

Mario Sigalotti

List of Publications by Year in descending order

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71
papers

1,174
citations

361296

20
h-index

414303

32
g-index

72
all docs

72
docs citations

72
times ranked

380
citing authors

#	ARTICLE	IF	CITATIONS
1	Controllability of the discrete-spectrum Schrödinger equation driven by an external field. <i>Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire</i> , 2009, 26, 329-349.	0.7	101
2	A Gauss-Bonnet-like formula on two-dimensional almost-Riemannian manifolds. <i>Discrete and Continuous Dynamical Systems</i> , 2008, 20, 801-822.	0.5	86
3	Introduction to the Pontryagin Maximum Principle for Quantum Optimal Control. <i>PRX Quantum</i> , 2021, 2, .	3.5	82
4	A Weak Spectral Condition for the Controllability of the Bilinear Schrödinger Equation with Application to the Control of a Rotating Planar Molecule. <i>Communications in Mathematical Physics</i> , 2012, 311, 423-455.	1.0	74
5	Two-dimensional almost-Riemannian structures with tangency points. <i>Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire</i> , 2010, 27, 793-807.	0.7	54
6	Approximate Controllability, Exact Controllability, and Conical Eigenvalue Intersections for Quantum Mechanical Systems. <i>Communications in Mathematical Physics</i> , 2015, 333, 1225-1239.	1.0	42
7	Multi-input Schrödinger equation: Controllability, tracking, and application to the quantum angular momentum. <i>Journal of Differential Equations</i> , 2014, 256, 3524-3551.	1.1	41
8	On the Local Structure of Optimal Trajectories in R^3 . <i>SIAM Journal on Control and Optimization</i> , 2003, 42, 513-531.	1.1	39
9	Lipschitz Classification of Almost-Riemannian Distances on Compact Oriented Surfaces. <i>Journal of Geometric Analysis</i> , 2013, 23, 438-455.	0.5	39
10	Adiabatic Control of the Schrödinger Equation via Conical Intersections of the Eigenvalues. <i>IEEE Transactions on Automatic Control</i> , 2012, 57, 1970-1983.	3.6	35
11	Converse Lyapunov Theorems for Switched Systems in Banach and Hilbert Spaces. <i>SIAM Journal on Control and Optimization</i> , 2011, 49, 752-770.	1.1	32
12	On the regularity of abnormal minimizers for rank 2 sub-Riemannian structures. <i>Journal Des Mathematiques Pures Et Appliquees</i> , 2020, 133, 118-138.	0.8	32
13	Stars of vibrating strings: Switching boundary feedback stabilization. <i>Networks and Heterogeneous Media</i> , 2010, 5, 299-314.	0.5	32
14	On the algebraic characterization of invariant sets of switched linear systems. <i>Automatica</i> , 2010, 46, 1047-1052.	3.0	31
15	Sub-Finsler Structures from the Time-Optimal Control Viewpoint for some Nilpotent Distributions. <i>Journal of Dynamical and Control Systems</i> , 2017, 23, 547-575.	0.4	30
16	Generic Controllability Properties for the Bilinear Schrödinger Equation. <i>Communications in Partial Differential Equations</i> , 2010, 35, 685-706.	1.0	27
17	Uniform stabilization for linear systems with persistency of excitation: the neutrally stable and the double integrator cases. <i>Mathematics of Control, Signals, and Systems</i> , 2008, 20, 135-156.	1.4	26
18	On the marginal instability of linear switched systems. <i>Systems and Control Letters</i> , 2012, 61, 747-757.	1.3	24

