

**VIOREL BARBU
PUBLICATIONS****BOOKS AND MONOGRAPHS**

- [1] Nonlinear Semigroups and Differential Equations in Banach Spaces, Noordhoff, Leyden 1976.
- [2] Convexity and Optimization in Banach Spaces (Jointly with T. Precupanu), Sijthoff@Noordhoff, Leyden 1978 ; second edition D.Reidel, Dordrecht 1986.
- [3] Hamilton - Jacobi Equations in Hilbert Spaces (Jointly with G.Da Prato), Pitman Research Notes in Mathematics 86, London - Boston 1983.
- [4] Optimal Control of Variational Inequalities, Pitman Research Notes in Mathematics 100, London - Boston 1984.
- [5] Differential Equations (in Romanian), Junimea, Iasi 1985.
- [6] Analysis and Control of Nonlinear Infinite Dimensional Systems, Academic Press, Boston, New York, 1993.
- [7] Boundary Value Problems for Partial Differential Equations (in Romanian), Editura Academiei, Bucharest 1994.
- [8] Mathematical Methods in Optimization of Differential Systems Kluwer Academic Publishers, Dordrecht 1994.
- [9] Partial Differential Equations and Boundary Value Problems, Kluwer Academic Publishers, Dordrecht 1998.
- [10] Handbook of Differential Equations, vol. 2, pp. 1-7, Eds. A. Canada et al., Elsevier, North-Holland, 2005.
- [11] Tangential Boundary Stabilization of Navier-Stokes Equations, Memoires AMS, 852, 2006 (Jointly with I. Lasiecka, R. Triggiani, 143 pages).
- [12] Nonlinear Differential Equations of Monotone Type in Banach Spaces, Springer, 2010.

PROCEEDINGS

[1] Differential Equations and Control Theory, V.Barbu ed., Longman Scientific and Technical, London - New York, 1992.

[2] Optimization, Optimal Control and Partial Differential Equations, V.Barbu, F.Bonnans, D.Tiba eds., Birkhauser, Basel - Boston - Berlin, 1992.

[3] Proceedings IFIP Conference on Control 2002, Birkhauser, Basel - Boston, 2002.

CONTRIBUTED PAPERS

1. Sur une equation integrale non-lineaire, *Anal.St.Univ. "Al.I.Cuza"*, X (1964), 61-65.
2. Operateurs differentiels partiellment hypoelliptiques, *Anal.St.Univ. "Al.I.Cuza"*, XII (1966), 293-301.
3. Solutions presque-periodiques pour un systeme d'equations lineaires aux derivees partielles, *Ricerche di Matematica*, XV (1966), 207-222.
4. Sur la propagation de l'analyticite des solutions des equations differentielles a coefficients constants, *Revue Roumaine Math. Pures Appl.* 10 (1967), 1419-1423.
5. Sur la propagation de l'hypoanalyticite des equations a coefficients constants, *C.R.Acad.Sci.Paris*, 266 (1988), 419-421.
6. On the regularity of solutions of linear partial differential equations, *Anal. St. Univ."Al.I.Cuza"*, XIV (1968), 321-325.
7. Partially hypoanalytic distributions and pseudo-differential operators, *Atti Acad. Naz. Lincei*, vol. XLV (1968), 84-90.
8. On the regularity of weak solutions of abstract differential equations in Hilbert spaces, *Atti Acad. Naz. Lincei*, vol. XLV (1968), 129-134.
9. Les semi-groupes distribution differentiables, *C.R. Acad. Sci. Paris*, 267 (1968), 875-878.
10. Ecuatii functionale neliniare in spatii Banach si probleme la limita, *Studii si Cercetari Matematice*, 20 (1968), 137-164.
11. On the propagation of hypoanalyticity for solutions of differential equations with constant coefficients, *Revue Roumaine Math. Pures Appl.*, 2 (1969), 157-167.
12. On local properties of pseudo-differential operators, *Acta Scient. Math.*, XXX (1969), 263-270.
13. Differentiable distribution semigroups, *Annali Scuola Normale Sup. Pisa*, vol. XXIII (1969), 413-429.
14. On the regularity of the weak solutions of abstract differential equations, *Osaka J. Math.*, 6 (1969), 49-56.
15. Sur la perturbation du generateur d'un semi-groupe non lineaire de contraction, *C.R. Acad. Sci. Paris*, 268 (1969), 1544-1547.
16. Weak solutions for nonlinear functional equations in Banach spaces, *Annali Mat. Pura Applicata*, vol. LXXXVII (1970), 87-110.
17. On the surjectivity of multi-valued dissipative mappings, *Bolletino Unione Mat. Ital.*, 5 (1970), 817-826. (Jointly with A. Cellina.)
18. Dissipative sets and nonlinear perturbed equations in Banach spaces, *Annali Scuola Normale Sup.Pisa*, vol. XXVI (1972), 365-390.
19. Sur un probleme aux limites pour une classe d'equations differentielles nonlineaires abstraites du deuxieme order en t , *C.R. Acad. Sci. Paris*, 274 (1972), 459-462.
20. A class of boundary problems for second order abstract differential equations, *J. Faculty Science Univ.Tokyo*, vol.19 (1972), 295-319.

