INFORMAŢII PERSONALE

Nicușor COSTEA

Adresă profesională: Departamentul de Matematică-Informatică, Facultatea de Științe Aplicate, Universitatea Națională de Știință și Tehnologie Politehnica București, Splaiul Independentei 313, București, 060042, Romania

EXPERIENŢA PROFESIONALĂ

Octombrie 2021 - prezent

Conferențiar Universitar

Departamentul de Matematică-Informatică, Facultatea de Științe Aplicate, Universitatea Națională de Știință și Tehnologie Politehnica București

Octombrie 2017 – Septembrie 2021

Lector Universitar

Departamentul de Matematică-Informatică, Facultatea de Științe Aplicate, Universitatea Politehnica din București

Octombrie 2014 - Septembrie 2017

Asistent Universitar

Departamentul de Matematică-Informatică, Facultatea de Științe Aplicate, Universitatea Politehnica din București

Octombrie 2011 – Septembrie 2013

CS – cercetător științific

Institutul de Matematică „Simion Stoilow" al Academiei Române, Calea Griviței nr. 21, București, România http://imar.ro

- Director al proiectului de cercetare PN-II-RU-PD-2011-3-0032

EDUCAŢIE ŞI FORMARE

Septembrie 2011 – Septembrie 2015

Doctorat

Nivel EQF 8

Department of Mathematics and its Applications, Central European University, Budapest, Hungary

- Domeniul: Matematică
- *Conducător:* Prof. Gheorghe MOROȘANU
- *Titlul tezei:* Existence results for some nonsmooth differential inclusions
- *Membrii comisiei:* Miklos ABERT (Central European University), Alexandru KRISTALY (Universitatea Babeș-Bolyai), Adrian PETRUSEL (Universitatea Babeș-Bolyai)

Octombrie 2007 – Septembrie 2010

Doctorat

Nivel EQF 8

Facultatea de Matematică și Informatică, Universitatea din Craiova, Craiova, România

- *Domeniul:* Matematică
- *Conducător:* Prof. Vicențiu RĂDULESCU
- *Titlul tezei:* Probleme unilaterale în fizica matematică
- *Membrii comisiei:* Constantin NICULESCU (Universitatea din Craiova), Radu PRECUP (Universitatea Babeș-Bolyai), Radu PURICE (IMAR), Csaba VARGA (Universitatea Babeș-Bolyai)

Octombrie 2007 – Iulie 2009

Master

Nivel EQF 7

Facultatea de Matematică și Informatică, Universitatea din Craiova, Craiova, România

- *Domeniul:* Matematică
- *Denumire*: Sisteme dinamice și probleme de evoluție
- *Titlul disertatiei:* Inegalități hemivariaționale și probleme de valori proprii
- *Indrumator:* Prof. Vicențiu RĂDULESCU

Octombrie 2003 – Iulie 2007

Licență

Nivel EQF 6

Facultatea de Matematică și Informatică, Universitatea din Craiova, Craiova, România

- *Secția:* Matematică-Informatică
- *Titlul lucrării de licență:* Principii de maxim pentru ecuații cu derivate parțiale
- *Îndrumător:* Prof. Vicențiu RĂDULESCU

COMPETENTE PERSONALE

Limba maternă: Română

Alte limbi străine cunoscute

	INTELEGERE		VORBIRE		SCRIERE
	Ascultare	Citire	Participare la conversaţie	Discurs oral	
Engleza	C2	C2	C2	C2	C2
	TOEFL ITP Test, March 12 2011, 637 p.				
Franceza	A2	B1	A 1	A1	A2

Niveluri: A1/2: Utilizator elementar - B1/2: Utilizator independent - C1/2: Utilizator experimentat
Cadrul european comun de referinţă pentru limbi străine

Domenii de interes

- Inegalități variaționale și hemivariaționale
- Incluziuni diferențiale
- Operatori multivoci
- Teoria punctului critic
- Mecanica solidelor deformabile

