Alessandro Pisano

List of Publications by Year
in descending order

136 papers	3,841 citations	186265 28 h-index	138484 58 g-index
137 all docs	137 docs citations	137 times ranked	2448 citing authors

#	Article	IF	Citations
1	Model Predictive Operation Control of Islanded Microgrids under Nonlinear Conversion Losses of Storage Units. Electricity, 2022, 3, 33-50.	2.8	3
2	Sliding-Mode Boundary Control of an In-Line Heating System Governed by Coupled PDE/ODE Dynamics. IEEE Transactions on Control Systems Technology, 2022, 30, 2689-2697.	5.2	0
3	Sliding Mode-Based Robustification of Consensus and Distributed Optimization Control Protocols. IEEE Transactions on Automatic Control, 2021, 66, 1207-1214.	5.7	16
4	On the fixed–time consensus problem for nonlinear uncertain multiagent systems under switching topology. International Journal of Robust and Nonlinear Control, 2021, 31, 3841-3858.	3.7	5
5	Leader-Follower Synchronization and ISS Analysis for a Network of Boundary-Controlled Wave PDEs. , 2021, 5, 683-688.		30
6	Robust Distributed Secondary Voltage Restoration Control of AC Microgrids under Multiple Communication Delays. Energies, 2021, 14, 1165.	3.1	7
7	Adaptive unit-vector law with time-varying gain for finite-time parameter estimation in LTI systems. Applied Numerical Mathematics, 2020, 155, 16-28.	2.1	1
8	Combined Backstepping/Second-Order Sliding-Mode Boundary Stabilization of an Unstable Reaction–Diffusion Process. , 2020, 4, 391-396.		3
9	Distributed Finite-Time Secondary Control of Islanded Microgrids by Coupled Sliding-Mode Technique. , 2020, , .		1
10	On the Robust Distributed Secondary Control of Islanded Inverter-Based Microgrids. Studies in Systems, Decision and Control, 2020, , 309-357.	1.0	3
11	Robust Distributed Optimal Secondary Voltage Control in Islanded Microgrids with Time-Varying Multiple Delays. , 2020, , .		1
12	Simplex sliding mode control for autonomous six–DOF vehicles with mono–directional actuators: Robustness, stability, and implementation issues. International Journal of Robust and Nonlinear Control, 2019, 29, 529-549.	3.7	4
13	Adaptive Parameter Estimation in LTI Systems. IEEE Transactions on Automatic Control, 2019, 64, 4188-4195.	5.7	10
14	Distributed Robust Finite-time Non-linear Consensus Protocol for High-order Multi-agent Systems via Coupled Sliding Mode Control. , 2019, , .		0
15	Adaptive parameter estimation for infinite-dimensional LTI systems with finite-time convergence. , 2019, , .		0
16	Robust Finite-Time Frequency and Voltage Restoration of Inverter-Based Microgrids via Sliding-Mode Cooperative Control. IEEE Transactions on Industrial Electronics, 2018, 65, 907-917.	7.9	107
17	Robust consensus-based secondary voltage restoration of inverter-based islanded microgrids with delayed communications. , 2018, , .		9
18	High Accuracy Sigma-Delta Modulator implementations via Suboptimal Quasi-Sliding Mode Control. , 2018, , .		1

