LIST OF PUBLICATIONS

Professor Radu PRECUP
Department of Mathematics
Babeş–Bolyai University, Cluj-Napoca, Romania

Books:

1. *Methods in Nonlinear Integral Equations*, Kluwer Academic Publishers, Dordrecht-Boston-London, 2002, 232 pp; Softcover reprint of the original 1st ed. 2002, Springer Netherlands, 2013.

2. *Theorems of Leray-Schauder Type and Applications* (with D. O'Regan), Gordon and Breach Science Publishers, Amsterdam, 2001, 216 pp.

3. *Linear and Semilinear Partial Differential Equations,* De Gruyter, Berlin-Boston, 2013, 294 pp.

4. *Ordinary Differential Equations*, De Gruyter, Berlin, 2018, 234 pp.

5. *Partial Differential Equations* (Romanian), Transilvania Press, Cluj, 1997, 216 pp.

6. *Lectures on Partial Differential Equations* (Romanian), Cluj University Press, Cluj, 2004, 286 pp.

7. *Differential Equations* (Romanian), Risoprint, Cluj, 2011, 189 pp.

Scientific papers in journals:

1. Le théorème des contractions dans des espaces syntopogènes, *Rev. Anal. Numér. Théor. Approx.* 9, no. 1 (1980), 113-123. MR: 82i:54008.

2. Sur l'axiomatique des espaces à convexité, *Rev. Anal. Numér. Théor. Approx.* 9, no. 2 (1980), 95-103. MR: 83c:52003.

3. Interpolating convex polynomials, *Rev . Anal. Numér. Théor. Approx.* 10, no. 2 (1981), 205-209. MR: 83k:41005.

4. Estimates of the degree of comonotone interpolating polynomials, *Rev. Anal. Numér. Théor. Approx.* 11, no. 1-2 (1982), 139-145. MR: 84i:41003.

5. Piecewise convex interpolation, *Rev. Anal. Numér. Théor. Approx.* 14, no. 2 (1985), 123-126. MR: 87m:41004.

6. New estimates of the degree of the comonotone interpolating polynomials, *Rev. Anal. Numér. Théor. Approx.* 15, no. 1 (1986), 65-68. MR: 88c:41011.

7. A K-monotone best approximation operator which is neither monotone and (essentially) nor (o)-monotone, *Rev. Anal. Numér. Théor. Approx.* 15, no. 2 (1986), 155-162. MR: 88h:41046.

8. On some properties of K-monotone operators, *Rev. Anal. Numér. Théor. Approx.* 16, no. 1 (1987), 69-76. MR: 89d:47119.

9. Maximal pseudomonotonicity of generalized subdifferentials of explicitly quasiconvex functions, *Rev. Anal. Numér. Théor. Approx.* 17, no. 1 (1988), 53-62. MR: 90a:90215.

10. Convex functions of order n and P_n-simple functionals, *Rev. Anal. Numér. Théor. Approx.* 18, no. 2 (1989), 161-170. MR: 92d:41048.

11. Measure of noncompactness and second order differential equations with deviating argument, *Studia Univ. Babeş -Bolyai Math.* 34, no. 2 (1989), 25-35. MR: 91k:34094.

12. Generalized topological transversality and mappings of monotone type, *Studia Univ. Babeş-Bolyai Math.* 35, no. 2 (1990), 44-50. MR: 94g:47067.

13. Generalized topological transversality and existence theorems, *Libertas Math.* 11 (1991), 65-79. MR: 93a:54037.

14. Quasiconvex functions of higher order and the behavior of some nonlinear functionals, *Rev. Anal. Numér. Théor. Approx.* 21, no. 2 (1992), 191-193. MR: 94g:26016.

15. Note on an abstract continuation theorem, *Studia Univ. Babeş-Bolyai Math.* 37, no. 2 (1992), 85-90. MR: 95m:58018.

16. On the topological transversality principle, *Nonlinear Anal.* 20 (1993), 1-9. MR: 94a:58028.

17. On the reverse of the Krasnoselskii-Browder boundary inequality, *Studia Univ. Babeş-Bolyai Math.* 38, no. 2 (1993), 41-55. ZB: 828.47055.

18. On some fixed point theorems of Deimling, *Nonlinear Anal.* 23 (1994), 1315-1320. MR: 96b:47059.

19. Periodic solutions for an integral equation from biomathematics via Leray-Schauder principle, *Studia Univ. Babeş-Bolyai Math.* 39, no. 1 (1994), 47-58. MR: 98c:45019a.

20. A Granas type approach to some continuation theorems and periodic boundary value problems with impulses**,** *Topol. Methods Nonlinear Anal.* 5 (1995), 385-396. MR: 97a:34028.

21. 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. MR: 98a:34067.

22. On the continuation principle for nonexpansive maps, *Studia Univ. Babeş-Bolyai Math.* 41, no. 3 (1996), 85-89. MR: 1 644 466.

