online: 11 March 2016; DOI 10.1007/s11012-016-0414-2. ISI. **FI=1.828**
35. C. D'Apice, **S. Chirita**, V. Zampoli, On the well-posedness of the time-differential three-phase-lag thermoelasticity model, *Archives of Mechanics*, vol. 68 (5), (2016), 1-23. (SI) **FI= 0.923**

Articole non-ISI publicate în reviste din țară (B+) = 1

1. **S. Anița**, V. Capasso, H. Kunze, D. La Torre, *Optimizing environmental taxation for a spatially structured economic growth model including pollution diffusion*, Vietnam Journal of Mathematics (Springer Verlag), DOI: 10.1007/ s10013-016-0215-x, online, 8 pp. (2016) (**jurnal BDI**)

Cărți sau capitole de cărți publicate în străinătate = 4

1. **V. Barbu**, G. Da Prato, M. Rockner, *Stochastic Porous Media Equations*, Springer, 2016. 179 pages, ISBN 978-3-319-41069-2.
2. M. Burlică, M. Necula, D. Roșu, **I.I. Vrabie**, *Delay Differential Evolutions Subjected to Nonlocal Initial Conditions*, Series: Monographs and Research Notes in Mathematics, Chapman and Hall/CRC, 2016, ISBN 9781498746441.
3. **I.I. Vrabie**, *Differential equations: An introduction to basic concepts*, 3rd Edition, New Jersey: World Scientific, 2016, ISBN 9789814749787.
4. **V. Barbu**, **C. Lefter**, **I.I. Vrabie**, *New Trends in Differential Equations, Control Theory and Optimization: Proceedings of the 8th Congress of Romanian Mathematicians*, World Scientific Publishing Co (2016), ISBN 978-981-3142-85-5 (ISBN 978-981-3142-87-9 (ebook)).

Comunicări prezentate la conferințe internaționale = 18

1. **D. Ieșan**, *Chiral effects in reinforced thermoelastic rods*, 11th International Congress on Thermal Stresses, June 5-9, 2016, Salerno.
2. **S. Anița**, *Regional control for some spatially structured population*, XIIIeme Colloque Franco-Roumain de Mathematiques Appliquees, 25-29.08.2016, Iași.
3. **S. Anița**, *Regional control in optimal harvesting*, 6th Viennese Vintage Workshop, 1-2 December 2016, Vienna.
4. **O. Cârjă**, Conferinta la Universitatea de Stat din Moldova, Chisinau, mai 2016.
5. **O. Cârjă**, Conferinta la National Autonomous University of Mexico, Mexico City, iunie 2016.
6. **C. Lefter**, XIII-eme Colloque Franco-Roumain de Mathématiques Appliquées, Iași 08/2016, *Boundary stabilization of fluid dynamics. An operatorial approach*
7. **C. Lefter**, Emerging Trends in Applied Mathematics and Mechanics, Perpignan 06/2016, *Boundary feedback stabilization of nonstationary solutions to parabolic systems.*
8. **A. Rășcanu**, *On the continuity of the Feynman-Kac Formula*, XIII-ème Colloque Franco-Roumain de Mathématiques Appliquées, Iasi, Romania, August 25-29, 2016.
9. **A. Zălinescu**, *Jump diffusions with oblique subgradients*, XIII^{ème} Colloque Franco-Roumain de Mathématiques Appliquées, Iasi, Romania, 25-29 August 2016
10. **C. Zălinescu**, *Subdifferential and conjugate of series of convex functions with applications to the maximization of the entropy in the case of ideal gases*, Advances in Convex Analysis and Optimization, Erice (Italy), July, 2016
11. **C. Zălinescu**, *Series of convex functions with applications to Statistical Mechanics*, Mathematical Optimisation Down Under, Melbourne (Australia), July, 2016.
12. **T. Havârneanu, C. Popa**, *On the local exact controllability of MHD equations*, International Conference of Numerical Analysis and Applied Mathematics, 2016 (ICNAAM 2016), Rodos, Grecia, 19-25.09.2016.
13. **G. Lițcanu**, *Mathematical modelling of the immune response*, XIII^{ème} Colloque Franco-Roumain de Mathématiques Appliquées, 25-29 august 2016, Iași.
14. **I.D. Ghiba**, *Loss of ellipticity for non-coaxial plastic deformations in additive logarithmic finite strain plasticity and other related results on Hencky-type energies*, Joint DMV and GAMM Annual Meeting, TU Braunschweig, Germania, 6-10 martie 2016.
15. **I.D. Ghiba**, *About some Questions Regarding the Polyconvexity and Rank-one Convexity of Hencky-type Energies and Loss of Ellipticity*, Emerging trends in applied mathematics and mechanics, Laboratory of Mathematics and Physics, Perpignan, Franța, 30 mai-3 iunie 2016.
16. **I.D. Ghiba**, *On some Hencky-type energies*, XIII-ème Colloque Franco-Roumain de Mathématiques Appliquées, Universitatea Alexandru Ioan Cuza din Iași, România, 25-29 august 2016.
17. **S. Chiriță**, *On the time differential dual-phase-lag heat conduction*, 11th International Congress on Thermal Stresses 2016, June 5-9, 2016, Salerno, Italy.
18. **S. Chiriță**, *On the three-phase-lag model of heat conduction*, 13eme Colloque Franco-Roumain de Mathematiques Appliquees, 25-29 Aout, 2016, Iasi, Romania.

Comunicări prezentate la conferințe naționale = 15

1. **D. Ieșan**, *Asupra deformării termoelastice a mediilor hemitrope*, Filiala din Iasi a Academiei Romane, 5 martie 2016.
2. **D. Ieșan**, *Medii termoelastice cu microstructură*, Zilele Academice, octombrie 2016, Iași.
3. **C. Lefter**, Workshop on geometry and PDEs, Timișoara, 06/2016, *Some remarks on observability inequalities, controllability and stabilization problems*.
4. **Ioan I. Vrabie**, *Existence results for a class of functional delay differential equations*, Zilele Academice Iesene, Sesiunea de comunicari stiintifice, 29 octombrie 2016.
5. **O. Cârjă**, *Soluții generalizate pentru incluziuni diferențiale semiliniare*, Zilele Academice Iesene, Sesiunea de comunicari stiintifice, 29 octombrie 2016.
6. **A. Rășcanu**, *Elastic projections in reflecting problems with càdlàg discontinuities*, Conferinta Academia Română – 150 de ani în serviciul Națiunii Române, Iasi, 3 martie 2016.
7. **A. Zălinescu**, *Reflexie oblica pentru ecuatii diferentiale stochastice cu salturi*, Zilele Academice Iesene, Sesiunea de comunicari stiintifice, 29 octombrie 2016.
8. **A. Zălinescu**, *De ce utilizarea formală a MML furnizează întotdeauna o soluție a problemei minimizării entropiei? Incercare de răspuns*, Zilele Academice Iesene, Sesiunea de comunicari stiintifice, 29 octombrie 2016.
9. **G. Lițcanu**, *Comportamentul asimptotic al soluțiilor unor sisteme parabolice*, Sesiune de comunicări științifice – aniversarea a 150 de ani ai Academiei Române, martie 2016, Iași.
10. **G. Lițcanu**, *On blow-up dynamics in a parabolic system*, Zilele Academice Iesene, Sesiunea de comunicari stiintifice, 29 octombrie 2016.
11. **C. Stamate**, *Vector integrals for multifunctions*, The 24th Conference on Applied and Industrial Mathematics, Craiova 2016.
12. **C. Stamate**, *Vector equilibrium problems*, Zilele Academice Iesene, Sesiunea de comunicari stiintifice, 29 octombrie 2016.
13. **S. Chiriță**, *Thermoelastic models with delay times*, Sesiunea de comunicari stiintifice a Institutului de Matematica, 5 martie 2016, dedicata implinirii a 150 de ani de la infiintarea Academiei Romane.
14. **I.D. Ghiba**, *Policonvexitate si convexitate rank-one pentru unele energii din mecanica neliniară*, Zilele Academice Iesene, Sesiunea de comunicari stiintifice, 29 octombrie 2016.
15. **I. Munteanu**, *The total variation on perturbed by gradient linear multiplicative noise*, Zilele Academice Iesene, Sesiunea de comunicari stiintifice, 29 oct. 2016.

Lucrări elaborate, trimise spre publicare = 17 articole

1. **S. Anița**, V. Capasso, A.-M. Moșneagu, *Regional control in optimal harvesting problems of population dynamics*, *Nonlinear Analysis* (Elsevier), acceptată (ISI)
2. **S. Anița**, V. Capasso, A.-M. Moșneagu, *Regional control in optimal harvesting problems of population dynamics*, *Nonlinear Analysis* (Elsevier), acceptată (ISI)
3. O. Benniche, **O. Cârjă**, S. Djebali, *Approximate viability for nonlinear evolution inclusions with application to controllability*, *Annals of AOSR, Mathematics and its Applications* (accepted).

