

Sonia Martínez

List of Publications by Year in descending order

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98
papers

3,643
citations

516710

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330143

37
g-index

98
all docs

98
docs citations

98
times ranked

2557
citing authors

#	ARTICLE	IF	CITATIONS
1	Distributed Control of Robotic Networks. , 2009, , .		1,134
2	On Distributed Convex Optimization Under Inequality and Equality Constraints. IEEE Transactions on Automatic Control, 2012, 57, 151-164.	5.7	551
3	On the Performance Analysis of Resilient Networked Control Systems Under Replay Attacks. IEEE Transactions on Automatic Control, 2014, 59, 804-808.	5.7	378
4	Monitoring Environmental Boundaries With a Robotic Sensor Network. IEEE Transactions on Control Systems Technology, 2008, 16, 288-296.	5.2	174
5	An Approximate Dual Subgradient Algorithm for Multi-Agent Non-Convex Optimization. IEEE Transactions on Automatic Control, 2013, 58, 1534-1539.	5.7	100
6	On event-triggered control of linear systems under periodic denial-of-service jamming attacks. , 2012, , .		88
7	Cooperative Localization for Mobile Agents: A Recursive Decentralized Algorithm Based on Kalman-Filter Decoupling. IEEE Control Systems, 2016, 36, 86-101.	0.8	88
8	On Synchronous Robotic Networksâ€”Part II: Time Complexity of Rendezvous and Deployment Algorithms. IEEE Transactions on Automatic Control, 2007, 52, 2214-2226.	5.7	87
9	Distributed Interpolation Schemes for Field Estimation by Mobile Sensor Networks. IEEE Transactions on Control Systems Technology, 2010, 18, 491-500.	5.2	81
10	On distributed constrained formation control in operatorâ€”vehicle adversarial networks. Automatica, 2013, 49, 3571-3582.	5.0	70
11	Unicycle Coverage Control Via Hybrid Modeling. IEEE Transactions on Automatic Control, 2010, 55, 528-532.	5.7	59
12	Deployment algorithms for a powerâ€”constrained mobile sensor network. International Journal of Robust and Nonlinear Control, 2010, 20, 745-763.	3.7	55
13	On the Convergence Time of Asynchronous Distributed Quantized Averaging Algorithms. IEEE Transactions on Automatic Control, 2011, 56, 386-390.	5.7	51
14	Energy-balancing cooperative strategies for sensor deployment. , 2007, , .		44
15	Self-Triggered Best-Response Dynamics for Continuous Games. IEEE Transactions on Automatic Control, 2015, 60, 1115-1120.	5.7	38
16	Singularly perturbed algorithms for dynamic average consensus. , 2013, , .		28
17	A Distributed Deterministic Annealing Algorithm for Limited-Range Sensor Coverage. IEEE Transactions on Control Systems Technology, 2011, 19, 792-804.	5.2	25
18	A centralized-equivalent decentralized implementation of Extended Kalman Filters for cooperative localization. , 2014, , .		25

#	ARTICLE	IF	CITATIONS
19	Attack-resilient distributed formation control via online adaptation. , 2011, , .		24
20	Distributed Control and Estimation of Robotic Vehicle Networks: Overview of the Special Issue. IEEE Control Systems, 2016, 36, 36-40.	0.8	24
21	Stackelberg-game analysis of correlated attacks in cyber-physical systems. , 2011, , .		23
22	Server-Assisted Distributed Cooperative Localization Over Unreliable Communication Links. IEEE Transactions on Robotics, 2018, 34, 1392-1399.	10.3	23
23	Distributed coverage games for mobile visual sensors (I): Reaching the set of Nash equilibria. , 2009, , .		22
24	Distributed approximate Newton algorithms and weight design for constrained optimization. Automatica, 2019, 109, 108538.	5.0	22
25	Deployment algorithms for a power-constrained mobile sensor network. , 2008, , .		20
26	A coverage algorithm for drifters in a river environment. , 2010, , .		18
27	Distributed Optimal Transport for the Deployment of Swarms. , 2018, , .		18
28	Frequency Regulation With Heterogeneous Energy Resources: A Realization Using Distributed Control. IEEE Transactions on Smart Grid, 2021, 12, 4126-4136.	9.0	18
29	Data-Driven Ambiguity Sets With Probabilistic Guarantees for Dynamic Processes. IEEE Transactions on Automatic Control, 2021, 66, 2991-3006.	5.7	17
30	Distributed representation of spatial fields through an adaptive interpolation scheme. Proceedings of the American Control Conference, 2007, , .	0.0	16
31	Distributed discrete-time optimization algorithms with applications to resource allocation in epidemics control. Optimal Control Applications and Methods, 2018, 39, 160-180.	2.1	16
32	Dynamic average consensus on synchronous communication networks. , 2008, , .		15
33	Distributed Robust Consensus Using RANSAC and Dynamic Opinions. IEEE Transactions on Control Systems Technology, 2015, 23, 150-163.	5.2	14
34	Stochastic Source Seeking for Mobile Robots in Obstacle Environments Via the SPSA Method. IEEE Transactions on Automatic Control, 2019, 64, 1732-1739.	5.7	14
35	Dynamic average consensus with distributed event-triggered communication. , 2014, , .		13
36	Integration of PV generation and storage on power distribution systems using MPC. , 2015, , .		12