INFORMATII SUPLIMENTARE

Publicaţii

- **N. Costea**, Continuous family of eigenvalues concentrating in a small neighborhood at the right of the origin, *Annals of the University of Craiova, Math. Comp. Sci. Ser*. **35** (2008), 89-93.
- **N. Costea & V. Radulescu**, Existence results for hemivariational inequalities involving relaxed h-a monotone mappings, *Communications in Applied Analysis* **13** (3) (2009), 293-304.
- **N. Costea & M. Mihailescu**, Nonlinear, degenerate and singular eigenvalue problems in IR^N, *Nonlinear Analysis: Theory, Methods and Applications* **71** (2009), 1153-1159.
- **N. Costea & M. Mihailescu**, On an eigevalue problem involving variable growth conditions, *Nonlinear Analysis: Theory, Methods and Applications* **71** (2009), 4271-4278.
- **I. Andrei & N. Costea**, Nonlinear hemivariational inequalities and applications to

nonsmooth mechanics, *Advances in Nonlinear Variational Inequalities* **13** (1) (2010), 1-17.

- **N. Costea & A. Matei**, Weak solutions for nonlinear antiplane problems leading to hemivariational inequalities, *Nonlinear Analysis: Theory, Methods and Applications* **72** (2010), 3669-3680.
- **N. Costea & V. Radulescu**, Hartman-Stapacchia results for stably pseudomonotone operators and nonlinear hemivariational inequalities, *Applicable Analysis* **89** (2) (2010), 175-188.
- **N. Costea & C. Lupu**, On a class of variational-hemivariational inequalities involving set-valued mappings, *Advances in Pure and Applied Mathematics* **1** (2) (2010), 233-246.
- **N. Costea**, Existence and uniqueness results for a class of quasi-hemivariational inequalities, *Journal of Mathematical Analysis and Applications* **373** (2011), 305-311.
- **N. Costea & A. Matei**, Contact models leading to variational-hemivariational inequalities, *Journal of Mathematical Analysis and Applications* **386** (2012), 647-660.
- **N. Costea & V. Radulescu**, Inequality problems of quasi-hemivariational type involving set-valued operators and a nonlinear term, *Journal of Global Optimization* **52** (2012), 743-756.
- **N. Costea, D.A. Ion & C. Lupu**, Variational-like inequality problems involving set-valued maps and generalized monotonicity, *Journal of Optimization Theory and Applications* **155** (1) (2012), 79-99.
- **N. Costea & C. Varga**, Systems of nonlinear hemivariational inequalities and applications, *Topological Methods in Nonlinear Analysis* **41** (1) (2013), 39-67.
- **I. Andrei, N. Costea & A. Matei**, Antiplane shear deformation of piezoelectric bodies in conctact with a conductive support, *Journal of Global Optimization* **56** (1) (2013), 103-119.
- **N. Costea & G. Morosanu**, A multiplicity result for an elliptic differential inclusion involving variable exponents, *Set-Valued and Variational Analysis* **21** (2013), 311-322.
- **N. Costea & C. Varga**, Multiple critical points for non-differentiable parametrized functionals and applications to differential inclusions, *Journal of Global Optimization* **56** (2) (2013), 399-416.
- **N. Costea, I. Firoiu & F. Preda**, Elliptic boundary value problems with nonsmooth potential and mixed boundary conditions, *Complex Variables and Elliptic Equations* **58** (9) (2013), 1201-1213.
- **N. Costea, M. Csirik & C. Varga**, Weak solvability via bipotential method for contact models with nonmonotone boundary conditions, *Zeitschrift fur angewandte Mathematik und Physik* **66** (5) (2015), 2787-2806.
- **N. Costea, M. Csirik & C. Varga**, Linking-type results in nonsmooth critical point theory and applications, *Set-Valued and Variational Analysis* 25 (2017), 333-356N.
- **Costea & G. Moroşanu**, Steklov-type eigenvalues for Δp+Δq, P*ure and Applied Functional Analysis* 3 (1) (2018), 75-89.
- **N. Costea, G. Moroşanu & C. Varga**, Weak solvability for Dirichlet partial differential inclusions in Orlicz-Sobolev spaces, *Advances in Differential Equations* 23 (2018), 523-554.
- **N. Costea & A. Pitea**, Existence results for mixed hemivariational-like inequalities involving set-valued maps, *Optimization* 70 (2) (2021), 269-305.
- **N. Costea**, Coupled systems of nonlinear variational inequalities and applications, *Communications in Nonlinear Science and Numerical Simulation* 118 (2023), Article Number 107046.
- **N. Costea & S. Zeng**, Existence results for Dirichlet double phase differential inclusions, *Studia Universitatis Babeş-Bolyai – Mathematica* 68 (1) (2023), 51-61.
- **J. Cen, N. Costea, C. Min & J.C. Yao**, Stability analysis for a recovered fracturing fluid model in the wellbore of shale gas reservoir, *Hecettepe Journal of Matehmatics & Statistics* 52 (6) (2023), 1533-1549.