23. Continuation theorems for maps of Caristi type , *Studia Univ. Babeş-Bolyai Math.* 41, no. 4 (1996), 101-106. MR: 1 644 186.

24. Continuation principles for coincidences, *Mathematica (Cluj)* 39 (62), no. 1 (1997), 103-110. MR: 99c:47103.

25. Existence theorems for nonlinear problems by continuation methods**,** *Nonlinear Anal.* 30 (1997), 3313-3322. MR: 99a:47097.

26. Existence and approximation of positive fixed points of nonexpansive maps, *Rev. Anal. Numér. Théor. Approx.* 26, no. 1-2 (1997), 203-208.

27. Monotone approximation for an integral equation modeling infectious disease, *Bull. Appl. Comput. Math. (Budapest)*, 86-A (1998), 419-426.

28. Analysis of some neutral delay differential equations, *Studia Univ. Babes-Bolyai Math.* 44, no.3 (1999), 67-84.

29. Periodic solutions of superlinear impulsive differential systems**,** (with E. Kirr), *Commun. Appl. Anal.* 3 (1999), 483-502.

30. Discrete continuation method for nonlinear integral equations in Banach spaces, *Pure Math. Appl.* 11 (2000), 375-384.

31. Discrete continuation methods for boundary value problems on bounded sets in Banach spaces, *J. Comput. Appl. Math.* 113 (2000), 267-281.

32. A Monch type generalization of the Eilenberg-Montgomery fixed point theorem, *Seminar on Fixed Point Theory Cluj-Napoca* 1 (2000), 69-72.

33. Fixed point theorems for set-valued maps and existence principles for integral inclusions, (with D. O'Regan), *J. Math. Anal. Appl.* 245 (2000), 594-612. MR :2001b:47112.

34. On the Palais-Smale condition for Hammerstein integral equations in Hilbert spaces**,** *Nonlinear Anal.* 47 (2001), 1233-1244. Zbl 1042.47530.

35. Continuation results for mappings of contractive type, *Seminar on Fixed Point Theory Cluj-Napoca* 2 (2001), 23-40.

36. Convexity and quadratic monotone approximation in delay differential equations, *Rev. Anal. Numér. Théor. Approx.* 30 (2001), 89-93.

37. Existence criteria for integral equations in Banach spaces, (with D. O'Regan), *J. Inequal. Appl.* 6 (2001), 77-97. MR 2003c:45007, Zbl 0993.45011.

38. The continuation principle for generalized contractions, *Bull. Appl. Comput. Math. (Budapest)* 96-C (2001), 367-373.

39. Existence principles for inclusions of Hammerstein type involving noncompact acyclic multivalued maps, (with J.-F. Couchouron), *Electron. J. Differential Equations.* 2002 (2002), no.4, 1-21. MR: 1872799, Zbl 0991.47050.

40. Integrable solutions of Hammerstein integral inclusions in Banach spaces, (with D. O'Regan), *Dynamics Cont. Discrete Impuls. Systems,* Series A 9 (2002), 165-176. MR 1898309, Zbl 1022.45007.

41. An inequality which arises in the absence of mountain pass geometry, *J. Inequal. Pure Appl. Math.* 3 (2002), no.3, 1-10. MR 1917791, Zbl 1010.26013.

42. Abstract generalized quasiliniarization method for coincidences, (with A. Buica), *Nonlinear Stud.* 9 (2002), 371-387. MR 1940557, Zbl 1020.65031.

43. Fixed point theorems for acyclic multivalued maps and inclusions of Hammerstein type, *Seminar on Fixed Point Theory Cluj-Napoca* 3 (2002), 327-334. MR 1929778, Zbl 1043.47037.

44. Some existence results for differential equations with both retarded and advanced arguments, *Mathematica (Cluj)* 44 (2002). no. 1, 25-31. MR 2057010.

45. Fixed point theorems for decomposable multi-valued maps and applications, *Zeit. Anal. Anwendungen* 22 (2003), 843-861. MR2036933.

46. Location of nonnegative solutions for differential equations on finite and semi-infinite intervals, (with R.P. Agarwal, M. Meehan, D. O'Regan), *Dynamic Systems Appl.* 12 (2003), 323-332. MR 2020470, Zbl pre02061133.

47 A nonlinear periodic averanging principle, (with J-F Couchouron, M. Kamenski), *Nonlinear Anal.* 54 (2003), 1439-1467. MR 1997229, Zbl 1034.34074.

48. Continuation theory for contractions on spaces with two vector-valued metrics, (with D. O'Regan), *Appl. Anal.* 82 (2003), 131-144. MR 1966853, Zbl 1034.54017.

49. The perturbed Klein-Gordon equation, *Annals of the Tiberiu Popoviciu Seminar* 1 (2003), 141-152.

50. On nonlocal initial value problem for first order differential equations, (with A. Boucherif), *Fixed Point Theory* 4 (2003), no. 2, 205-212, MR 2031390, Zbl 105034001.

