Viorel Barbu

List of Publications by Citations

111 papers	**3,142** citations	**27** h-index	**53** g-index
113 ext. papers	**3,538** ext. citations	**1.4** avg, IF	**5.9** L-index

#	Paper	IF	Citations
111	Nonlinear semigroups and differential equations in Banach spaces **1976**,		786
110	Nonlinear Differential Equations of Monotone Types in Banach Spaces. *Springer Monographs in Mathematics*, **2010**,	1.3	333
109	Convexity and Optimization in Banach Spaces. *Springer Monographs in Mathematics*, **2012**,	1.3	103
108	Internal stabilization of Navier-Stokes equations with finite-dimensional controllers. *Indiana University Mathematics Journal*, **2004**, 53, 1443-1494	0.6	94
107	Abstract settings for tangential boundary stabilization of Navier⎼Stokes equations by high- and low-gain feedback controllers. *Nonlinear Analysis: Theory, Methods & Applications*, **2006**, 64, 2704-2746	1.3	71
106	Smoothness of weak solutions to a nonlinear fluid-structure interaction model. *Indiana University Mathematics Journal*, **2008**, 57, 1173-1208	0.6	66
105	On nonlinear wave equations with degenerate damping and source terms. *Transactions of the American Mathematical Society*, **2005**, 357, 2571-2611	1	63
104	Existence of strong solutions for stochastic porous media equation under general monotonicity conditions. *Annals of Probability*, **2009**, 37,	1.9	58
103	Mathematical Methods in Optimization of Differential Systems **1994**,		56
102	Feedback stabilization of Navier⎼Stokes equations. *ESAIM - Control, Optimisation and Calculus of Variations*, **2003**, 9, 197-205	1	54
101	Stochastic Porous Media Equations and Self-Organized Criticality. *Communications in Mathematical Physics*, **2009**, 285, 901-923	2	52
100	A PDE variational approach to image denoising and restoration. *Nonlinear Analysis: Real World Applications*, **2009**, 10, 1351-1361	2.1	46
99	The time optimal control of Navier-Stokes equations. *Systems and Control Letters*, **1997**, 30, 93-100	2.4	46
98	Existence and uniqueness of nonnegative solutions to the stochastic porous media equation. *Indiana University Mathematics Journal*, **2008**, 57, 187-212	0.6	46
97	Necessary Conditions for Distributed Control Problems Governed by Parabolic Variational Inequalities. *SIAM Journal on Control and Optimization*, **1981**, 19, 64-86	1.9	45
96	Existence and Ergodicity for the Two-Dimensional Stochastic Magneto-Hydrodynamics Equations. *Applied Mathematics and Optimization*, **2007**, 56, 145-168	1.5	44
95	Nonlinear Volterra Equations in a Hilbert Space. *SIAM Journal on Mathematical Analysis*, **1975**, 6, 728-741	1.7	42

94	Necessary conditions for nonconvex distributed control problems governed by elliptic variational inequalities. *Journal of Mathematical Analysis and Applications*, **1981**, 80, 566-597	1.1	38
93	An operatorial approach to stochastic partial differential equations driven by linear multiplicative noise. *Journal of the European Mathematical Society*, **2015**, 17, 1789-1815	1.8	35
92	Tangential boundary stabilization of Navier-Stokes equations. *Memoirs of the American Mathematical Society*, **2006**, 181, 0-0	1.5	34
91	Optimal control of Navier-Stokes equations with periodic inputs. *Nonlinear Analysis: Theory, Methods & Applications*, **1998**, 31, 15-31	1.3	32
90	Stabilization of Navier-Stokes Flows. *Communications and Control Engineering*, **2011**,	0.6	31
89	Asymptotic behavior of linear integrodifferential systems. *Transactions of the American Mathematical Society*, **1972**, 173, 277-277	1	31
88	Stochastic Nonlinear Schrödinger Equations with Linear Multiplicative Noise: Rescaling Approach. *Journal of Nonlinear Science*, **2014**, 24, 383-409	2.8	30
87	Blow-up of generalized solutions to wave equations with nonlinear degenerate damping and source terms. *Indiana University Mathematics Journal*, **2007**, 56, 995-1022	0.6	30
86	Stochastic Variational Inequalities and Applications to the Total Variation Flow Perturbed by Linear Multiplicative Noise. *Archive for Rational Mechanics and Analysis*, **2013**, 209, 797-834	2.3	29
85	Boundary Stabilization of Equilibrium Solutions to Parabolic Equations. *IEEE Transactions on Automatic Control*, **2013**, 58, 2416-2420	5.9	29
84	Internal Exponential Stabilization to a Nonstationary Solution for 3D Navier-Stokes Equations. *SIAM Journal on Control and Optimization*, **2011**, 49, 1454-1478	1.9	27
83	From nonlinear Fokker-Planck equations to solutions of distribution dependent SDE. *Annals of Probability*, **2020**, 48,	1.9	27
82	Existence theorems for a class of two point boundary problems. *Journal of Differential Equations*, **1975**, 17, 236-257	2.1	26
81	The Stochastic Nonlinear Damped Wave Equation. *Applied Mathematics and Optimization*, **2002**, 46, 125-141	1.3	25
80	Null controllability of nonlinear convective heat equations. *ESAIM - Control, Optimisation and Calculus of Variations*, **2000**, 5, 157-173	1	25
79	Boundary Control Problems with Nonlinear State Equation. *SIAM Journal on Control and Optimization*, **1982**, 20, 125-143	1.9	25
78	Stochastic nonlinear Schrödinger equations. *Nonlinear Analysis: Theory, Methods & Applications*, **2016**, 136, 168-194	1.3	25
77	On a random scaled porous media equation. *Journal of Differential Equations*, **2011**, 251, 2494-2514	2.1	24

76	Local controllability of the phase field system. *Nonlinear Analysis: Theory, Methods & Applications*, **2002**, 50, 363-372	1.3	24
75	Existence for Nonlinear Volterra Equations in Hilbert Spaces. *SIAM Journal on Mathematical Analysis*, **1979**, 10, 552-569	1.7	24
74	Stabilization of Navier--Stokes Equations by Oblique Boundary Feedback Controllers. *SIAM Journal on Control and Optimization*, **2012**, 50, 2288-2307	1.9	23
73	Probabilistic Representation for Solutions to Nonlinear Fokker--Planck Equations. *SIAM Journal on Mathematical Analysis*, **2018**, 50, 4246-4260	1.7	21
72	Optimal control of stochastic FitzHughNagumo equation. *International Journal of Control*, **2016**, 89, 746-756	1.5	20
71	Stochastic wave equations with dissipative damping. *Stochastic Processes and Their Applications*, **2007**, 117, 1001-1013	1.1	20
70	Existence and asymptotic results for a system of integro-partial differential equations. *Nonlinear Differential Equations and Applications*, **1996**, 3, 1-18	0.8	20
69	The two phase stochastic Stefan problem. *Probability Theory and Related Fields*, **2002**, 124, 544-560	1.4	19
68	Probabilistic representation for solutions of an irregular porous media type equation: the degenerate case. *Probability Theory and Related Fields*, **2011**, 151, 1-43	1.4	18
67	Stochastic Nonlinear Diffusion Equations with Singular Diffusivity. *SIAM Journal on Mathematical Analysis*, **2009**, 41, 1106-1120	1.7	18
66	Optimal Control Approach to Nonlinear Diffusion Equations Driven by Wiener Noise. *Journal of Optimization Theory and Applications*, **2012**, 153, 1-26	1.6	17
65	Weak solutions to the stochastic porous media equation via Kolmogorov equations: The degenerate case. *Journal of Functional Analysis*, **2006**, 237, 54-75	1.4	17
64	A variational approach to stochastic nonlinear parabolic problems. *Journal of Mathematical Analysis and Applications*, **2011**, 384, 2-15	1.1	16
63	Internal stabilizability of the NavierStokes equations. *Systems and Control Letters*, **2003**, 48, 161-167	2.4	16
62	The time-optimal control problem for parabolic variational inequalities. *Applied Mathematics and Optimization*, **1984**, 11, 1-22	1.5	16
61	Finite time extinction of solutions to fast diffusion equations driven by linear multiplicative noise. *Journal of Mathematical Analysis and Applications*, **2012**, 389, 147-164	1.1	15
60	Stochastic Porous Media Equations and Self-Organized Criticality: Convergence to the Critical State in all Dimensions. *Communications in Mathematical Physics*, **2012**, 311, 539-555	2	15
59	Finite time extinction for solutions to fast diffusion stochastic porous media equations. *Comptes Rendus Mathematique*, **2009**, 347, 81-84	0.4	15

58	Stochastic Porous Media Equations. *Lecture Notes in Mathematics*, **2016**,	0.4	15
57	Stochastic porous media equations in Rd. *Journal Des Mathematiques Pures Et Appliquees*, **2015**, 103, 1024-1052	1.7	14
56	Ergodicity for Nonlinear Stochastic Equations in Variational Formulation. *Applied Mathematics and Optimization*, **2006**, 53, 121-139	1.5	14
55	Existence and Asymptotic Behavior for Hereditary Stochastic Evolution Equations. *Applied Mathematics and Optimization*, **2014**, 69, 273-314	1.5	13
54	Self-organized criticality and convergence to equilibrium of solutions to nonlinear diffusion equations. *Annual Reviews in Control*, **2010**, 34, 52-61	10.3	13
53	Stabilization of a plane channel flow by wall normal controllers. *Nonlinear Analysis: Theory, Methods & Applications*, **2007**, 67, 2573-2588	1.3	11
52	A PDE approach to image restoration problem with observation on a meager domain. *Nonlinear Analysis: Real World Applications*, **2012**, 13, 1206-1215	2.1	10
51	Existence and convergence results for infinite dimensional nonlinear stochastic equations with multiplicative noise. *Stochastic Processes and Their Applications*, **2013**, 123, 934-951	1.1	10
50	Self-organized criticality of cellular automata model; absorbtion in finite-time of supercritical region into the critical one. *Mathematical Methods in the Applied Sciences*, **2013**, 36, 1726-1733	2.3	10
49	The stochastic obstacle problem for the harmonic oscillator with damping. *Journal of Functional Analysis*, **2006**, 235, 430-448	1.4	10
48	On a Nonlinear Volterra Integral Equation on a Hilbert Space. *SIAM Journal on Mathematical Analysis*, **1977**, 8, 346-355	1.7	10
47	Solutions for nonlinear Fokker–Planck equations with measures as initial data and McKean-Vlasov equations. *Journal of Functional Analysis*, **2021**, 280, 108926	1.4	10
46	Stochastic nonlinear Schrödinger equations: No blow-up in the non-conservative case. *Journal of Differential Equations*, **2017**, 263, 7919-7940	2.1	9
45	Exact null internal controllability for the heat equation on unbounded convex domains. *ESAIM - Control, Optimisation and Calculus of Variations*, **2014**, 20, 222-235	1	9
44	Generalized solutions to nonlinear Fokker–Planck equations. *Journal of Differential Equations*, **2016**, 261, 2446-2471	2.1	9
43	Internal Stabilization by Noise of the Navier–Stokes Equation. *SIAM Journal on Control and Optimization*, **2011**, 49, 1-20	1.9	8
42	On convex control problems on infinite intervals. *Journal of Mathematical Analysis and Applications*, **1978**, 65, 687-702	1.1	8
41	Local Exponential Stabilization Strategies of the Navier-Stokes Equations, d = 2, 3, via Feedback Stabilization of its Linearization. *International Series of Numerical Mathematics*, **2007**, 13-46	0.4	8

40	Approximating optimal controls for elliptic obstacle problem by monotone iteration schemes. *Numerical Functional Analysis and Optimization*, **1991**, 12, 429-442	1	7
39	Controllability and Stabilization of Parabolic Equations. *Progress in Nonlinear Differential Equations and Their Application*, **2018**,	1	6
38	Nonlinear Fokker-Planck equations driven by Gaussian linear multiplicative noise. *Journal of Differential Equations*, **2018**, 265, 4993-5030	2.1	6
37	Invariant measures and the Kolmogorov equation for the stochastic fast diffusion equation. *Stochastic Processes and Their Applications*, **2010**, 120, 1247-1266	1.1	6
36	The Kolmogorov equation for a 2D-Navier-Stokes stochastic flow in a channel. *Nonlinear Analysis: Theory, Methods & Applications*, **2008**, 69, 940-949	1.3	6
35	The stochastic logarithmic Schrödinger equation. *Journal Des Mathematiques Pures Et Appliquees*, **2017**, 107, 123-149	1.7	5
34	Nonlinear parabolic flows with dynamic flux on the boundary. *Journal of Differential Equations*, **2015**, 258, 2160-2195	2.1	5
33	Note on the internal stabilization of stochastic parabolic equations with linearly multiplicative Gaussian noise. *ESAIM - Control, Optimisation and Calculus of Variations*, **2013**, 19, 1055-1063	1	5
32	Exponential stabilization of the linearized Navier-Stokes equation by pointwise feedback noise controllers. *Automatica*, **2010**, 46, 2022-2027	5.7	5
31	The internal stabilization by noise of the linearized Navier-Stokes equation. *ESAIM - Control, Optimisation and Calculus of Variations*, **2011**, 17, 117-130	1	4
30	Stochastic parabolic equations with nonlinear dynamical boundary conditions. *Journal of Mathematical Analysis and Applications*, **2015**, 427, 484-498	1.1	3
29	Doubly probabilistic representation for the stochastic porous media type equation. *Annales De Llinstitut Henri Poincare (B) Probability and Statistics*, **2017**, 53,	1.3	3
28	Necessary conditions for multiple integral problem in the calculus of variations. *Mathematische Annalen*, **1982**, 260, 175-189	1	3
27	Optimal Control of Nonlinear Stochastic Differential Equations on Hilbert Spaces. *SIAM Journal on Control and Optimization*, **2020**, 58, 2383-2410	1.9	3
26	Uniqueness for nonlinear Fokker-Planck equations and weak uniqueness for McKean-Vlasov SDEs. *Stochastics and Partial Differential Equations: Analysis and Computations*, **2021**, 9, 702-713	0.9	3
25	Stabilization of Navier-Stokes Flows. *Communications and Control Engineering*, **2011**, 87-175	0.6	3
24	A splitting algorithm for stochastic partial differential equations driven by linear multiplicative noise. *Stochastics and Partial Differential Equations: Analysis and Computations*, **2017**, 5, 457-471	0.9	2
23	Global solutions to random 3D vorticity equations for small initial data. *Journal of Differential Equations*, **2017**, 263, 5395-5411	2.1	2

22	The finite speed of propagation for solutions to nonlinear stochastic wave equations driven by multiplicative noise. *Journal of Differential Equations*, **2013**, 255, 560-571	2.1	2
21	Optimal feedback controllers for periodic convex control problems. *Nonlinear Differential Equations and Applications*, **1996**, 3, 35-54	0.8	2
20	A variational approach to a free boundary problem arising in electrophotography. *Numerical Functional Analysis and Optimization*, **1993**, 14, 1-14	1	2
19	The Steepest Descent Algorithm in Wasserstein Metric for the Sandpile Model of Self-Organized Criticality. *SIAM Journal on Control and Optimization*, **2017**, 55, 413-428	1.9	1
18	Variational solutions to nonlinear stochastic differential equations in Hilbert spaces. *Stochastics and Partial Differential Equations: Analysis and Computations*, **2018**, 6, 500-524	0.9	1
17	Stochastic Nonlinear Parabolic Equations with Stratonovich Gradient Noise. *Applied Mathematics and Optimization*, **2018**, 78, 361-377	1.5	1
16	A Stochastic Heat Equation with Nonlinear Dissipation on the Boundary. *Journal of Optimization Theory and Applications*, **2015**, 165, 317-343	1.6	1
15	Internal stabilization of Navier-Stokes equation with exact controllability on spaces with finite codimension. *Evolution Equations and Control Theory*, **2012**, 1, 1-16	2	1
14	Backward uniqueness of stochastic parabolic like equations driven by Gaussian multiplicative noise. *Stochastic Processes and Their Applications*, **2016**, 126, 2163-2179	1.1	1
13	Exact Controllability of Parabolic Equations. *Progress in Nonlinear Differential Equations and Their Application*, **2018**, 43-101	1	
12	Feedback Stabilization of Semilinear Parabolic Equations. *Progress in Nonlinear Differential Equations and Their Application*, **2018**, 129-195	1	
11	Variational Approach to Stochastic Porous Media Equations. *Lecture Notes in Mathematics*, **2016**, 95-106	0.4	
10	The variational approach to Hamilton–Jacobi equations driven by a Gaussian noise. *Journal of Differential Equations*, **2013**, 255, 3832-3847	2.1	
9	The internal stabilization of the Stokes–Oseen equation by feedback point controllers. *Systems and Control Letters*, **2013**, 62, 447-450	2.4	
8	Boundary Stabilization of Navier–Stokes Equations. *Progress in Nonlinear Differential Equations and Their Application*, **2018**, 197-218	1	
7	Internal Controllability of Parabolic Equations with Inputs in Coefficients. *Progress in Nonlinear Differential Equations and Their Application*, **2018**, 103-127	1	
6	The Stochastic Porous Media Equations in $\mathbb{R}^{d}$. *Lecture Notes in Mathematics*, **2016**, 133-165	0.4	
5	Equations with Maximal Monotone Nonlinearities. *Lecture Notes in Mathematics*, **2016**, 49-93	0.4	

| 4 | Transition Semigroup. *Lecture Notes in Mathematics*, **2016**, 167-195 | 0.4 |

| 3 | Existence Theory of Nonlinear Dissipative Dynamics. *Springer Monographs in Mathematics*, **2011**, 193-270 | 1.3 |

| 2 | Stabilization of Abstract Parabolic Systems. *Communications and Control Engineering*, **2011**, 25-85 | 0.6 |

| 1 | A variational approach to nonlinear stochastic differential equations with linear multiplicative noise. *ESAIM - Control, Optimisation and Calculus of Variations*, **2019**, 25, 71 | 1 |