



ROMÂNIA  
UNIVERSITATEA BABEŞ-BOLYAI CLUJ-NAPOCA

Str. Mihail Kogălniceanu, nr. 1, 400084 Cluj-Napoca  
Tel. (00) 40 - 264 - 40.53.00\*; 40.53.01; 40.53.02 ; 40.53.22

Fax: 40 - 264 - 59.19.06

E-mail: [staff@staff.ubbcluj.ro](mailto:staff@staff.ubbcluj.ro)

RECTORATUL

## Universitatea Babeş-Bolyai Competiția Excelenței 2010

### Dosar individual

**Notă: Toate datele se referă la perioada 2005-2009**

Nume, prenume, grad did.	PRECUP, RADU, PROFESOR
Facultatea, Catedra	Fac. de Matematica si Informatica, Catedra de Matematica Aplicata
Domeniul științific	Matematica
Adresa paginii web personale	<a href="http://math.ubbcluj.ro/~r.precup/">http://math.ubbcluj.ro/~r.precup/</a>
Adresa e-mail	<a href="mailto:r.precup@math.ubbcluj.ro">r.precup@math.ubbcluj.ro</a>

### Criteriaul I – Output

**1. Articole științifice publicate în reviste indexate ISI (cu menționare factorului de impact în cazul celor cotate)**

1. D. O'Regan and **R. Precup**: Compression-expansion fixed point theorem in two norms and applications, J. Math. Anal. Appl. 309 (2005), 383-391. Factor de impact: 1.046.

2. R.P. Agarwal, D. O'Regan and **R. Precup**, Boundary value problems arising in the percolation of water from a cylindrical reservoir into the surrounding soil, Nonlinear Analysis: Real World Applications 6 (2005), 123-131. Factor de impact: 1.778.

3. R.P. Agarwal, D. O'Regan and **R. Precup**, Construction of upper and lower solutions with applications to singular boundary value problems, J. Comput. Anal. Appl. 7 (2005), 205-221. Factor de impact: 0.614.

4. D. O'Regan and **R. Precup**, Existence theory for nonlinear operator equations of Hammerstein type in Banach spaces, Dynamic Systems Appl. 14 (2005), 121-134. Factor de impact: 0.513.

5. D. O'Regan and **R. Precup**, Positive solutions of nonlinear systems with p-Laplacian on finite and semi-infinite intervals, Positivity 11 (2007), no. 3, 537-548. Factor de impact: 0.344.

6. R. Ma, D. O'Regan and **R. Precup**, Fixed point theory for admissible pairs and maps in Frechet spaces via degree theory, Fixed Point Theory 8 (2007), No. 2, 273-283. Factor de impact: nu are.

7. **R. Precup**, A vector version of Krasnoselskii's fixed point theorem in cones and positive periodic solutions of nonlinear systems, J. Fixed Point Theory Appl. 2 (2007), No. 1, 141-151. Factor de impact: nu are.

8. A. Boucherif and **R. Precup**, Semilinear evolution equations with nonlocal initial conditions, *Dynamic Systems Appl.* 16 (2007), 507-516. Factor de impact: 0.513.
9. R.P. Agarwal, D. O'Regan and **R. Precup**, Nonuniform nonresonance for nonlinear boundary value problems with  $y'$ dependence, *Dynamic Systems Appl.* 16 (3), 587-594 (2007). Factor de impact: 0.513.
10. J-F. Couchouron and **R. Precup**, Homotopy method for positive solutions of p-Laplace inclusions, *Topological Methods Nonlinear Anal.* 30 (2007), no. 1, 157-169. Factor de impact: 0.594.
11. R.P. Agarwal, D. O'Regan and **R. Precup**, Domain invariance theorems for contractive type maps, *Dynamic Systems Appl.* 16 (3), 579-586. (2007). Factor de impact: 0.513.
12. **R. Precup**, A compression type mountain pass theorem in conical shells, *J. Math. Anal. Appl.* 338 (2008), 1116-1130. Factor de impact: 1.046.
13. D. Muzsi and **R. Precup**, Nonresonance and existence for systems of nonlinear operator equations, *Appl. Anal.* 87 (2008), no. 9, 1005-1018. Factor de impact: nu are.
14. T. Moussaoui and **R. Precup**, Existence results for semilinear elliptic boundary value problems via topological methods, *Appl. Math. Letters* 22 (2009), 126-129. Factor de impact: 0.948.
15. **R. Precup**, The role of matrices that are convergent to zero in the study of semilinear operator systems, *Math. Comp. Modelling* 49 (2009), 703-708. Factor de impact: 1.032.
16. **R. Precup**, Existence, localization and multiplicity results for positive radial solutions of semilinear elliptic systems, *J. Math. Anal. Appl.* 352 (2009), 48-56. Factor de impact: 1.046.
17. **R. Precup**, The Leray-Schauder condition in critical point theory, *Nonlinear Anal.* 71 (2009), 3218-3228. Factor de impact: 1.295.
18. A. Chis, I.A. Rus and **R. Precup**, Data dependence of fixed points for non-self generalized contractions, *Fixed Point Theory* 10 (2009), No.1, 73-87. Factor de impact: nu are.
19. S. Djebali, T. Moussaoui and **R. Precup**, Fourth-order p-Laplacian nonlinear systems via the vector version of Krasnoselskii's fixed point theorem, *Mediterr. J. Math.* 6(2009), no. 4, 449-463. Factor de impact: 0.357.