51. Fixed point theory and generalized Leray-Schauder alternatives for approximable maps in topological vector spaces, (with R. Agarwal, D. O'Regan), *Topol. Methods Nonlinear Anal.* 22**,** no. 1 (2003), 193-202. MR 2037275, Zbl pre02096725.

52. Existence and localization results for the nonlinear wave equation, *Fixed Point Theory* 5 (2004), 309-321. MR2117341, Zbl 1107.35086.

53. Anti-periodic solutions for second order differential inclusions**,** (with J-F Couchouron), *Electron. J. Differential Equations* 2004 (2004), 1-17. MR 93a:58028, Zbl 745.54018.

54. Continuation theory for general contractions in gauge spaces, (with A. Chis), *Fixed Point Theory and Applications* 2004:3 (2004), 173-185. MR 2096949

55. A note on the solvability of the nonlinear wave equation, *Rev. Anal. Numér. Théor. Approx.* 33 (2004), no. 2, 237-241. MR2192473, Zbl pre05003794.

56. Nonnegative solutions of nonlinear integral equations in ordered Banach spaces, (with A. Horvat-Marc), *Fixed Point Theory* 5 (2004), 65-70. MR 2108895.

57. Positive solutions of evolution operator equations**,** *Austral. J. Math. Anal. Appl.* 2 (2005), Issue 1, 1-10. MR2133376, Zbl 1078.47059.

58. Existence theory for nonlinear operator equations of Hammerstein type in Banach spaces, (with D. O'Regan), *Dynamic Systems Appl.* 14 (2005), 121-134. MR2128316, Zbl 1086.47034.

59. Compression-expansion fixed point theorem in two norms and applications, (with D. O'Regan)*, J. Math. Anal. Appl.* 309 (2005), 383-391. MR2154122, Zbl 1078.47017.

60. Boundary value problems arising in the percolation of water from a cylindrical reservoir into the surrounding soil*,* (with R.P. Agarwal, D. O'Regan), *Nonlinear Analysis: Real World Applications* 6 (2005), 123-131. MR 2104546.

61. Compression-expansion fixed point theorems in two norms, *Annals of the Tiberiu Popoviciu Seminar* 3 (2005), 157-163.

62. Existence and localization results for semi-linear problems, *Annals Univ. Craiova, Math. Comp. Sci. Ser.* 32 (2005), 59-66. MR2215896.

63. Construction of upper and lower solutions with applications to singular boundary value problems, (with R.P. Agarwal, D. O'Regan), *J. Comput. Anal. Appl.* 7 (2005), 205-221. MR2223477, Zbl 1085.34016.

64. Note on the abstract generalized quasilinearization method, (with A. Buica), *Rev. Anal. Numer. Theor. Approx.* 35 (2006), no. 1, 11-15. MR2290474.

65. Aronszajn type theorems for integral equations on unbounded domains via maximal solutions, (with D. O'Regan), *Fixed Point Theory* 4 (2006), no. 2. MR2284602, Zbl pre05142550.

66. Positive solutions of nonlinear singular integral equations in ordered Banach spaces, (with Yansheng Liu), *Nonlinear Funct. Anal. Appl.* 11 (2006), No. 3, 447-457. MR2305500, Zbl pre05145463.

67. The nonlinear heat equation via fixed point principles, *Annals of the Tiberiu Popoviciu Seminar* 4 (2006).111-127.

68. Positive solutions of nonlinear systems via the vector version of Krasnoselskii's fixed point theorem in cones, *Annals of the Tiberiu Popoviciu Seminar* 5 (2007),129-138.

69. Positive solutions of nonlinear systems with p-Laplacian on finite and semi-infinite intervals, (with D. O'Regan), *Positivity* 11 (2007), no. 3, 537-548.

70. Fixed point theory for admissible pairs and maps in Frechet spaces via degree theory, (with R. Ma, D. O'Regan), *Fixed Point Theory* 8 (2007), No. 2, 273-283.

71. 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.

72. Semilinear evolution equations with nonlocal initial conditions, (with A. Boucherif), *Dynamic Systems Appl.* 16 (2007), 507-516.

73. Homotopy method for positive solutions of p-Laplace inclusions, (with J-F. Couchouron), *Topological Methods Nonlinear Anal.* 30 (2007), no. 1, 157-169.

74. Nonuniform nonresonance for nonlinear boundary value problems with y'dependence, (with R.P. Agarwal, D. O'Regan), *Dynamic Systems Appl.* 16 (3) (2007), 587-594.

75. Domain invariance theorems for contractive type maps, (with R.P. Agarwal, D. O'Regan), *Dynamic Systems Appl.* 16 (3) (2007), 579-586.

76. A compression type mountain pass theorem in conical shells, *J. Math. Anal. Appl.* 338 (2008), 1116-1130.

77. (with T. Moussaoui) Positive solutions for elliptic boundary value problems with a Harnack-like property, *Cubo* 10 (2008), no. 4, 109-117.

