Andrea Garulli

List of Publications by Year
in descending order

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108	3,173	218677	161849
papers	citations	26 h-index	54 g-index

110	110	110	2269
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A bounded-error approach to piecewise affine system identification. IEEE Transactions on Automatic Control, 2005, 50, 1567-1580.	5.7	291
2	Polynomially parameter-dependent Lyapunov functions for robust stability of polytopic systems: an LMI approach. IEEE Transactions on Automatic Control, 2005, 50, 365-370.	5.7	217
3	Recursive state bounding by parallelotopes. Automatica, 1996, 32, 1049-1055.	5.0	194
4	Homogeneous Lyapunov functions for systems with structured uncertainties. Automatica, 2003, 39, 1027-1035.	5.0	172
5	Homogeneous Polynomial Forms for Robustness Analysis of Uncertain Systems. Lecture Notes in Control and Information Sciences, 2009, , .	1.0	164
6	Collective circular motion of multi-vehicle systems. Automatica, 2008, 44, 3025-3035.	5.0	152
7	Solving quadratic distance problems: an LMI-based approach. IEEE Transactions on Automatic Control, 2003, 48, 200-212.	5.7	146
8	Comparing different approaches to model error modeling in robust identification. Automatica, 2002, 38, 787-803.	5.0	141
9	Robust stability of time-varying polytopic systems via parameter-dependent homogeneous Lyapunov functions. Automatica, 2007, 43, 309-316.	5.0	118
10	A survey on switched and piecewise affine system identification. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 344-355.	0.4	115
11	Localization of Autonomous Underwater Vehicles by Floating Acoustic Buoys: A Set-Membership Approach. IEEE Journal of Oceanic Engineering, 2005, 30, 140-152.	3.8	104
12	Walking Ahead: The Headed Social Force Model. PLoS ONE, 2017, 12, e0169734.	2.5	91
13	Comparison of EKF and UKF for Spacecraft Localization via Angle Measurements. IEEE Transactions on Aerospace and Electronic Systems, 2011, 47, 75-84.	4.7	85
14	Models and Techniques for Electric Load Forecasting in the Presence of Demand Response. IEEE Transactions on Control Systems Technology, 2015, 23, 1087-1097.	5.2	84
15	Output-feedback predictive control of constrained linear systems via set-membership state estimation. International Journal of Control, 2000, 73, 655-665.	1.9	82
16	Simultaneous localization and map building for a team of cooperating robots: a set membership approach. IEEE Transactions on Automation Science and Engineering, 2003, 19, 238-249.	2.3	63
17	Navigation assistance and guidance of older adults across complex public spaces: the DALiÂapproach. Intelligent Service Robotics, 2015, 8, 77-92.	2.6	58
18	Propulsion options for very low Earth orbit microsatellites. Acta Astronautica, 2017, 133, 444-454.	3.2	52

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19	Analysis of consensus protocols with bounded measurement errors. Systems and Control Letters, 2011, 60, 44-52.	2.3	51
20	Off-line removal of TMS-induced artifacts on human electroencephalography by Kalman filter. Journal of Neuroscience Methods, 2007, 162, 293-302.	2.5	45
21	Application of Kalman Filter to Remove TMS-Induced Artifacts from EEG Recordings. IEEE Transactions on Control Systems Technology, 2008, 16, 1360-1366.	5.2	44
22	Input Design in Worst-Case System Identification Using Binary Sensors. IEEE Transactions on Automatic Control, 2011, 56, 1186-1191.	5.7	42
23	Input design in worst-case system identification with quantized measurements. Automatica, 2012, 48, 2997-3007.	5.0	36
24	Upper Body Pose Estimation Using Wearable Inertial Sensors and Multiplicative Kalman Filter. IEEE Sensors Journal, 2020, 20, 492-500.	4.7	33
25	A Trajectory Generation Algorithm for Optimal Consumption in Electromagnetic Actuators. IEEE Transactions on Control Systems Technology, 2012, 20, 1025-1032.	5.2	32
26	Autonomous Low-Earth-Orbit Station-Keeping with Electric Propulsion. Journal of Guidance, Control, and Dynamics, 2011, 34, 1683-1693.	2.8	30
27	Load forecasting for active distribution networks. , 2011, , .		29
28	Time complexity and input design in worst-case identification using binary sensors. , 2007, , .		28
29	A Remote Lab for Experiments with a Team of Mobile Robots. Sensors, 2014, 14, 16486-16507.	3.8	27
30	A distributed asynchronous method of multipliers for constrained nonconvex optimization. Automatica, 2019, 103, 243-253.	5.0	20
31	A set-membership approach to consensus problems with bounded measurement errors. , 2008, , .		16
32	Sum-of-Norms Model Predictive Control for Spacecraft Maneuvering. , 2019, 3, 649-654.		16
33	Orbit Control Techniques for Space Debris Removal Missions Using Electric Propulsion. Journal of Guidance, Control, and Dynamics, 2020, 43, 1259-1268.	2.8	16
34	All-Electric Spacecraft Precision Pointing Using Model Predictive Control. Journal of Guidance, Control, and Dynamics, 2015, 38, 161-168.	2.8	15
35	A LEGO Mindstorms experimental setup for multi-agent systems. , 2009, , .		14
36	Feasible Parameter Set Approximation for Linear Models with Bounded Uncertain Regressors. IEEE Transactions on Automatic Control, 2014, 59, 2910-2920.	5.7	14