#	Article	IF	Citations
19	Robustification of Cooperative Consensus Algorithms in Perturbed Multi-agents Systems. Studies in Systems, Decision and Control, 2018, , 247-267.	1.0	0
20	Receding Horizon Adaptive Second-Order Sliding Mode Control for Doubly-Fed Induction Generator Based Wind Turbine. IEEE Transactions on Control Systems Technology, 2017, 25, 73-84.	5.2	61
21	Finite-Time Consensus on the Median Value With Robustness Properties. IEEE Transactions on Automatic Control, 2017, 62, 1652-1667.	5.7	60
22	Retaining Connectivity In Mobile Communication Mesh Networks. IFAC-PapersOnLine, 2017, 50, 800-807.	0.9	1
23	Voltage Restoration of Islanded Microgrids via Cooperative Second-Order Sliding Mode Control * *The research leading to these results has been supported by Region Sardinia (L.R.7/2007) CRP-7733 [â€œSviluppo, progettazione e realizzazione prototipale di sistemi di gestione e controllo ottimali per una Micro Smart Gridâ€].. IFAC-PapersOnLine, 2017, 50, 9637-9642.	0.9	6
24	On the ISS properties of a class of parabolic DPSâ€™ with discontinuous control using sampled-in-space sensing and actuation. Automatica, 2017, 81, 447-454.	5.0	55
25	Robust distributed consensus on the median value for networks of heterogeneously perturbed agents. , 2016, , .		5
26	Coordination of electric thermal systems for distributed demand-side management: A gossip-based cooperative approach. , 2016, , .		9
27	Boundary control of coupled reaction-advection-diffusion equations having the same diffusivity parameter**The research leading to these results has received funding from the research project "Modeling, control and experimentation of innovative thermal storage systems", funded by Sardinia regional government under grant agreement n. CRP-60193. IFAC-PapersOnLine, 2016, 49, 86-91.	0.9	6
28	Integral sliding modes for the robustification of consensus-based multi-agent based systems. , 2016, , .		8
29	Consensus-based leader-follower tracking for a network of perturbed diffusion PDEs via local boundary interaction**The research leading to these results has received funding from the research project "Modeling, control and experimentation of innovative thermal storage systems", funded by Sardinia regional government under grant agreement n. CRP-60193.. IFAC-PapersOnLine, 2016, 49, 228-233.	0.9	8
30	Multiple fault diagnosis by signature recognition of time-varying residuals. , 2016, , .		0
31	A discontinuous algorithm for distributed convex optimization. , 2016, , .		8
32	Switched/time-based adaptation for second-order sliding mode control. Automatica, 2016, 64, 126-132.	5.0	51
33	Consensus-Based Control for a Network of Diffusion PDEs With Boundary Local Interaction. IEEE Transactions on Automatic Control, 2016, 61, 2708-2713.	5.7	78
34	Sliding-mode boundary control of a class of perturbed reaction-diffusion processes. , 2015, , .		4
35	Anticollocated Backstepping Observer Design for a Class of Coupled Reaction-Diffusion PDEs. Journal of Control Science and Engineering, 2015, 2015, 1-10.	1.0	18
36	Boundary control of coupled reactionâ€"diffusion processes with constant parameters. Automatica, 2015, 54, 80-90.	5.0	109

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37	Observer-Based Air Excess Ratio Control of a PEM Fuel Cell System via High-Order Sliding Mode. IEEE Transactions on Industrial Electronics, 2015, 62, 5236-5246.	7.9	106
38	Finite-Time Consensus With Disturbance Rejection by Discontinuous Local Interactions in Directed Graphs. IEEE Transactions on Automatic Control, 2015, 60, 1133-1138.	5.7	98
39	On the boundary control of coupled reaction-diffusion equations having the same diffusivity parameters. , 2014, , .		25
40	Disturbance attenuation in nonlinear perturbed diffusion processes by sampled-in-space sensing and actuation. , 2014, , .		1
41	Time-based adaptive second order sliding mode controller for wind energy conversion optimization. , 2014, , .		5
42	Finite-time consensus on the median value by discontinuous control. , 2014, , .		19
43	An adaptive scheme for delay estimation in fractional order systems. , 2014, , .		0
44	Variable-Order Fractional Operators for Adaptive Order and Parameter Estimation. IEEE Transactions on Automatic Control, 2014, 59, 798-803.	5.7	46
45	Recent advances in sliding-mode based consensus strategies. , 2014, , .		15
46	On the boundary control of distributed parameter systems by second-order sliding-mode technique. Recent advances and new results. , 2014, , .		1
47	Second order sliding mode approaches to fault detection and control of infinite dimensional systems. , 2014, , .		9
48	Adaptive unit-vector control of an uncertain heat diffusion process. Journal of the Franklin Institute, 2014, 351, 2062-2075.	3.4	6
49	Discontinuous dynamical systems for fault detection. A unified approach including fractional and integer order dynamics. Mathematics and Computers in Simulation, 2014, 95, 111-125.	4.4	15
50	Finite-time consensus for switching network topologies with disturbances. Nonlinear Analysis: Hybrid Systems, 2013, 10, 83-93.	3.5	50
51	Analysis and shaping of the self-sustained oscillations in relay controlled fractional-order systems. Fractional Calculus and Applied Analysis, 2013, 16, 93-108.	2.2	23
52	Special Issue on â€œAdvances in Fractional Order Control and Estimationâ€. Asian Journal of Control, 2013, 15, 637-639.	3.0	4
53	Combined switched/time-based adaptation in second order sliding mode control. , 2013, , .		13
54	Boundary control and observer design for an uncertain wave process by second-order sliding-mode technique. , 2013, , .		12