78. Existence results for systems of nonlinear evolution equations (with A. Viorel), *Int. J. Pure Appl. Math.* 47 (2008), no. 2, 199-206.

79. Nonresonance and existence for systems of nonlinear operator equations (with D. Muzsi), *Appl. Anal.* 87 (2008), no. 9, 1005-1018.

80. Radial solutions for some classes of elliptic boundary value problems (with T. Moussaoui), *Studia Univ. Babes-Bolyai Math.* 53 (2008), no.1, 35-42.

81. Nonresonance theory for semilinear operator equations under regularity conditions (with D. Muzsi)*, Annals Tiberiu Popoviciu Seminar* 6 (2008), 75-89.

82. Existence results for semilinear elliptic boundary value problems via topological methods (with T. Moussaoui), *Appl. Math. Letters* 22 (2009), 126-129.

83. The role of matrices that are convergent to zero in the study of semilinear operator systems, *Math. Comp. Modelling* 49 (2009), 703-708.

84. Existence, localization and multiplicity results for positive radial solutions of semilinear elliptic systems, *J. Math. Anal. Appl.* 352 (2009), 48-56.

85. Data dependence of fixed points for non-self generalized contractions (with A. Chis, I.A. Rus), *Fixed Point Theory* 10 (2009), No.1, 73-87.

86. Existence of solutions for second-order differential equations and systems on infinite intervals (with T. Moussaoui), *Electron. J. Diff. Eqns.* 2009 (2009), No. 94, 1-13.

87. Fourth-order p-Laplacian nonlinear systems via the vector version of Krasnoselskii's fixed point theorem (with S. Djebali, T. Moussaoui), *Mediterr. J. Math.* 6 (2009), no. 4, 449-463.

88. The Leray-Schauder condition in critical point theory, *Nonlinear Anal.* 71 (2009), 3218-3228.

89. Mathematical models of the leukemic hematopoiesis (with A. Cucuianu), *Ann. Tiberiu Popoviciu Semin. Funct. Equ. Approx. Convexity* 7 (2009), 169-181.

90. Solvability of p,q-Laplacian systems with potential boundary conditions (with P. Jebelean), *Appl. Anal.* 89 (2010), 221–228.

91. A hypothetical-mathematical model of acute myeloid leukemia pathogenesis (with A. Cucuianu), *Comput. Math. Methods Med.* 11 (2010), 49–65.

92. A mathematical approach to cell dynamics before and after allogeneic bone marrow transplantation (with D. Trif, M-A Serban, A. Cucuianu), *Ann. Tiberiu Popoviciu Semin. Funct. Equ. Approx. Convexity* 8 (2010), 167-175.

93. Two positive solutions of some singular boundary value problems, *Anal. Appl.* 8 (2010), 305-314.

94. Existence results for systems of nonlinear evolution inclusions (with A. Viorel), *Fixed Point Theory* 11 (2010), 337-346.

95. Two positive nontrivial solutions for a class of semilinear elliptic variational systems, *J. Math. Anal. Appl.* 373 (2011), 138–146.

96. Poincare inequalities in reflexive cones (with P. Jebelean), *Appl. Math. Letters* 24 (2011), 359–363.

97. Nonlinear Schrodinger equations via fixed point principles (with M. Manole), *Dyn. Contin. Discrete Impuls. Syst. Ser. A Math. Anal.* 18 (2011), 705-718.

98. Positive solutions of functional-differential systems via the vector version of Krasnoselskii's fixed point theorem in cones (with S. Budisan), *Carpathian J. Math.* 27 (2011), 165 - 172.

99. On the nonlocal initial value problem for first order differential systems (with O. Nica), *Stud. Univ. Babeş-Bolyai Math.* 56 (2011), No. 3, 113–125.

100. Mathematical modeling of cell dynamics after allogeneic bone marrow transplantation (in cooperation), *Int. J. Biomath.* 5 (2012), No. 2, 1250026 (18 pages) doi: 10.1142/S1793524511001684.

101. A planning algorithm for correction therapies after allogeneic stem cell transplantation (with M-A Serban, D Trif, A Cucuianu), *J. Math. Model. Algor.* 11 (2012), No. 3, 309-323.

102. Mathematical understanding of the autologous stem cell transplantation, *Ann. Tiberiu Popoviciu Semin. Funct. Equ. Approx. Convexity* 10 (2012), 155–167.

103. Critical point theorems in cones and multiple positive solutions of elliptic problems, *Nonlinear Anal.* 75 (2012), 834–851.

104. Multiple positive solutions of non-local initial value problems for first order differential systems (with D. Trif), *Nonlinear Anal.* 75 (2012), 5961–5970.

105. Moser-Harnack inequality, Krasnoselskii type fixed point theorems in cones and elliptic problems, *Topol. Methods Nonlinear Anal.* 40 (2012), 301–313.

106. Abstract weak Harnack inequality, multiple fixed points and p-Laplace equations, *J. Fixed Point Theory Appl.* 12 (2012), 193–206.