Prezentări

- *Spectral problems for some nonlinear perturbations of the Laplace operator*, **The Fifth Conference on Nonlinear Analysis and Applied Mathematics**, Valahia University of Targoviste, December 7-8 2007.
- *Existence and uniqueness results for a class of quasi-hemivariational inequalities*, **Workshop on Partial Differential Equations,** „Simion Stoilow" Institute of Mathematics of the Romanian Academy (21 Calea Grivitei, Bucharest, Romania), November 25-26 2010. http://sites.google.com/site/liviuignat/works/workshop-2010
- *Existence results for quasi-hemivariational inequalities governed by multi-valued operators*,

Workshop for Young Researchers in Mathematics, Ovidius University (Faculty of Mathematics and Computers Science, 124 Mamaia Bd., 900527 Constanta, Romania), May 12-13 2011.
http://math.univ-ovidius.ro/workshop/2011/WYRM/GeneralInfo.htm

- *Inequality problems involving set-valued mappings and generalized monotonicity*, **Workshop on „Applied Mathematics" dedicated to the 20th anniversary of CEU**, Central European University (Department of Mathematics and its Applications, Nador u.9,1051 Budapest, Hungary), May 26th 2011.
  http://mathematics.ceu.hu/article/2011-05-21/workshop-applied-mathematics-dedicated-20th-anniversary-ceu
- *Existence results for hemivariational inequalities*, **Departmental Seminar**, Central European University (Department of Mathematics and its Applications, Nador u.9,1051 Budapest, Hungary), November 15th 2011.
  http://mathematics.ceu.hu/research/sessions
- *On an elliptic differential inclusion invoving variable exponents*, **Departmental Seminar**, Central European University (Department of Mathematics and its Applications, Nador u.9,1051 Budapest, Hungary), Octber 2nd 2012.
  http://mathematics.ceu.hu/research/sessions
- *On a nonsmooth elliptic eigenvalue problem*, **Departmental Seminar**, Central European University (Department of Mathematics and its Applications, Nador u.9,1051 Budapest, Hungary), January 22nd 2013.
  http://mathematics.ceu.hu/research/sessions
- *Differential inclusions depending on a real parameter*, **Advances in Differential Equations: symmetrizations and related topics**, Babes-Bolyai University (Faculty of Mathematics and and Computer Science, Cluj-Napoca, Romania), March 14-15 2013. https://sites.google.com/site/idei0241/research-seminar/mini-workshop
- *Differential inclusions depending on a real parameter*, **Workshop for Young Researchers in Mathematics**, Ovidius University (Faculty of Mathematics and Computers Science, 124 Mamaia Bd., 900527 Constanta, Romania), May 9-10 2013.
  http://math.univ-ovidius.ro/Workshop/2013/WYRM/GeneralInfo.htm
- *Multiplicity of critical points for non-smooth parametrized functionals*, **Joint international meeting of the American Mathematical Society and the Romanian Mathematical Society in partnership with Simion Stoilow Institute of Mathematics of the Romanian Academy**, „1 Decembrie 1918" University of Alba Iulia (Alba Iulia, Romania), June 27-30 2013.
  http://imar.ro/ams-ro2013/description.php