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55	Finite-time consensus for a network of perturbed double integrators by second-order sliding mode technique. , 2013, , .		22
56	Finite-time consensus with disturbance attenuation for directed switching network topologies by discontinuous local interactions. , 2013, , .		8
57	Decentralized state estimation in connected systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 421-426.	0.4	7
58	Nonlinear Discrete-Time Algorithm for Fractional Derivatives Computation with Application to PIî»DÎ¼ Controller Implementation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 887-892.	0.4	8
59	On a Numerical Rule for the Numerical Solution of Linear Fractional Differential Equations * *The work of A. Pisano, D. Nessi and R. Garrappa has been supported by the Italian Ministry of University and Research (MIUR) under project â€œNon integer order systems in modelling and controlâ€; Grant no. 2009F4NZJP. A. Pisano also acknowledges funding from the European Union Seventh Framework Programme (FP7/2007-2013) Network of excellence â€œHYCON2-Highly-complex and...	0.4	1
60	Adaptive order and parameter estimation in fractional linear systems by approximate gradient and least squares methods* *M. Rapaic and Z.D. JeliÄ¡Ä‡ acknowledge the financial support of Serbian Ministry of Science and Education, grants no. 32018 and 33013 A. Pisano has been supported by the Italian Ministry of University and Research (MIUR) under PRIN project â€œNon integer order systems in modeling and controlâ€; grant no. 2009F4NZJP.. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 881-886.	0.4	1
61	A new approach to causal output tracking for non-minimum phase nonlinear systems via combined first/second order sliding mode control. , 2013, , .		2
62	Frequency-domain analysis of self-excited oscillations for a class of multivariable relay systems. , 2013, , .		3
63	Why template self-update should work in biometric authentication systems?. , 2012, , .		2
64	Sliding-mode boundary control of uncertain reaction-diffusion processes with spatially varying parameters. , 2012, , .		2
65	Time-based switched sliding mode control for yaw rate regulation in two-wheeled vehicles. , 2012, , .		7
66	Adaptive identification of the commensurate order in fractional processes by means of variable-order operators. , 2012, , .		4
67	Finite-Time Consensus based Clock Synchronization by Discontinuous Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 172-177.	0.4	2
68	Parameter tuning and chattering adjustment of Super-Twisting sliding mode control system for linear plants. , 2012, , .		16
69	Robust stabilization of an uncertain diffusion process with boundary control and sensing. , 2012, , .		0
70	Distributed tracking control of an uncertain heat diffusion process. , 2012, , .		0
71	Robust FDI in induction motors via second order sliding mode technique. , 2012, , .		5
72	On the Lyapunov-based second-order SMC design for some classes of distributed parameter systems. IMA Journal of Mathematical Control and Information, 2012, 29, 437-457.	1.7	8