## 2. Articole științifice publicate în ISI proceedings

1. **R. Precup**, Positive solutions of semi-linear elliptic problems via Krasnoselskii type theorems in cones and Harnack's inequality, in: *Mathematical Analysis and Applications*, C.P. Niculescu, V.D. Radulescu (Eds.), pp. 125-132, AIP Conf. Proc., 835, ISBN 0-7354-0328-7, Amer. Inst. Phys., Melville, NY, 2006.
2. **R. Precup**, Componentwise compression-expansion conditions for systems of nonlinear operator equations and applications, in: *Mathematical Models in Engineering, Biology and Medicine: Int. Conf. Boundary Value Problems: Mathematical Models in Engineering, Biology and Medicine*, Santiago de Compostela (Spain), 16-19 September 2008, AIP Conf. Proc., 1124, ISBN: 978-0-7354-0660-5, Editor(s): A. Cabada, E. Liz, J.J. Nieto, pp. 284-293.

3. A. Cucuianu, **R. Precup**, A hypothetical-mathematical model of acute myeloid leukemia pathogenesis, 14th Annual Meeting of the European-Hematology-Association, Jun 04-07, 2009, Berlin, Germany, Haematologica-The Hematology Journal, vol. 94, Suppl. 2, pp 116, ISBN: 0879-125-04, 2009.

### 3. Articole științifice indexate în BDI (din lista CNCSIS)

1. **R. Precup**, Positive solutions of evolution operator equations, Aust. J. Math. Anal. Appl. 2 (2005), no.1, 1-10 (electronic).
2. D. O'Regan, **R. Precup**, Aronszajn type theorems for integral equations on unbounded domains via maximal solutions, Fixed Point Theory 4 (2006), no. 2.
3. Y. Liu, **R. Precup**, Positive solutions of nonlinear singular integral equations in ordered Banach spaces, Nonlinear Funct. Anal. Appl. 11 (2006), No. 3, 447-457.
4. T. Moussaoui, **R. Precup**, Positive solutions for elliptic boundary value problems with a Harnack-like property, Cubo 10 (2008), no. 4, 109-117.
5. **R. Precup**, A. Viorel, Existence results for systems of nonlinear evolution equations, Int. J. Pure Appl. Math. 47 (2008), no. 2, 199-206.
6. T. Moussaoui, **R. Precup**, Existence results for second order differential equations and systems on infinite intervals, Electron. J. Diff. Eqns., Vol. 2009(2009), No. 94, pp. 1-13.
7. A. Buica, **R. Precup**, Note on the abstract generalized quasilinearization method, Rev. Anal. Numer. Theor. Approx. 35 (2006), no. 1, 11-15.
8. **R. Precup**, Existence and localization results for semi-linear problems, Ann. Univ. Craiova, Math. Comp. Sci. Ser. 32 (2005), 59-66.
9. **R. Precup**, The nonlinear heat equation via fixed point principles, Ann. Tiberiu Popoviciu Semin. Funct. Equ. Approx. Convexity 4 (2006), 111-127.
10. **R. Precup**, Positive solutions of nonlinear systems via the vector version of Krasnoselskii's fixed point theorem in cones, Ann. Tiberiu Popoviciu Semin. Funct. Equ. Approx. Convexity 5 (2007), 129-138.
11. T. Moussaoui, **R. Precup**, Radial solutions for some classes of elliptic boundary value problems, Studia Univ. Babeş-Bolyai Math. 53 (2008), no.1, 35-42.
12. D. Muzsi, **R. Precup**, Nonresonance theory for semilinear operator equations under regularity conditions, Ann. Tiberiu Popoviciu Semin. Funct. Equ. Approx. Convexity 6 (2008), 75-89.
13. A. Cucuianu, **R. Precup**, Mathematical models of the leukemic hematopoiesis, Ann. Tiberiu Popoviciu Semin. Funct. Equ. Approx. Convexity 7 (2009), 169-181. Zbl pre05657564.