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19	On the Stabilization of Persistently Excited Linear Systems. SIAM Journal on Control and Optimization, 2010, 48, 4032-4055.	1.1	21
20	Adiabatic Ensemble Control of a Continuum of Quantum Systems. SIAM Journal on Control and Optimization, 2018, 56, 4045-4068.	1.1	21
21	Full quantum control of enantiomer-selective state transfer in chiral molecules despite degeneracy. Communications Physics, 2022, 5, .	2.0	19
22	The squares of the Laplacian-Dirichlet eigenfunctions are generically linearly independent. ESAIM - Control, Optimisation and Calculus of Variations, 2010, 16, 794-805.	0.7	17
23	Local Regularity of Optimal Trajectories for Control Problems with General Boundary Conditions. Journal of Dynamical and Control Systems, 2005, 11, 91-123.	0.4	16
24	Tracking Control for an Ellipsoidal Submarine Driven by Kirchhoff's Laws. IEEE Transactions on Automatic Control, 2008, 53, 339-349.	3.6	14
25	Converse Lyapunov-Krasovskii theorems for uncertain retarded differential equations. Automatica, 2015, 62, 263-273.	3.0	13
26	Dubins's problem on surfaces. I. nonnegative curvature. Journal of Geometric Analysis, 2005, 15, 565.	0.5	12
27	Classical and Quantum Controllability of a Rotating Symmetric Molecule. SIAM Journal on Control and Optimization, 2021, 59, 156-184.	1.1	12
28	Regularity properties of optimal trajectories of single-input control systems in dimension three. Journal of Mathematical Sciences, 2005, 126, 1561-1573.	0.1	10
29	On conditions for asymptotic stability of dissipative infinite-dimensional systems with intermittent damping. Journal of Differential Equations, 2012, 252, 5569-5593.	1.1	10
30	On the control of spin-boson systems. Journal of Mathematical Physics, 2015, 56, .	0.5	9
31	Counterexample to a Lyapunov Condition for Uniform Asymptotic Partial Stability. , 2020, 4, 397-401.		9
32	Effective adiabatic control of a decoupled Hamiltonian obtained by rotating wave approximation. Automatica, 2022, 136, 110034.	3.0	9
33	Stabilization of Two-Dimensional Persistently Excited Linear Control Systems with Arbitrary Rate of Convergence. SIAM Journal on Control and Optimization, 2013, 51, 801-823.	1.1	8
34	Exact Controllability in Projections of the Bilinear Schrödinger Equation. SIAM Journal on Control and Optimization, 2018, 56, 2901-2920.	1.1	8
35	Switching systems with dwell time: Computing the maximal Lyapunov exponent. Nonlinear Analysis: Hybrid Systems, 2021, 40, 101021.	2.1	8
36	Controllability properties of a class of systems modeling swimming microscopic organisms. ESAIM - Control, Optimisation and Calculus of Variations, 2010, 16, 1053-1076.	0.7	7

