Jianghai Hu

List of Publications by Year
in descending order

83	875	759233	642732
papers	citations	12	23
		h-index	g-index

83	83	83	655
all docs	docs citations	times ranked	citing authors

#	ARTICLE	IF	CITATIONS
1	Exponential stabilization of discrete-time switched linear systems. Automatica, 2009, 45, 2526-2536.	5.0	120
2	On the Value Functions of the Discrete-Time Switched LQR Problem. IEEE Transactions on Automatic Control, 2009, 54, 2669-2674.	5.7	84
3	Infinite-Horizon Switched LQR Problems in Discrete Time: A Suboptimal Algorithm With Performance Analysis. IEEE Transactions on Automatic Control, 2012, 57, 1815-1821.	5.7	74
4	On the Optimal Solutions of the Infinite-Horizon Linear Sensor Scheduling Problem. IEEE Transactions on Automatic Control, 2014, 59, 2825-2830.	5.7	49
5	Application of Reachability Analysis for Stochastic Hybrid Systems to Aircraft Conflict Prediction. IEEE Transactions on Automatic Control, 2009, 54, 913-917.	5.7	41
6	Generating Functions of Switched Linear Systems: Analysis, Computation, and Stability Applications. IEEE Transactions on Automatic Control, 2011, 56, 1059-1074.	5.7	33
7	Primal-Dual Q-Learning Framework for LQR Design. IEEE Transactions on Automatic Control, 2019, 64, 3756-3763.	5.7	29
8	A probabilistic measure of air traffic complexity in 3â€Ð airspace. International Journal of Adaptive Control and Signal Processing, 2010, 24, 813-829.	4.1	28
9	Optimal Multi-Agent Coordination Under Tree Formation Constraints. IEEE Transactions on Automatic Control, 2008, 53, 692-705.	5.7	23
10	Efficient suboptimal solutions of switched LQR problems. , 2009, , .		22
11	General approaches for determining the savings potential of optimal control for cooling in commercial buildings having both energy and demand charges. Science and Technology for the Built Environment, 2016, 22, 733-750.	1.7	22
12	Distributed model predictive control via Proximal Jacobian ADMM for building control applications. , 2017, , .		21
13	On the optimal solutions of the infinite-horizon linear sensor scheduling problem. , 2010, , .		18
14	On efficient sensor scheduling for linear dynamical systems. , 2010, , .		18
15	Application of reachability analysis for stochastic hybrid systems to aircraft conflict prediction. , 2008, , .		16
16	Air traffic complexity in future Air Traffic Management systems. Journal of Aerospace Operations, 2012, 1, 281-299.	0.1	16
17	Resilient Stabilization of Switched Linear Control Systems Against Adversarial Switching. IEEE Transactions on Automatic Control, 2017, 62, 3820-3834.	5.7	16
18	Optimizing formation rigidity under connectivity constraints. , 2010, , .		13

#	Article	IF	Citations
19	A multi-agent control based demand response strategy for multi-zone buildings. , 2016, , .		12
20	Periodic Stabilization of Discrete-Time Switched Linear Systems. IEEE Transactions on Automatic Control, 2017, 62, 3382-3394.	5.7	11
21	Sequential parametric convex approximation algorithm for bilinear matrix inequality problem. Optimization Letters, 2019, 13, 741-759.	1.6	11
22	A sequential parametric convex approximation method for solving bilinear matrix inequalities. , 2016, , .		10
23	Analysis of Distributed Random Grouping for Aggregate Computation on Wireless Sensor Networks with Randomly Changing Graphs. IEEE Transactions on Parallel and Distributed Systems, 2008, 19, 1136-1149.	5.6	9
24	On the value functions of the optimal quadratic regulation problem for discrete-time switched linear systems. , 2008, , .		8
25	Stability analysis of discrete-time piecewise-linear systems: A generating function approach. International Journal of Control, Automation and Systems, 2014, 12, 1005-1010.	2.7	8
26	Semistability of switched linear systems with applications to distributed sensor networks: A generating function approach. , 2011, , .		7
27	Buffer Management for Power Reduction Using Hybrid Control. , 0, , .		6
28	Optimal Power Modes Scheduling Using Hybrid Systems. Proceedings of the American Control Conference, 2007, , .	0.0	6
29	Low-Power Buffer Management for Streaming Data. IEEE Transactions on Circuits and Systems for Video Technology, 2007, 17, 143-157.	8.3	6
30	A probabilistic approach to air traffic complexity evaluation. , 2009, , .		6
31	Adaptive robust control: A piecewise Lyapunov function approach. , 2009, , .		6
32	A novel graph-based invariant region descriptor for image matching. , 2012, , .		6
33	New region feature descriptor-based image registration method. , 2012, , .		6
34	Probabilistic Map Building by Coordinated Mobile Sensors. , 0, , .		5
35	Comparative evaluation of model predictive control strategies for a building HVAC system. , 2013, , .		5
36	Distributed Algorithms for Solving Locally Coupled Optimization Problems on Agent Networks. , 2018, , .		5

