

Giorgio Valmorbida

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Stability Analysis of a Class of Discontinuous Discrete-Time Systems. , 2023, 7, 454-459.		1
2	State-Feedback Design for Nonlinear Saturating Systems. IEEE Transactions on Automatic Control, 2022, 67, 3157-3164.	5.7	2
3	An LMI Approach for Stability Analysis and Output-Feedback Stabilization of Discrete-Time Lur'e Systems Using Zames-Falb Multipliers. , 2022, 6, 710-715.		7
4	Design of Saturating State Feedback With Sign-Indefinite Quadratic Forms. IEEE Transactions on Automatic Control, 2022, 67, 3507-3520.	5.7	7
5	Analysis of Linear Partial Differential Equations Using Convex Optimization. Advances in Delays and Dynamics, 2022, , 231-255.	0.4	0
6	Control design of uncertain discrete-time Lur'e systems with sector and slope bounded nonlinearities. International Journal of Robust and Nonlinear Control, 2022, 32, 7001-7015.	3.7	1
7	Self-scheduled H control of autonomous vehicle in collision avoidance maneuvers. IFAC-PapersOnLine, 2021, 54, 148-153.	0.9	1
8	Stabilization of Discrete-Time Piecewise Affine Systems in Implicit Representation. , 2021, , .		1
9	Stabilization of Sampled-Data Lure Systems with Slope-Restricted Nonlinearities. , 2021, , .		1
10	Stability Analysis of Linear Partial Differential Equations With Generalized Energy Functions. IEEE Transactions on Automatic Control, 2020, 65, 1924-1939.	5.7	3
11	On Quantization in Discrete-Time Control Systems: Stability Analysis of Ternary Controllers. , 2020, , .		2
12	An LMI-based iterative algorithm for state and output feedback stabilization of discrete-time Lur'e systems. , 2020, , .		1
13	A geometric stabilization of planar switched systems. IFAC-PapersOnLine, 2020, 53, 6446-6451.	0.9	0
14	Regional Analysis of Slope-Restricted Lurie Systems. IEEE Transactions on Automatic Control, 2019, 64, 1201-1208.	5.7	27
15	A framework for input-output analysis of wall-bounded shear flows. Journal of Fluid Mechanics, 2019, 873, 742-785.	3.4	13
16	Set-invariance characterizations of discrete-time descriptor systems with application to active mode detection. Automatica, 2019, 107, 255-263.	5.0	18
17	Regional Stability of Discrete-Time Linear Systems Subject to Asymmetric Input Saturation. , 2019, , .		7
18	Stability analysis of piecewise affine discrete-time systems. , 2019, , .		9

#	ARTICLE	IF	CITATIONS
19	Design and flight experiments of a Tube-Based Model Predictive Controller for the AR.Drone 2.0 quadrotor. IFAC-PapersOnLine, 2019, 52, 112-117.	0.9	9
20	Generalized Absolute Stability Using Lyapunov Functions With Relaxed Positivity Conditions. , 2018, 2, 207-212.		8
21	Invariant Sets for Discrete-Time Constrained Linear Systems using a Sliding Mode Approach. , 2018, , .		5
22	Invariant Set Design for Constrained Discrete-Time Linear Systems with Bounded Matched Disturbance. IFAC-PapersOnLine, 2018, 51, 55-60.	0.9	1
23	Limit cycles in Li ² -normal systems with saturation. IFAC-PapersOnLine, 2018, 51, 127-131.	0.9	0
24	Periodic Orbits in Planar Linear Systems With Input Saturation. , 2018, 2, 435-440.		1
25	Nonlinear Static State Feedback for Saturated Linear Plants via a Polynomial Approach. IEEE Transactions on Automatic Control, 2017, 62, 469-474.	5.7	6
26	Region of attraction estimation using invariant sets and rational Lyapunov functions. Automatica, 2017, 75, 37-45.	5.0	63
27	Regional L_2 gain analysis for linear saturating systems. Automatica, 2017, 76, 164-168.	5.0	3
28	Safety verification for distributed parameter systems using barrier functionals. Systems and Control Letters, 2017, 108, 33-39.	2.3	17
29	Equivalent Circuits for Electrochemical Supercapacitor Models * *This work was supported in part by funding from the EPSRC.. IFAC-PapersOnLine, 2017, 50, 2671-2676.	0.9	6
30	Robust invariant sets and active mode detection for discrete-time uncertain descriptor systems. , 2017, , .		4
31	A semi-definite programming approach to stability analysis of linear partial differential equations. , 2017, , .		5
32	Lyapunov analysis of nonlinear systems with rational vector field and Jacobian. , 2016, , .		1
33	Positivity conditions of Lyapunov functions for systems with slope restricted nonlinearities. , 2016, , .		8
34	Online policy iterations for optimal control of input-saturated systems. , 2016, , .		2
35	Stability Analysis for a Class of Partial Differential Equations via Semidefinite Programming. IEEE Transactions on Automatic Control, 2016, 61, 1649-1654.	5.7	44
36	Dissipation inequalities for the analysis of a class of PDEs. Automatica, 2016, 66, 163-171.	5.0	37

