

## List of publications-Alexandru Kristály

### **A. The most relevant 10 publications after obtaining the PhD degree in 2003:**

1. Z. Balogh, Kristály A, *Lions-type compactness and Rubik actions on the Heisenberg group*, CALCULUS OF VARIATIONS AND PDE, 2012, in press. DOI: 10.1007/s00526-012-0543-y.
2. Kristály A, Repovs D, *On the Schrödinger-Maxwell system involving sublinear terms*, NONLINEAR ANALYSIS-REAL WORLD APPLICATIONS, 13:(1), 213-223 (2012).
3. Kristály A, *Bifurcations effects in sublinear elliptic problems on compact Riemannian manifolds*, J MATH ANAL APPL 385:(1) 179-184 (2012).
4. Kristály A, *On a new class of elliptic systems with nonlinearities of arbitrary growth*, J DIFFERENTIAL EQUATIONS, 249:(8) 1917-1928 (2010).
5. Kristály A, Morosanu Gh, *New competition phenomena in Dirichlet problems*, J MATH PURÉS APPL (LIOUVILLE JOURNAL), 94:(6) 555-570 (2010).
6. Kristály A, *Asymptotically critical problems on higher-dimensional spheres*, DISCRETE CONT DYN SYSTEMS 23: (3) 919-935 (2009).
7. Kristály A, Varga Cs, *Multiple solutions for a degenerate elliptic equation involving sublinear terms at infinity*, J MATH ANAL APPL 352: (1) 139-148 (2009).
8. Kristály A, *Detection of arbitrarily many solutions for perturbed elliptic problems involving oscillatory terms*, J DIFFERENTIAL EQUATIONS 245: (12) 3849-3868 (2008).
9. Kristály A, Varga Cs, *Multiple solutions for elliptic problems with singular and sublinear potentials*, P AMER MATH SOC 135: (7) 2121-2126 (2007).
10. Kristály A, *Infinitely many solutions for a differential inclusion problem in  $R^N$* , J DIFFERENTIAL EQUATIONS 220: (2) 511-530 (2006).

### **B. Monographs:**

1. Kristály A, Radulescu V, Varga Cs, *Variational Principles in Mathematical Physics, Geometry, and Economics*, Encyclopedia of Mathematics and its Applications, No. 136, Cambridge University Press, Cambridge, UK. ISBN-10: 0521117828 | ISBN-13: 9780521117821  
See online: <http://www.cambridge.org/catalogue/catalogue.asp?isbn=9780521117821>
2. Kristály A, *A Set-Valued Approach to Critical and Equilibrium Points*, Casa Cartii de Stiinta, Cluj-Napoca, Romania, 2004. ISBN: 978-973-133-616-9
3. Kristály A, Varga Cs, *An Introduction to Critical Point Theory for Non-smooth Functions*, Casa Cartii de Stiinta, Cluj-Napoca, Romania, 2004. ISBN: 973-686-604-1

### **C. PhD Thesis:**

*Critical and equilibrium points for set-valued maps*, Babeş-Bolyai University, Faculty of Mathematics and Informatics, Cluj-Napoca, 1998-2003. Defence date: 28 March 2003. Scientific advisor: dr. Wolfgang W. Breckner. Examiners: D. Motreanu (Université de Perpignan, France), V. Rădulescu (Institute of Mathematics Simion Stoilow of the Romanian Academy, Bucharest), C. Varga (Babes-Bolyai University, Cluj-Napoca).