21. Continuous perturbations of nonlinear m -accretive operators in Banach spaces, *Bolletino Unione Mat. Ital.*, 6 (1972), 270-278.
22. Asymptotic behaviour of linear integro-differential systems, *Trans. Amer. Math. Soc.*, 173 (1972), 277-288. (Jointly with S.Grossman.)
23. Regularity properties of some nonlinear evolution equations, *Revue Roumaine Math. Pures Appl.*, 16 (1973), 1503-1514.
24. On the regularity of solutions of hyperbolic nonlinear equations, *Annali Mat. Pura Applicata*, vol. XCV (1973), 303-319.
25. Integro-differential equations in Hilbert space, *Anal. St. Univ. "Al. I. Cuza"*, T. XIX (1973), 365-383.
26. Existence theorems for a class of two point boundary problems, *J. Diff. Equations*, vol.17 (1975), 236-257.
27. Convex control problem of Bolza in Hilbert spaces, *SIAM J.Control*, 13 (1975), 751-771.
28. On the control problem of Bolza in Hilbert spaces, *SIAM J. Control*, 13 (1975), 1062-1076.
29. Nonlinear Volterra equations in Hilbert space, *SIAM J. Math. Anal.*, 5 (1975), 728-741.
30. Constrained control problems with convex cost in Hilbert spaces, *J. Math. Anal. Appl.*, 56 (1976), 502-528.
31. Nonlinear Volterra integro-differential equations in Hilbert spaces, *Conferenze Seminario Matematico Bari*, 143 (1976).
32. Convex control problems for linear differential systems of retarded type, *Ricerche di Matematica*, XXVI (1976), 502-528.
33. Nonlinear boundary value problems for a class of hyperbolic systems, *Revue Roumaine Math. Pures Appl.*, 22 (1977), 155-168.
34. On a nonlinear Volterra equation on a Hilbert space, *SIAM J. Math. Anal.*, 8 (1977), 346-355.
35. Ecuatii neliniare de evolutie pe spatii Hilbert, *Analiza neliniara si aplicatii*, 115-179, D. Pascali ed., Editura Academiei, Bucuresti 1977.
36. Hamiltonian systems in a neighborhood of a saddle point, *Trans. Amer. Math. Soc.*, 245 (1978), 291-307.
37. Convex control problems and hamiltonian systems on an infinite interval, *SIAM J. Control & Optimiz.*, 16 (1978), 687-702.
38. Semilinear integro-differential equations in Hilbert spaces, *J. Math. Anal. Appl.*, 67 (1979), 452-475. (Jointly with M.A.Malik.)
39. Existence for nonlinear Volterra equations in Hilbert spaces, *SIAM J. Math. Anal.*, 10 (1979), 552-569.
40. Degenerate nonlinear Volterra integral equations in Hilbert spaces, *Volterra Equations, Lectures Notes in Math.*, vol.137, S. Londen ed., 2-23, Springer-Verlag, Berlin, 1979.
41. Local existence for a nonlinear operator equations arising in synthesis of optimal control, *Numerical Funct. Anal. & Optimiz.*, 1 (1979), 665-677. (Jointly with G. Da Prato.)