#	ARTICLE	IF	CITATIONS
37	Comparison between classes of state-quadratic Lyapunov functions for discrete-time linear polytopic and switched systems. <i>Systems and Control Letters</i> , 2012, 61, 1062-1068.	1.3	7
38	High-order sufficient conditions for configuration tracking of affine connection control systems. <i>Systems and Control Letters</i> , 2010, 59, 491-503.	1.3	6
39	Approximate controllability of the two trapped ions system. <i>Quantum Information Processing</i> , 2015, 14, 2397-2418.	1.0	6
40	Lyapunov Characterization of Uniform Exponential Stability for Nonlinear Infinite-Dimensional Systems. <i>IEEE Transactions on Automatic Control</i> , 2022, 67, 1685-1697.	3.6	6
41	Stability of Interconnected Uncertain Delay Systems: A Converse Lyapunov Approach. <i>Advances in Delays and Dynamics</i> , 2019, , 49-63.	0.4	6
42	Adaptive control of Lipschitz time-delay systems by sigma modification with application to neuronal population dynamics. <i>Systems and Control Letters</i> , 2022, 159, 105082.	1.3	6
43	Lie algebra for rotational subsystems of a driven asymmetric top. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2022, 55, 215301.	0.7	6
44	Ensemble qubit controllability with a single control via adiabatic and rotating wave approximations. <i>Journal of Differential Equations</i> , 2022, 318, 414-442.	1.1	6
45	On the Controllability of Quantum Transport in an Electronic Nanostructure. <i>SIAM Journal on Applied Mathematics</i> , 2014, 74, 1870-1894.	0.8	5
46	Generic singularities of line fields on 2D manifolds. <i>Differential Geometry and Its Applications</i> , 2016, 49, 326-350.	0.2	5
47	A Characterization of Switched Linear Control Systems With Finite L_2 -Gain. <i>IEEE Transactions on Automatic Control</i> , 2017, 62, 1825-1837.	3.6	5
48	Pliability, or the Whitney extension theorem for curves in Carnot groups. <i>Analysis and PDE</i> , 2017, 10, 1637-1661.	0.6	5
49	Time-optimal trajectories of generic control-affine systems have at worst iterated Fuller singularities. <i>Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire</i> , 2019, 36, 327-346.	0.7	5
50	On the gap between deterministic and probabilistic joint spectral radii for discrete-time linear systems. <i>Linear Algebra and Its Applications</i> , 2021, 613, 24-45.	0.4	5
51	Growth rates for persistently excited linear systems. <i>Mathematics of Control, Signals, and Systems</i> , 2014, 26, 589-616.	1.4	4
52	Further remarks on Markus-Yamabe instability for time-varying delay differential equations—This work was partially supported by the DIGITEO grant SSy-CoDyC and by the Laboratoire des Signaux et Systemes (L2S), and in the framework of the iCODE institute, research project of the Idex Paris-Saclay.. <i>IFAC-PapersOnLine</i> , 2015, 48, 33-38.	0.5	4
53	Persistently damped transport on a network of circles. <i>Transactions of the American Mathematical Society</i> , 2016, 369, 3841-3881.	0.5	4
54	Dwell-time control sets and applications to the stability analysis of linear switched systems. <i>Journal of Differential Equations</i> , 2020, 268, 1345-1378.	1.1	4

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55	Semi-conical eigenvalue intersections and the ensemble controllability problem for quantum systems. <i>Mathematical Control and Related Fields</i> , 2020, 10, 877-911.	0.6	4
56	On the Whitney extension property for continuously differentiable horizontal curves in sub-Riemannian manifolds. <i>Calculus of Variations and Partial Differential Equations</i> , 2018, 57, 1.	0.9	3
57	On the compatibility between the adiabatic and the rotating wave approximations in quantum control. , 2019, , .		3
58	Fuller Singularities for Generic Control-Affine Systems with an Even Number of Controls. <i>SIAM Journal on Control and Optimization</i> , 2020, 58, 1207-1228.	1.1	3
59	An obstruction to small-time controllability of the bilinear Schrödinger equation. <i>Journal of Mathematical Physics</i> , 2021, 62, 032103.	0.5	3
60	Reachable sets for a 3D accidentally symmetric molecule. <i>IFAC-PapersOnLine</i> , 2020, 53, 1943-1948.	0.5	3
61	A note on time-zero controllability and density of orbits for quantum systems. , 2017, , .		2
62	Control of a quantum model for two trapped ions. , 2015, , .		1
63	Controllability in projection of the simple spectrum bilinear Schrödinger equation. <i>IFAC-PapersOnLine</i> , 2017, 50, 5592-5597.	0.5	1
64	Converse Lyapunov theorems for infinite-dimensional nonlinear switching systems. , 2019, , .		1
65	Approximately controllable finite-dimensional bilinear systems are controllable. <i>Systems and Control Letters</i> , 2021, 157, 105028.	1.3	1
66	Bounds on time-optimal concatenations of arcs for two-input driftless 3D systems. <i>IFAC-PapersOnLine</i> , 2020, 53, 6863-6868.	0.5	1
67	On the stabilization of permanently excited linear systems. , 2009, , .		0
68	Shape dependent controllability of a quantum transistor. , 2013, , .		0
69	Quasi-Barabanov semigroups and finiteness of the L^2 -induced gain for switched linear control systems: Case of full-state observation. , 2015, , .		0
70	Equivalence between exact and approximate controllability for finite-dimensional quantum systems. , 2015, , .		0
71	New high order sufficient conditions for configuration tracking. <i>Automatica</i> , 2015, 62, 222-226.	3.0	0