

**VIOREL BARBU
PUBLICATIONS**

BOOKS AND MONOGRAPHS

[1] Nonlinear Semigroups and Differential Equations in Banach Spaces, Noordhoff, Leyden 1975.

[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, 181, 2006. (Jointly with I. Lasiecka, R. Triggiani).

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 partiellement 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.*, to appear. (Jointly with G. Da Prato.)
147. Existence and uniqueness of nonnegative solutions to the stochastic porous media equations, *Indiana Univ. Math. J.* (2008) (Jointly with G. Da Prato, M. Roeckner.)
148. Uniqueness of the generators of the 2-D Euler and Navier Stokes flows, *Stochastic processes and Applications*, to appear (Jointly with S. Albeverio, B. Ferrario.)
149. Smoothness of solutions to a nonlinear fluid-structure interaction model, to appear. (Jointly with Z. Grujic, I. Lasiecka, A. Tuffaha.)
150. Existence of strong solutions for stochastic porous media equation under general monotonicity conditions, submitted. (Jointly with G. Da Prato, M. Roeckner.)
151. Stochastic porous media and self-organized criticality, *Comm. Math. Phys.* (submitted). (Jointly with G. Da Prato, M. Roeckner.)
152. Self-organized criticality via stochastic partial differential equations, *Physical Review* (to appear). (Jointly with Ph. Blanchard, G. Da Prato, M. Roeckner.)

153. The generator of the transition semigroup corresponding to a stochastic variational inequality, *Comm. Partial Differential Equations* (to appear). (Jointly with G. Da Prato.)
154. Variational inequalities in Hilbert spaces with measures and optimal stopping problems, *Applied Math. & Optimiz.* (to appear). (Jointly with C. Marinelli.)
155. The Kolmogorov equation for a 2-D Navier-Stokes, stochastic flow in a channel, *Nonlinear Analysis* (to appear). (Jointly with G. Da Prato.)
156. A PDE variational approach to image denoising and restoration (to appear). (Jointly with T. Barbu, D. Coca, V. Biga.)
157. The Kolmogorov operator associated with a stochastic variational inequality in \mathbb{R}^n with convex potential, *Revue Roumaine Math. Pures et Appl.* (to appear). (Jointly with G. Da Prato.)