42. Global existence for a nonlinear operator equation arising in synthesis of optimal control, *Nonlinear Anal.*, 4 (1980), 1157-1166 (Jointly with G. Da Prato.)
43. Boundary control problems with convex cost criterion, *SIAM J. Control and Optimiz.*, 18 (1980), 227-254.
44. Necessary conditions for boundary control problems governed by parabolic variational inequalities, *Anal.St.Univ. "Al.I.Cuza"*, XXVI (1980), 47-66.
45. Necessary conditions for nonconvex distributed control problems governed by elliptic variational inequalities, *J. Math. Anal. Appl.*, 80 (1981), 566-597.
46. Necessary conditions for distributed control problems governed by parabolic variational inequalities, *SIAM J. Control & Optimiz.*, 19 (1981), 64-86.
47. Global existence for the Hamilton-Jacobi equations in Hilbert spaces, *Annali Scuola Norm. Sup.Pisa*, VIII (1981), 257-284. (Jointly with G. Da Prato.)
48. Existence and approximation for stationary Hamilton-Jacobi equations, *Nonlinear Anal.*, 5 (1981), 1213-1224. (Jointly with G. Da Prato.)
49. Existence for a nonlinear hyperbolic system, *Nonlinear Anal.*, 5 (1981), 341-353. (Jointly with G. Morosanu.)
50. A semigroup approach to an infinite delay equation in Hilbert space, *Abstract Cauchy Problems and Functional Differential Equations*, F.Kappel et al. eds., *Research Notes in Mathematics* 48, Pitman, Boston, London, 1981.
51. Boundary control problems with nonlinear state equations, *SIAM J. Control & Optimiz.*, 20 (1982), 125-143.
52. Necessary conditions for control problems governed by nonlinear partial differential equations, *Nonlinear Partial Differential Equations*, 19-47, *College de France Seminar vol. II*, Brezis and Lions eds., *Research Notes in Mathematics*, 60, Pitman, Boston, London, 1982.
53. Invariant manifolds for Hamiltonian systems in Hilbert spaces, *Evolution Equations and Their Applications*, 1-15, Kappel et al. eds., *Research Notes in Mathematics* 68, Pitman, Boston, London, 1982.
54. Optimal feedback controls for a class of nonlinear distributed parameter systems, *SIAM J. Control & Optimiz.*, 21 (1983), 871-894.
55. Boundary control of some free boundary problems, *Control Theory for Distributed Parameter Systems*, F. Kappel et al. eds., 45-59, *Lectures Notes in Control and Information Sciences*, Springer-Verlag, Berlin, Heidelberg, New York, 1983.
56. A variational inequality modelling the non-Fourier melting of a solid, *Anal. St. Univ. "Al. I. Cuza"*, T. XXVIII (1983), 35-42.
57. Existence and uniqueness of the dynamic programming equation in Hilbert space, *Nonlinear Anal.*, 7 (1983), 283-299. (Jointly with G. Da Prato and C.Popa.)
58. Hamilton-Jacobi equations and synthesis of nonlinear control processes in Hilbert spaces, *J. Differential Equations*, vol. 48 (1983), 350-372. (Jointly with G. Da Prato.)
59. Necessary conditions for multiple integral problem in the calculus of variations, *Math. Annalen*, 260 (1983), 175-189.

60. Optimal feedback controls for semilinear parabolic equations, *Mathematical Theories of Optimization*, J.P. Ceconi ed., 43-70, *Lectures Notes in Mathematics* 979 (1983), Springer-Verlag, Berlin, Heidelberg, New York.
61. Solution of the Bellman equation associated with an infinite dimensional stochastic problem, *SIAM J. Control & Optimiz.*, 21 (1983), 531- 550.
62. The time optimal control problem for parabolic variational inequalities, *Applied Math. & Optimiz.*, 22 (1984), 43-70.
63. Global existence for Hamilton-Jacobi equations in Hilbert spaces, *Revue Roumaine Math. Pures Appl.*, 29 (1984), 85-101.
64. The time optimal control of variational inequalities: Dynamic programming and the maximum principle, *Recent Mathematical Methods in Dynamic Programming*, 1-19, Capuzzo Dolceta ed., *Lectures Notes in Math.* 1119, Springer-Verlag, 1985.
65. Hamilton-Jacobi equations in Hilbert spaces; variational and semigroup approach, *Annali Mat. Pura ed Applicata*, 142 (1985), 303-349. (Jointly with G. Da Prato.)
66. Optimal control for free boundary problems, *Conferenze Seminario Matem. Bari*, 206 (1985).
67. A note on a Hamilton-Jacobi equation in Hilbert space, *Nonlinear Anal.*, 9 (1985), 1337-1345.
68. A semigroup approach to Hamilton-Jacobi equation in Hilbert space, *Semigroup Theory and Applications*, 9-18, *Research Notes in Mathematics* 141, Longman-Pitman, Boston, London, 1986.
69. Existence for minimization problem in Banach spaces with some applications, *J. Math. Anal. Appl.*, 121 (1987), 96-108. (Jointly with T. Seidman.)
70. The time optimal problem for a class of nonlinear systems, *Control Problems for Systems Described by Partial Differential Equations*, 16-39, I. Lasiecka and R. Triggiani eds., *Lecture Notes in Control and Information Science* 97, Springer-Verlag, Berlin, New York, 1987.
71. Bang-bang controllers for an optimal cooling problem, *Control and Cybernetics*, 16 (1987), 91-102. (Jointly with N. Barron.)
72. The necessary conditions for optimal control in Hilbert space, *J. Math. Anal. Appl.*, 133 (1988), 151-162. (Jointly with N. Barron and R. Jensen.)
73. Approximation of the Hamilton-Jacobi equations via Lie-Trotter product formula, *Control Theory and Advanced Technology*, 4 (1988), 189-208.
74. A product formula approach to nonlinear optimal control problems, *SIAM J. Control & Optimiz.*, 29 (1988), 497-520.
75. A semigroup approach to Hamilton-Jacobi equations in Hilbert spaces, *Studia Univ. Babeş-Bolyai, Mathematica*, XXXIII (1988), 63-78.
76. Distributed parameter systems, Variational inequalities, Optimal control of variational inequalities, *Encyclopedia of Control and Systems*, 1182-1186, 5031-5036, 5036-5041, M. Singh ed., Pergamon Press, London 1988.
77. Controlling the spread of a class of epidemics, *Appl. Math. Optimiz.*, 20 (1989), 297-318. (Jointly with V. Arnautu and V. Capasso.)
78. The inverse one phase Stefan problem, *Differential and Integral Equations*, 3 (1990), 209-218.

79. The dynamic programming equation for the time optimal control problem in infinite dimension, *SIAM J. Control Optimiz.*, 29 (1991), 445-456.
80. The approximate solvability of the inverse one Stefan problem, *Numerical Problems for Free Boundaries*, 33-43, Neittammakki ed., Birkhauser, Bassel, 1991.
81. The fractional step method for the nonlinear distributed control problem, *Differential Equations and Control Theory*, 7-17, V.Barbu ed., *Research Notes in Mathematics* 250, Pitman-Longman, Boston, London, 1991.
82. Optimal design of domains with free boundaries, *SIAM J. Control Optimiz.*, 29 (1991), 623-637. (Jointly with A.Friedman.)
83. Feedback controllability of the free boundary of the one phase Stefan problem, *Differential & Integral Equations.*, 4 (1991), 225-239. (Jointly with G. Da Prato and J.P. Zolessio.)
84. Boundary controllability for the coincidence set in the obstacle problem, *SIAM J. Control Optimiz.*, 29 (1991), 1150-1159. (Jointly with D.Tiba.)
85. Approximating optimal control for elliptic obstacle problem by monotone iteration scheme, *Numerical Funct. Anal. Optimiz.*, 12 (1991), 429-442. (Jointly with Ph. Korman.)
86. Null controllability of first order quasilinear equations, *Different. Integral Equations.*, 4 (1991), 673-681.
87. Existence for implicit differential equations in Banach spaces, *Rend. Mat. Acad. Naz. Lincei*, 3 (1992), 203-215. (Jointly with A. Favini.)
88. A representation formula for the solutions to operator Riccati equation, *Differential & Integral Equations.*, 5 (1992), 821-830. (Jointly with G. Da Prato.)
89. Approximating some nonlinear equations by fractional step scheme, *Differential & Integral Equations.*, 6(1993), 15-26. (Jointly with M.Iannelli.)
90. Optimal control with two point boundary conditions, *JOTA*, 77 (1993), 51-78. (Jointly with N. Pavel.)
91. State space approach to nonlinear H^∞ - control, *Control and System Letters*, 21 (1993), 65-72.
92. A variational approach to a free boundary problem arising in electrophotography, *Numer. Funct. Anal. Optimiz.*, 14 (1993), 1-14. (Jointly with S.Stojanovic.)
93. Approximating optimal control problems governed by variational inequalities, *Numer. Funct. Anal. Optimiz.* 15 (1994), 489-502. (Jointly with P. Neittanmaki and A. Niemisto.)
94. A penalty method for the identification of nonlinear elliptic differential operator, *Numer. Funct. Anal. Optimiz.*, 15 (1994), 503-530. (Jointly with P. Neittanmaki and A. Niemisto.)
95. Convergence of solutions of implicit differential equations, *Differential & Integral Equations.*, 7 (1994), 665-688. (Jointly with A. Favini.)
96. The H^∞ - problem with control constraints, *SIAM J. Control Optimiz.*, 32 (1994), 952-964.
97. H^∞ - boundary control with state feedback: the hyperbolic case, *SIAM J. Control Optimiz.*, 32 (1994), 1023-1035.

98. The H^∞ - problem for infinite dimensional semilinear systems, *SIAM J. Control Optimiz.*, 33 (1995), 1017-1027.
99. Identification of nonlinear elliptic equations, *Appl. Math. Optimiz.*, 33 (1996), 139-168. (Jointly with K. Kunisch.)
100. Optimal feedback controllers for periodic convex control problems, *NoDEA*, 3 (1996), 35-54.
101. Periodic optimal control in Hilbert space, *Appl. Math. Optimiz.*, 33 (1996), 169-188. (Jointly with N. Pavel.)
102. Identification of nonlinear parabolic equations, *Control Theory and Advanced Technology*, 10 (1995), 1959-1980. (Jointly with K. Kunisch.)
103. Periodic solutions for a second order semilinear Volterra equation, *Theory and Applications of Nonlinear Operators of Accretive and Monotone Type*, 1-14, A. Kartsatos ed., *Lectures Notes in Pure and Applied Mathematics* 178, M. Dekker 1996. (Jointly with S. Aizicovici.)
104. Periodic solutions to nonlinear one dimensional wave equations with x-dependent coefficients, *Trans. Amer. Math. Soc.* (Jointly with N. Pavel.)
105. Control and estimation of the boundary heat transfer function in Stefan problems, *Mathematical Modelling and Numerical Analysis*, vol. 30 (1996), 671-710. (Jointly with K. Kunisch.)
106. Abstract periodic Hamiltonian systems, *Advances in Diff. Eqns.*, 1, 4 (1996), 675-688.
107. Periodic solutions to one dimensional wave equation with piecewise constant coefficients, *Journal of Differential Equations*, 112 (1996), 319-337. (Jointly with N. Pavel.)
108. Optimal control of thermal conductivity of a rod under periodic conditions, *Ricerche di Matematica*, XLV (1996), 205-217. (Jointly with N. Pavel.)
109. Optimal control of the one dimensional wave equation, *Appl. Math. Optimiz.*, 35 (1997), 77-90.
110. An inverse problem for the one dimensional wave equation, *SIAM J. Control & Optimiz.*, 35 (1997), 1544-1556. (Jointly with N. Pavel.)
111. Optimal control of linear resonant systems in Hilbert spaces, *SIAM J. Control & Optimiz.*, 35 (1997), 2137-2156.
112. The time optimal control of Navier-Stokes equations, *Systems and Control Letters*, 30 (1997), 93-100.
113. Feedback control of dependent Stokes flows, *SIAM Philadelphia* 1998, S. Sritharan ed.
114. H^∞ -control theory of fluids dynamics, *Proc. Royal Society London A* (1998) 454, 3009-3033. (Jointly with S. Sritharan.)
115. Semilinear periodic control problems, *Revue Roumaine Math. Pures Appl.*, 1998.
116. Optimal control of population dynamics, *JOTA*, 102 (1999), 1-14 (Jointly with M. Iannelli.)
117. Exact controllability of the superlinear heat equation, *Applied Math. Optimiz.*, 2 (2000), 127-152.

118. Internal null controllability of nonlinear heat equation, ESAIM COCV, 6 (2001), 271-280. (Jointly with S. Anita.)
119. Riccati equations for boundary control systems, Nonlinear Analysis Theorie and Applications, 40 (2000), 105-129. (Jointly with I. Lasiecka and R. Triggiani.)
120. The controllability of the heat equation with memory, Differential and Integral Equations 13 (2001), 1393-1412. (Jointly with M. Iannelli.)
121. Flow invariance preserving feedback controllers for the Navier-Stokes equations, J..Math..Anal..Appl. 255 (2001), 281-307. (Jointly with S. Sritharan.)
122. On the controllability of the Lotka-McKendrick Model of Population Dynamic, J. Math. Anal. Appl., 253 (2001), 142-165. (Jointly with M. Iannelli, M. Martcheva.)
123. The two phase stochastic Stefan problem, Probab. Theory Related Fields, 124 (2002), 544-560. (Jointly with G. Da Prato.)
124. Controllability of parabolic and Navier-Stokes equations, Scientiae Math. Japonicae, 56 (2002), 143-211.
125. Local controllability of the phase field system, Nonlinear Analysis, 50 (2002), 363-372.
126. The Kolmogorov equation for stochastic variational inequalities, Probability Theory Relat. Fields, 124 (2002), 544-560, (Jointly with G. Da Prato.)
127. Feedback stabilizations of Navier-Stokes equations, ESAIM COCV 9 (2003), 197-207.
128. Carleman inequalities and controllability of stochastic heat equations, Appl. Math. Optimiz. 5 (2003), 1-20. (Jointly with A. Rascanu and M. Tessitore.)
129. Internal stabilization of Semilinear Parabolic Systems, J. Math. Anal. Appl. 285 (2003), 387-407. (Jointly with G. Wang.)
130. Flow invariant closed sets with respect to nonlinear semigroups flows, NODEA, 10 (2003), 57-72. (Jointly with N. Pavel.)
131. Exact controllability of MHD equations, Comm Pures Appl. Math, 56 (2003), 732-783. (Jointly with C. Popa et al.)
132. Elliptic problems with unbounded drift coefficients, Diff. Integral Equations, 16 (2003), 829-840. (Jointly with G. Da Prato.)
133. Controlling the volumetric water content discontinuity in a stratified unsaturated soil, In: Nonlinear Analysis and Applications: To V. Lakshmikantham on his 80th birthday, (Eds. R.P. Agarwal, D. O'Regan), Kluwer Academic Publishers, vol. 1, 241-258, 2003. (Jointly with G. Marinoschi.)
134. Existence for a time dependent rainfall infiltration model with a blowing up diffusivity, Nonlinear Analysis Real World Applications, 5, 2, 231-245, 2004. (Jointly with G. Marinoschi.)
135. Internal stabilization of Navier-Stokes equations with finite-dimensional controllers, Indiana Univ. Math. J. 53, 5, 1443-1494, 2004. (Jointly with R. Triggiani.)

136. The Kolmogorov equation associated to the stochastic Navier-Stokes equations in 2D, *Infinite Dimensional Analysis, Quantum Probability and Related Topics*, 7 (2004), 163-182. (Jointly with G. Da Prato, A. Debussche.)
137. The Neumann problem on unbounded domains and stochastic variational inequalities, *Comm. P.D.E.*, 30 (2005), 1-32. (Jointly with G. Da Prato)
138. The stochastic porous media, *J. Funct. Anal.*, 237 (2006), 54-75. (Jointly with V. Bogachev, M. Roeckner.)
139. On nonlinear wave equation with degenerate damping and source term, *Trans. Amer. Math. Soc.*, 357 (2005), 2571-2611 (Jointly with I. Lasiecka, A. Rammaha.)
140. Abstract settings for tangential boundary stabilization of Navier-Stokes equations by high-and low-gain feedback controllers, *Nonlinear Analysis* 64 (2006), 2704-2746 (Jointly with I. Lasiecka, R. Triggiani.)
141. Weak solutions to the stochastic porous media equations: the degenerate case, *J. Funct. Anal.*, 235, 430-448 (2006) (Jointly with V. Bogachev, G. Da Prato, M. Roeckner.)
142. Existence of the energy-level weak solutions for a nonlinear fluid-structure interactions model, *Contemporary Mathematics*, 440 (2007), 55-82. (Jointly with Z. Grujic, I. Lasiecka, A. Tuffala.)
143. Stochastic wave equations with dissipative damping, *Stochastic Processes and their Appl.* 117 (2007), 1001-1013. (Jointly with G. Da Prato, L. Tubaro.)
144. Stabilization of a plane channel flow by wall normal controllers, *Nonlinear Analysis* 67 (2007), 2573-2588.
145. Blow up of generalized solutions to wave equations with nonlinear degenerate damping and source term, *Indiana Univ. Math. J.* 56, 3 (2007), 995-1022. (Jointly with I. Lasiecka, M.A. Rammaha.)
146. Existence and ergodicity for the 2-d stochastic magneto-hydrodynamics equations, *Appl. Math. Optimiz.*, 56 (2007), 145-168. (Jointly with G. Da Prato.)
147. Smoothness of weak solutions to a nonlinear fluid-structure interaction model. *Indiana Univ. Math. J.* 57 (2008), no. 3, 1173-1207. (Jointly with Z. Grujic, I. Lasiecka, A. Tuffaha.)
148. Existence and uniqueness of nonnegative solutions to the stochastic porous media equations, *Indiana Univ. Math. J.* 1(2008), 187-211 (Jointly with G. Da Prato, M. Roeckner.)
149. Some results for the reflection problems in Hilbert spaces, *Control Cybernet.* 37 (2008), no. 4, 797-810. (Jointly with G. Da Prato.)
150. Stabilization of Navier-Stokes equations, *Bol. Soc. Parana. Mat.* (3) 26 (2008), no. 1-2, 107-116.
151. The Kolmogorov operator associated with a stochastic variational inequality in \mathbf{R}^n with convex potential, *Rev. Roumaine Math. Pures Appl.* 53 (2008), no. 5-6, 377-388. (Jointly with G. Da Prato.)
152. Uniqueness of the generators of the 2D Euler and Navier-Stokes flows, *Stochastic Process. Appl.* 118 (2008), no. 11, 2071-2084. (Jointly with S. Albeverio, B. Ferrario.)

