

Proiect:

Contract PCE 23/2017, Cod Depunere: *PN-III-P4-ID-PCE-2016-0130*

Contractor: **Universitatea din Craiova**

Director Proiect: **Prof. univ. dr. Vicentiu Radulescu**

I. Rezultate Obtinute

1. Publicarea unui numar de **44 articole indexate ISI**, cu factor de impact, in jurnale de prestigiu international. O selectie a acestor publicatii este evidentiata in listele de articole publicate in fiecare an, descrisa in capitolele urmatoare
2. Obtinerea unui **Factor de Impact** cumulat de **49,975 puncte**
3. Publicarea unui numar de **2 carti** in **edituri internationale** de prestigiu, conform listelor anuale descrise mai jos
4. Obtinerea a **7 pozitii de profesor invitat**, ca recunoastere a semnificatiei si importantei rezultatelor obtinute
5. Un numar de **14 conferinte invitate**

Dincolo de orice cuantificare a rezultatelor, calitatea rezultatelor stiintifice obtinute rezida in larga lor aplicabilitate, precum si in invitatiile de colaborare cu membri ai unor renumite scoli de matematica fundamentala si aplicata. Aceste aspecte au creat o larga deschidere internationala a echipei de cercetare si a scoli romanesti de matematica.

II. Etapa 1 – 2017

Lista cu articolele publicate (selectie)

1. N. Papageorgiou, **Vicentiu Radulescu**, Superlinear, noncoercive asymmetric Robin problems with indefinite, unbounded potential, *Z. Anal. Anwend.* 36 (2017), 253-281
DOI: 10.4171/ZAA/1588
Impact Factor: 0.643
2. N. Papageorgiou, **Vicentiu Radulescu**, Periodic solutions for time-dependent subdifferential evolution inclusions, *Evolution Equations and Control Theory* 6 (2017), 277-297
doi:10.3934/eect.2017015
Impact Factor: 0.826

3. N. Papageorgiou, **Vicentiu Radulescu**, D. Repovs, Robin problems with indefinite linear part and competition phenomena, *Communications on Pure and Applied Analysis* 16 (2017), 1293-1314
doi:10.3934/cpaa.2017063
Impact Factor: 0.801

4. N. Papageorgiou, **Vicentiu Radulescu**, D. Repovs, Multiple solutions for resonant problems of the Robin p -Laplacian plus an indefinite potential, *Calculus of Variations and PDEs* (2017) 56:63
DOI 10.1007/s00526-017-1164-2
Impact Factor: 1.532

5. N. Papageorgiou, **Vicentiu Radulescu**, An infinity of nodal solutions for superlinear Robin problems with an indefinite and unbounded potential, *Bull. Sci. Math.* 141 (2017), 251-266 <http://dx.doi.org/10.1016/j.bulsci.2017.03.001>
Impact Factor: 0.75

6. N. Papageorgiou, **Vicentiu Radulescu**, D. Repovs, Robin problems with a general potential and a superlinear reaction, *Journal of Differential Equations* 263 (2017), 3244-3290

<http://dx.doi.org/10.1016/j.jde.2017.04.032>
Impact Factor: 1.988

7. N. Papageorgiou, **Vicentiu Radulescu**, Robin problems with indefinite and unbounded potential, resonant at $-\infty$, superlinear at ∞ , *Tohoku Mathematical Journal* 69 (2017), 261-286
doi: 10.2748/tmj/1498269626
Impact Factor: 0.548

8. K. Kefi, **Vicentiu Radulescu**, On a $p(x)$ -biharmonic problem with singular weights, *Zeitschrift fuer angewandte Mathematik und Physik (ZAMP)* 68 (2017), 68:80
DOI 10.1007/s00033-017-0827-3
Impact Factor: 1.687

9. N. Papageorgiou, **Vicentiu Radulescu**, Asymmetric, noncoercive, superlinear $(p,2)$ -equations, *Journal of Convex Analysis* 24 (2017), 769-793
Impact Factor: 0.496