### 4. Alte articole științifice/capitole publicate în reviste/volume cu referenți (peer-reviewed)

1. **R. Precup**, Compression-expansion critical point theory in conical shells, in: Nonlinear Analysis and Variational Problems: In Honor of George Isac, P.M. Pardos, Th.M. Rassias, A.A. Khan eds., Springer, New York, 2009, pp 135-146.
2. **R. Precup**, Localization of critical points via mountain pass type theorems, in Critical Point Theory and Its Applications, Proceedings of the International Summer School on Critical Point Theory and Applications Cluj-Napoca, July 9th-July 13th 2007, Cs. Varga, A. Kristaly and P.A. Blaga eds., Casa Cartii de Stiinta, Cluj-Napoca, 2007, 53-67.

### 5. Cărți științifice publicate în edituri internaționale

### 6. Cărți științifice publicate în edituri naționale acreditate

**7. Editor de volume publicate în edituri naționale și internaționale**

**8. Brevete internaționale**

**9. Brevete naționale**

**10. Impact tehnologic al brevetelor: resurse financiare extrabugetare atrase în relație cu economia**

**11. Realizări artistice naționale și internaționale (Domeniul Arte)**  
(Expoziții, spectacole, concerte, publicații, filme, înregistrări)

## Criteriul II – Prestigiu profesional

### 1. Citări ale articolelor ISI listate la Criteriul I

1. R.P. Agarwal, D. O'Regan, **R. Precup**, Boundary value problems arising in the percolation of water from a cylindrical reservoir into the surrounding soil, *Nonlinear Analysis: Real World Applications* 6 (2005), 123-131, citata in:
  - R. Rodriguez-Lopez, *Fuzzy Sets and Systems* 159 (11) (2008), 1384-1409.
2. R.P. Agarwal, D. O'Regan, **R. Precup**, Construction of upper and lower solutions with applications to singular boundary value problems, *J. Comput. Anal. Appl.* 7 (2005), 205-221, citata in:
  - R.P. Agarwal, D. O'Regan, *Singular Differential and Integral Equations and Applications*, Kluwer, Dordrecht, 2003.
  - H. Lu, D. O'Regan, R.P. Agarwal, *Glasgow Math. J.* 47 (2005), 439-460.
  - V.D. Radulescu, *Qualitative Analysis of Nonlinear Elliptic Partial Differential Equations*, Hindawi, 2008.
3. D. O'Regan, **R. Precup**, Compression-expansion fixed point theorem in two norms and applications, *J. Math. Anal. Appl.* 309 (2005), 383-391, citata in:
  - G. Zhang, J. Sun, T. Zhang, *Positivity* 12 (2008), no.3, 547-554.
  - G. Zhang, J. Sun, T. Zhang, *Acta Math. Sinica* 51 (2008), no.3.
4. R. Ma, D. O'Regan, **R. Precup**, Fixed point theory for admissible pairs and maps in Frechet spaces via degree theory, *Fixed Point Theory* 8 (2007), No. 2, 273-283, citata in:
  - D. O'Regan, R. Ma, *JP J. Fixed Point Th. Appl.* 3 (2008), no. 2, 85-103.
  - R.P. Agarwal, D. O'Regan, *Commun. Korean Math. Soc.* 24 (2009), No. 2, pp. 247--263.
5. **R. Precup**, A vector version of Krasnoselskii's fixed point theorem in cones and positive periodic solutions of nonlinear systems, *J. Fixed Point Theory Appl. (Birkhäuser)* 2 (2007), No. 1, 141-151, citata in:
  - Man Kam Kwong, *Fixed Point Theory and Applications*, Volume 2008 (2008), Article ID 164537.
  - H. Wang, *Nonlinear Anal.* 71 (2008), 1271-1275.
  - S.Q. Liang, Multiplicity of nontrivial periodic solutions for second order dynamical systems, 8th International Conference on Information and Management Sciences, July 20-28, 2009 Kunming, China, Proc. 8<sup>th</sup> Inter. Conf. Information and Management Sci., Book Series: Series of Information and Management Sciences Volume: 8 Pages: 940-944, 2009.
6. A. Boucherif, **R. Precup**, Semilinear evolution equations with nonlocal initial conditions, *Dynamic Systems Appl.* 16 (2007), 507-516, citata in:
  - J. Garcia-Falset, *J. Math. Anal. Appl.* 338 (2008), 639-652.
  - A. Boucherif, *Appl. Math. Letters* 22 (2009), 1145-1149.
7. R.P. Agarwal, D. O'Regan, **R. Precup**, Nonuniform nonresonance for nonlinear boundary value problems with  $y'$  dependence, *Dynamic Systems Appl.* 16 (3), 587-594 (2007), citata in:
  - R.P. Agarwal, D. O'Regan, *Singular Differential and Integral Equations and Applications*, Kluwer, Dordrecht, 2003.
  - H. Lu, D. O'Regan, R.P. Agarwal, *Mem. Diff. Eqns. Math. Physics* 34 (2005), 97-114.
8. **R. Precup**, The role of matrices that are convergent to zero in the study of semilinear operator systems, *Math. Comp. Modelling* 49 (2009), 703-708, citata in:
  - Bucur, L. Guran, A. Petrusel, *Fixed Point Theory* 10 (2009), 19-34.
  - L. Guran, *Surveys in Mathematics and its Applications* 4 (2009), 89- 97.
9. **R. Precup**, Existence, localization and multiplicity results for positive radial solutions of semilinear elliptic systems, *J. Math. Anal. Appl.* 352 (2009), 48-56, citata in:
  - M-A. Serban, *Fixed Point Theory* 9 (2008), No. 1, 331-350.
  - H. Wang, *Nonlinear Anal.* 71 (2008), 1271-1275.
10. A. Chis, **R. Precup**, I.A. Rus, Data dependence of fixed points for non-self generalized contractions, *Fixed Point Theory* 10 (2009), No.1, 73-87, citata in:
  - I.A. Rus, *Fixed Point Theory*, 10(2009), No. 2, 305-320.

## 2. Alte citări ale lucrărilor listate mai sus

1. **R. Precup**, Positive solutions of semi-linear elliptic problems via Krasnoselskii type theorems in cones and Harnack's inequality. *Mathematical analysis and applications*, 125--132, AIP Conf. Proc., 835, Amer. Inst. Phys., Melville, NY, 2006, citata in:
  - Horvat-Marc, C. Sabo, C. Toader, in *Proceedings of the 7th Conference on 7th WSEAS International Conference on Systems Theory and Scientific Computation*, Vouliagmeni, Athens, Greece, WSEAS, Stevens Point, USA, 2007.
  - A. Horvat-Marc, P.C. Pop, in *Recent Advances in Computer Engineering. Proceedings WSEAES 13th International Conference on Computers*, Rodos, 2009, pp 175-178, World Sci., Stevens Point, 2009.
2. Y. Liu, **R. Precup**, Positive solutions of nonlinear singular integral equations in ordered Banach spaces, *Nonlinear Funct. Anal. Appl.* 11 (2006), No. 3, 447-457, citata in:
  - Daraban, A. Horvat-Marc, *Carpathian J. Math.* 24 (2008), 317-326.
  - A. Horvat-Marc, P.C. Pop, in *Recent Advances in Computer Engineering. Proceedings WSEAES 13th International Conference on Computers*, Rodos, 2009, pp 175-178, World Sci., Stevens Point, 2009.

