

LISTA DE LUCRĂRI

Nicușor COSTEA

I. Teze de doctorat

- T1. "Probleme Unilaterale în Fizica Matematică", Teză de doctorat, Universitatea din Craiova, Craiova 2010, Coordonator științific: Prof. dr. Vicențiu Rădulescu.
- T2. "Existence Results for Some Differential Inclusions and Related Problems", Teză de doctorat, Central European University, Budapesta 2015, Coordonator științific: Prof. dr. Gheorghe Moroșanu.

II. Cărți publicate

- Ca1. **N. Costea**, A. Kristály & C. Varga, *Variational and Monotonicity Methods in Nonsmooth Analysis*, Birkhäuser (Springer Nature), Frontiers in Mathematics series, 2021, ISBN 978-3-030-81670-4.

III. Articole

- A1. **N. Costea**, Existence and multiplicity results for differential inclusions with Orlicz growth and mixed boundary conditions, *Set-Valued Var. Anal.* **34** (2026), article number 5, WOS:001686958200001.
- A2. J. Cen & **N. Costea**, Weak solvability for a class of double phase variable exponents inclusion problems, *Commun. Nonlinear Sci. Numer. Simul.* **144** (2025), article number 108664, WOS:001427690200001.
- A3. J. Cen, **N. Costea**, D. Dumitrescu & M. Stanciu, A set-valued approach for quasi-variational-hemivariational inequality systems, *J. Fixed Point Theory Appl.* **27** (3) (2025), article number 27, WOS:001522728100001.
- A4. J. Cen, **N. Costea** & J. Pan, Elliptic inclusion systems with nonlocal functions and multivalued convection terms, *J. Nonlinear Convex Anal.* **26** (1) (2025), 169-185, WOS: 001471358100013.
- A5. X. Chen, **N. Costea** & S. Zeng, A generalized penalty method for quasi-variational-hemivariational inequalities, *Discrete Cont. Dyn. Sys.-Series S* **18** (6) (2025), 1574-1590, WOS:001273705300001.
- A6. Y. Bai, **N. Costea** & S. Zeng, Existence results for variational-quasi-hemivariational inequality systems with nonlinear couplings, *Commun. Nonlinear Sci. Numer. Simul.* **134** (2024), article number 108026, WOS: 001234301000001.

- A7. **N. Costea**, Coupled systems of nonlinear variational inequalities and applications, *Commun. Nonlinear Sci. Numer. Simul.* **118** (2023), article number 107046, WOS: 000904833400001.
- A8. J. Cen, **N. Costea**, C. Min & J.C. Yao, Stability analysis for a recovered fracturing fluid model in the wellbore of shale gas reservoir, *Hacet. J. Math. Stat.* **52** (6) (2023), 1533-1549, WOS: 001101362500001.
- A9. **N. Costea** & S. Zeng, Existence results for Dirichlet double phase differential inclusions, *Stud. Univ. Babes-Bolyai Math.* **68** (1) (2023), 51-61, WOS: 000957722600005.
- A10. **N. Costea** & A. Pitea, Existence results for mixed hemivariational-like inequalities involving set-valued maps, *Optimization* **70** (2) (2021), 269-305. WOS:000506799600001.
- A11. **N. Costea**, G. Moroşanu & Cs. Varga, Weak solvability for Dirichlet partial differential inclusions in Orlicz-Sobolev spaces, *Adv. Differential Equations* **23** (2018), 523-554, WOS:000430759300002.
- A12. **N. Costea** & G. Moroşanu, Steklov-type eigenvalues of $\Delta_p + \Delta_q$, *Pure Appl. Funct. Anal.* **3** (1) (2018), 75-89. BDI: MathSciNet, ZbMath, Scopus.
- A13. **N. Costea**, M. Csirik & Cs. Varga, Linking-type results in nonsmooth critical point theory and applications, *Set-Valued Var. Anal.* **25** (2017), 333-356, WOS:000401354700007.
- A14. **N. Costea**, M. Csirik & Cs. Varga, Weak solvability via bipotential method for contact models with nonmonotone boundary conditions, *Z. Angew. Math. Phys.* **66** (2015), 2787-2806, WOS:000363062100034.
- A15. **N. Costea**, I. Firoiu & F. Preda, Elliptic boundary value problems with nonsmooth potential and mixed boundary conditions, *Complex Var. Elliptic Equ.* **58** (9) (2013), 1201-1213, WOS:000324811000004.
- A16. **N. Costea** & Cs. Varga, Multiple critical points for non-differentiable parametrized functionals and applications to differential inclusions, *J. Global Optim.* **56** (2) (2013), 399-416. WOS:000320117100013.
- A17. **N. Costea** & G. Moroşanu, A multiplicity result for an elliptic anisotropic differential inclusion involving variable exponents, *Set-Valued Var. Anal.* **21** (2013), 311-332, WOS:000318445200010.
- A18. I. Andrei, **N. Costea** & A. Matei, Antiplane shear deformation of piezoelectric bodies in contact with a conductive support, *J. Global Optim.* **56** (1) (2013), 103-119, WOS:000317079100006.
- A19. **N. Costea** & Cs. Varga, Systems of nonlinear hemivariational inequalities and applications, *Topol. Methods Nonlinear Anal.* **41** (1) (2013), 39-67, WOS:000317885300002.