#	ARTICLE	IF	CITATIONS
37	High-Confidence Attack Detection via Wasserstein-Metric Computations. , 2021, 5, 379-384.		12
38	On distributed reactive power and storage control on microgrids. International Journal of Robust and Nonlinear Control, 2016, 26, 3150-3169.	3.7	11
39	Distributed coverage games for mobile visual sensors (II) : Reaching the set of global optima. , 2009, , .		10
40	Distributed and Robust Fair Optimization Applied to Virus Diffusion Control. IEEE Transactions on Network Science and Engineering, 2017, 4, 41-54.	6.4	10
41	Human-swarm Interactions for Formation Control Using Interpreters. International Journal of Control, Automation and Systems, 2020, 18, 2131-2144.	2.7	10
42	Quantized distributed load balancing with capacity constraints. , 2014, , .		9
43	Distributionally Safe Path Planning: Wasserstein Safe RRT. IEEE Robotics and Automation Letters, 2022, 7, 430-437.	5.1	9
44	Deployment of drifters in a piecewise-constant flow environment. , 2010, , .		8
45	Distributed robust data fusion based on dynamic voting. , 2011, , .		7
46	Cooperative localization under message dropouts via a partially decentralized EKF scheme. , 2015, , .		7
47	Distributed dynamic lane reversal and rerouting for traffic delay reduction. International Journal of Control, 2018, 91, 2355-2365.	1.9	7
48	Risk-Perception-Aware Control Design Under Dynamic Spatial Risks. , 2022, 6, 1802-1807.		7
49	Practical rendezvous through modified circumcenter algorithms. , 2007, , .		6
50	On resilient consensus against replay attacks in operator-vehicle networks. , 2012, , .		6
51	A distributed deterministic annealing algorithm for limited-range sensor coverage. , 2009, , .		5
52	Coverage control in constant flow environments based on a mixed energy-time metric. , 2012, , .		5
53	Receding-Horizon Multi-Objective Optimization for Disaster Response. , 2018, , .		5
54	A Probabilistic Framework for Moving-Horizon Estimation: Stability and Privacy Guarantees. IEEE Transactions on Automatic Control, 2021, 66, 1817-1824.	5.7	5

