Sonia MartÃ-nez

List of Publications by Year
in descending order

98 papers	3,643 citations	516710 16 h-index	330143 37 g-index
98 all docs	98 docs citations	98 times ranked	2557 citing authors

#	Article	IF	Citations
1	Average Dwell-Time Minimization of Switched Systems via Sequential Convex Programming. , 2022, 6, 1076-1081.		3
2	Distributionally Safe Path Planning: Wasserstein Safe RRT. IEEE Robotics and Automation Letters, 2022, 7, 430-437.	5.1	9
3	Risk-Perception-Aware Control Design Under Dynamic Spatial Risks. , 2022, 6, 1802-1807.		7
4	A Numerical Verification Framework for Differential Privacy in Estimation. , 2022, 6, 1712-1717.		2
5	Iterative Algorithms for Assessing Network Resilience Against Structured Perturbations. IEEE Transactions on Control of Network Systems, 2022, 9, 1816-1827.	3.7	1
6	Distributed Bayesian Estimation of Continuous Variables over Time-varying Directed Networks. , 2022, , 1-1.		0
7	High-Confidence Attack Detection via Wasserstein-Metric Computations. , 2021, 5, 379-384.		12
8	Virtual-Voltage Partition-Based Approach to Optimal Transmission Switching. IEEE Transactions on Control Systems Technology, 2021, 29, 1246-1256.	5.2	2
9	Data-Driven Ambiguity Sets With Probabilistic Guarantees for Dynamic Processes. IEEE Transactions on Automatic Control, 2021, 66, 2991-3006.	5.7	17
10	A Probabilistic Framework for Moving-Horizon Estimation: Stability and Privacy Guarantees. IEEE Transactions on Automatic Control, 2021, 66, 1817-1824.	5.7	5
11	Data Assimilation and Online Optimization With Performance Guarantees. IEEE Transactions on Automatic Control, 2021, 66, 2115-2129.	5.7	3
12	Multi-agent motion planning with sporadic communications for collision avoidance. IFAC Journal of Systems and Control, 2021, 15, 100126.	1.7	3
13	Planning Under Non-Rational Perception of Uncertain Spatial Costs. IEEE Robotics and Automation Letters, 2021, 6, 4133-4140.	5.1	4
14	Frequency Regulation With Heterogeneous Energy Resources: A Realization Using Distributed Control. IEEE Transactions on Smart Grid, 2021, 12, 4126-4136.	9.0	18
15	Online Learning of Parameterized Uncertain Dynamical Environments With Finite-Sample Guarantees. , 2021, 5, 1351-1356.		3
16	Human-swarm Interactions for Formation Control Using Interpreters. International Journal of Control, Automation and Systems, 2020, 18, 2131-2144.	2.7	10
17	Marginal Density Averaging for Distributed Node Localization from Local Edge Measurements. , 2020, , .		1
18	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

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19	Distributed approximate Newton algorithms and weight design for constrained optimization. Automatica, 2019, 109, 108538.	5.0	22
20	Hypothesis assignment and partial likelihood averaging for cooperative estimation. , 2019, , .		3
21	Dynamic Evolution of Distributional Ambiguity Sets and Precision Tradeoffs in Data Assimilation. , 2019, , .		3
22	On Observability and Stability of Moving-Horizon Estimation in a Distributional Framework. , 2019, , .		0
23	Identification of Critical Nodes in Large-Scale Spatial Networks. IEEE Transactions on Control of Network Systems, 2019, 6, 842-851.	3.7	4
24	Scheduled-Asynchronous Distributed Algorithm for Optimal Power Flow. IEEE Transactions on Control of Network Systems, 2019, 6, 261-275.	3.7	2
25	Limited range spatial load balancing in non-convex environments using sampling-based motion planners. Autonomous Robots, 2018, 42, 1731-1748.	4.8	3
26	Distributed dynamic lane reversal and rerouting for traffic delay reduction. International Journal of Control, 2018, 91, 2355-2365.	1.9	7
27	Distributed discreteâ€time optimization algorithms with applications to resource allocation in epidemics control. Optimal Control Applications and Methods, 2018, 39, 160-180.	2.1	16
28	Distributed Optimal Transport for the Deployment of Swarms. , 2018, , .		18
29	Receding-Horizon Multi-Objective Optimization for Disaster Response. , 2018, , .		5
30	Server-Assisted Distributed Cooperative Localization Over Unreliable Communication Links. IEEE Transactions on Robotics, 2018, 34, 1392-1399.	10.3	23
31	Maximizing Algebraic Connectivity of Constrained Graphs in Adversarial Environments. , 2018, , .		3
32	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
33	A scheduled-asynchronous distributed optimization algorithm for the optimal power flow problem. , 2017, , .		4
34	Distributed and Robust Fair Optimization Applied to Virus Diffusion Control. IEEE Transactions on Network Science and Engineering, 2017, 4, 41-54.	6.4	10
35	Grid-connected microgrid participation in frequency-regulation markets via hierarchical coordination. , 2017, , .		3
36	Weight design of distributed approximate Newton algorithms for constrained optimization. , 2017, , .		3