## 3. Citări în perioada 2005-2009 ale articolelor anterioare anului 2005

1. **R. Precup**, Le théorème des contractions dans des espaces syntopogènes, *Rev. Anal. Numér. Théor. Approx.* 9, no. 1 (1980), 113-123, citata in:
  - M. Rus, *Fixed Point Theory* 9 (2008), 541-559.
  - I.A. Rus, *An. Univ. Vest Timisoara* 46 (2008), no. 2, 149-160.
2. **R. Precup**, Sur l'axiomatique des espaces à convexité, *Rev. Anal. Numér. Théor. Approx.* 9, no. 2 (1980), 95-103, citata in:
  - I.A. Rus, *Fixed Point Structure Theory*, Cluj University Press, 2006.
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3. **R. Precup**, A fixed point theorem of Maia type in syntopogeneous spaces, *Babeş-Bolyai Univ., Faculty of Math. Phys., Research Sem.* 3 (1988), 49-70, citata in:
  - A.S. Muresan, *Carpathian J. Math.* 23 (2007), No. 1-2, 133-140.
4. **R. Precup**, Positive solutions of the initial value problem for an integral equation modeling infectious disease, *Babeş-Bolyai Univ., Faculty of Math. Comp. Sci., Research Sem.* 3 (1991), 25-30, citata in:
  - Bica, C. Iancu, *J. Ineq. Pure Appl. Math.* 6 (2005), Issue 2, Article 42.
  - V.A. Ilea, *Ecuatii diferențiale de ordinul intai cu modificare mixtă a argum,entului*, Presa Univ. Clujeană, 2006, 132 p.
  - S. Muresan, *Aspecte calitative in teoria punctului fix*, Ed. Univ. Oradea, 2007.
  - A.M. Bica, *Aplicatii actuale ale metodei aproximatiilor succesive*, Ed. Univ. Oradea, 2009.
  - M. Dobrițoiu, *Ecuatii integrale cu argument modificat*, Presa Univ. Clujeană, 2009.
  - L.F. Galea, *Clase speciale de operatori Picard si aplicatii*, Casa Cartii de Stiinta, Cluj, 2009.
5. **R. Precup**, Generalized topological transversality and existence theorems, *Libertas Math.* 11 (1991), 65-79, citata in:
  - I.A. Rus, *Fixed Point Structure Theory*, Cluj University Press, 2006.
6. **R. Precup**, On the topological transversality principle, *Nonlinear Anal.* 20 (1993), 1-9, citata in:
  - Z. Fan, Q. Dong, G. Li, *Int. J. Nonlinear Sci.* 2 (2006), no. 3, 131-139.
  - K.Q. Lan, *J. Differential Equations* 246 (2009), 909-928.
  - T. Xiang, R. Yuan, *Nonlinear Anal.* doi:10.1016/j.na.2009.01.197.
7. **R. Precup**, Foundations of the continuation principles of Leray-Schauder type, *Proceedings of the 23rd Conference on Geometry and Topology*, Cluj-Napoca, September 27-29, 1993, Babeş-Bolyai Univ., Cluj, 1994, 136-140, citata in:

- G. Isac, *Leray-Schauder Type Alternatives, Complementarity Problems and Variational Inequalities*, Springer, 2006.
8. **R. Precup**, Periodic solutions for an integral equation from biomathematics via Leray-Schauder principle, *Studia Univ. Babeş-Bolyai Math.* 39, no. 1 (1994), 47-58, citata in:
    - Bica, C. Iancu, J. *Ineq. Pure Appl. Math.* 6 (2005), Issue 2, Article 42.
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    - R.F. Brown, M. Furi, L. Gorniewicz, B. Jiang (Eds.), *Handbook of Topological Fixed Point Theory*, Springer, 2005.
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  10. **R. Precup**, Existence results for nonlinear boundary value problems under nonresonance conditions, *Qualitative Problems for Differential Equations and Control Theory*, World Sci. Publishing, River Edge, 1995, 263-273, citata in:
    - D. Muzsi, *Studia Univ. Babes-Bolyai Math.* 50 (2005), no. 2, 63-70.
    - D. Muzsi, *Carpathian J. Math.* 24 (2008), 76-81.
    - D. Muzsi, *Nonlinear Funct. Anal. Appl.* 13 (2008), No. 4, 625-641.
  11. **R. Precup**, Monotone technique to the initial values problem for a delay integral equation from biomathematics, *Studia Univ. Babeş-Bolyai Math.* 40, no. 2 (1995), 63-73, citata in:
    - V.A. Ilea, Ecuatii diferențiale de ordinul intai cu modificare mixtă a argum,entului, *Presa Univ. Clujeană*, 2006.
    - D. Otrocol, *Sisteme Lotka-Volterra cu argument intarziat*, *Presa Univ. Clujeana*, 2007.
    - S. Muresan, *Aspecte calitative in teoria punctului fix*, Ed. Univ. Oradea, 2007.
    - A.M. Bica, *Aplicatii actuale ale metodei aproximatiilor succesive*, Ed. Univ. Oradea, 2009.
    - M. Dobrițoiu, *Ecuatii integrale cu argument modificat*, *Presa Univ. Clujeană*, 2009.
    - L.F. Galea, *Clase speciale de operatori Picard si aplicatii*, Casa Cartii de Stiinta, Cluj, 2009.
  12. **R. Precup**, On the continuation principle for nonexpansive maps, *Studia Univ. Babeş-Bolyai Math.* 41, no. 3 (1996), 85-89, citata in:
    - G. Isac, *Leray-Schauder Type Alternatives, Complementarity Problems and Variational Inequalities*, Springer, 2006.
  13. **R. Precup**, Continuation theorems for maps of Caristi type, *Studia Univ. Babeş-Bolyai Math.* 41, no. 4 (1996), 101-106, citata in:
    - S. Muresan, *Aspecte calitative in teoria punctului fix*, Ed. Univ. Oradea, 2007.
  14. **R. Precup**, Existence theorems for nonlinear problems by continuation methods, *Nonlinear Anal.* 30 (1997), 3313-3322, citata in:
    - Buica, *Periodic Solutions for Nonlinear Systems*, Cluj University Press, 2006.
  15. **R. Precup**, Existence and approximation of positive fixed points of nonexpansive maps, *Rev. Anal. Numér. Théor. Approx.* 26, no. 1-2 (1997), 203-208, citata in:
    - S. Andras, *Ecuatii integrale Fredholm-Volterra*, Ed. Did. Ped., Bucuresti, 2005.
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  16. **R. Precup**, Continuation principles for coincidences, *Mathematica (Cluj)* 39 (62), no. 1 (1997), 103-110, citata in:
    - I.A. Rus, *Fixed Point Structure Theory*, Cluj University Press, 2006.