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37	A LEGO Mindstorms multi-robot setup in the Automatic Control Telelab. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 9812-9817.	0.4	13
38	Experimental validation of collective circular motion for nonholonomic multi-vehicle systems. Robotics and Autonomous Systems, 2010, 58, 1028-1036.	5.1	12
39	When Helbing meets Laumond: The Headed Social Force Model. , 2016, , .		12
40	Identification of Piecewise Affine LFR Models of Interconnected Systems. IEEE Transactions on Control Systems Technology, 2011, 19, 148-155.	5.2	11
41	An Improved Lion Strategy for the Lion and Man Problem. , 2017, 1, 38-43.		11
42	Cooperative SLAM using -Space representation of linear features. Robotics and Autonomous Systems, 2012, 60, 1267-1278.	5.1	10
43	State Feedback Control in Equinoctial Variables for Orbit Phasing Applications. Journal of Guidance, Control, and Dynamics, 2018, 41, 1815-1822.	2.8	9
44	A discrete-time pursuitâ€“evasion game in convex polygonal environments. Systems and Control Letters, 2019, 125, 22-28.	2.3	9
45	Unnamed design in <mml:math altimg="si1.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.elsevier.. Auto	5.0	8
46	Optimal input design for identification of systems with quantized measurements. , 2008, , .		8
47	A Matlab-based Remote Lab for Multi-Robot Experiments. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 42, 162-167.	0.4	8
48	Global Stability and FiniteL2m-Gain of Saturated Uncertain Systems via Piecewise Polynomial Lyapunov Functions. IEEE Transactions on Automatic Control, 2013, 58, 242-246.	5.7	8
49	Minimum switching control for systems of coupled double integrators. Automatica, 2015, 60, 115-121.	5.0	8
50	Satellite Relative Motion Modeling and Estimation via Nodal Elements. Journal of Guidance, Control, and Dynamics, 2020, 43, 1904-1914.	2.8	8
51	Set-membership identification of ARX models with quantized measurements. , 2011, , .		7
52	Electric load forecasting in the presence of Active Demand. , 2012, , .		7
53	An MPC-based attitude control system for all-electric spacecraft with on/off actuators. , 2013, , .		7
54	Multivariable control for regulating high pressure centrifugal compressor with variable speed and IGV. , 2014, , .		7

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55	Minimum switching limit cycle oscillations for systems of coupled double integrators. , 2014, , .		7
56	A constraint selection technique for set membership estimation of time-varying parameters. , 2014, , .		7
57	Model Predictive Control for pressure regulation and surge prevention in centrifugal compressors. , 2015, , .		7
58	Variable-Horizon Guidance for Autonomous Rendezvous and Docking to a Tumbling Target. Journal of Guidance, Control, and Dynamics, 2022, 45, 846-858.	2.8	7
59	A necessary and sufficient condition for input-output realization of switched affine state space models. , 2008, , .		6
60	Input design for worst-case system identification with uniformly quantized measurements. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 54-59.	0.4	6
61	Robust finite-frequency ℋ<inf>2</inf> analysis. , 2010, , .		6
62	MARS: a Matlab simulator for mobile robotics experiments. IFAC-PapersOnLine, 2016, 49, 69-74.	0.9	6
63	Minimum Switching Thruster Control for Spacecraft Precision Pointing. IEEE Transactions on Aerospace and Electronic Systems, 2017, 53, 683-697.	4.7	6
64	A class of globally stabilizing feedback controllers for the orbital rendezvous problem. International Journal of Robust and Nonlinear Control, 2017, 27, 4607-4621.	3.7	6
65	Distributed Interpolatory Algorithms for Set Membership Estimation. IEEE Transactions on Automatic Control, 2019, 64, 3817-3822.	5.7	6
66	Optimal Low-Thrust Orbit Transfers Made Easy: A Direct Approach. Journal of Spacecraft and Rockets, 2021, 58, 1904-1914.	1.9	6
67	Set Membership Identification of Piecewise Affine Models. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 1789-1794.	0.4	5
68	An iterative procedure for piecewise affine identification of nonlinear interconnected systems. , 2007, , .		5
69	SPACECRAFT LOCALIZATION VIA ANGLE MEASUREMENTS FOR AUTONOMOUS NAVIGATION IN DEEP SPACE MISSIONS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 551-556.	0.4	5
70	Multi-robot SLAM using M-Space feature representation. , 2010, , .		5
71	Remote pursuer-evader experiments with mobile robots in the Automatic Control Telelab. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 66-71.	0.4	5
72	Analysis of threshold models for collective actions in social networks. , 2015, , .		5