10. S. Liang, **Vicentiu Radulescu**, Infinitely many solutions for degenerate Kirchhoff-type Schrödinger-Choquard equations, *Electronic Journal of Differential Equations*, Vol. 2017 (2017), No. 230, pp. 1-17
Impact Factor: 0.954
11. N. Papageorgiou, **Vicentiu Radulescu**, D. Repovs, Pairs of positive solutions for resonant singular equations with the p-Laplacian, *Electronic Journal of Differential Equations*, Vol. 2017 (2017), No. 249, pp. 1-13
Impact Factor: 0.954
12. B. Alleche, **Vicentiu Radulescu**, Further on set-valued equilibrium problems and applications to Browder variational inclusions, *Journal of Optimization Theory and Applications*, 175 (2017), 39-58
DOI 10.1007/s10957-017-1169-1
Impact Factor: 1.289
13. N. Papageorgiou, **Vicentiu Radulescu**, Positive solutions for parametric semilinear Robin problems with indefinite and unbounded potential, *Mathematica Scandinavica* 121 (2017), 263-292
<https://doi.org/10.7146/math.scand.a-96696>
Impact Factor: 0.635
14. N. Papageorgiou, **Vicentiu Radulescu**, D. Repovs, Nonhomogeneous hemivariational inequalities with indefinite potential and Robin boundary condition, *Journal of Optimization Theory and Applications*, 175 (2017), 293-323
DOI: 10.1007/s10957-017-1173-5
Impact Factor: 1.289
15. N. Papageorgiou, **Vicentiu Radulescu**, D. Repovs, Resonant semilinear Robin problems with a general potential, *Electronic Journal of Qualitative Theory of Differential Equations*, No. 70 (2017), 1-15

<https://doi.org/10.14232/ejqtde.2017.1.70>

Impact Factor: 0.926
16. G. Li, **Vicentiu Radulescu**, D. Repovs, Q. Zhang, Nonhomogeneous Dirichlet problems without the Ambrosetti-Rabinowitz condition, *Topological Methods in Nonlinear Analysis* (2017)

DOI: 10.12775/TMNA.2017.037

Impact Factor: 0.667

17. **A. Golumbeanu, O.A. Ticleanu**, Elliptic curves differentiation with application to group signature scheme, *Electronic Journal of Differential Equations*, Vol. 2017(2017), No. 237, pp.1-21.

URL: <http://ejde.math.txstate.edu> or <http://ejde.math.unt.edu>

Impact Factor: 0.954

Lista Conferinte Invitate

- [1] Vicentiu Radulescu, *Nonhomogeneous problems with singular weights*, Fourth Conference on Recent Trends in Nonlinear Phenomena, University of Messina, 18-20 September 2017

<http://www.sti.uniurb.it/servadei/ConferenceMessina2017>

- [2] Vicentiu Radulescu: *Maximum principle and Keller-Osserman condition revisited*, Faculty of Applied Mathematics, AGH University of Science and Technology, Krakow, 8 November 2017

<http://wms.mat.agh.edu.pl/~afs/en/archiwum-2017.html>

- [3] Vicentiu Radulescu, *How much monotonicity is necessary in nonlinear PDEs?* Faculty of Mathematics and Applied Physics, Rzeszow University of Technology, Rzeszow, 17 November 2017

<https://kan.prz.edu.pl/aktualnosci/zaproszenie-1.html>

- [4] Vicentiu Radulescu: *Nonlinear eigenvalue problems: old and new*, Chair of Optimization and Control, Jagiellonian University, Krakow, 23 November 2017

<http://ww2.ii.uj.edu.pl/~migorski/links.html>

Pozitii de Profesor Invitat

1. Vicentiu Radulescu: professor invitat la Univ. de Picardie "Jules Verne", Amiens, Franta (1-5 octombrie 2017)

2. Vicentiu Radulescu: profesor invitat la AGK University of Science and Technology, Krakow, Polonia (5-25 noiembrie 2017)

Carti si Capitoale de Carti Publicate

1. **Vicentiu Radulescu**, G. Kassay: *Equilibrium Problems and Applications*, carte sub contract la Academic Press, Elsevier, Oxford (**Paperback ISBN: 9780128110294**). Data publicarii: 1 octombrie 2018:

<https://www.elsevier.com/books/equilibrium-problems-and-applications/radulescu/978-0-12-811029-4>

II. Etapa 2 – 2018

Lista cu articolele publicate (selectie)