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37	Convex relaxation for mixed-integer optimal power flow problems. , 2017, , .		3
38	A cycle-free coordinated traffic intersection policy using time-inconsistent wait-time functions. , 2017, , .		1
39	Limited range spatial load balancing for multiple robots. , 2017, , .		1
40	Gradient-free distributed resource allocation via simultaneous perturbation. , 2016, , .		2
41	On distributed reactive power and storage control on microgrids. International Journal of Robust and Nonlinear Control, 2016, 26, 3150-3169.	3.7	11
42	Constrained source seeking for mobile robots via simultaneous perturbation stochastic approximation. , 2016, , .		1
43	Distributed Control and Estimation of Robotic Vehicle Networks: Overview of the Special Issue. IEEE Control Systems, 2016, 36, 36-40.	0.8	24
44	Hierarchical management of demand response events with on/off loads. , 2016, , .		1
45	Spatial load balancing in non-convex environments using sampling-based motion planners. , 2016, , .		2
46	Cooperative Localization for Mobile Agents: A Recursive Decentralized Algorithm Based on Kalman-Filter Decoupling. IEEE Control Systems, 2016, 36, 86-101.	0.8	88
47	Cooperative localization under message dropouts via a partially decentralized EKF scheme. , 2015, , .		7
48	Distributed and robust fair resource allocation applied to virus spread minimization. , 2015, , .		1
49	Distributed and robust resource allocation algorithms for multi-agent systems via discrete-time iterations. , 2015, , .		4
50	A hierarchical demand-response algorithm for optimal vehicle-to-grid coordination. , 2015, , .		2
51	Network integrity via coordinated motion of stratospheric vehicles. , 2015, , .		1
52	Self-Triggered Best-Response Dynamics for Continuous Games. IEEE Transactions on Automatic Control, 2015, 60, 1115-1120.	5.7	38
53	Integration of PV generation and storage on power distribution systems using MPC. , 2015, , .		12
54	Distributed Robust Consensus Using RANSAC and Dynamic Opinions. IEEE Transactions on Control Systems Technology, 2015, 23, 150-163.	5.2	14