107. Asymptotic stability for a model of cell dynamics after allogeneic bone marrow transplantation (with M-A. Serban and D. Trif), *Nonlinear Dynamics and Systems Theory* 13 (1) (2013), 79–92.

108. On a bounded critical point theorem of Schechter, *Stud. Univ. Babeş-Bolyai Math.* 58 (2013), No. 1, 87–95.

109. Critical point localization theorems via Ekeland's variational principle, *Dynamic Systems and Applications* 22 (2013), 355–370.

110. Existence results for systems with coupled nonlocal conditions (with O. Bolojan-Nica, G. Infante), *Nonlinear Anal.* 94 (2014), 231–242.

111. Nash-type equilibria and periodic solutions to nonvariational systems, *Adv. Nonlinear Anal.*, 3 (2014), no. 4, 197–207.

112. Perov type results in gauge spaces and applications to integral systems on semi-axis (with A. Novac), *Math. Slovaca* 64 (2014), 961-972.

113. Multiple periodic solutions with prescribed minimal period to second-order Hamiltonian systems, *Dyn. Syst.* 29 (2014), no. 3, 424-438.

114. On the continuation method and the nonlinear alternative for Caristi-type non-self-mappings, *J. Fixed Point Theory Appl.* 16 (2014), 3-10.

115. Implicit first order differential systems with nonlocal conditions (with O. Bolojan), *Electron. J. Qual. Theory Differ. Equ.* 2014, no. 69, 1–13.

116. Some fixed point theorems in terms of two measures of noncompactness (with I.A. Rus), *Mathematica* 56 (79) (2014), no 2, 158–165.

117. Variational properties of the solutions for second-order differential equations and systems on semi-line (with A. Novac), *Numer. Funct. Anal. Optim.* 36 (2015), 930-941.

118. A unified existence theory for evolution equations and systems under nonlocal conditions (with T. Cardinali and P. Rubbioni), *J. Math.Anal.Appl.* 432 (2015), 1039–1057.

119. Existence results for systems with nonlinear coupled nonlocal initial conditions (with O. Bolojan-Nica, G. Infante), *Math. Bohem.* 140 (2015), no. 4, 371-384.

120. A topological approach to the existence and multiplicity of positive solutions of (p,q)-Laplacian systems (with G. Infante, M. Maciejewski), *Dyn. Partial Differ. Equ.* 12 (2015), no.3, 193-215.

121. Vectorial approach to coupled nonlinear Schrödinger systems under nonlocal Cauchy conditions (with R. Bunoiu), *Appl. Anal.* 95 (2016), 731–747.

122. Existence, localization and multiplicity of positive solutions to ϕ-Laplace equations and systems (with D. Herlea), *Taiwanese J. Math.* 20 (2016), 77-89.

123. Abstract method of upper and lower solutions and application to singular boundary value problems, *Studia Univ. Babes-Bolyai Math.* 61 (2016), 443-451.

124. Variational properties of the solutions of semilinear equations under nonresonance conditions (with A. Budescu), *J. Nonlinear Convex Anal.* 17 (2016), 1517–1530.

125. Nash-type equilibria for systems of Szulkin functionals, *Set-Valued and VariationalAnalysis* 24 (2016), 471-482.

126. Fixed point theorems under combined topological and variational conditions (with A. Budescu), *Results. Math.* 70 (2016), Issue 3, 487–497.

127. A Schechter type critical point result in annular conical domains of a Banach space and applications (with H. Lisei, C. Varga), *Discrete Contin. Dyn. Syst.* 36 (2016), 3775 - 3789.

128. Multiple positive solutions to a fourth order boundary value problem (with A. Cabada, L. Saavedra, S. Tersian), *Electron. J. Differential Equations* 2016 (2016), No. 254, 1-18.

129. Semilinear evolution systems with nonlinear constraints (with O. Bolojan), *Fixed Point Theory* 17 (2016), 275–288.

130. Variational properties of the solutions of singular second-order differential equations and systems (with A. Budescu), *J. Fixed Point Theor. Appl.* 18 (2016), 505–518.

131. Multiple positive solutions for a second-order boundary value problem on the half-line (cu H. Boulaiki, T. Moussaoui), *J. Nonlinear Funct. Anal.* 2017 (2017), Article ID 17, 1-25.

132. Heterogeneous vectorial fixed point theorems (with T. Cardinali, P. Rubbioni), *Mediterr. J. Math.* (2017) 14: 83, pp. 12.

133. Two abstract approaches in vectorial fixed point theory (with T. Cardinali, P. Rubbioni), *Quaestiones Mathematicae* 41 (2018), no. 2, 173–188.

134. Localization of positive critical points in Banach spaces and applications (with C. Varga), *Topol. Methods Nonlinear Anal.* 49 (2017), 817-833.

135. A three critical point result in a bounded domain of a Banach space and applications (with P. Pucci, C. Varga), *Differential Integral Equations* 30 (2017), no. 7-8, 555-568.