- *Nonlinear hemivariational inequalities and applications*, **CINTI 2013, 14th IEEE International Symposium on Computational Intelligence and Infiormatics**, Obuda University (Becsi ut. 96/B, H-1034 Budapest, Hungary), November 19-21 2013. http://conf.uni-obuda.hu/cinti2013/

- *Nonlinear hemivariational inequalities: formulation, existence of solutions and applications*, **Research Seminar on Nonlinear Operators and Differential Equations**, Babes-Bolyai University (Cluj-Napoca, Romania), March 13th 2014. http://www.math.ubbcluj.ro/~nodeacj/soned.html

- On the weak solvability for some contact models with nonmonotone boundary conditions, **Workshop for Young Researchers in Mathematics**, Ovidius University (Faculty of Mathematics and Computer Science, 124 Mamaia Bd., 900527, Constant¸a, Romˆania), May 21-24, 2015.
  http://math.univ-ovidius.ro/Workshop/2015/WYRM/

- Bounded saddle point methods for locally Lipschitz functionals, **Workshop for Young Researchers in Mathematics**, Ovidius University (Faculty of Mathematics and Computer Science, 124 Mamaia Bd., 900527, Constant¸a, Romˆania), May 19-22, 2016.
  http://math.univ-ovidius.ro/Workshop/2016/WYRM/#/

- Bounded saddle point methods for locally Lipschitz functionals, **XIII´eme Colloque Franco-Roumainde Mathematiques Apliquees**, Session VIII: Analyse non-lisse et optimisation, "Alexandru Ioan Cuza" University (Bulevardul Carol I 11, Iasi

700506, Romania), August 25-29, 2016.
http://www.math.uaic.ro/cfr2016/index.php?talks&anlo#anlo

- Partial differential inclusions in reflexive Orlicz-Sobolev spaces**, Happy PDE's Days**, Institute of Mathematics of the Romanian Academy, 21 Calea Grivit¸ei, Bucharest, December 8 - 9, 2016.
http://www.imar.ro/~dtimotin/Ignat/afis%20Happy%20PDE.pdf

- Inclusion problems involving inhomogeneous differential operators, **Workshop on Pure and Applied Analysis**, University of Craiova, Romania October 21, 2017.
https://sites.google.com/site/workshoppaa2017/

- Existence results for hemivariational-like inequalities involving set-valued maps, **11th International Conference on Parametric Optimization and Related Topics (ParaoptXI),** Prague Czech Republic,September 19-22, 2017.
http://paraoptxi.utia.cas.cz/?id=0

- Partial differential inclusions involving Φ-Laplace operators, **6th International Conference on Mathematics and Informatics**, Targu Mures/Marosvasarhely, Romania, Sapientia Hungarian University of Transylvania, September 7-9, 2017.
http://mitis.ro/mathinfo/2017/

- Partial differential inclusions involving Φ-Laplace operators, **Workshop Geometry and PDE's**, West University of Timisoara (Bulevardul Vasile Parvan nr. 4, 300223 Timisoara, Romania), June 13-14, 2017.
https://math.uvt.ro/v2/documents/cercetare/Afis%20Geometry%20and%20PDEs.pdf

- Partial differential inclusions in reflexive Orlicz-Sobolev spaces, **Workshop Applied Mathematics: Methods and Modeling**, University of Craiova (A.I. Cuza 13, Craiova Romania), May 7-8, 2017.
http://math.ucv.ro/wammm2017/program.html