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73	Boundary second-order sliding-mode control of an uncertain heat process with unbounded matched perturbation. Automatica, 2012, 48, 1768-1775.	5.0	75
74	Continuous finite-time stabilization for some classes of fractional order dynamics. , 2012, , .		13
75	Unknown-input observation techniques for infiltration and water flow estimation in open-channel hydraulic systems. Control Engineering Practice, 2012, 20, 1374-1384.	5.5	4
76	Detection of rotor broken bar and eccentricity faults in induction motors via second order sliding mode observer. , 2012, , .		4
77	Trapezoidal rule for numerical evaluation of fractional order integrals with applications to simulation and identification of fractional order systems. , 2012, , .		8
78	On the multiâ€input secondâ€order sliding mode control of nonlinear uncertain systems. International Journal of Robust and Nonlinear Control, 2012, 22, 1765-1778.	3.7	22
79	On-line adaptive clustering for process monitoring and fault detection. Expert Systems With Applications, 2012, 39, 10226-10235.	7.6	21
80	Exponential Stabilization of the Uncertain Wave Equation via Distributed Dynamic Input Extension. IEEE Transactions on Automatic Control, 2011, 56, 212-217.	5.7	51
81	Lyapunov-based second-order sliding mode control for a class of uncertain reaction-diffusion processes. , 2011, , .		0
82	Switched Observers for Switched Linear Systems With Unknown Inputs. IEEE Transactions on Automatic Control, 2011, 56, 681-686.	5.7	137
83	Tracking Control of the Uncertain Heat and Wave Equation via Power-Fractional and Sliding-Mode Techniques. SIAM Journal on Control and Optimization, 2011, 49, 363-382.	2.1	134
84	Distributed-parameter second-order sliding-mode control techniques for the uncertain heat and wave equations. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 762-767.	0.4	1
85	Unknown-input observation techniques in Open Channel Hydraulic Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 1151-1156.	0.4	1
86	Second-order sliding mode approaches to disturbance estimation and fault detection in fractional-order systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 2436-2441.	0.4	17
87	Second-order Sliding Mode Control with Adaptive Control Authority for the Tracking Control of Robotic Manipulators. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 10319-10324.	0.4	11
88	Contact force estimation and regulation in active pantographs: An algebraic observability approach. Asian Journal of Control, 2011, 13, 761-772.	3.0	15
89	Sliding mode control: A survey with applications in math. Mathematics and Computers in Simulation, 2011, 81, 954-979.	4.4	175
90	Continuous and discrete state reconstruction for nonlinear switched systems via high-order sliding-mode observers. International Journal of Systems Science, 2011, 42, 725-735.	5.5	21

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91	Boundary second-order sliding-mode control of an uncertain heat process with spatially varying diffusivity. , 2011, , .		3
92	Continuous state-feedback tracking of an uncertain heat diffusion process. Systems and Control Letters, 2010, 59, 754-759.	2.3	38
93	Black-box position and attitude tracking for underwater vehicles by second-order sliding-mode technique. International Journal of Robust and Nonlinear Control, 2010, 20, 1594-1609.	3.7	30
94	Consensus based decentralized estimation for linear plants with unknown inputs. , 2010, , .		2
95	Load swing suppression in the 3-dimensional overhead crane via second-order sliding-modes. , 2010, , .		23
96	Second-order sliding-mode control of the uncertain heat and wave equations. , 2010, , .		9
97	On the second-order sliding mode control of nonlinear systems with uncertain control direction. Automatica, 2009, 45, 2982-2985.	5.0	29
98	State observation for quasi-linear uncertain systems by nested high-order sliding mode observer. , 2009, , .		0
99	Finite-time state observation for non-linear uncertain systems via higher-order sliding modes. International Journal of Control, 2009, 82, 1564-1574.	1.9	58
100	On the Transfer Properties of the "Generalized Sub-Optimal" Second-Order Sliding Mode Control Algorithm. IEEE Transactions on Automatic Control, 2009, 54, 399-403.	5.7	28
101	A Feedback-Based Approach to DVFS in Data-Flow Applications. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2009, 28, 1691-1704.	2.7	41
102	Finite-time observation of the continuous and discrete state for a class of nonlinear switched dynamics. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 358-363.	0.4	2
103	On an output-feedback stabilization problem with uncertainty in the relative degree. International Journal of Robust and Nonlinear Control, 2008, 18, 741-755.	3.7	3
104	Finite-time state observation for nonlinear systems with application to compressor surge detection: a high order sliding-mode approach. , 2008, , .		0
105	Contact force regulation in wire-actuated pantographs via variable structure control and frequency-domain techniques. International Journal of Control, 2008, 81, 1747-1762.	1.9	47
106	Sliding mode control of nonlinear uncertain systems with relative degree two and uncertain control direction. , 2008, , .		1
107	Cascade control of PM-DC drives via second-order sliding mode technique. , 2008, , .		3
108	Compressor surge active control via throttle and CCV actuators. A second-order sliding-mode approach. , 2008, , .		12