## D. Papers published after 2003:

1. Z. Balogh, Kristály A, *Lions-type compactness and Rubik actions on the Heisenberg group*, CALCULUS OF VARIATIONS AND PDE, 2012, in press. DOI: 10.1007/s00526-012-0543-y.
2. Kristály A, Repovs D, *On the Schrödinger–Maxwell system involving sublinear terms*, NONLINEAR ANALYSIS-REAL WORLD APPLICATIONS, 13:(1), 213-223 (2012).
3. Kristály A, *Bifurcations effects in sublinear elliptic problems on compact Riemannian manifolds*, J MATH ANAL APPL 385:(1) 179–184 (2012).
4. Kristály A, Mezei I, *Multiple solutions for a perturbed system on strip-like domains*, DISCRETE CONTIN DYN SYST. SER. S 5 (2012), no. 4, 789–796.
5. Kristály A, Repovs D, *Multiple solutions for a Neumann system involving subquadratic nonlinearities*, NONLINEAR ANAL 74:(6) 2127–2132 (2011).
6. Kristály A, Mihăilescu M, Radulescu V, *Discrete boundary value problems involving oscillatory nonlinearities: small and large solutions*, J DIFFERENCE EQUATIONS APPL 17, 1431-1440 (2011).
7. Faraci F, Iannizzotto A, Kristály A, *Low-dimensional compact embeddings of symmetric Sobolev spaces with applications*, P ROY SOC EDINB – SECTION A 141:(2) 383–395 (2011).
8. Kristály A, *Location of Nash equilibria: a Riemannian geometrical approach*, PROC AMER MATH SOC 138:(5) 1803-1810 (2010).
9. Kristály A, *On a new class of elliptic systems with nonlinearities of arbitrary growth*, J DIFFERENTIAL EQUATIONS, 249:(8) 1917–1928 (2010).
10. Kristály A, Mihăilescu M, Rădulescu R, Tersian S, *Spectral estimates for a nonhomogeneous difference problem*, COMMUN CONTEMP MATH 12:(6) 1015–1029 (2010).
11. Kristály A, Morosanu Gh, *New competition phenomena in Dirichlet problems*, J MATH PURÉS APPL (Liouville Journal), 94:(6) 555-570 (2010).
12. Kristály A, Marzantowicz W, Varga Cs, *A non-smooth three critical points theorem with applications in differential inclusions*, J GLOBAL OPTIM 46:(1) 49-62 (2010).
13. Kristály A, Papageorgiou NS, *Multiple nontrivial solutions for Neumann problems involving the  $p$ -Laplacian: a Morse theoretical approach*, ADV NONLINEAR STUD 10:(1), 83-107 (2010).
14. Kristály A, Varga Cs, *Variational-hemivariational inequalities on unbounded domains*, STUD. UNIV. BABEŞ-BOLYAI MATH. 55 (2010), no. 2, 3–87.
15. Kristály A, *Asymptotically critical problems on higher-dimensional spheres*, DISCRETE CONT DYN SYSTEMS 23: (3) 919-935 (2009).
16. Kristály A, Varga Cs, *Multiple solutions for a degenerate elliptic equation involving sublinear terms at infinity*, J MATH ANAL APPL 352: (1) 139-148 (2009).
17. Kristály A, Papageorgiou NS, *Multiplicity theorems for semilinear elliptic problems depending on a parameter*, P EDINBURGH MATH SOC 52: (1) 171-180 (2009).
18. Kristály A, Radulescu V, *Sublinear eigenvalue problems on compact Riemannian manifolds with applications in Emden–Fowler equations*, STUD MATH 191: (3) 237-246 (2009).
19. Kristály A, Mihăilescu M, Radulescu V, *Two nontrivial solutions for a non-homogeneous Neumann problem: an Orlitz-Sobolev space setting*, P ROY SOC EDINB – SECTION A 139: 367-379 (2009).
20. Filippakis M, Kristály A, Papageorgiou NS: *Existence of five nonzero solutions with exact sign for a  $p$ -Laplacian equation*, DISCRETE CONT DYN SYSTEMS 24: (2) 405-440 (2009).
21. Kristály A, O'Regan D, Varga Cs, *Parametrized nonlinear equations on Dirichlet forms*, COMMUNICATION ON APPLIED ANALYSIS, 13:(3) 317-326 (2009).
22. Kristály A, *Detection of arbitrarily many solutions for perturbed elliptic problems involving oscillatory terms*, J DIFFERENTIAL EQUATIONS 245: (12) 3849-3868 (2008).

