

## Lista de lucrări

**NUMELE ȘI PRENUMELE:** Farkas Csaba

### I. LISTA PUBLICAȚIILOR RELEVANTE

1. **Farkas Csaba**, Kristály Alexandru, Mester Ágnes, Compact Sobolev embeddings on non-compact manifolds via orbit expansions of isometry groups, CALCULUS OF VARIATIONS AND PDE, (2021) 60:128.
2. **Farkas Csaba**, Winkert Patrick, An existence result for singular Finsler double phase problems, J. DIFFERENTIAL EQUATIONS, (2021) Volume 286, 455-473.
3. **Farkas Csaba**, Varga Csaba, Kristály Alexandru(Sándor), Singular Poisson equations on Finsler-Hadamard manifolds., CALC. VAR. PARTIAL DIFFERENTIAL EQUATIONS, Vol. 54, No 2, 2015, ISSN 0944-2669, pp. 1219–1241.
4. **Farkas Csaba**, Kristály Alexandru (Sándor), Schrödinger-Maxwell systems on Hadamard manifolds, NON. ANALYSIS REAL WORLD APPL., Vol. 31, No 31, 2016, ISSN 1468-1218, pp. 473–491.
5. Francesca Faraci, **Farkas Csaba**, Kristály Alexandru (Sándor), Multipolar Hardy inequalities on Riemannian manifolds, ESAIM: CONTROL OPTIM. AND CALC. OF VARIATIONS, acceptată, DOI: [10.1051/cocv/2017057](https://doi.org/10.1051/cocv/2017057).
6. Francesca Faraci, **Farkas Csaba**, A characterization related to Schrödinger equations on Riemannian manifolds, COMM. CONT. MATH., acceptată, DOI: 10.1142/S0219199718500608.

### II. LISTA COMPLETĂ DE PUBLICAȚII, CREAȚII, INVENTII

#### A. Teza de doctorat.

- Titlul tezei: „*Symmetrization methods in the study of sublinear elliptic problems*”, Univ. Babeș-Bolyai, Cluj-Napoca 2014, conducător de doctorat: prof. Dr. Varga Csaba, Calificativul: Magna cum Laude.
- Titlul tezei: „*Sobolev-type inequalities on Riemannian manifolds with applications*”, Univ. Óbuda, Budapest, Ungaria, 2018, conducător de doctorat: prof. Alexandru Kristály, Calificativul: Summa cum Laude.

#### B. Cărți publicate

B1. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate la edituri recunoscute în străinătate.

B2. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate în țară, la edituri recunoscute CNCSIS/CNCS.

- **Farkas Csaba**, *Nonlinear PDE's via variational methods*, ISBN 978-606-975-011-7
- **Farkas Csaba**, Horobet Emil, Szász Szilárd, Tóth Csongor, *XXVIII. Nemzetközi Magyar Matematikaverseny*, Editura Mentor, 2019, ISBN:978-606-8861-31-9
- **Farkas Csaba**, Olteán-Péter Boróka, *Berevezés a közönséges differenciálegyenletek elméletébe*, Editura Scientia, ISBN: 978-606-975-033-9

B3. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate la alte edituri sau pe plan local.

**B4. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate pe web.**

**B5. Capitole de cărți publicate în străinătate**

**B6. Capitole de cărți publicate în țară**

**C. Lucrări științifice publicate**

**C1. Lucrări științifice publicate în reviste cotate ISI**

1. **Farkas Csaba**, Critical elliptic equations on non-compact Finsler manifolds, PUBL. MATH. DEBRECEN 104 (2024), no. 1-2, 231–252.
2. **Farkas Csaba**, Kajántó Sándor, Kristály Alexandru, Sharp spectral gap estimates for higher-order operators on Cartan–Hadamard manifolds, COMM. CONT. MATH., acceptată, DOI: 10.1142/S0219199724500135, 2024.
3. **Farkas Csaba**, Kajántó Sándor, Varga Csaba, Lower semicontinuity of Kirchhoff-type energy functionals and spectral gaps on (sub)Riemannian manifolds, TOPOL. METHODS NONLINEAR ANAL. 61 (2023), no. 2, 743–760.
4. **Farkas Csaba**, Mezei Ildikó Ilona, Nagy Zsuzsanna-Tímea, Multiple solution for a fourth-order nonlinear eigenvalue problem with singular and sublinear potential, STUD. UNIV. BABEŞ-BOLYAI MATH. 68 (2023), no. 1, 139–149.
5. **Farkas Csaba**, Fiscella Alessio, Winkert Patrick, On a class of critical double phase problems, J. MATH ANAL. APP. 515 (2022), no. 2, Paper No. 126420, 16 pp.
6. **Farkas Csaba**, Fiscella Alessio, Winkert Patrick, Singular Finsler Double Phase Problems with Nonlinear Boundary Condition, ADV. NONLINEAR STUDIES, accepted, DOI: <https://doi.org/10.1515/ans-2021-2143>.
7. **Farkas Csaba**, Kristály Alexandru, Mester Ágnes, Compact Sobolev embeddings on non-compact manifolds via orbit expansions of isometry groups, CALCULUS OF VARIATIONS AND PDE, (2021) 60:128.
8. **Farkas Csaba**, Winkert Patrick, An existence result for singular Finsler double phase problems, J. DIFFERENTIAL EQUATIONS, (2021) Volume 286, 455-473.
9. **Farkas Csaba**, Iclanzan David, Oltean-Péter Boróka, Vekov Géza, Estimation of parameters for a humidity-dependent compartmental model of the COVID-19 outbreak, PEERJ (2021) Vol. 9 Paper No. e10790
10. Francesca Faraci, **Farkas Csaba**, On a critical Kirchhoff-type problem, NONLINEAR ANALYSIS, Volume 192, March 2020, 111679.
11. Francesca Faraci, **Farkas Csaba**, On an Open Question of Ricceri Concerning a Kirchhoff-Type Problem, MINIMAX THEORY AND ITS APPLICATIONS 04 (2019), No. 2.
12. Francesca Faraci, **Farkas Csaba**, A characterization related to Schrödinger equations on Riemannian manifolds, COMM. CONT. MATH., acceptată, DOI: 10.1142/S0219199718500608, 2018.