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73	Clearance of flight control laws via parameter-dependent Lyapunov functions. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 337-342.	0.4	4
74	Asynchronous Distributed Method of Multipliers for Constrained Nonconvex optimization. , 2018, , .		4
75	Asynchronous Distributed Learning From Constraints. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 4367-4373.	11.3	4
76	Sum-of-Norms Periodic Model Predictive Control for Space Rendezvous. IEEE Transactions on Control Systems Technology, 2022, 30, 1311-1318.	5.2	4
77	On the advantage of centralized strategies in the three-pursuer single-evader game. Systems and Control Letters, 2022, 160, 105122.	2.3	4
78	Experimental validation of a decentralized control law for multi-vehicle collective motion. , 2007, , .		3
79	Piecewise polynomial Lyapunov functions for global asymptotic stability of saturated uncertain systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 14470-14476.	0.4	3
80	A remote lab for multi-robot experiments with virtual obstacles. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 354-359.	0.4	3
81	Equivalence of sum of squares convex relaxations for quadratic distance problems. International Journal of Robust and Nonlinear Control, 2013, 23, 965-977.	3.7	3
82	Nonlinear orbit control with longitude tracking. , 2016, , .		3
83	A recursive technique for tracking the feasible parameter set in bounded error estimation. International Journal of Adaptive Control and Signal Processing, 2017, 31, 1456-1466.	4.1	3
84	Regional <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si7.gif" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi mathvariant="script">L</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn><mml:mi>m</mml:mi></mml:mrow></mml:msub> gain analysis for linear saturating systems. Automatica, 2017, 76, 164-168.	5.0	3
85	A novel family of pursuit strategies for the lion and man problem. , 2017, , .		3
86	Efficient computation of â„“1 uncertainty model from an impulse response set. Automatica, 2008, 44, 2570-2576.	5.0	2
87	On the calculation of the robust finite frequency H2 norm. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 3360-3365.	0.4	2
88	Piecewise polynomial Lyapunov functions for stability and nonlinear ℒ<inf>2m</inf>-gain computation of saturated uncertain systems. , 2011, , .		2
89	Bounding nonconvex feasible sets in set membership identification: OE and ARX models with quantized information. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 1191-1196.	0.4	2
90	Robust finite-frequency analysis of uncertain systems with application to flight comfort analysis. Control Engineering Practice, 2013, 21, 887-897.	5.5	2

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91	An adaptive groundtrack maintenance scheme for spacecraft with electric propulsion. Acta Astronautica, 2020, 167, 460-466.	3.2	2
92	Set Membership Localization and Map Building for Mobile Robots. , 2006, , 289-308.		2
93	Convex relaxations for quadratic distance problems. , 2008, , .		1
94	Convex relaxations in circuits, systems, and control. IEEE Circuits and Systems Magazine, 2009, 9, 46-56.	2.3	1
95	Minimum switching control for spacecraft precision pointing with on/off actuators. , 2015, , .		1
96	A bilevel programming framework for piecewise affine system identification. , 2019, , .		1
97	Distributed set membership estimation with time-varying graph topology. , 2019, , .		1
98	A new class of pursuer strategies for the discrete-time lion and man problem. Automatica, 2019, 100, 162-170.	5.0	1
99	Applications of IQC-Based Analysis Techniques for Clearance. Lecture Notes in Control and Information Sciences, 2012, , 277-297.	1.0	1
100	Cooperative versus non-cooperative strategies in three-pursuer single-evader games. , 2020, , .		1
101	Sum-Of-Norms MPC for Linear Periodic Systems with Application to Spacecraft Rendezvous. , 2020, , .		1
102	A Kalman filter approach to remove TMS-induced artifacts from EEG recordings. , 2007, , .		0
103	Exploiting structure in piecewise affine identification of LFT systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 581-586.	0.4	0
104	Path planning with uncertainty: A set membership approach. International Journal of Adaptive Control and Signal Processing, 2011, 25, 273-287.	4.1	0
105	MARS: An Educational Environment for Multiagent Robot Simulations. Modelling and Simulation in Engineering, 2016, 2016, 1-13.	0.7	0
106	Asymptotic behaviours of a class of threshold models for collective action in social networks. International Journal of Control, 2018, 91, 2230-2249.	1.9	0
107	Convex relaxations for robust control problems. , 2007, , .		0
108	Lyapunov-Based Robustness Analysis Techniques for Clearance. Lecture Notes in Control and Information Sciences, 2012, , 161-178.	1.0	0