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109	Observation of a class of quasilinear systems by quasi-continuous high-order sliding modes. , 2008, , .		2
110	A Comprehensive Analysis of Chattering in Second Order Sliding Mode Control Systems. , 2008, , 23-49.		3
111	Global hierarchical observer for linear systems with unknown inputs. , 2008, , .		6
112	On the transfer properties of second-order sliding mode control systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 3823-3829.	0.4	0
113	Compressor Surge Suppression by Second-Order Sliding Mode Control Technique. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 6238-6244.	0.4	2
114	Contact Force Regulation in Wire-Actuated Pantographs. , 2008, , 447-463.		5
115	A control theoretic approach to energy-efficient pipelined computation in MPSoCs. Transactions on Embedded Computing Systems, 2007, 6, 27.	2.9	28
116	On the Finite-Time Stabilization of Uncertain Nonlinear Systems With Relative Degree Three. IEEE Transactions on Automatic Control, 2007, 52, 2134-2141.	5.7	18
117	Analysis of Chattering in Systems With Second-Order Sliding Modes. IEEE Transactions on Automatic Control, 2007, 52, 2085-2102.	5.7	305
118	On an output-feedback stabilization problem with uncertainty in the relative degree. , 2007, , .		0
119	Performance Analysis of Second-Order Sliding-Mode Control Systems With Fast Actuators. IEEE Transactions on Automatic Control, 2007, 52, 1053-1059.	5.7	38
120	Contact force regulation in wire-actuated pantographs via variable structure control. , 2007, , .		6
121	Globally convergent real-time differentiation via second order sliding modes. International Journal of Systems Science, 2007, 38, 833-844.	5.5	34
122	ON THE FINITE-TIME STABILIZATION OF A NONLINEAR UNCERTAIN DYNAMICS VIA SWITCHED CONTROL. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 276-282.	0.4	0
123	Non-Linear Feedback Control for Energy Efficient On-Chip Streaming Computation. , 2006, , .		2
124	On the Finite-Time Stabilization of a Nonlinear Uncertain Dynamics VIA Switched Control. , 2006, , 276-282.		0
125	Outputâ€"Feedback Regulation of the Contact-Force in High-Speed Train Pantographs. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2004, 126, 82-87.	1.6	27
126	Output-feedback control of an underwater vehicle prototype by higher-order sliding modes. Automatica, 2004, 40, 1525-1531.	5.0	101

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127	Output-feedback control of an underwater vehicle prototype by higher-order sliding modes*1. Automatica, 2004, 40, 1525-1525.	5.0	1
128	A survey of applications of second-order sliding mode control to mechanical systems. International Journal of Control, 2003, 76, 875-892.	1.9	624
129	Global output-feedback tracking and load disturbance rejection for electrically-driven robotic manipulators with uncertain dynamics. International Journal of Control, 2003, 76, 1201-1213.	1.9	14
130	Output-Feedback Control of an Underwater Vehicle Prototype: Theory and Experiments. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 449-454.	0.4	0
131	OUTPUTâ€FEEDBACK CONTROL OF CONTAINER CRANES: A COMPARATIVE ANALYSIS. Asian Journal of Control, 2003, 5, 578-593.	3.0	22
132	Higher-Order Sliding Modes for the Output-Feedback Control of Nonlinear Uncertain Systems. , 2002, , 83-108.		36
133	Second-order sliding-mode control of container cranes. Automatica, 2002, 38, 1783-1790.	5.0	215
134	Time-Optimal Stabilization for a Third-Order Integrator: a Robust State-Feedback Implementation. , 2002, , 131-144.		3
135	Digital second-order sliding mode control for uncertain nonlinear systems. Automatica, 2001, 37, 1371-1377.	5.0	56
136	Variable structure control of nonlinear sampled data systems by second order sliding modes. , 1999, , 43-67.		11