- Weak solvability for Dirichlet partial differential inclusions in Orlicz-Sobolev spaces, **Workshop on Applied Mathematics**, "Alexandru Ioan Cuza" University (Bulevardul Carol I 11, Ia¸si 700506, Romania), April 04, 2017.
http://www.math.uaic.ro

Proiecte

- Director al grantului: "*Sisteme Cuplate de Inegalităţi Hemivariationale şi Aplicatii*" (National Program for Research of the National Association of Technical Universities - GNAC ARUT 2023), Octombrie 2023 - Decembrie 2024.
- Director al grantului: "*Hemivariational-Like Inequalities*" (UPB - Excellence Research Grants), GEX-358, Septembrie 2016 - Septembrie 2017.
- Director al grantului *„Differential Inclusions and Nonsmooth Variational Problems in Nonlinear Analysis and Applications"* (CNCS-UEFISCDI), cod proiect: PN-II-RU-PD-2011-3-0032, perioada: Octombrie 2011 – Septembrie 2013.
- Membru in grantul *„Analysis, Control and Numerical Aproximations of Partial Differential Equations"* (CNCS-UEFISCDI), cod proiect: PN-II-ID-PCE-2011-3-0075, perioada: Octombrie 2011 – Septembrie 2014, director: Ioan Liviu IGNAT.
- Membru in grantul „*Critical Point Theory and Degree Theory for Nonlinear Problems with Relativistic Laplacians*" (CNCS-UEFISCDI), cod proiect: PN-II-RU-TE-2011-3-0157, perioada: Octombrie 2011 – Spetembrie 2014, director: Cristian BEREANU.
- Membru in grantul *„Variable Exponent Analysis: Partial Differential Equations and Calculus of Variations"* (CNCS-UEFISCDI), cod proiect: PN-II-ID-PCE-2012-4-0021, perioada: Septembrie 2013 – Octombrie 2015, director: Mihai MIHAILESCU.
- Membru in grantul "The Infinity-Laplace Operator" (CNCS-UEFISCDI), PN-III-P1-1.1.-TE-2019-0456, Septembrie 2020 - Septembrie 2022, director: Denisa Stancu-Dumitru.
- Membru in grantul "Typical and Nontypical Eigenvalue Problems for Some Classes of Differential Operators" (CNCS-UEFISCDI), PN-III-P4-ID-PCE-2016-0035, Iulie 2017 - Decembrie 2019, director: Mihai Mihăilescu.

Reviewer pentru

- Abstract and Applied Analysis (ISSN: 1085-3375),
- Advances in Nonlinear Analysis (ISSN: 2191-950X),
- AIMS Mathematics (ISSN: 2473-6988),
- Analele Ştiintifice ale Universităţii Ovidius din Constanţa (ISSN: 1224-1784),
- Applicable Analysis (ISSN: 0003-6811),
- Boundary Value Problems (ISSN: 1687-2770),
- Complex Variables and Elliptic Equations (ISSN: 1747-6933),
- Journal of Global Optimization (ISSN: 0925-5001),
- Journal of Inequalities and Applications (ISSN: 1029-242X)
- Journal of Mathematical Analysis and Applications (ISSN: 0022-247X),
- Mathematical Modelling and Analysis (ISSN: 1392-6292),
- Mathematics and Mechanics of Solids (ISSN: 1081-2865),
- Mathematical Reviews,
- Nonlinear Analysis: Theory, Methods and Applications (ISSN:0362-546X),
- Nonlinear Analysis: Real World Applications (ISSN: 1468-1218)
- Open Mathematics (ISSN: 2391-5455),
- Optimization (ISSN: 0233-1934),
- Set-Valued and Variational Analysis (ISSN: 1877-0533),
- SIAM Journal on Mathematical Analysis (ISSN: 0036-1410),
- Studia Universitatis Babes-Bolyai – Mathematica (ISSN: 2065-961x)
- Zentralblatt MATH

Data: 04.09.2025

Semnătura:
Nicușor COSTEA

A N E X A 4 . 1

Nume Prenume: COSTEA Nicuşor
Gradul didactic: Conferențiar Universitar
Instituția unde este titular: Universitatea Națională de Știință și Tehnologie POLITEHNICA București
Facultatea: Științe Aplicate
Departamentul: Matematică și Informatică

L I S T A
lucrărilor ştiinţifice în domeniul disciplinelor din postul didactic

A. Teza de doctorat

1. *Probleme Unilaterale în Fizica Matematică*, Teză de doctorat, Universitatea din Craiova, Craiova 2010, Coordonator ştiinţific: Prof. dr. Vicenţiu Rădulescu.