153. The generator of the transition semigroup corresponding to a stochastic variational inequality, *Comm. Partial Differential Equations* 33 (2008), no. 7-9, 1318-1338. (Jointly with G. Da Prato.)
154. The Kolmogorov equation for a 2D-Navier-Stokes stochastic flow in a channel, *Nonlinear Anal.* 69 (2008), no. 3, 940-949. (Jointly with G. Da Prato.)
155. Variational inequalities in Hilbert spaces with measures and optimal stopping problems, *Appl. Math. Optim.* 57 (2008), no. 2, 237-262. (Jointly with C. Marinelli.)
156. Some results on stochastic porous media equations. *Boll. Unione Mat. Ital.* (9) 1 (2008), no. 1, 1-15. (Jointly with G. Da Prato, M. Roeckner.)
157. Internal optimal controller synthesis for Navier-Stokes equations, *Numer. Funct. Anal. Optim.* 29 (2008), no. 1-2, 225-242. (Jointly with Y. Yan, D. Coca.)
158. A PDE variational approach to image denoising and restoration, *Nonlinear Analysis Nonlinear Anal. Real World Appl.* 10 (2009), no. 3, 1351-1361. (Jointly with T. Barbu, D. Coca, V. Biga.)
159. Stochastic porous media and self-organized criticality, *Comm. Math. Phys.* 285 (2009), no. 3, 901-923. (Jointly with G. Da Prato, M. Roeckner.)
160. Stochastic nonlinear diffusion equations with singular diffusivity, *SIAM J. Math. Anal.* 41 (2009), no. 3, 1106-1120. (Jointly with G. Da Prato, M. Roeckner.)
161. Kolmogorov equation associated to the stochastic reflection problem on a smooth convex set of a Hilbert space, *Ann. Probab.* 37 (2009), no. 4, 1427-1458. (Jointly with G. Da Prato, L. Tubaro.)
162. Finite time extinction for solutions to fast diffusion stochastic porous media equations, *C. R. Math. Acad. Sci. Paris* 347 (2009), no. 1-2, 81-84. (Jointly with G. Da Prato, M. Roeckner.)
163. Existence of strong solutions for stochastic porous media equation under general monotonicity conditions, *Ann. Probab.* 37 (2009), no. 2, 428-452. (Jointly with G. Da Prato, M. Roeckner.)
164. Finite-dimensional controller design for semilinear parabolic systems, *Nonlinear Anal.* 70 (2009), no. 12, 4451-4475. (Jointly with Y. Yan, D. Coca.)
165. Stabilization of the Gurtin-Mac-Camy population system, *J. Evol. Equations*, vol. 9, 4 (2009), 727-745. (Jointly with M. Iannelli).
166. Strong solutions for stochastic porous media equations with jumps, *Infinite Dim. Anal. Quantum Probability and Related Topics*, vol. 12, 3 (2009), 413-426. (Jointly with C. Marinelli).
167. The internal stabilization by noise of the linearized Navier-Stokes equation, *ESAIM: COCV* (2009)
168. Probabilistic representation for solutions of an irregular porous media type equation: the irregular degenerate case, *Probab. Theory Rel. Fields* (to appear 2010). (Jointly with F. Russo and M. Roeckner).
169. Self-organized criticality and convergence to equilibrium of solutions to nonlinear diffusion equations, *Annual Reviews in Control* (to appear).
170. Ergodicity for the phase-field equations perturbed by Gaussian noise, submitted. (Jointly with G. Da Prato).

171. The invariant measure and the Kolmogorov equations for the stochastic fast diffusion equation, *Stochastic Processes and their Applications*, 2010, to appear. (Jointly with G. Da Prato).
172. Internal stabilization by noise of the Navier-Stokes equation, *SIAM J. Control and Optimization*, 2010, to appear. (Jointly with G. Da Prato).
173. Stabilization of a plane periodic channel flow by noise wall normal controllers, submitted.
174. Kolmogorov equation associated to the stochastic reflection problem on a smooth convex set of a Hilbert space, submitted. (Jointly with G. Da Prato).
175. Exponential stabilization of the linearized Navier-Stokes equation by pointwise feedback noise controllers, submitted.