17. E. Kirr, **R. Precup**, Analysis of a nonlinear integral equation modelling infection diseases, Proceedings of the International Conference on Analysis and Numerical Computation, (Timișoara-19-21 mai 1997), Universitatea de Vest, Timișoara, 1997, 178-195, citata in:
  - M. Dobrițoiu, I.A. Rus, M.A. Serban, *Studia Univ. Babes-Bolyai Math.* 52 (2007), no. 3, 81-94.
  - M. Dobrițoiu, *Ecuatii integrale cu argument modificat*, Presa Univ. Clujeană, 2009.
18. **R. Precup**, Discrete continuation methods for boundary value problems on bounded sets in Banach spaces, *J. Comput. Appl. Math.* 113 (2000), 267-281, citata in:
  - S. Budisan, *Carpathian J. Math.* 22 (2006), 13-19.
  - M. Frigon, *Fixed Point Theory and Its Applications*, Banach Center Publications, Volume 77, Institute of Mathematics, Polish Academy of Sciences, Warszawa 2007, 89-114.
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19. D. O'Regan, **R. Precup**, Fixed point theorems for set-valued maps and existence principles for integral inclusions, *J. Math. Anal. Appl.* 245 (2000), 594-612, citata in:
  - R.P. Agarwal, J.H. Dshalalow, D. O'Regan, *Int. J. Math. Math. Sci.* 17 (2005), 2775-2782.
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  - I.A. Rus, *Fixed Point Structure Theory*, Cluj University Press, 2006.
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  - B. Satco, in "Applied Analysis and Differential Equations (O. Carja and I. Vrabie eds.)", World Scientific, 2007.
  - B. Satco, *Electron. J. Diff. Eqns.* 2008 (2008), no. 39, pp 1-9.
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  - R.P. Agarwal, D. O'Regan, *Bull. Aust. Math. Soc.* (First published online 2009), page 1 of 15, doi:10.1017/S000497270900080X.
  - A. Horvat-Marc, P.C. Pop, in *Recent Advances in Computer Engineering. Proceedings WSEAES 13th International Conference on Computers, Rodos, 2009*, pp 175-178, World Sci., Stevens Point, 2009.
20. D. O'Regan, **R. Precup**, Existence criteria for integral equations in Banach spaces, *J. Inequal. Appl.* 6 (2001), 77-97, citata in:
  - Horvat-Marc, *Fixed Point Theory* 8 (2007), 59-68.
  - A. Horvat-Marc, C. Sabo, C. Toader, in *Proceedings of the 7th Conference on 7th WSEAS International Conference on Systems Theory and Scientific Computation, Vouliagmeni, Athens, Greece, WSEAS, Stevens Point, USA, 2007*.
  - J. Liang, J. Liu, T-J. Xiao, *J. Ineq. Appl.* 2007 (2007), Article ID 80935, 11 pp.
  - B. Satco, *Electron. J. Diff. Eqns.* 2008 (2008), no. 39, pp 1-9.
  - L. DiPiazza, B. Satco, *J. Math. Anal. Appl.* 352 (2009), 954-963.
21. **R. Precup**, On the Palais-Smale condition for Hammerstein integral equations, *Nonlinear Anal.* 47, no 2 (2001), 1233-1244, citata in:
  - C. Varga, *Metode topologice in calculul variational*, Casa Cartii de Stiinta, Cluj, 2005.
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  - A. Boucherif, N. Daoudi-Merzagui, *NoDEA*, 15 (2008), no. 1-2, 147-158.
22. **R. Precup**, The continuation principle for generalized contractions, *Bull. Appl. Comput. Math.* (Budapest), 96-C (2001), 367-373, citata in:
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  - C. Chifu, G. Petrusel, Fixed Point Theory and Applications 2007 (2007), Article ID 34248, 8 pp.