2. *Existence Results for Some Differential Inclusions and Related Problems*, Teză de doctorat, Central European University, Budapesta 2015, Coordonator ştiinţific: Prof. dr. Gheorghe Moroşanu.

B. Cărţi si capitole în cărţi publicate în ultimii 10 ani

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

C. Lucrări indexate ISI/BDI publicate în ultimii 10 ani

C1. Lucrari indexate ISI (cu precizare WOS) in ordine descrescatoare a datei publicarii

1. J. Cen & N. Costea, Weak solvability for a class of double phase variable exponents inclusion problems, *Commun. Nonlinear Sci. Numer. Simul*. **144** (2025), 108664, WOS: 001427690200001.

2. J. Cen, N. Costea, D. Dumitrescu & M. Stanciu, A set-valued approach for quasi-variational-hemivariational inequalities, *J. Fixed Point Theory Appl.* **27** (2025), 64, WOS: 001522728100001.

3. X. Chen, N. Costea & S. Zeng, A generalized penalty method for quasi-variational-hemivariational inequalities, *Discrete and Continuous Dynamical Systems - Series S* **18** (6) 2025, 1574-1590, WOS: 001273705300001.

4. J. Cen, N. Costea & J. Pan, Elliptic inclusion systems with nonlocal functions and multivalued convection terms, *Journal of Nonlinear and Convex Analysis*, **26** (1) 2025, 169-185, WOS: 001471358100013.

5. Y. Bai, N. Costea & S. Zeng, Existence results for variational-hemivariationalinequality systems with nonlinear couplings, *Communications in Nonlinear Science and Numerical Simulation* **134** 2024, 108026, WOS: 00123430100000.

6. J. Cen, N. Costea, C. Min & J.C. Yao, Stability analysis for a recovered fracturing fluid model in the wellbore of shale gas reservoir, *Hecettepe Journal of Mathematics & Statistics* **52** (6) 2023, 1533-1549, WOS: 001101362500001.

7. N. Costea & S. Zeng, Existence results for Dirichlet double phase differential inclusions, *Studia Universitatis Babes-Bolyai Mathematica* **68** (1) (2023), 51-61, WOS: 000957722600005.
8. N. Costea, Coupled systems of nonlinear variational inequalities and applications, *Commun. Nonlinear Sci. Numer. Simul*. **118** (2023), 107046, WOS: 000904833400001.
9. N. Costea & A. Pitea, Existence results for mixed hemivariational-like inequalities involving set-valued maps, *Optimization* **70** (2) (2021), 269-305. WOS:000506799600001.
10. 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.
11. 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.
12. 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.

C2. Lucrari indexate BDI (cu precizare ISSN/ISBN publicatie) in ordine descrescatoare a datei publicarii

13. N. Costea & G. Morosanu, Steklov-type eigenvalues of $\underline{\Delta_p + \Delta_q}$, *Pure Appl. Funct. Anal.* **3** (1) (2018), 75-89. BDI: MathSciNet, ZbMath, Scopus

D. Lucrări publicate în ultimii 10 anii în reviste şi volume de conferinţe cu referenţi (neindexate BDI)

- Reviste (neindexate BDI)

- Selecţie cu maximum 20 lucrări în volume de conferinţe (neindexate BDI)

E. Brevete obţinute în întreaga activitate

Data: 04.09.2025

Semnătura: