Jean-Michel Coron

List of Publications by Year
in descending order

65	3,748	172457 29	128289 60
papers	citations	h-index	g-index

65	65	65	1083
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Stabilization of the Linearized Water Tank System. Archive for Rational Mechanics and Analysis, 2022, 244, 1019-1097.	2.4	5
2	Feedforward boundary control of 2<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si3.svg"><mml:mo>Ã—</mml:mo></mml:math>2 nonlinear hyperbolic systems with application to Saint-Venant equations. European Journal of Control, 2021, 57, 41-53.	2.6	13
3	Boundary stabilization in finite time of one-dimensional linear hyperbolic balance laws with coefficients depending on time and space. Journal of Differential Equations, 2021, 271, 1109-1170.	2.2	15
4	Boundary Control of 1-D Hyperbolic Systems. , 2021, , 150-157.		0
5	Null-controllability of linear hyperbolic systems in one dimensional space. Systems and Control Letters, 2021, 148, 104851.	2.3	8
6	Boundary Controllability and Asymptotic Stabilization of a Nonlocal Traffic Flow Model. Vietnam Journal of Mathematics, 2021, 49, 957-985.	0.8	10
7	Input-to-State Stability in sup norms for hyperbolic systems with boundary disturbances. Nonlinear Analysis: Theory, Methods & Applications, 2021, 208, 112300.	1.1	8
8	Small-time global stabilization of the viscous Burgers equation with three scalar controls. Journal Des Mathematiques Pures Et Appliquees, 2021, 151, 212-256.	1.6	9
9	Nonlocal Transport Equations---Existence and Uniqueness of Solutions and Relation to the Corresponding Conservation Laws. SIAM Journal on Mathematical Analysis, 2020, 52, 5500-5532.	1.9	5
10	Small-time global exact controllability of the Navierâ€“Stokes equation with Navier slip-with-friction boundary conditions. Journal of the European Mathematical Society, 2020, 22, 1625-1673.	1.4	18
11	Finite-time stabilization in optimal time of homogeneous quasilinear hyperbolic systems in one dimensional space. ESAIM - Control, Optimisation and Calculus of Variations, 2020, 26, 119.	1.3	10
12	Boundary Control of 1-D Hyperbolic Systems. , 2020, , 1-8.		0
13	PI Controllers for 1-D Nonlinear Transport Equation. IEEE Transactions on Automatic Control, 2019, 64, 4570-4582.	5.7	25
14	Exponential boundary feedback stabilization of a shock steady state for the inviscid Burgers equation. Mathematical Models and Methods in Applied Sciences, 2019, 29, 271-316.	3.3	15
15	Boundary feedback stabilization of hydraulic jumps. IFAC Journal of Systems and Control, 2019, 7, 100026.	1.7	5
16	Exponential stability of PI control for Saint-Venant equations with a friction term. Methods and Applications of Analysis, 2019, 26, 101-112.	0.5	4
17	On Homogeneous Finite-Time Control for Linear Evolution Equation in Hilbert Space. IEEE Transactions on Automatic Control, 2018, 63, 3143-3150.	5.7	60
18	Gevrey Class Regularity of a Semigroup Associated with a Nonlinear Korteweg-de Vries Equation. Chinese Annals of Mathematics Series B, 2018, 39, 201-212.	0.4	2

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19	Minimal time for the approximate bilinear control of SchrÃ¶dinger equations. Mathematical Methods in the Applied Sciences, 2018, 41, 1831-1844.	2.3	6
20	Asymptotic stability of a Kortewegâ€“de Vries equation with a two-dimensional center manifold. Advances in Nonlinear Analysis, 2018, 7, 497-515.	2.6	14
21	Rapid stabilization of a linearized bilinear 1-D SchrÃ¶dinger equation. Journal Des Mathematiques Pures Et Appliquees, 2018, 115, 24-73.	1.6	23
22	Null Controllability and Finite Time Stabilization for the Heat Equations with Variable Coefficients in Space in One Dimension via Backstepping Approach. Archive for Rational Mechanics and Analysis, 2017, 225, 993-1023.	2.4	68
23	A quadratic Lyapunov function for hyperbolic densityâ€“velocity systems with nonuniform steady states. Systems and Control Letters, 2017, 104, 66-71.	2.3	23
24	Finite-time boundary stabilization of general linear hyperbolic balance laws via Fredholm backstepping transformation. Automatica, 2017, 84, 95-100.	5.0	84
25	Dissipative boundary conditions for 2 Ã— 2 hyperbolic systems of conservation laws for entropy solutions in BV. Journal of Differential Equations, 2017, 262, 1-30.	2.2	20
26	On Boundary Finite-Time Feedback Control for Heat Equation. IFAC-PapersOnLine, 2017, 50, 671-676.	0.9	16
27	Local exponential stabilization for a class of Kortewegâ€“de Vries equations by means of time-varying feedback laws. Analysis and PDE, 2017, 10, 1089-1122.	1.4	12
28	Stability and Boundary Stabilization of 1-D Hyperbolic Systems. Progress in Nonlinear Differential Equations and Their Application, 2016, , .	0.9	237
29	Stabilization and controllability of first-order integro-differential hyperbolic equations. Journal of Functional Analysis, 2016, 271, 3554-3587.	1.4	35
30	Dissipative Boundary Conditions for Nonlinear 1-D Hyperbolic Systems: Sharp Conditions Through an Approach via Time-Delay Systems. SIAM Journal on Mathematical Analysis, 2015, 47, 2220-2240.	1.9	30
31	Fredholm transform and local rapid stabilization for a Kuramotoâ€“Sivashinsky equation. Journal of Differential Equations, 2015, 259, 3683-3729.	2.2	42
32	Stability of linear density-flow hyperbolic systems under PI boundary control. Automatica, 2015, 53, 37-42.	5.0	55
33	Dissipative Boundary Conditions for One-Dimensional Quasi-linear Hyperbolic Systems: Lyapunov Stability for the C^1-Norm. SIAM Journal on Control and Optimization, 2015, 53, 1464-1483.	2.1	50
34	Asymptotic stability of a nonlinear Kortewegâ€“de Vries equation with critical lengths. Journal of Differential Equations, 2015, 259, 4045-4085.	2.2	28
35	Optimization of an amplification protocol for misfolded proteins by using relaxed control. Journal of Mathematical Biology, 2015, 70, 289-327.	1.9	5
36	Optimal Geometric Control Applied to the Protein Misfolding Cyclic Amplification Process. Acta Applicandae Mathematicae, 2015, 135, 145-173.	1.0	5

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37	Local rapid stabilization for a Kortewegâ€“de Vries equation with a Neumann boundary control on the right. Journal Des Mathematiques Pures Et Appliquees, 2014, 102, 1080-1120.	1.6	61
38	Minimal time for the bilinear control of SchrÃ¶dinger equations. Systems and Control Letters, 2014, 71, 1-6.	2.3	10
39	Local null controllability of the three-dimensional Navierâ€“Stokes system with a distributed control having two vanishing components. Inventiones Mathematicae, 2014, 198, 833-880.	2.5	54
40	Analysis of a model of phosphorus uptake by plant roots. Journal of Evolution Equations, 2013, 13, 595-615.	1.1	2
41	Output Feedback Stabilization for a Scalar Conservation Law with a Nonlocal Velocity. SIAM Journal on Mathematical Analysis, 2013, 45, 2646-2665.	1.9	30
42	Rapid Stabilization for a Korteweg-de Vries Equation From the Left Dirichlet Boundary Condition. IEEE Transactions on Automatic Control, 2013, 58, 1688-1695.	5.7	78
43	Phantom tracking method, homogeneity and rapid stabilization. Mathematical Control and Related Fields, 2013, 3, 303-322.	1.1	5
44	Lyapunov exponential stability of 1-D linear hyperbolic systems of balance laws. Automatica, 2012, 48, 109-114.	5.0	116
45	Controllability for a scalar conservation law with nonlocal velocity. Journal of Differential Equations, 2012, 252, 181-201.	2.2	27
46	On boundary feedback stabilization of non-uniform linear hyperbolic systems over a bounded interval. Systems and Control Letters, 2011, 60, 900-906.	2.3	75
47	An Acoustic Model for Automatic Control of a Slide Flute. Acta Acustica United With Acustica, 2010, 96, 713-721.	0.8	5
48	Asymptotic State Observers for a Simplified Brass Instrument Model. Acta Acustica United With Acustica, 2010, 96, 733-742.	0.8	2
49	Controllability Issues for Continuous-Spectrum Systems and Ensemble Controllability of Bloch Equations. Communications in Mathematical Physics, 2010, 296, 525-557.	2.2	72
50	Quantum control design by Lyapunov trajectory tracking for dipole and polarizability coupling. New Journal of Physics, 2009, 11, 105034.	2.9	40
51	Null controllability of the N-dimensional Stokes system with<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mi>N</mml:mi><mml:mo>â^'</mml:mo><mml:mn>1</mml:mn></mml:math>scalar controls. Journal of Differential Equations, 2009, 246, 2908-2921.	2.2	48
52	Local null controllability of the two-dimensional Navierâ€“Stokes system in the torus with a control force having a vanishing component. Journal Des Mathematiques Pures Et Appliquees, 2009, 92, 528-545.	1.6	19
53	Dissipative Boundary Conditions for One-Dimensional Nonlinear Hyperbolic Systems. SIAM Journal on Control and Optimization, 2008, 47, 1460-1498.	2.1	200
54	A Strict Lyapunov Function for Boundary Control of Hyperbolic Systems of Conservation Laws. IEEE Transactions on Automatic Control, 2007, 52, 2-11.	5.7	314

#	Article	IF	Citations
55	Controllability of a quantum particle in a moving potential well. Journal of Functional Analysis, 2006, 232, 328-389.	1.4	110
56	Local controllability of a 1-D tank containing a fluid modeled by the shallow water equations. ESAIM - Control, Optimisation and Calculus of Variations, 2002, 8, 513-554.	1.3	69
57	Explicit feedbacks stabilizing the attitude of a rigid spacecraft with two control torques. Automatica, 1996, 32, 669-677.	5.0	96
58	On the controllability of the 2-D incompressible Navier-Stokes equations with the Navier slip boundary conditions. ESAIM - Control, Optimisation and Calculus of Variations, 1996, 1, 35-75.	1.3	129
59	On the stabilization of controllable and observable systems by an output feedback law. Mathematics of Control, Signals, and Systems, 1994, 7, 187-216.	2.3	46
60	Adding an integrator for the stabilization problem. Systems and Control Letters, 1991, 17, 89-104.	2.3	246
61	A necessary condition for feedback stabilization. Systems and Control Letters, 1990, 14, 227-232.	2.3	95
62	Harmonic maps with defects. Communications in Mathematical Physics, 1986, 107, 649-705.	2.2	369
63	Multiple solutions ofH-systems and Rellich's conjecture. Communications on Pure and Applied Mathematics, 1984, 37, 149-187.	3.1	184
64	Large solutions for harmonic maps in two dimensions. Communications in Mathematical Physics, 1983, 92, 203-215.	2.2	109
65	Free vibrations for a nonlinear wave equation and a theorem of P. Rabinowitz. Communications on Pure and Applied Mathematics, 1980, 33, 667-684.	3.1	172