Colaneri Patrizio

List of Publications by Citations

148 papers	4,595 citations	32 h-index	65 g-index
163 ext. papers	5,774 ext. citations	4.6 avg, IF	6.23 L-index

#	Paper	IF	Citations
148	Modelling the COVID-19 epidemic and implementation of population-wide interventions in Italy. *Nature Medicine*, **2020**, 26, 855-860	50.5	845
147	Stability and Stabilization of Continuous-Time Switched Linear Systems. *SIAM Journal on Control and Optimization*, **2006**, 45, 1915-1930	1.9	341
146	Stability and stabilization of discrete time switched systems. *International Journal of Control*, **2006**, 79, 719-728	1.5	256
145	Discrete-time control for switched positive systems with application to mitigating viral escape. *International Journal of Robust and Nonlinear Control*, **2011**, 21, 1093-1111	3.6	229
144	Dynamic Output Feedback Control of Switched Linear Systems. *IEEE Transactions on Automatic Control*, **2008**, 53, 720-733	5.9	197
143	Stochastic stability of Positive Markov Jump Linear Systems. *Automatica*, **2014**, 50, 1181-1187	5.7	150
142	Markov Jump Linear Systems with switching transition rates: Mean square stability with dwell-time. *Automatica*, **2010**, 46, 1081-1088	5.7	140
141	Invariant representations of discrete-time periodic systems. *Automatica*, **2000**, 36, 1777-1793	5.7	120
140	Stabilization of continuous-time switched nonlinear systems. *Systems and Control Letters*, **2008**, 57, 95-103	2.4	114
139	A Nonconservative LMI Condition for Stability of Switched Systems With Guaranteed Dwell Time. *IEEE Transactions on Automatic Control*, **2012**, 57, 1297-1302	5.9	105
138	Robust stability of time varying polytopic systems. *Systems and Control Letters*, **2006**, 55, 81-85	2.4	104
137	. *IEEE Transactions on Automatic Control*, **2012**, 57, 3038-3050	5.9	94
136	The Periodic Lyapunov Equation. *SIAM Journal on Matrix Analysis and Applications*, **1988**, 9, 499-512	1.5	91
135	Stability and Stabilization of Semi-Markov Jump Linear Systems With Exponentially Modulated Periodic Distributions of Sojourn Time. *IEEE Transactions on Automatic Control*, **2017**, 62, 2870-2885	5.9	86
134	On almost sure stability of continuous-time Markov jump linear systems. *Automatica*, **2006**, 42, 983-988	5.7	71
133	Modeling vaccination rollouts, SARS-CoV-2 variants and the requirement for non-pharmaceutical interventions in Italy. *Nature Medicine*, **2021**, 27, 993-998	50.5	70
132	Switched Positive Linear Systems. *Foundations and Trends in Systems and Control*, **2015**, 2, 101-273	4	66

131	Almost Sure Stability of Markov Jump Linear Systems With Deterministic Switching. *IEEE Transactions on Automatic Control*, **2013**, 58, 209-214	5.9	62
130	An MPC approach to the design of two-layer hierarchical control systems. *Automatica*, **2010**, 46, 823-831	5.7	58
129	The realization problem for linear periodic systems. *Automatica*, **1995**, 31, 775-779	5.7	56
128	Analysis of discrete-time linear periodic systems. *Control and Dynamic Systems*, **1996**, 78, 313-339		52
127	${cal H}_infty$ and Dwell Time Specifications of Continuous-Time Switched Linear Systems. *IEEE Transactions on Automatic Control*, **2010**, 55, 207-212	5.9	51
126	Dwell Time Analysis of Deterministic and Stochastic Switched Systems. *European Journal of Control*, **2009**, 15, 228-248	2.5	51
125	Convexity of the cost functional in an optimal control problem for a class of positive switched systems. *Automatica*, **2014**, 50, 1227-1234	5.7	49
124	The extended periodic lyapunov lemma. *Automatica*, **1985**, 21, 603-605	5.7	45
123	Passivity of switched linear systems: Analysis and control design. *Systems and Control Letters*, **2012**, 61, 549-554	2.4	44
122	Almost Sure Stabilization of Uncertain Continuous-Time Markov Jump Linear Systems. *IEEE Transactions on Automatic Control*, **2010**, 55, 195-201	5.9	41
121	An algebraic riccati equation for the discrete-time periodic prediction problem. *Systems and Control Letters*, **1990**, 14, 71-78	2.4	37
120	Semi-Markov Jump Linear Systems With Incomplete Sojourn and Transition Information: Analysis and Synthesis. *IEEE Transactions on Automatic Control*, **2020**, 65, 159-174	5.9	36
119	Families of moment matching based, low order approximations for linear systems. *Systems and Control Letters*, **2014**, 64, 47-56	2.4	35
118	Dwell time analysis for continuous-time switched linear positive systems **2010**,		34
117	Positive Markov Jump Linear Systems. *Foundations and Trends in Systems and Control*, **2015**, 2, 275-427	4	32
116	Optimal therapy scheduling for a simplified HIV infection model. *Automatica*, **2013**, 49, 2874-2880	5.7	30
115	Hierarchical model predictive control **2007**,		28
114	Switching Strategies to Mitigate HIV Mutation. *IEEE Transactions on Control Systems Technology*, **2014**, 22, 1623-1628	4.8	27