1. **Vicentiu Radulescu**, S. Saiedinezhad, A nonlinear eigenvalue problem with $p(x)$ -growth and generalized Robin boundary value condition, *Communications on Pure and Applied Analysis* 17 (2018), 39-52.
2. N. Papageorgiou, **Vicentiu Radulescu**, D. Repovs, Nodal solutions for the Robin p -Laplacian plus an indefinite potential and a general reaction term, *Communications on Pure and Applied Analysis* 17 (2018), 231-241.
3. N. Papageorgiou, **Vicentiu Radulescu**, D. Repovs, Positive solutions for superdiffusive mixed problems, *Applied Mathematics Letters* 77 (2018), 87-93.
4. N. Papageorgiou, **Vicentiu Radulescu**, Multiplicity of solutions for nonlinear nonhomogeneous Robin problems, *Proceedings of the American Mathematical Society* 146 (2018), 601-611.
5. N. Papageorgiou, **Vicentiu Radulescu**, Semilinear Robin problems resonant at both zero and infinity, *Forum Mathematicum* 30 (2018), 237-251.
6. N. Papageorgiou, **Vicentiu Radulescu**, D. Repovs, Existence and multiplicity of solutions for resonant $(p,2)$ -equations, *Advanced Nonlinear Studies* 18 (2018), 105-129.
7. N. Papageorgiou, **Vicentiu Radulescu**, D. Repovs, Resonant Robin problems driven by the p -Laplacian plus an indefinite potential, *Ann. Acad. Sci. Fennicae* 43 (2018), 483-508.
8. A. Bahrouni, **Vicentiu Radulescu**, D. Repovs, A weighted anisotropic variant of the Caffarelli-Kohn-Nirenberg inequality and applications, *Nonlinearity* 31 (2018), 1516-1534.

9. G. Li, **Vicentiu Radulescu**, D. Repovs, Q. Zhang, Nonhomogeneous Dirichlet problems without the Ambrosetti-Rabinowitz condition, *Topological Methods in Nonlinear Analysis* 51 (2018), 55-77.
10. N. Papageorgiou, **Vicentiu Radulescu**, D. Repovs, Periodic solutions for a class of evolution inclusions, *Computers and Mathematics with Applications* 75 (2018), 3047-3065.
11. N. Papageorgiou, **Vicentiu Radulescu**, Multiplicity of solutions for Robin problems with double resonance, *Annali della Scuola Normale Superiore di Pisa, Classe di Scienze, Serie V XVIII* (2018), 145-201.
12. N. Papageorgiou, **Vicentiu Radulescu**, D. Repovs, Positive solutions for nonlinear nonhomogeneous parametric Robin problems, *Forum Mathematicum* 30 (2018), 553-580.
13. A. Bahrouni, H. Ounaies, **Vicentiu Radulescu**, Compactly supported solutions of Schrödinger equations with small perturbation, *Applied Mathematics Letters* 84 (2018), 148-154.
14. **Vicentiu Radulescu**, X. Mingqi, B. Zhang, Nonlocal Kirchhoff diffusion problems: local existence and blow-up of solutions, *Nonlinearity* 31 (2018), 3228-3250.
15. K. Kefi, **Vicentiu Radulescu**, Small perturbations of nonlocal biharmonic problems with variable exponent and competing nonlinearities, *Rend. Lincei Mat. Appl.* 29 (2018), 439-463.
16. P. Pucci, **Vicentiu Radulescu**, The maximum principle with lack of monotonicity, *Electronic Journal of Qualitative Theory of Differential Equations* 2018, No. 58, 1-11.
17. N. Papageorgiou, **Vicentiu Radulescu**, D. Repovs, $(p,2)$ -equations symmetric at both zero and infinity, *Advances in Nonlinear Analysis* 7 (2018), 327-351.
18. N. Papageorgiou, **Vicentiu Radulescu**, D. Repovs, Positive solutions for nonvariational Robin problems, *Asymptotic Analysis* 108 (2018), 243-255.
19. N. Papageorgiou, **Vicentiu Radulescu**, D. Repovs, Double-phase problems with reaction of arbitrary growth, *Zeitschrift fuer angewandte Mathematik und Physik (ZAMP)* 69 (2018), 69:108.
20. R. Alsaedi, **Vicentiu Radulescu**, Generalized biharmonic problems with variable exponent and Navier boundary condition, Two nonlinear days in Urbino 2017, *Electronic Journal of Differential Equations*, Conf. 25 (2018), pp. 27-37.
21. M. Cencelj, **Vicentiu Radulescu**, D. Repovs, Double phase problems with variable growth, *Nonlinear Analysis* 177 (2018), 270-287.
22. X. Mingqi, **Vicentiu Radulescu**, B. Zhang, Combined effects for fractional Schrödinger-Kirchhoff systems with critical nonlinearities, *ESAIM: COCV* 24 (2018), 1249-1273.