#### 4. Distincții, premii și alte recunoașteri naționale și internaționale

- Premiul de excelență științifică UBB, 2009.

#### 5. Studenți naționali atrași (activități de coordonare științifică și didactică)

- Îndrumare lucrări de licență (număr lucrări susținute) : 15
- Îndrumare lucrări de disertație (număr lucrări susținute) : 9
- Doctoranzi (lista nominală a doctoranzilor înmatriculați resp. lista nominală a tezelor susținute)

Doctoranzi inmatriculați :

1. Voicu Chis 2005
2. Mihaela Irimiea (Manole) 2006
3. Adrian Viorel 2008

Teze susținute :

1. Teodora Radulescu 2005
2. Adela Chis 2007
3. Dezideriu Muszi 2008
4. Andrei Horvat-Marc 2008

- Post-doctoranzi (lista nominală)

#### 6. Studenți internaționali atrași (activități de coordonare științifică și didactică)

- Îndrumare lucrări de licență (număr lucrări susținute)
- Îndrumare lucrări de disertație (număr lucrări susținute)
- Doctoranzi (lista nominală a doctoranzilor înmatriculați resp. lista nominală a tezelor susținute)
- Post-doctoranzi (lista nominală)

#### 7. Membru in comitetul de redacție la reviste ISI

- Fixed Point Theory (House of the Book of Science, Cluj), co-editor.
- Journal of Inequalities and Applications (Hindawi Publishing Corporation), member of the Editorial Board.
- Carpathian Journal of Mathematics (North University of Baia Mare), member of the Editorial Board.

#### 8. Membru in comitetul de redacție la reviste BDI

- Studia Universitatis Babeş-Bolyai Mathematica, member of the Editorial Board.
- Annals of the Tiberiu Popoviciu Seminar (Mediamira Science Publisher, Cluj, indexata Zentralblatt Math), member of the Editorial Board: <http://www.atps.utcluj.ro/journal/>
- Mathematics in Engineering, Science and Aerospace (MESA) (Cambridge Scientific Publishers), member of the Editorial Board: <http://nonlinearstudies.com/index.php/mesa>

**9. Participări la programe/granturi de cercetare finanțate din sursă internațională (se menționează și valoarea)**

**10. Participări la programe/granturi finanțate din sursă națională (se menționează și valoarea)**

**11. Coordonări de programe/granturi finanțate din sursă internațională (se menționează și valoarea)**

**12. Coordonări de programe/granturi finanțate din sursă națională (se menționează și valoarea)**

- Operatori neliniari si ecuatii diferentiale II, CNCSIS 66 cod 345/ 2005 (director), valoare 18.000 Lei
- Operatori neliniari si ecuatii diferentiale III, CNCSIS 52 cod 345/ 2006 (director), valoare 24.000 Lei
- Localizarea solutiilor problemelor neliniare I, CNCSIS 9 cod 1465/ 2007 (director), valoare 34.500 Lei
- Localizarea solutiilor problemelor neliniare II, CNCSIS 56 cod 1465/ 2007 (director), valoare 40.250 Lei

**13. Profesor invitat la universitati de prestigiu, cu titlu oficial**

- INRIA Lorraine/Universite Paul Verlaine, Metz, France, 1-31 mai 2005, profesor invitat.
- University of Debrecen/ Institute of Mathematics, Debrecen, Hungary, 16-20 iulie 2007, profesor invitat.