136. Multiple positive standing wave solutions for Schrödinger equations with oscillating state-dependent potentials (cu R. Bunoiu, C. Varga), *Comm. Pure Appl. Anal.* 16 (2017), 953-972.

137. Theory and computation for multiple positive solutions of non-local problems at resonance (cu A. Novac), *Journal of Applied Analysis and Computation* 8 (2018), 486-497.

138. Analysis of a planar differential system arising from hematology (cu L.G. Parajdi), *Stud. Univ. Babeş-Bolyai Math.* 63 (2018), 235–244.

139. A critical point theorem in bounded convex sets and localization of Nash-type equilibria of nonvariational systems, *J. Math. Anal. Appl.* 463 (2018), 412-431.

140. Multiple positive solutions to a (2m)th-order boundary value problem (cu H. Boulaiki, T. Moussaoui), *Carpathian J. Math.* 34 (2018), 167-182.

141. Hybrid delay evolution systems with nonlinear constraints (cu O.-M. Bolojan), *Dynamic Systems and Applications*, 27, No. 4 (2018), 773-790.

142. Positive solutions for discontinuous problems with applications to ϕ-Laplacian equations (cu J. Rodriguez-Lopez), *J. Fixed Point Theor. Appl.* 20 (2018), Article 156, 17 p.

143. Multiplicity results for operator systems via fixed point index (cu J. Rodriguez-Lopez), *Results Math.* 74 (2019), Article 25.

144. Symmetric positive solutions to a singular phi-Laplace equation (cu P. Jebelean), *J. London Math. Soc.* 99 (2019), 495-515.

145. Positive solutions for ϕ-Laplace equations with discontinuous state-dependent forcing terms (with J. Rodriguez-Lopez), *Nonlinear Analysis: Modelling and Control* 24 (2019), No. 3, 447–461.

146. Existence results for some neutral functional integrodifferential equations with bounded delay (with S. Koumla, A. Sene), *Turk. J. Math.* 43 (2019), no. 4, 1809-1822.

147. A four-point boundary value problem with singular phi-Laplacian (with A. Chinni, B. Di Bella, P. Jebelean) , *J. Fixed Point Theory Appl.* (2019) 21:66, pp 16.

148. Positive solutions for discontinuous systems via a multivalued vector version of Krasnosel'skii's fixed point theorem in cones (with R. López Pouso, J. Rodríguez-López), *Mathematics* 7 (5) (2019), Article 451, pp 15.

149. Assessment of measurable residual disease in chronic myeloid leukemia. BCR-ABL1 IS in the avant-garde of molecular hematology (with V. Moisoiu, P. Teodorescu, L. Parajdi, S. Pasca, D. Dima, C. Tomuleasa, S. Soverini), *Frontiers in Oncology* 9:863 (2019), doi: 10.3389/fonc.2019.00863.

150. Energy-based localization and multiplicity of radially symmetric states for the stationary p-Laplace diffusion (with P. Pucci, C. Varga), *Complex Variables and Elliptic Equations* 65 (2020):7, 1198-1209.

151. Localization and multiplicity in the homogenization of nonlinear problems (with R. Bunoiu) , *Adv. Nonlinear Anal.* 9 (2020), Nr. 1, 292-304.

152. Positive periodic solutions for Lotka-Volterra systems with a general attack rate (with C. Lois Prados*), Nonlinear Anal. Real World Appl.* 52 (2020), pp 17.

153. On the approximation of fixed points for non-self mappings on metric spaces (with A. Petrusel, M-A. Serban), *Discrete and Continuous Dynamical Systems - B*, 2020, 25(2): 733-747.

154. Solutions with a prescribed interval of positivity for differential systems with nonlocal conditions (with V. Ilea, A. Novac, D. Otrocol), *Applied Mathematics and Computation* 375 (2020) 125092.

155. A mathematical model of the transition from the normal hematopoiesis to the chronic and acceleration-acute stages in myeloid leukemia (with LG Parajdi, EA Bonci, C. Tomuleasa), *Mathematics* 2020, 8, 376, 1-18.

156. Integrodifferential evolution systems with nonlocal initial conditions (with S. Koumla), *Studia Univ. Babes-Bolyai Math.* 65 (2020), 93-108.

157. Harnack type inequalities and multiple solutions in cones of nonlinear problems (with D.R. Herlea, D. O'Regan), *Z. Anal. Anwend.* 39 (2020), 151-170.

158. Fixed point index theory for decomposable multivalued maps and applications to ϕ-Laplacian problems (with J. Rodriguez-Lopez), *Nonlinear Anal.* 199 (2020) 111958, 16 p.

159. Theoretical basis of optimal therapy for individual patients in chronic myeloid leukemia : A mathematical approach (with L. G. Parajdi, D. Dima, V. Moisoiu, C. Tomuleasa), *Journal of Interdisciplinary Mathematics* 23:3 (2020), 669-690.

160. Krasnosel'skii type compression-expansion fixed point theorem for set contractions and star convex sets (with C. Lois-Prados, R. Rodríguez-López), *J. Fixed Point Theory Appl.* 22 (2020), 63.