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55	A convergence result for multiagent systems subject to noise. , 2009, , .		4
56	Distributed and robust resource allocation algorithms for multi-agent systems via discrete-time iterations. , 2015, , .		4
57	A scheduled-asynchronous distributed optimization algorithm for the optimal power flow problem. , 2017, , .		4
58	Identification of Critical Nodes in Large-Scale Spatial Networks. IEEE Transactions on Control of Network Systems, 2019, 6, 842-851.	3.7	4
59	Planning Under Non-Rational Perception of Uncertain Spatial Costs. IEEE Robotics and Automation Letters, 2021, 6, 4133-4140.	5.1	4
60	Distributed algorithms for polygonal approximation of convex contours. , 2006, , .		3
61	On distributed optimization under inequality and equality constraints via penalty primal-dual methods. , 2010, , .		3
62	On distributed optimization under inequality constraints via Lagrangian primal-dual methods. , 2010, , .		3
63	Distributed line search via dynamic convex combinations. , 2013, , .		3
64	An Anytime Distributed Load-Balancing Algorithm Satisfying Capacity and Quantization Constraints. IEEE Transactions on Control of Network Systems, 2017, 4, 279-287.	3.7	3
65	Grid-connected microgrid participation in frequency-regulation markets via hierarchical coordination. , 2017, , .		3
66	Weight design of distributed approximate Newton algorithms for constrained optimization. , 2017, , .		3
67	Convex relaxation for mixed-integer optimal power flow problems. , 2017, , .		3
68	Limited range spatial load balancing in non-convex environments using sampling-based motion planners. Autonomous Robots, 2018, 42, 1731-1748.	4.8	3
69	Hypothesis assignment and partial likelihood averaging for cooperative estimation. , 2019, , .		3
70	Dynamic Evolution of Distributional Ambiguity Sets and Precision Tradeoffs in Data Assimilation. , 2019, , .		3
71	Data Assimilation and Online Optimization With Performance Guarantees. IEEE Transactions on Automatic Control, 2021, 66, 2115-2129.	5.7	3
72	Multi-agent motion planning with sporadic communications for collision avoidance. IFAC Journal of Systems and Control, 2021, 15, 100126.	1.7	3

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73	Online Learning of Parameterized Uncertain Dynamical Environments With Finite-Sample Guarantees. , 2021, 5, 1351-1356.		3
74	Average Dwell-Time Minimization of Switched Systems via Sequential Convex Programming. , 2022, 6, 1076-1081.		3
75	Maximizing Algebraic Connectivity of Constrained Graphs in Adversarial Environments. , 2018, , .		3
76	On the convergence time of distributed quantized averaging algorithms. , 2008, , .		2
77	A distributed joint-learning and auction algorithm for target assignment. , 2010, , .		2
78	Freshwater-saltwater boundary detection using mobile sensors part I: Drifter deployment. , 2011, , .		2
79	Self-triggered best-response dynamics for mobile sensor deployment. , 2013, , .		2
80	Optimal kinodynamic motion planning in environments with unexpected obstacles. , 2014, , .		2
81	A hierarchical demand-response algorithm for optimal vehicle-to-grid coordination. , 2015, , .		2
82	Gradient-free distributed resource allocation via simultaneous perturbation. , 2016, , .		2
83	Spatial load balancing in non-convex environments using sampling-based motion planners. , 2016, , .		2
84	Scheduled-Asynchronous Distributed Algorithm for Optimal Power Flow. IEEE Transactions on Control of Network Systems, 2019, 6, 261-275.	3.7	2
85	Virtual-Voltage Partition-Based Approach to Optimal Transmission Switching. IEEE Transactions on Control Systems Technology, 2021, 29, 1246-1256.	5.2	2
86	A Numerical Verification Framework for Differential Privacy in Estimation. , 2022, 6, 1712-1717.		2
87	On the robustness of event-based synchronization under switching interactions. , 2014, , .		1
88	Distributed and robust fair resource allocation applied to virus spread minimization. , 2015, , .		1
89	Network integrity via coordinated motion of stratospheric vehicles. , 2015, , .		1
90	Constrained source seeking for mobile robots via simultaneous perturbation stochastic approximation. , 2016, , .		1

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91	Hierarchical management of demand response events with on/off loads. , 2016, , .		1
92	A cycle-free coordinated traffic intersection policy using time-inconsistent wait-time functions. , 2017, , .		1
93	Limited range spatial load balancing for multiple robots. , 2017, , .		1
94	Marginal Density Averaging for Distributed Node Localization from Local Edge Measurements. , 2020, , .		1
95	Iterative Algorithms for Assessing Network Resilience Against Structured Perturbations. IEEE Transactions on Control of Network Systems, 2022, 9, 1816-1827.	3.7	1
96	Freshwater-saltwater boundary detection using mobile sensors part II: Drifter movement. , 2011, , .		0
97	On Observability and Stability of Moving-Horizon Estimation in a Distributional Framework. , 2019, , .		0
98	Distributed Bayesian Estimation of Continuous Variables over Time-varying Directed Networks. , 2022, , 1-1.		0