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55	Dynamic average consensus with distributed event-triggered communication. , 2014, , .		13
56	Quantized distributed load balancing with capacity constraints. , 2014, , .		9
57	On the Performance Analysis of Resilient Networked Control Systems Under Replay Attacks. IEEE Transactions on Automatic Control, 2014, 59, 804-808.	5.7	378
58	On the robustness of event-based synchronization under switching interactions. , 2014, , .		1
59	Optimal kinodynamic motion planning in environments with unexpected obstacles. , 2014, , .		2
60	A centralized-equivalent decentralized implementation of Extended Kalman Filters for cooperative localization. , 2014, , .		25
61	On distributed constrained formation control in operatorâ€"vehicle adversarial networks. Automatica, 2013, 49, 3571-3582.	5.0	70
62	An Approximate Dual Subgradient Algorithm for Multi-Agent Non-Convex Optimization. IEEE Transactions on Automatic Control, 2013, 58, 1534-1539.	5.7	100
63	Distributed line search via dynamic convex combinations. , 2013, , .		3
64	Self-triggered best-response dynamics for mobile sensor deployment. , 2013, , .		2
65	Singularly perturbed algorithms for dynamic average consensus. , 2013, , .		28
66	On resilient consensus against replay attacks in operator-vehicle networks. , 2012, , .		6
67	Coverage control in constant flow environments based on a mixed energy-time metric. , 2012, , .		5
68	On event-triggered control of linear systems under periodic denial-of-service jamming attacks. , 2012, , .		88
69	On Distributed Convex Optimization Under Inequality and Equality Constraints. IEEE Transactions on Automatic Control, 2012, 57, 151-164.	5.7	551
70	On the Convergence Time of Asynchronous Distributed Quantized Averaging Algorithms. IEEE Transactions on Automatic Control, 2011, 56, 386-390.	5.7	51
71	A Distributed Deterministic Annealing Algorithm for Limited-Range Sensor Coverage. IEEE Transactions on Control Systems Technology, 2011, 19, 792-804.	5.2	25
72	Stackelberg-game analysis of correlated attacks in cyber-physical systems. , 2011, , .		23

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73	Freshwater-saltwater boundary detection using mobile sensors part I: Drifter deployment. , 2011, , .		2
74	Distributed robust data fusion based on dynamic voting. , 2011, , .		7
75	Freshwater-saltwater boundary detection using mobile sensors part II: Drifter movement. , 2011, , .		0
76	Attack-resilient distributed formation control via online adaptation. , 2011, , .		24
77	Deployment of drifters in a piecewise-constant flow environment. , 2010, , .		8
78	A coverage algorithm for drifters in a river environment. , 2010, , .		18
79	Distributed Interpolation Schemes for Field Estimation by Mobile Sensor Networks. IEEE Transactions on Control Systems Technology, 2010, 18, 491-500.	5.2	81
80	A distributed joint-learning and auction algorithm for target assignment. , 2010, , .		2
81	Unicycle Coverage Control Via Hybrid Modeling. IEEE Transactions on Automatic Control, 2010, 55, 528-532.	5.7	59
82	On distributed optimization under inequality and equality constraints via penalty primal-dual methods. , 2010, , .		3
83	On distributed optimization under inequality constraints via Lagrangian primal-dual methods. , 2010, , .		3
84	Deployment algorithms for a power†constrained mobile sensor network. International Journal of Robust and Nonlinear Control, 2010, 20, 745-763.	3.7	55
85	A distributed deterministic annealing algorithm for limited-range sensor coverage. , 2009, , .		5
86	Distributed coverage games for mobile visual sensors (II) : Reaching the set of global optima. , 2009, , .		10
87	A convergence result for multiagent systems subject to noise. , 2009, , .		4
88	Distributed coverage games for mobile visual sensors (I): Reaching the set of Nash equilibria. , 2009, , .		22
89	Distributed Control of Robotic Networks. , 2009, , .		1,134
90	Deployment algorithms for a power-constrained mobile sensor network. , 2008, , .		20

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91	On the convergence time of distributed quantized averaging algorithms. , 2008, , .		2
92	Dynamic average consensus on synchronous communication networks. , 2008, , .		15
93	Monitoring Environmental Boundaries With a Robotic Sensor Network. IEEE Transactions on Control Systems Technology, 2008, 16, 288-296.	5.2	174
94	Energy-balancing cooperative strategies for sensor deployment. , 2007, , .		44
95	Distributed representation of spatial fields through an adaptive interpolation scheme. Proceedings of the American Control Conference, 2007, , .	0.0	16
96	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
97	Practical rendezvous through modified circumcenter algorithms. , 2007, , .		6
98	Distributed algorithms for polygonal approximation of convex contours. , 2006, , .		3