113	Root mean square gain of discrete-time switched linear systems under dwell time constraints. *Automatica*, **2011**, 47, 1677-1684	5.7	25
112	Theory, algorithms and technology in the design of control systems. *Annual Reviews in Control*, **2006**, 30, 19-30	10.3	24
111	Stability analysis and stabilization of discrete-time non-homogeneous semi-Markov jump linear systems: A polytopic approach. *Automatica*, **2020**, 120, 109080	5.7	23
110	Decentralized optimal control of a car platoon with guaranteed string stability **2013**,		22
109	Stabilization of continuous-time switched linear positive systems **2010**,		22
108	Inertia theorems for the periodic Lyapunov difference equation and periodic Riccati difference equation. *Linear Algebra and Its Applications*, **1987**, 85, 249-265	0.9	22
107	Homogeneous Rational Lyapunov Functions for Performance Analysis of Switched Systems With Arbitrary Switching and Dwell Time Constraints. *IEEE Transactions on Automatic Control*, **2017**, 62, 5124-5137	5.9	21
106	Design of stabilizing strategies for discrete-time dual switching linear systems. *Automatica*, **2016**, 69, 93-100	5.7	21
105	The model matching problem for periodic discrete-time systems. *IEEE Transactions on Automatic Control*, **1997**, 42, 1472-1476	5.9	20
104	Discrete-time linear periodic systems: A note on the reachability and controllability interval length. *Systems and Control Letters*, **1986**, 8, 75-78	2.4	19
103	Block-wise discretization accounting for structural constraints. *Automatica*, **2013**, 49, 3411-3417	5.7	18
102	Polynomial approach to the control of SISO periodic systems subject to input constraint. *Automatica*, **2003**, 39, 1417-1424	5.7	18
101	A -spectral factorization approach for H/spl infin/ estimation problems in discrete time. *IEEE Transactions on Automatic Control*, **2002**, 47, 2108-2113	5.9	17
100	Algebraic Riccati Equation and J-Spectral Factorization for Hinfty Smoothing and Deconvolution. *SIAM Journal on Control and Optimization*, **2006**, 45, 123-145	1.9	16
99	H/sub /spl infin//-differential Riccati equations: convergence properties and finite escape phenomena. *IEEE Transactions on Automatic Control*, **1997**, 42, 113-118	5.9	15
98	Algebraic Riccati equation and J-spectral factorization for estimation. *Systems and Control Letters*, **2004**, 51, 383-393	2.4	15
97	On discrete-time H/sub /spl infin// fixed-lag smoothing. *IEEE Transactions on Signal Processing*, **2004** , 52, 132-141	4.8	15
96	A note on the existence of positive realizations. *Linear Algebra and Its Applications*, **2004**, 390, 329-343	0.9	13