13. **Farkas Csaba**, Schrödinger-Maxwell systems on compact Riemannian manifolds. ELECTRON. J. QUAL. THEORY DIFFER. EQU. 2018, Paper No. 64, 18 pp.
14. Francesca Faraci, **Farkas Csaba**, Kristály Alexandru (Sándor), Multipolar Hardy inequalities on Riemannian manifolds, ESAIM: CONTROL OPTIM. AND CALC. OF VARIATIONS, 24 (2018), no. 2, 551–567.
15. Francesca Faraci, **Farkas Csaba**, New conditions for the existence of infinitely many solutions for a quasi-linear problem, PROCEEDINGS OF THE EDINBURGH MATHEMATICAL SOCIETY, Vol. (2) 59, No 3, 2016, ISSN 0013-0915, pp. 655–669.
16. **Farkas Csaba**, Kristály Alexandru (Sándor), Schrödinger-Maxwell systems on Hadamard manifolds, NONLINEAR ANALYSIS REAL WORLD APPLICATIONS, Vol. 31, No 31, 2016, ISSN 1468-1218, pp. 473–491.
17. Francesca Faraci, **Farkas Csaba**, A quasilinear elliptic problem involving critical Sobolev exponents., COLLECT. MATH., Vol. 66, No 2, 2015, ISSN 0010-0757, pp. 243–259.
18. **Farkas Csaba**, Varga Csaba, Kristály Alexandru(Sándor), Singular Poisson equations on Finsler-Hadamard manifolds., CALC. VAR. PARTIAL DIFFERENTIAL EQUATIONS, Vol. 54, No 2, 2015, ISSN 0944-2669, pp. 1219–1241.
19. **Farkas Csaba**, Varga Csaba, Multiple symmetric invariant non trivial solutions for a class of quasilinear elliptic variational systems, APPL. MATH. COMPUT., Vol. 1, No 241, 2014, ISSN 0096-3003, pp. 347–355.
20. **Farkas Csaba**, Molnár Andrea Éva, A generalized variational principle and its application to equilibrium problems, JOURNAL OF OPTIMIZATION THEORY AND APPLICATIONS, Vol. 156, No 2, 2013, ISSN 0022-3239, pp. 213–231.
21. **Farkas Csaba**, Mezei Ildikó Ilona, Group-invariant multiple solutions for quasilinear elliptic problems on strip-like domains, NONLINEAR ANALYSIS TMA, Vol. 79, No 1, 2013, ISSN 0362-546X, pp. 238–246.
22. **Farkas Csaba**, A generalized form of Ekeland's variational principle, ANALELE ȘTIINȚIFICE ALE UNIVERSITĂȚII, Vol. 20, No 1, 2012, ISSN 1224-1784, pp. 101–111.

**C2. Lucrări științifice publicate în reviste indexate în baze de date internaționale (indicați și baza de date).**

**C3. Lucrări științifice publicate în reviste din străinătate (altele decât cele menționate anterior).**

1. **Farkas Csaba**, Iclanzan David, Oltean-Péter Boróka, Vekov Géza, Comparing epidemiological models with the help of visualization dashboards, ACTA UNIVERSITATIS SAPIENTIAE, INFORMATICA, 12, 2 (2020) 260–282.

2. **Farkas Csaba, Molnár Andrea Éva, Nagy Szilárd**, A generalized variational principle in b-metric spaces., *MATEMATICHE (CATANIA)*, Vol. 69, No 2, 2014, ISSN 0373-3505, pp. 205–221, Mathscinet, Zentralblatt, Web of Science.