23. Kristály A, Lisei H, Varga Cs, *Multiple solutions for  $p$ -Laplacian type equations*, NONLINEAR ANALYSIS-TMA 68: (5) 1375-1381 (2008).
24. Kristály A, Marzantowicz W, *Multiplicity of symmetrically distinct sequences of solutions for a quasilinear problem in  $R^N$* , NODEA- NONLINEAR DIFF EQUATIONS APPL 15: (1-2) 209-216 (2008).
25. Kristály A, Morosanu G, Roth A, *Optimal placement of a deposit between markets: Riemann-Finsler geometrical approach*, J OPTIM THEORY APPL 139: (2) 263-276 (2008).
26. Kristály A, *Perturbed Neumann problems with many solutions*, NUMER FUNC ANAL OPT 29: (8/9) 1114-1127 (2008).
27. Kristály A, *A double eigenvalue problem for Schrödinger equations involving sublinear nonlinearities at infinity*, ELECTR J DIFFER EQUAT 42: (42) 1-11 (2007).
28. Kristály A, Varga Cs, Varga V, *A nonsmooth principle of symmetric criticality and variational-hemivariational inequalities*, J MATH ANAL APPL 325: (2) 975-986 (2007).
29. Kristály A, Varga Cs, *Multiple solutions for elliptic problems with singular and sublinear potentials*, P AMER MATH SOC 135: (7) 2121-2126 (2007).
30. Kristály A, *Multiple solutions of a sublinear Schrödinger equation*, NODEA-NONLINEAR DIFF EQUATIONS APPL 14: (3-4) 291-302 (2007).
31. Kristály A, Motreanu D, *Nonsmooth Neumann-type problems involving the  $p$ -Laplacian*, NUMER FUNC ANAL OPT 28: (11-12) 1309-1326 (2007).
32. Kristály A, Faraci F, *On an open question of Ricceri concerning a Neumann problem*, GLASGOW MATH J 49: (2) 189-195 (2007).
33. Kristály A, Faraci F, *One-dimensional scalar field equations involving an oscillatory nonlinear term*, DISCRETE CONT DYN SYSTEMS 18: (1) 107-120 (2007).
34. Kristály A, Morosanu G, Tersian S, *Quasilinear elliptic problems in involving oscillatory nonlinearities*, J DIFFERENTIAL EQUATIONS 235: (2) 366-375 (2007).
35. Kristály A, *A double eigenvalue problem for Schrödinger equations involving sublinear nonlinearities at infinity*, ELECTR. J. DIFFERENTIAL EQUATIONS 42: (42) 1-11 (2007).
36. Kozma L, Kristály A, *Metric characterization of Berwald spaces of non-positive flag curvature*, J GEOMETRY PHYSICS 56: 1257-1270 (2006).
37. Kristály A, *Existence of nonzero weak solutions for a class of elliptic variational inclusions systems in  $R^N$* , NONLINEAR ANALYSIS-TMA 65: (8) 1578-1594 (2006).
38. Kristály A, *Infinitely many solutions for a differential inclusion problem in  $R^N$* , J DIFFERENTIAL EQUATIONS 220: (2) 511-530 (2006).
39. Kristály A, Motreanu V, Varga Cs, *A minimax principle with general Palais-Smale conditions*, COMMUN APPL ANAL 9: (2) 285-299 (2005).
40. Kristály A, Varga Cs, Varga V, *An eigenvalue problem for hemivariational inequalities with combined nonlinearities on an infinite strip*, NONLINEAR ANALYSIS-TMA 63: (2) 260-277 (2005).
41. Kristály A, *Existence of two nontrivial solutions for a class of quasilinear elliptic variational systems on strip-like domain*, P EDINBURGH MATH SOC 48: (2) 465-477 (2005).
42. Kristály A, *Infinitely many radial and non-radial solutions for a class of hemivariational inequalities*, ROCKY MT J MATH 35: (4) 1173-1190 (2005).
43. Kristály A, *Multiplicity results for an eigenvalue problem for hemi-variational inequalities in strip-like domains*, SET-VALUED ANAL 13: (1) 85-103 (2005).
44. Kristály A, Varga Cs, *On a class of a quasilinear elliptic problem in  $R^N$* , MATH NACHR 275: (15) 1756-1765 (2005).
45. Kristály A, Motreanu V, Varga Cs, *A minimax principle with general Palais-Smale conditions*, COMMUNICATION ON APPLIED ANALYSIS, 9:(2) 285-299 (2005).

46. Kozma L, Kristály A, Varga Cs, *Dispersing of geodesics in Berwald spaces of nonpositive flag*, HOUSTON J MATH 30: (2) 403-420 (2004).
47. Kristály A, Kozma L, Varga Cs, *Critical point theorems on Finsler manifolds*, BEITRAGE ZUR ALGEBRA UND GEOMETRIE, 45:(1) 47-59 (2004).

#### **E. Papers published before 2003:**

1. Kristály A, Varga Cs, *Set-valued versions of Ky Fan's inequality with application to variational inclusion theory*, J MATH ANAL APPL 282: (1) 8-20 (2003).
2. Kristály A, Varga Cs, *Coercivity of set-valued mapings on metric space*, MATHEMATICA PANNONICA, 13(2) 241-248 (2003).
3. Kristály A, Varga Cs, *Cerami (C) condition and mountain pass theorem for multivalued mappings*, SERDICA MATHEMATICAL JOURNAL, 28, 95-108 (2002).
4. Kristály A, Varga Cs, *Location results for multivalued functionals*, ACTA UNIVERSITATIS CAROLINAE, 42, 59-68 (2001).
5. Kristály A, Varga Cs, *Coerciveness property for a class of set-valued mappings*, NONLINEAR ANALYSIS FORUM 6:(2) 353-362 (2001).
6. Kristály A, Varga Cs, *A note on minmax results for continuous functionals*, STUDIA UNIV. „BABES-BOLYAI”, MATHEMATICA, XLIII:(3) 35-55 (1998).

#### **F. Conference proceedings**

1. Kristály A, *Elliptic eigenvalue problems on unbounded domains involving sublinear terms*, More Progresses in Analysis, Proceedings of the 5th International ISAAC Congress (Catania, Italy 25 - 30 July 2005), 2009, pp. 805-814.
2. Kozma L, Kristály A, Varga Cs, *Isometry-invariant geodesics with Lipschitz obstacle*, Differential Geometry and its Applications, Proc. Conf. Opava (Czech Republic), August 27-31, 2001, Silesian University, Opava, 2001, pp. 203-214.

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