161. A vector version of the fixed point theorem of cone compression and expansion for a sum of two operators (with L. Benzenati, K. Mebarki), *Nonlinear Studies* 27 (2020), no. 3, 563-575.

Scientific papers in volumes:

1. Funcţii definite pe spaţii de convexitate; spaţii duale de convexitate, *Lucrările Seminarului Itinerant de Ecuaţii Funcţionale, Aproximare şi Convexitate,* Cluj, 1980, 111-121.

2. Asupra unei teoreme de tip Popoviciu-Korovkin, *Lucrările Seminarului Itinerant de Ecuaţii Funcţionale, Aproximare şi Convexitate*, Timişoara, 1980, 149-153.

3. Estimări ale gradului polinoamelor de interpolare comonotone, *Lucrările Seminarului Itinerant de Ecuaţii Funcţionale, Aproximare şi Convexitate,* Cluj, 1981, 321-327.

4. Continuitatea funcţiilor cvasiconvexe şi a operatorilor hemimonotoni, *Lucrările Seminarului Itinerant de Ecuaţii Funcţionale, Aproximare şi Convexitate,* Cluj, 1982, 297-302.

5. A dual proof for the linearization of the convexity spaces, *Babeş-Bolyai Univ., Faculty of Math., Research Sem.* 2 (1983), Itinerant Seminar on Functional Equations, Approximation and Convexity (Cluj-1983), 119-128. MR: 86g:52004.

6. Sur une notion de quasi-convexité dans des espaces abstraits, *Babeş-Bolyai Univ., Faculty of Math., Research Sem.* 6 (1984), Itinerant Seminar on Functional Equations, Approximation and Convexity (Cluj-1984), 143-150. MR: 86h:52001.

7. A mean theorem concerning the behaviour of some nonlinear functionals, *Seminarul Itinerant de Ecuaţii Funcţionale, Aproximare şi Convexitate,* Iaşi, 1985, 18-25.

8. Quasi-convexity in linear spaces, *Babeş-Bolyai Univ., Faculty of Math., Research Sem.* 6 (1985), Itinerant Seminar on Functional Equations, Approximation and Convexity (Cluj-1985), 159-164. MR: 842 231.

9. Monotonicity properties of the best approximation operators, *Babeş-Bolyai Univ., Faculty of Math., Research Sem.* 7 (1986), Itinerant Seminar on Functional Equations, Approximation and Convexity (Cluj-1986), 223-226.

10. Sur une théorie de l'allure et ses conséquences, *Babeş-Bolyai Univ., Faculty of Math. Phys., Research Sem.* 6 (1987), Itinerant Seminar on Functional Equations, Approximation and Convexity (Cluj-1987), 31-48. MR: 90d:26020.

11. Quasiconvexity, generalized subdifferential and pseudomonotone mappings, *Babeş-Bolyai Univ., Faculty of Math. Phys., Research Sem.* 6 (1987), Itinerant Seminar on Functional Equations, Approximation and Convexity (Cluj-1987), 261-272. MR: 90c:47069.

12. Fonctions convexes et fonctionnelles de forme simple, *Babeş-Bolyai Univ., Faculty of Math. Phys., Research Sem.* 6 (1988), Itinerant Seminar on Functional Equations, Approximation and Convexity (Cluj-1988), 269-274. MR: 90c:26020.

13. A fixed point theorem of Maia type in syntopogeneous spaces, *Babeş-Bolyai Univ., Faculty of Math. Phys., Research Sem.* 3 (1988), 49-70. MR: 90d:54089.

14. Nonlinear boundary value problems for infinite systems of second-order functional differential equations, *Babeş-Bolyai Univ.,Faculty of Math. Phys., Research Sem.* 8 (1988), 17-30. MR: 90c:34070.

15. Topological transversality, perturbation theorems and second order differential equations, *Babeş-Bolyai Univ., Faculty of Math. Phys., Research Sem.* 3 (1989), 149-164. MR: 92i:47084.

16. On the quasiconvex functions of higher order, *Babeş-Bolyai Univ., Faculty of Math. Phys., Research Sem.* 6 (1989), Itinerant Seminar on Functional Equations, Approximation and Convexity (Cluj-1989), 275-282. MR: 91g:26016.

17. Topological transverality and applications, *Proceedings of the XX-th National Conference on Geometry and Topology,* Timişoara, 1989, 193-197.

18. Some remarks on Clarke generalized gradient of quasiconvex functions, *Babeş-Bolyai Univ., Faculty of Math. Comp. Sci., Research Sem.* 6 (1990), Itinerant Seminar on Functional Equations, Approximation and Convexity (Cluj-1990), 197-200.

19. Topological transversality and boundary problems for second order functional differential equations, In: *"Differential Equations and Control Theory"*, V. Barbu ed., Pitman Res. Notes Math. Ser., 250, Longman Sci. Tech., Harlow, 1991, 283-288. MR: 1 157 195.