Lista Conferinte Invitate

1. "Alcuni modelli matematici nelle scienze applicate: singolarità, frattali e fluidi non-newtoniani", Accademia delle Scienze dell'Umbria, 10 January 2018
2. "Small and high perturbations of nonhomegeneous elliptic problems", Two Nonlinear Days in Perugia on the occasion of Patrizia Pucci's 65th birthday, University of Perugia, 11-12 January 2018

3. “Equilibrium problems and applications”, Fourth Conference on Mathematical Sciences and Applications, King Saud University, Riyadh, 11-12 April 2018

III. Etapa 3 – 2019

Lista cu articolele publicate (selectie)

[1] N.S. Papageorgiou, **V.D. Radulescu**, D.D. Repovs, Asymmetric Robin problems with indefinite potential and concave terms, *Adv. Nonlinear Stud.* **19** (2019), 69-87.

<https://doi.org/10.1515/ans-2018-2022>

2018 ISI Impact Factor: 1.65

[2] A. Bahrouni, H. Ounaies, **V.D. Radulescu**, Bound state solutions of sublinear Schrodinger equations with lack of compactness, *RACSAM* **113** (2019), 1191-1210.

<https://doi.org/10.1007/s13398-018-0541-9>

2018 ISI Impact Factor: 1.028

[3] N.S. Papageorgiou, **V.D. Radulescu**, D.D. Repovs, Periodic solutions for implicit evolution inclusions, *Evolution Equations and Control Theory* **8** (2019), 621-631.

doi:10.3934/eect.2019029

2018 ISI Impact Factor: 1.049

[4] N.S. Papageorgiou, **V.D. Radulescu**, D.D. Repovs, Positive solutions for nonlinear parametric singular Dirichlet problems, *Bulletin of Mathematical Sciences* **9** (2019), 1950011 (21 pages).

DOI: 10.1142/S1664360719500115

2018 ISI Impact Factor: 1.714

[5] Z. Binlin, **V.D. Radulescu**, L. Wang, Existence results for Kirchhoff-type superlinear problems involving the fractional Laplacian, *Proceedings of the Royal Society of Edinburgh* **149** (2019), 1061-1081.

DOI:10.1017/prm.2018.105

2018 ISI Impact Factor: 1.045

Lista Conferinte Invitate

- [1] V. Radulescu, Anisotropic problems: qualitative results, Potentiel et Probabilités, Institute of Mathematics of the Romanian Academy, Bucharest, 24-25 January 2019
- [2] V. Radulescu, Anisotropic double phase problems and perspectives, King Saud University, Riyadh, 3 April 2019
- [3] V. Radulescu, Nonlinear problems with unbalanced growth: isotropic and anisotropic models, Stochastic Analysis and Related Topics, University of Bucharest, 6-9 May 2019
- [4] V. Radulescu, Problèmes à double phase et croissance variable, LAMFA, Universite de Picardie Jules Verne, Amiens, 20 May 2019
- [5] V. Radulescu, *Double phase problems with variable growth*, BiUrb Recent advances in variational methods, Università di Urbino Carlo Bo, 29 May 2019
- [6] V. Radulescu, *Singular phenomena in nonlinear elliptic equations*, BiUrb Recent advances in variational methods, Università di Urbino Carlo Bo, 30 May 2019
- [7] V. Radulescu, Problems with variable exponent, Elsevier-JMAA Conference on Nonlinear Analysis at AGH-UST, Krakow, 11-12 October 2019

Pozitii de Profesor Invitat

1. V. Radulescu, visiting professor at King Saud University, Riyadh, Saudi Arabia (1-6 April 2019)
2. V. Radulescu, visiting professor at Universite de Picardie Jules Verne, Amiens, France (19-25 May 2019)
3. V. Radulescu, visiting professor at Università di Urbino Carlo Bo, Urbino, Italy (27 May – 1 June 2019)
4. V. Radulescu, visiting professor at AGH University of Science and Technology, Krakow, Poland (30 September – 23 October 2019)
5. V. Radulescu, visiting professor at Central South University, Changsha, China (19 November – 20 December 2019)

Carti si Capitole de Carti Publicate

1. N.Papageorgiou, **V.D. Radulescu**, D. Repovs, *Nonlinear Analysis – Theory and Methods*, Springer Monographs in Mathematics, Springer, Cham, 2019, 577 pp.

eBook ISBN: 978-3-030-03430-6

DOI: 10.1007/978-3-030-03430-6

Hardcover ISBN: 978-3-030-03429-0

Series ISSN: 1439-7382

Editor de Volume

1. P. Pucci, V.D. Radulescu, of the Special Issue *Progress in Nonlinear Kirchhoff Problems*, *Nonlinear Analysis*, vol. 186, pp. 1-258, September 2019

Director Proiect

Prof. Univ. Dr. Vicentiu Radulescu