4. **Rășcanu**, E. Rotenstein, *Obstacle problems for parabolic SDEs with Hölder continuous diffusion: from weak to strong solutions*, 25 p., *Journal of Mathematical Analysis and Applications* (accepted).
5. E. Pardoux, **A. Rășcanu**: *Continuity of the Feynman-Kac formula for a generalized parabolic equation*, arXiv:1602.01309 [math.PR] 26 p., *Stochastics: An International Journal of Probability and Stochastic Processes* (accepted).
6. **T. Havârneanu**, **C. Popa**, A. Shirikyan, *Exact internal controllability for the tree dimensional MHD equations with five or four scalar control functions of six possible*, trimisă spre publicare.
7. Maticiu, **A. Zălinescu**, *A stochastic approach to path-dependent nonlinear Kolmogorov equations via BSDEs with time-delayed generators and applications to finance*, Bernoulli (trimisa spre publicare)
8. **Zălinescu**, *Winer-Itô stochastic differential equations with oblique subgradients*, Statistics and Probability Letters (trimisa spre publicare)
9. S. Bonaccorsi, **A. Zălinescu**, *Maximum principle for an optimal control problem associated to a SPDE with nonlinear boundary conditions* (urmeaza a fi trimisa spre publicare)
10. **G. Lițcanu**, *Mathematical modelling of the immune response* (lucrare elaborată)
11. **G. Lițcanu**, *On blow-up dynamics in a chemotaxis-haptotaxis system* (lucrare elaborată)
12. **Stamate**, *Vector integrals for multifunctions*. (trimisa la publicare)
13. **Stamate**, *Duality for vector optimization problems*. (trimisa la publicare)
14. **Stamate**, *Stability for perturbed vector optimization problems*. (trimisa la publicare)
15. **Stamate**, *Existence and Properties for solutions of VEP. The case of empty interior cone*. (trimisa la publicare)
16. **Stamate**, *Duality for VEP. The case of empty interior cone*. (trimisa la publicare)
17. **Stamate**, A. Croitoru, *Pettis-Sugeno type integrals for multifunctions* (in revision to Fuzzy Sets and Systems)

Granturi derulate prin institut = 1

1. PN-II-ID-PCE-2011-3-0027. *Analiza si controlul ecuatiilor de difuzie stocastice si deterministe*. Director de proiect: **V. Barbu**. Membru în echipa: **I. Munteanu**. Contract 160/5.10.2011, durata 60 luni. (5.10.2011-5.10.2016). Finantator UEFISCDI. Valoare totala: 1.350.000,00 lei. Valoare pentru 2016: 299.307,52 lei.

Premii = 1

1. **A. Rășcanu**, 19 sept. 2016: Premiul 'Nicolae Teodorescu' al Academiei Oamenilor de Știință din România pentru monografia: *Stochastic Differential Equations, Backward SDEs, Partial Differential Equations*, 667 p., Editura Springer, 2014, **Aurel Rășcanu**, Etienne Pardoux.

Manifestări științifice organizate de institut = 3

1. **XIII^{eme} Colloque Franco-Roumain de Mathematiques Appliquees**, 25-29 august 2016, Iasi, Romania, organizat împreună cu Facultatea de Matematică a Universității Al.I. Cuza Iași.
2. Sesiune de comunicări științifice „**Academia Română – 150 de ani**”, 5 martie 2016.
3. **Sesiune de comunicări științifice**, organizată în cadrul „Zilelor Academice Ieșene, ediția 2016” de Institutul de Matematică Octav Mayer și Comisia de Automatică Teoretică și Teoria Controlului Optimal, 29 oct. 2016

Citări

1. **V. Barbu: 160**
2. **C. Zălinescu: 106**
3. **D. Ieșan: 89**
4. **I.I. Vrabie: 73**
5. **A. Rășcanu: 86**
6. **S. Anița: 38**
7. **A. Zălinescu: 2**
8. **S. Chiriță: 54**
9. **C.G. Lefter: 13**
10. **O. Carja: 9**
11. **G.Lițcanu: 7**
12. **I.D. Ghiba: 65**

TOTAL = 702

DIRECTOR,

Prof.dr. Cătălin-George Lefter