95	Zero-error regulation of discrete-time linear periodic systems. *Systems and Control Letters*, **1990**, 15, 161-167	2.4	13
94	Opinion influence and evolution in social networks: A Markovian agents model. *Automatica*, **2019**, 100, 219-230	5.7	13
93	Optimal and MPC Switching Strategies for Mitigating Viral Mutation and Escape. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2011**, 44, 14857-14862		12
92	Almost Sure Stability of Stochastic Linear Systems with Ergodic Parameters. *European Journal of Control*, **2008**, 14, 114-123	2.5	12
91	Theoretical aspects of continuous-time periodic systems. *Annual Reviews in Control*, **2005**, 29, 205-215	10.3	12
90	Stability and Stabilization of Discrete-Time Semi-Markov Jump Linear Systems via Semi-Markov Kernel Approach. *IEEE Transactions on Automatic Control*, **2015**, 1-1	5.9	11
89	Discrete-Time, Closed-Loop Aeromechanical Stability Analysis of Helicopters with Higher Harmonic Control. *Journal of Guidance, Control, and Dynamics*, **2007**, 30, 1249-1260	2.1	11
88	A hamilton-jacobi setup for the static output feedback stabilization of nonlinear systems. *IEEE Transactions on Automatic Control*, **2002**, 47, 2038-2041	5.9	11
87	Adaptive robust stabilization of continuous casting. *Automatica*, **2012**, 48, 225-232	5.7	10
86	Pad□Discretization for Linear Systems With Polyhedral Lyapunov Functions. *IEEE Transactions on Automatic Control*, **2011**, 56, 2717-2722	5.9	10
85	Vertex/plane characterization of the dwell-time property for switching linear systems **2010**,		10
84	Guaranteed robustness bounds for matched-disturbance nonlinear systems. *Automatica*, **2008**, 44, 2230-2240	5.7	10
83	H□robustness of adaptive filters against measurement noise and parameter drift. *Automatica*, **1999**, 35, 1509-1520	5.7	10
82	On the design and synthesis of limit cycles using switching linear systems. *International Journal of Control*, **2010**, 83, 915-927	1.5	9
81	Simultaneous performance achievement via compensator blending. *Automatica*, **2008**, 44, 1-14	5.7	9
80	Braking Control in Railway Vehicles: A Distributed Preview Approach. *IEEE Transactions on Automatic Control*, **2018**, 63, 189-195	5.9	8
79	Essentially negative news about positive systems. *Linear Algebra and Its Applications*, **2012**, 436, 3425-3442	0.9	8
78	Trading robustness with optimality in nonlinear control. *Automatica*, **2001**, 37, 1961-1969	5.7	8

77	Minimax control of Markov jump linear systems. *International Journal of Adaptive Control and Signal Processing*, **2016**, 30, 1152-1162	2.8	7
76	Closed-Loop Aeromechanical Stability of Hingeless Rotor Helicopters with Higher Harmonic Control. *Journal of Guidance, Control, and Dynamics*, **2006**, 29, 179-189	2.1	7
75	ROBUST MODEL PREDICTIVE CONTROL OF DISCRETE-TIME SWITCHED SYSTEMS. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2007**, 40, 208-212		7
74	Opinion Dynamics in Social Networks: The Effect of Centralized Interaction Tuning on Emerging Behaviors. *IEEE Transactions on Computational Social Systems*, **2020**, 7, 362-372	4.5	6
73	Stabilization via switching of positive Markov jump linear systems **2014**,		6
72	Almost sure stability of Markov jump linear systems with dwell-time constrained switching dynamics **2011**,		6
71	Differential linear matrix inequality in optimal sampled-data control. *Automatica*, **2019**, 100, 289-298	5.7	6
70	Switching Gains for Semiactive Damping via Nonconvex Lyapunov Functions. *IEEE Transactions on Control Systems Technology*, **2014**, 22, 721-728	4.8	5
69	Dynamic optimization algorithms to mitigate HIV escape **2010**,		5
68	Continuous-time optimal control for switched positive systems with application to mitigating viral escape*. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2010**, 43, 266-271		5
67	On the Role of Zeros in Rotorcraft Aeromechanics. *Journal of the American Helicopter Society*, **2004**, 49, 318-327	1.2	5
66	Hankel/Toeplitz matrices and the static output feedback stabilization problem. *Mathematics of Control, Signals, and Systems*, **2005**, 17, 231-268	1.3	5
65	Optimal Switching of 1-DOF Oscillating Systems. *Lecture Notes in Computer Science*, **2007**, 118-130	0.9	5
64	Shrinking horizon parametrized predictive control with application to energy-efficient train operation. *Automatica*, **2020**, 112, 108635	5.7	5
63	Mixed H2/H∞ control for automated highway driving. *Mechatronics*, **2019**, 57, 63-72	3	5
62	Railway collaborative ecodrive via dissension based switching nonlinear model predictive control. *European Journal of Control*, **2019**, 50, 153-160	2.5	4
61	A Youla-Kučera parameterization approach to output feedback relatively optimal control. *Systems and Control Letters*, **2015**, 81, 14-23	2.4	4
60	Discretisation of sparse linear systems: An optimisation approach. *Systems and Control Letters*, **2015**, 80, 42-49	2.4	4