**14. Membru în comisii profesionale relevante, cu titlu oficial**

- membru in comisia de specialitate a CNATDCU ptr. conferirea titlurilor de Profesor etc. Matematica.
- membru in comisia internationala de doctorat, Univ. Savoie, Chambéry, France, 2006, drd Marius Ghergu, teza: Problemes avec singularites sur la frontiere pour les equations elliptiques.

**15. Conferințe invitate internaționale**

1. International Conference on Mathematical Analysis and Applications, September 23-24, 2005, Craiova (plenary invited talk);
2. International Conference on Applied Mathematics ICAM5, September 21-24, 2006, Baia Mare (plenary invited talk);
3. Summer School "Critical Point Theory and Its Applications", July 9-13, 2007, Cluj-Napoca (invited lectures);
4. 7th Hungarian-Romanian Joint Conf. Math. Comput. Sc., July 3-6, 2008, Cluj-Napoca (plenary invited talk);
5. International Conference on Boundary Value Problems, September 16-19, 2008, Santiago de Compostela, Spain (invited talk);
6. Romanian-German Symposium on Mathematics and Its Applications, May 14-17, 2009, Sibiu (invited talk).

**16. Membru în comitete de organizare sau științifice ale unor conferințe internaționale**

1. 8ieme Colloque Franco-Roumain de Mathematiques Appliquees, Chambéry, France, 2006, co-organizator al sesiunii paralele „Analyse non-lineaire“.
2. International Conference on Applied Mathematics and Computer Science, Cluj 2006, 2007 si 2008 (membru in comitetul de organizare/stiintific).
3. Intern. Conf. Nonlinear Operators Diff. Eqns. Appl. ICNODEA, July 4-8, 2007, Cluj-Napoca, co-organizator.
4. ICAM Baia Mare, 2006 si 2008 (membru in comitetul de organizare/stiintific).
5. Seminarul Tiberiu Popoviciu Cluj, 2005-2009 (membru in comitetul de organizare).

### **III. Realizare remarcabilă**

(Descrieți într-o manieră cât mai accesibilă (în maximum 1 pagină) cea mai importantă realizare științifică/tehnică/artistică din ultimii 5 ani și impactul acesteia.)

Consider ca lucrarea: **R. Precup**, A vector version of Krasnoselskii's fixed point theorem in cones and positive periodic solutions of nonlinear systems, J. Fixed Point Theory Appl. 2 (2007), No. 1, 141-151,

reprezinta cea mai importanta realizare a mea din ultimii cinci ani. Este vorba de stabilirea unei versiuni vectoriale a bine-cunoscutului principiu de compresie-extensie al lui Krasnoselskii. Aplicata la sisteme de ecuatii operatoriale si in particular la sisteme de ecuatii integrale sau diferentiale, aceasta permite ca termenii neliniari ai ecuatiilor care compun sistemul sa aiba comportari diferite, unul fata de ceilalti, cat si fiecare in raport cu variabilele sistemului. Astfel pot fi discutate sisteme in care unele ecuatii sunt subliniare in raport cu o parte a variabilelor, iar altele superliniare fata de celelalte variabile. Gama extrem de larga de probleme ce pot fi tratate in acest fel, confera metodei o importanta deosebita, fapt remarcat cu ocazia prezentarii acestui rezultat la International Conference on Boundary Value Problems, September 16-19, 2008, Santiago de Compostela, Spain, precum si in lucrarile:

- Man Kam Kwong, Fixed Point Theory and Applications, Volume 2008 (2008), Article ID 164537.
- H. Wang, Nonlinear Anal. 71 (2008), 1271-1275.
- S.Q. Liang, Proc. 8<sup>th</sup> Intern. Conf. Information and Management Sciences, July 20-28, 2009 Kunming, China, Book Series: Series of Information and Management Sciences, Volume: 8 Pages: 940-944, 2009.

Data: 15 martie 2010

Semnătura:

**Certific validitatea datelor prezentate**

Sef de catedră,