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37	Distributed Solution of GNEP over Networks via the Douglas-Rachford Splitting Method. , 2021, , .		5
38	Symmetry of Solutions to the Optimal Sojourn Time Control Problem. , 0, , .		4
39	Application of stochastic hybrid systems in power management of streaming data. , 2006, , .		4
40	A numerical approximation scheme for reachability analysis of stochastic hybrid systems with state-dependent switchings. , 2007, , .		4
41	Stability of discrete-time conewise linear inclusions and switched linear systems. , 2010, , .		4
42	Stability of switched linear systems on cones: A generating function approach. , 2010, , .		4
43	Probability of conflict analysis of 3D aircraft flight based on two-level Markov chain approximation approach. , 2010, , .		4
44	A study of the generalized input-to-state $\mathscr{L}_2$-gain of discrete-time switched linear systems. , 2011, , .		4
45	Link resource allocation for maximizing the rigidity of multi-agent formations. , 2011, , .		4
46	Responsiveness and manipulability of formations of multi-robot networks. , 2012, , .		4
47	On the graph control Lyapunov function for stabilization of discrete-time switched linear systems. , 2017, , .		4
48	Adaptive Unknown Input and State Observers. , 2019, , .		4
49	Interesting conjugate points in formation constrained optimal multi-agent coordination. , 0, , .		3
50	A case study of formation constrained optimal multi-agent coordination. , 2007, , .		3
51	On sensor scheduling of linear dynamical systems with error bounds. , 2010, , .		3
52	Energy optimal control in mobile sensor networks using hybrid systems theory. , 2011, , .		3
53	D-optimal experimental design for calibration deterministic errors of DTG. , 2012, , .		3
54	Dynamic programming based approaches to optimal rooftop unit coordination. Science and Technology for the Built Environment, 2015, 21, 752-760.	1.7	3

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55	Design of energy management system of Plug-in Hybrid Electric Vehicle using hybrid systems. , 2015, , .		3
56	Stabilizability of Discrete-Time Controlled Switched Linear Systems. IEEE Transactions on Automatic Control, 2018, 63, 3516-3522.	5.7	3
57	Symmetry of Solutions to the Generalized 1-D Optimal Sojourn Time Control Problem. , 2006, , .		2
58	Low power management for autonomous mobile robots using optimal control. , 2007, , .		2
59	Optimal buffer management using hybrid systems. , 2007, , .		2
60	An ODE Comparison Theorem With Application in the Optimal Exit Time Control Problem. IEEE Transactions on Automatic Control, 2010, 55, 164-170.	5.7	2
61	Variable neural adaptive robust output feedback control of uncertain systems. , 2010, , .		2
62	Distributed network localization using angle-of-arrival information Part I: Continuous-time protocol. , 2013, , .		2
63	Approximate Dynamic Programming for Building Control Problems with Occupant Interactions. , 2018, , .		2
64	Simulation-Based Policy Gradient and Its Building Control Application. , 2018, , .		2
65	Low-power buffer management using hybrid control. , 2006, , .		1
66	Variable neural adaptive robust observer for uncertain systems. , 2011, , .		1
67	An approach to air traffic density estimation and its application in aircraft trajectory planning. , 2012, , .		1
68	Stability analysis of inertial navigation system–aided phase–lock–loop via an integral quadratic constraint approach. IET Radar, Sonar and Navigation, 2014, 8, 1100-1108.	1.8	1
69	Graph control Lyapunov function for stabilization of discrete-time switched linear systems. , 2016, , .		1
70	Local state-feedback stabilization of nonlinear fuzzy systems with measurement errors in the state. , 2016, , .		1
71	Periodic stabilization of discrete-time controlled switched linear systems. , 2017, , .		1
72	A Piecewise Envelope Approach to H_{∞} Control of Nonlinear Systems. Asian Journal of Control, 2018, 20, 1881-1890.	3.0	1

#	Article	IF	Citations
73	Stabilization of Switched Linear Systems Using Continuous Control Input against Known Adversarial Switching. , 2018, , .		1
74	A Primal Decomposition Approach to Globally Coupled Aggregative Optimization over Networks. , 2021, , .		1
75	On the convergence of distributed random grouping for average consensus on sensor networks with time-varying graphs. , 2007, , .		0
76	Approaches for stochastic safety analysis arising in ATM application. , 2012, , .		0
77	Addendum to "Generating Functions of Switched Linear Systems: Analysis, Computation, and Stability Applications"[May 11 1059-1074]. IEEE Transactions on Automatic Control, 2013, 58, 1887-1887.	5.7	0
78	Distributed network localization using angle-of-arrival information Part II: Discrete-time algorithm and error analysis. , 2013, , .		0
79	Periodic stabilization of switched linear systems revisited. , 2016, , .		0
80	A Differentially Private Distributed Solution Approach to the Model Predictive Control of Building Clusters. , 2018, , .		0
81	Column Partition Based Distributed Algorithms for Coupled Convex Sparse Optimization: Dual and Exact Regularization Approaches. IEEE Transactions on Signal and Information Processing Over Networks, 2021, 7, 375-391.	2.8	0
82	Dynamic Programming for POMDP with Jointly Discrete and Continuous State-Spaces. , 2019, , .		0
83	Distributed Solutions of Convex-Concave Games on Networks. , 2019, , .		0