#	ARTICLE	IF	CITATIONS
37	Piecewise polynomial policy iterations for synthesis of optimal control laws in input-saturated systems. , 2015, , .		3
38	Bounds for Input- and State-to-Output Properties of Uncertain Linear Systems—Work supported by the Engineering and Physical Sciences Research Council projects EP/J012041/1. Giorgio Valmorbida is also a Fulford Junior Research fellow at Somerville College. James Anderson acknowledges funding from St John's College, Oxford. Dhruva Raman is supported by the EPSRC funded Systems Biology DTC at the University of Oxford. IFAC-PapersOnLine, 2015, 48, 1-6.	0.9	0
39	A convex approach to hydrodynamic analysis. , 2015, , .		4
40	Barrier functionals for output functional estimation of PDEs. , 2015, , .		6
41	Relaxed stabilizability conditions for hybrid linear systems on periodic time domains. , 2015, , .		1
42	Linear filter design for continuous-time polynomial systems with $\hat{\sigma}^2$ -gain guaranteed bound. , 2015, , .		1
43	Convex solutions to integral inequalities in two-dimensional domains. , 2015, , .		6
44	Introducing INTSOSTOOLS: A SOSTOOLS plug-in for integral inequalities. , 2015, , .		4
45	Region of attraction analysis via invariant sets. , 2014, , .		19
46	Semi-definite programming and functional inequalities for distributed parameter systems. , 2014, , .		16
47	A polynomial approach to nonlinear state feedback stabilization of saturated linear systems. , 2014, , .		3
48	Input-output analysis of distributed parameter systems using convex optimization. , 2014, , .		16
49	Finite-gain L_2 -stability for hybrid dynamical systems. Automatica, 2013, 49, 2384-2396.	5.0	34
50	Nonlinear regulation for linear fat plants: The constant reference/disturbance case. , 2013, , .		10
51	Global Stability and Finite L_2 -Gain of Saturated Uncertain Systems via Piecewise Polynomial Lyapunov Functions. IEEE Transactions on Automatic Control, 2013, 58, 242-246.	5.7	8
52	Anti-windup design for saturating quadratic systems. Systems and Control Letters, 2013, 62, 367-376.	2.3	15
53	Design of Polynomial Control Laws for Polynomial Systems Subject to Actuator Saturation. IEEE Transactions on Automatic Control, 2013, 58, 1758-1770.	5.7	52
54	Nonlinear output regulation for over-actuated linear systems. , 2013, , .		8

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55	Synthesis of polynomial static state feedback laws and analysis for discrete-time polynomial systems with saturating inputs. , 2012, , .		2
56	On Finite Gain Lp Stability for Hybrid Systems*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 418-423.	0.4	2
57	Piecewise polynomial Lyapunov functions for stability and nonlinear gain computation of saturated uncertain systems. , 2011, , .		2
58	Anti-windup for NDI quadratic systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 1175-1180.	0.4	7
59	State feedback design for input-saturating quadratic systems. Automatica, 2010, 46, 1196-1202.	5.0	62
60	Stability and performance analysis for input and output-constrained linear systems subject to multiplicative neglected dynamics. , 2009, , .		0
61	State feedback design for input-saturating nonlinear quadratic systems. , 2009, , .		10
62	Region of attraction estimates for polynomial systems. , 2009, , .		9
63	Analyse de stabilit� pour un syst�me soumis � des saturations et avec des dynamiques n�glig�es. Journal Europeen Des Systemes Automatises, 2009, 43, 217-239.	0.4	0
64	Stability and performance analysis for linear systems with actuator and sensor saturations subject to unmodeled dynamics. , 2008, , .		5
65	Condi�es LMI do teorema do ganho pequeno escalonado para an�lise de estabilidade de sistemas incertos com atraso. Controle and Automacao, 2007, 18, 447-458.	0.2	1
66	Scaled Small Gain Conditions for Robust Stability of Time-Delay Systems: An LMI Approach. , 2006, , .		0
67	A Neural Approach for Fast Simulation of Flight Mechanics. , 0, , .		5
68	Stability of Sampled-Data Control for Lurie Systems with Slope-Restricted Nonlinearities. , 0, , .		0