59	Switching and sweeping vibration absorbers: Theory and experimental validation. *Automatica*, **2018**, 93, 290-301	5.7	4
58	Design of stabilizing strategies for dual switching stochastic-deterministic linear systems. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 4080-4084		4
57	Static output feedback control of switched systems with dwell time constraints or arbitrary switching **2017**,		4
56	Switched periodic systems in discrete time: stability and input□output norms. *International Journal of Control*, **2013**, 86, 1258-1268	1.5	4
55	Adaptive nonlinear control of braking in railway vehicles **2013**,		4
54	H□and dwell time specifications of switched linear systems **2008**,		4
53	Covariance bounds for discrete-time linear systems with time-varying parameter uncertainty. *International Journal of Control*, **1994**, 60, 1307-1317	1.5	4
52	Optimization based AIMD saturated algorithms for public charging of electric vehicles. *European Journal of Control*, **2019**, 47, 74-83	2.5	4
51	Checking Structural Stability of BDC-Decomposable Systems via Convex Optimisation **2020**, 4, 205-210		4
50	Optimal control of a class of positive Markovian bilinear systems. *Nonlinear Analysis: Hybrid Systems*, **2016**, 21, 155-170	4.5	3
49	Sub-optimal switching with dwell time constraints for control of viral mutation **2012**,		3
48	Is stabilization of switched positive linear systems equivalent to the existence of an Hurwitz convex combination of the system matrices? **2011**,		3
47	Mold level control of a continuous casting plant by switching control strategies. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2010**, 43, 1350-1355		3
46	Stabilization of discrete-time quantized linear systems: An H∕1 approach **2008**,		3
45	A factorization approach for the □gain of discrete□time linear systems. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2008**, 41, 1299-1304		3
44	Dynamic Output Feedback Stabilization of Continuous-Time Switched Systems **2006**, 347-352		3
43	Dwell time analysis of deterministic and stochastic switched systems **2009**,		3
42	Structured Feedback Synthesis for Stability and Performance of Switched Systems. *IEEE Transactions on Automatic Control*, **2020**, 65, 4695-4709	5.9	3