20. 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), I.A. Rus ed., 25-30. MR: 94a:45022.

21. Foundations of the continuation principles of Leray-Schauder type, In: *"Proceedings of the 23rd Conference on Geometry and Topology (Cluj-1993)"*, D. Andrica and P. Enghiş eds., Babeş-Bolyai Univ., Cluj, 1994, 136-140. MR: 96m:47113.

22. Existence results for nonlinear boundary value problems under nonresonance conditions, In: *"Qualitative Problems for Differential Equations and Control Theory"*, C. Corduneanu ed., World Sci. Publishing, River Edge, 1995, 263-273. MR: 96j:35083.

23. Monotone iterations for decreasing maps in ordered Banach spaces, In: *"Proceedings of the Scientific Communications Meeting of Aurel Vlaicu University, Vol 14A (Arad-1996)"*, Aurel Vlaicu Univ. of Arad, 1996, 105-108. MR: 1 667 979.

24. Analysis of a nonlinear integral equation modelling infection diseases, In: *"Proceedings of the International Conference on Analysis and Numerical Computation, Timişoara, May 19-21, 1997"*, Şt. Balint ed., West Univ. of Timişoara, 1997, 178-195.

25. Behavior properties and ordinary differential equations, In *"Analysis, Functional Equations, Approximation and Convexity"*, Proc. Conference Held in Honour of Professor Elena Popoviciu (Cluj-1999), L. Lupsa, M. Ivan eds., Ed. Carpatica, Cluj, 1999, 257-263.

26. Topology and functional equations: an unified theory of the Leray-Schauder type theorems, In: *"Researches of Theory of Allure, Approximation, Convexity and Optimization"*, E. Popoviciu ed., Srima, Cluj, 1999, 271-281.

27. Nonlinear evolution equations via the discrete continuation method, In: *"Proc. of the "Tiberiu Popoviciu" Itinerant Seminar"*, E. Popoviciu ed., Srima, Cluj, 2000, 187-192.

28. Nontrivial solvability of Hammerstein integral equations in Hilbert spaces, In: *"Séminaire de la Théorie de la Meilleure Approximation, Convexité et Optimisation"*, E. Popoviciu ed., Srima, Cluj, 2000, 255-265.

29. Inequalities and compactness, In: *"Inequalities Theory and Applications"*, Y.J. Cho, J.K. Kim, S.S. Dragomir eds., Nova Science Publ., Huntington-New York, 2001, 257-271. MR 2065320.

30. An isoperimetric type inequality, In: *"Proc. of the "Tiberiu Popoviciu" Itinerant Seminar"*, E. Popoviciu ed., Srima, Cluj, 2001, 199-204.

31. Continuation method for contractive maps on spaces endowed with vector-valued metrics, In: *"Séminaire de la Théorie de la Meilleure Approximation, Convexité et Optimisation"*, E. Popoviciu ed., Srima, Cluj, 2001, 113-120.

32. Monotone Newton-type iterations for nonlinear equations, (with A. Buica), In: Proc. of the "Tiberiu Popoviciu" Itinerant Seminar, E. Popoviciu ed., Srima, Cluj, 2002.

33. On the method of upper and lower solutions, In: "*Séminaire de la Théorie de la Meilleure Approximation, Convexité et Optimisation*", E. Popoviciu ed., Srima, Cluj, 2002, 141-149.

34. Positive solutions of semi-linear elliptic problems via Krasnoselskii type theorems in cones and Harnack's inequality, in "*Mathematical Analysis ans Applications*", eds. V. Radulescu and C. Niculescu, Amer. Inst. Physics, AIP Conference Proceedings, Volume 835, 2006, 125-132. MR2258649.

35. 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.

36. Componentwise compression-expansion conditions for systems of nonlinear operator equations and applications, AIP Conference Proceedings Volume 1124, *Mathematical Models in Engineering, Biology and Medicine*: International Conference on Boundary Value Problems: Mathematical Models in Engineering, Biology and Medicine, Santiago de Compostela (Spain), 16–19 September 2008, ISBN: 978-0-7354-0660-5, Eds.: A. Cabada, E. Liz, J.J. Nieto, 284-293.

37. Theoretical models of hematopoietic cell dynamics related to bone marrow transplantation (with D. Dima, C. Tomuleasa, M-A Serban, L-G Parajdi), in *Frontiers in Stem Cell and Regenerative Medicine Research,* Volume 8, Eds.: Atta-ur-Rahman, Shazia Anjum, DOI:10.2174/97816810858901180801, Bentham Science, Sharjah, UAE, 2018, pp 202-241.

38. A variational analogue of Krasnoselskii's cone fixed point theory, in *Nonlinear Analysis and Boundary Value Problems*, Eds.: I. Area, A. Cabada, J. Á. Cid, D. Franco, E. Liz, R. López Pouso, R. Rodríguez López, Springer Proceedings in Mathematics & Statistics 292, Springer, 2019, 1-18.