**C4. Lucrări științifice publicate în reviste din țară, recunoscute CNCSIS/CNCS (altele decât cele din baze de date internaționale).**

**C5. Lucrări științifice publicate în reviste, altele decât cele menționate anterior**

**C6. Lucrări științifice publicate în volumele manifestărilor științifice**

1. **Farkas Csaba**, Oltean Péter Boróka, Algorithm for equilibrium in the symmetric two-player Hirshleifer contests. *2023 IEEE 17th International Symposium on Applied Computational Intelligence and Informatics (SACI)*, Timisoara, Romania, 2023, pp. 221-226
2. **Farkas Csaba**, Füllér Róbert, Kristály Sándor, A sublinear differential inclusion on strip-like domains, *2013 IEEE 8th International Symposium on Applied Computational Intelligence and Informatics (SACI)*, Vol. 1, No 1, 2013, pp. 185–189.
3. **Farkas Csaba**, Kristály Sándor, Fodor János, Anisotropic elliptic problems involving sublinear terms, *Applied Computational Intelligence and Informatics (SACI)*, *2015 IEEE 10th Jubilee International Symposium*, Vol. 1, No 1, 2015, pp. 141–146., <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?reload=true&arnumber=7208187>
4. **Farkas Csaba**, Kristály Sándor, Szakál Anikó, Sobolev interpolation inequalities on Hadamard manifolds, *2016 IEEE 11th International Symposium on Applied Computational Intelligence and Informatics (SACI)*, Vol. 1, No 1, 2016, pp. 161–166., IEEE Xplore

**D. Traduceri de cărți, capitole de cărți, alte lucrări științifice**

**E. Editare, coordonare de volume**

- Editarea volumului de concurs „XIX. NEMZETKÖZI MAGYAR MATEMATIKAVERSENY”, Satu-Mare, 2010, ISBN 978-606-8052-07-6

**F. Brevete de invenții și alte titluri de proprietate**

**G. Contracte de cercetare (menționați calitatea de director sau membru)**

1. Bursa “Corvinus Institute of Advanced Studies (CIAS) Senior non-resident research fellowship” 2024 Septembrie-2025 Februarie.
2. Bursa Bolyai János al Academiei Maghiare de Științe (2024-2027)
3. **Farkas Csaba (Director de proiect)**, Puncte critice: de la analiză la algebra, Universitatea Sapientia, Programul Universitar de Cercetare, 2019-2020, Nr. de înreg. IPC IPC: 17/11.06.2019 Nr. de înreg. Univ. Sapientia: 291/11.06.2019 Durata contractului 1 mai 2019 – 31 octombrie 2020, valoarea contractului: 38000 RON
4. **Farkas Csaba (Membru)**, Kristály Alexandru(Sándor) (Director de proiect), *Functional inequalities and elliptic PDEs: the influence of curvature*. 2018- 2022, National Research, Development and Innovation Fund of Hungary, K\_18, No. 127926.a
5. **Farkas Csaba (Director de proiect)**, Puncte critice: de la analiză la algebra, Universitatea Sapientia, Programul Universitar de Cercetare, 2017-2018, Nr. de înreg. IPC 13/13/17.05.2017, Nr. de înreg. Univ. Sapientia 227/3/17.05.2017, Durata contractului 1 martie 2017–31 august 2018, valoarea contractului: 10000 RON
6. **Farkas Csaba (Director de proiect\Bursă)**, *Multipolar Hardy inequality on non-compact Riemannian manifolds* INDAM, 2017 Julie, 2000 Euro

7. **Farkas Csaba (Director de proiect\Bursă)**, *Multipolar Hardy inequality on non-compact Riemannian manifolds* INDAM, 2016 Martie, 2000 Euro
8. **Farkas Csaba (Membru)**, Kristály Alexandru(Sándor) (Director de proiect), *Symmetries in elliptic problems: Euclidean and non-Euclidean techniques*, UEFISCDI, 2011/01–2016/01, webpage: <https://sites.google.com/site/idei0241/>
9. **Farkas Csaba (Membru)**, Radu Ignat (Director de proiect), *French-Romanian Laboratory LEA CNRS Maths-Mode / French-Romanian Laboratory LEA CNRS Maths-Mode / French-Romanian Laboratory LEA CNRS Maths-Mode*, UEFISCDI, 2013/01–2014/01, - RON
10. **Farkas Csaba (Director de proiect)**, Titlul proiectului: „*Anizotrópikus problémák vizsgálata kritikus pont elmélet segítségével*”, Nemzeti Kiválóság Program, Ungaria, 2013/01–2014/01, 2500000 Ft

### III. RECUNOAȘTEREA

#### I. Premii, distincții.

- a. Premiul Academiei Maghiare de Științe (AMŞ) Filiale la Cluj (Kolozsvári Akadémiai Bizottság) pentru tineri cercetatori (2019).
- b. Premiul Arany János al Academiei Maghiare de Științe (2020).

#### J. Citări

1. Google Scholar 370
2. Mathscinet 135

Data,

2. 10. 2024

Semnătura,