- A20. **N. Costea**, D.A. Ion & C. Lupu, Variational-like inequality problems involving set-valued maps and generalized monotonicity, *J. Optim. Theory Appl.* **155** (1) (2012), 79-99, WOS:000309864200004.
- A21. **N. Costea** & V. Rădulescu, Inequality problems of quasi-hemivariational type involving set-valued operators and a nonlinear term, *J. Global Optim.* **52** (2012), 743-756, WOS:000301841300005.
- A22. **N. Costea** & A. Matei, Contact models leading to variational-hemivariational inequalities, *J. Math. Anal. Appl.* **386** (2012), 647-660. WOS:000295563500014.
- A23. **N. Costea**, Existence and uniqueness results for a class of quasi-hemivariational inequalities, *J. Math. Anal. Appl.* **373** (2011), 305-315, WOS:000282196100030.
- A24. **N. Costea** & A. Matei, Weak solutions for nonlinear antiplane problems leading to hemivariational inequalities, *Nonlinear Anal.* **72** (2010), 3669-3680, WOS:000282196100030.
- A25. **N. Costea** & V. Rădulescu, Hartman-Stampacchia results for stably pseudomonotone operators and nonlinear hemivariational inequalities, *Appl. Anal.* **89** (2) (2010), 175-188, WOS:000274423100003.
- A26. **N. Costea** & C. Lupu, On a class of variational-hemivariational inequalities involving set valued mappings, *Adv. Pure Appl. Math.* **1** (2) (2010), 233-246, WOS:000446844500006.
- A27. I. Andrei & **N. Costea**, Nonlinear hemivariational inequalities and applications to nonsmooth mechanics, *Adv. Nonlinear Var. Inequal.* **13** (1) (2010), 1-17, BDI: MathSciNet, ZbMath, Scopus.
- A28. **N. Costea** & M. Mihăilescu, On an eigenvalue problem involving variable exponent growth conditions, *Nonlinear Anal.* **71** (2009), 4271-4278, WOS:000267621000062.
- A29. **N. Costea** & M. Mihăilescu, Nonlinear, degenerate and singular eigenvalue problems on \mathbb{R}^N , *Nonlinear Anal.* **71** (2009), 1153-1159, WOS:000266699600045.
- A30. **N. Costea** & V. Rădulescu, Existence results for hemivariational inequalities involving relaxed $\eta - \alpha$ monotone mappings, *Commun. Appl. Anal.* **13** (3) (2009), 293-304. BDI: MathSciNet, ZbMath, Scopus.
- A31. **N. Costea**, Continuous family of eigenvalues concentrating in a small neighborhood at the right of the origin for a class of discrete boundary value problems, *An. Univ. Craiova Ser. Mat. Inform.* **35** (2008), WOS:000435157600009.

IV. Proiecte de cercetare

a) obținute prin competiție pe bază de contract/grant în țară/străinătate

- Pn1. *"Differential Inclusions and Nonsmooth Variational Problems in Nonlinear Analysis and Applications"* [autoritatea contractantă: CNCS-UEFISCDI), cod proiect: PN-II-RU-PD-2011-3-0032, perioada: 05/10/2011 - 04/10/2013, calitatea avută: director de proiect.]
- Pn2. *"The Infinity-Laplace Operator"* [autoritatea contractantă: CNCS-UEFISCDI, cod proiect PN-III-P1-1.1.TE-2019-0456, perioada 15/09/2020 - 15/09/2022, calitatea avută: membru, director: Denisa STANCU-DUMITRU.]
- Pn3. *"Typical and Nontypical Eigenvalue Problems for Some Classes of Differential Operators"* [autoritatea contractantă: CNCSUEFISCDI, cod proiect PN-III-P4-ID-PCE-2016-0035, perioada: 1/07/2017 - 31/12/2019, calitatea avută: membru, director: Mihai MIHĂILESCU.]
- Pn4. *"Variable Exponent Analysis: Partial Differential Equations and Calculus of Variations"* [autoritatea contractantă: CNCS-UEFISCDI, cod: PN-II-ID-PCE-2012-4-0021, perioada: 01/09/2013- 31/09/2016, calitatea avută: membru, director: Mihai MIHĂILESCU.]
- Pn5. *"Analysis, Control and Numerical Approximations of Partial Differential Equations"* [autoritatea contractantă: CNCS-UEFISCDI, cod proiect: PN-II-ID-PCE-2011-3-0075, perioada: 05/10/2011- 04/10/2014, calitatea avută: membru, director: Ioan-Liviu IGNAT.]
- Pn6. *"Critical point theory and degree theory for nonlinear problems with relativistic Laplacians"* [autoritatea contractantă: CNCS-UEFISCDI, cod proiect: PN-II-RU-TE-2011-3-0157, perioada: 05/10/2011- 04/10/2014, calitatea avută: membru, director: Cristian BEREANU.]

b) alte lucrări de cercetare – dezvoltare

- F1. *"Hemivariational-like inequalities"* [autoritatea contractantă: Universitatea Politehnica din București, Excellence Research Grants, cod proiect: UPB-GEX 358, perioada: 23/09/2016 - 23/09/2017, calitatea avută: director de proiect.]
- F2. *"Remediarea, Indrumarea, Sensibilizarea, Consilierea și dezvoltarea personală studenților cu risc ridicat de abandon în primul an de liceu - RISC MIN!"* [autoritatea contractantă: SGNU (Schema de Granturi pentru Universități Necompetitive), cod proiect: ROSE-ISB, perioada: 1/10/2020 - 30/09/2021, calitatea avută: formator workshop, director: Filip ILIE.]

F3. *"Sisteme cuplate de inegalități hemivariaționale și aplicații"* [autoritatea contractantă: Universitatea Politehnica din București, ARUT 2023, ID: 220235047, perioada: 11/10/2023 - 31/12/2025, calitatea avută: director de proiect.]

Data:

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Conf. dr. Nicușor COSTEA