41	On the Synthesis of Static Output Feedback Controllers for Guaranteed RMS Gain of Switched Systems with Arbitrary Switching **2018**,		3
40	A convexity result for the optimal control of a class of positive nonlinear systems. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 1507-1512		2
39	Mean stability and stabilization of positive linear systems subject to mode-dependent Poisson jumps. *IFAC-PapersOnLine*, **2017**, 50, 2082-2087	0.7	2
38	Mean square stability of linear systems with Poisson jumps **2017**,		2
37	A stabilizable switched linear system does not necessarily admit a smooth homogeneous Lyapunov function **2013**,		2
36	Mean square stability of Markov Jump Linear Systems with piecewise constant transition rates under dwell-time specifications **2009**,		2
35	A Note on Discretization of Sparse Linear Systems. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 97-102		2
34	RMS gain with dwell time for discrete-time switched linear systems **2008**,		2
33	On Robust Almost Sure Stabilization of Continuous-Time Markov Jump Linear Systems **2006**,		2
32	Almost sure stability of stochastic linear systems with ergodic parameters: an average contractivity criterion **2006**,		2
31	GUARANTEED ROBUSTNESS BOUNDS FOR ACTUATOR DISTURBANCE NONLINEAR CONTROL. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2006**, 39, 393-398		2
30	ALMOST SURE STABILITY OF CONTINUOUS-TIME MARKOV JUMP LINEAR SYSTEMS: A RANDOMIZED APPROACH. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2005**, 38, 7-12		2
29	On the H-two norm of switched systems via homogeneous rational Lyapunov functions **2016**,		2
28	State-Feedback Control of Positive Switching Systems with Markovian Jumps. *Springer Optimization and Its Applications*, **2016**, 185-219	0.4	2
27	Stability and Stabilization for Markov Jump Linear Systems in Polyhedral Cones **2018**,		2
26	Uncertain Systems: Time-Varying Versus Time-Invariant Uncertainties. *Systems and Control: Foundations and Applications*, **2018**, 3-91	0.3	2
25	A distributed braking control algorithm with preview action for railroad vehicles. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 7330-7335		1
24	Extensions of Padé Discretization for Linear Systems With Polyhedral Lyapunov Functions for Generalized Jordan Structures. *IEEE Transactions on Automatic Control*, **2013**, 58, 2071-2076	5.9	1

23	Non-minimal factorization approach to the H∞ gain of discrete-time linear systems. *Automatica*, **2013**, 49, 2867-2873	5.7	1
22	On the interplay between periodic switches and uncontrolled jumps in linear discrete-time systems **2013**,		1
21	On the discretisation of sparse linear systems **2014**,		1
20	Analysis and control synthesis of continuous-time passive switched linear systems **2010**,		1
19	Trends in Theory of Control System Design Status report prepared by the IFAC Coordinating Committee on Design Methods. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2008**, 41, 2144-2155		1
18	Output-feedback stabilization of discrete-time switched systems. *Proceedings of the American Control Conference*, **2007**,	1.2	1
17	SWITCHING AND PERIODIC CONTROL OF THE BELGIAN CHOCOLATE SYSTEM. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2006**, 39, 149-153		1
16	COMPENSATOR BLENDING: A NEW TOOL FOR MULTI-OBJECTIVE DESIGN. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2006**, 39, 1-6		1
15	THEORY, ALGORITHMS AND TECHNOLOGY IN THE DESIGN OF CONTROL SYSTEMS. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2005**, 38, 130-140		1
14	From singular to nonsingular filtering of periodic systems: filling the gap with the spectral interactor matrix. *IEEE Transactions on Automatic Control*, **1999**, 44, 222-227	5.9	1
13	Positive Systems: Discretization with Positivity and Constraints1-20		1
12	On the RMS gain of switched systems via homogeneous rational Lyapunov functions **2016**,		1
11	Opinion Dynamics in Social Networks with Heterogeneous Markovian Agents **2018**,		1
10	Efficient Train Operation via Shrinking Horizon Parametrized Predictive Control. *IFAC-PapersOnLine* , **2018**, 51, 203-208	0.7	1
9	Collaborative Eco-Drive of Railway Vehicles via Switched Nonlinear Model Predictive Control. *IFAC-PapersOnLine*, **2018**, 51, 626-631	0.7	1
8	Integral Sliding-Mode Control With Internal Model: A Separation **2022**, 6, 446-451		1
7	Convergence in uncertain linear systems. *Automatica*, **2020**, 119, 109058	5.7	0
6	Minimum-time control of a class of nonlinear systems with partly unknown dynamics and constrained input. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2013** , 46, 211-216		0

5	The Role of Asymptomatic Infections in the COVID-19 Epidemic via Complex Networks and Stability Analysis. *SIAM Journal on Control and Optimization*,S119-S144	1.9	0
4	Distributed Nonlinear AIMD Algorithms for Electric Bus Charging Plants. *Energies*, **2021**, 14, 4389	3.1	0
3	STABILIZATION OF DISCRETE-TIME SWITCHED SYSTEMS. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2006**, 39, 160-165		
2	Stability, L1 performance and state feedback design for linear systems in ice-cream cones. *International Journal of Control*, **2021**, 94, 784-792	1.5	
1	Periodic Control Systems **2018**, 1-16		