Maria Prandini

List of Publications by Year
in descending order

74 papers	1,915 citations	430874 18 h-index	265206 42 g-index
74 all docs	74 docs citations	74 times ranked	1251 citing authors

#	Article	IF	Citations
1	Hyper-Graph Partitioning for a Multi-Agent Reformulation of Large-Scale MILPs. , 2022, 6, 1346-1351.		1
2	Distributed decision-coupled constrained optimization via Proximal-Tracking. Automatica, 2022, 135, 109938.	5.0	8
3	A Distributed Dual Proximal Minimization Algorithm for Constraint-Coupled Optimization Problems. , 2021, 5, 259-264.		6
4	A mixed-integer distributed approach to prosumers aggregation for providing balancing services. International Journal of Electrical Power and Energy Systems, 2021, 133, 107228.	5.5	13
5	New results on resource sharing problems with random agent arrivals and an application to economic dispatch in power systems. , 2021, , .		1
6	A randomized two-stage iterative method for switched nonlinear systems identification. Nonlinear Analysis: Hybrid Systems, 2020, 35, 100818.	3.5	18
7	An Admissible Heuristic to Improve Convergence in Kinodynamic Planners Using Motion Primitives. , 2020, 4, 175-180.		10
8	Set-based control for disturbed piecewise affine systems with state and actuation constraints. Nonlinear Analysis: Hybrid Systems, 2020, 36, 100826.	3.5	9
9	Robust constrained control of piecewise affine systems through setâ€based reachability computations. International Journal of Robust and Nonlinear Control, 2020, 30, 5989-6020.	3.7	1
10	A randomized relaxation method to ensure feasibility in stochastic control of linear systems subject to state and input constraints. Automatica, 2020, 115, 108854.	5.0	3
11	Distributed optimization for structured programs and its application to energy management in a building district. Journal of Process Control, 2020, 89, 11-21.	3.3	4
12	Tracking-ADMM for distributed constraint-coupled optimization. Automatica, 2020, 117, 108962.	5.0	75
13	A scenario-based approach to multi-agent optimization with distributed information. IFAC-PapersOnLine, 2020, 53, 20-25.	0.9	1
14	Coordinated lane change in autonomous driving: a computationally aware solution. IFAC-PapersOnLine, 2020, 53, 15211-15216.	0.9	3
15	A Micro-Grid Energy Management Strategy Integrating Photovoltaic Energy Prediction. IFAC-PapersOnLine, 2020, 53, 13012-13017.	0.9	1
16	An explicit model predictive controller for constrained stochastic linear systems. IFAC-PapersOnLine, 2020, 53, 11386-11391.	0.9	0
17	An alternating optimization method for switched linear systems identification. IFAC-PapersOnLine, 2020, 53, 1071-1076.	0.9	3
18	Combining ADMM and tracking over networks for distributed constraint-coupled optimization. IFAC-PapersOnLine, 2020, 53, 2654-2659.	0.9	0

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19	Regularized Jacobi Iteration for Decentralized Convex Quadratic Optimization With Separable Constraints. IEEE Transactions on Control Systems Technology, 2019, 27, 1636-1644.	5.2	5
20	Optimal disturbance compensation for constrained linear systems operating in stationary conditions: A scenario-based approach. Automatica, 2019, 110, 108537.	5.0	3
21	Position paper on the challenges posed by modern applications to cyber-physical systems theory. Nonlinear Analysis: Hybrid Systems, 2019, 34, 147-165.	3.5	26
22	A decentralized approach to multi-agent MILPs: Finite-time feasibility and performance guarantees. Automatica, 2019, 103, 141-150.	5.0	26
23	Nonlinear system identification with model structure selection via distributed computation. , 2019, , .		1
24	Robust bounded feasibility verification of piecewise affine systems via reachability computations. IFAC-PapersOnLine, 2019, 52, 78-83.	0.9	0
25	Sampling-based optimal kinodynamic planning with motion primitives. Autonomous Robots, 2019, 43, 1715-1732.	4.8	33
26	A compositional modeling framework for the optimal energy management of a district network. Journal of Process Control, 2019, 74, 160-176.	3.3	5
27	4-D Flight Trajectory Tracking: A Receding Horizon Approach Integrating Feedback Linearization and Scenario Optimization. IEEE Transactions on Control Systems Technology, 2019, 27, 981-996.	5.2	9
28	Switched Control for Quantized Feedback Systems: Invariance and Limit Cycle Analysis. IEEE Transactions on Automatic Control, 2018, 63, 3775-3786.	5.7	6
29	Distributed Constrained Optimization and Consensus in Uncertain Networks via Proximal Minimization. IEEE Transactions on Automatic Control, 2018, 63, 1372-1387.	5.7	55
30	Finite-Time Distributed Averaging Over Gossip-Constrained Ring Networks. IEEE Transactions on Control of Network Systems, 2018, 5, 879-887.	3.7	9
31	A randomized approach to switched nonlinear systems identification. IFAC-PapersOnLine, 2018, 51, 281-286.	0.9	9
32	FLOPSYNC-QACS. ACM SIGBED Review, 2018, 14, 33-38.	1.8	2
33	A Distributed Iterative Algorithm for Multi-Agent MILPs: Finite-Time Feasibility and Performance Characterization. , 2018, 2, 563-568.		19
34	Price of anarchy in electric vehicle charging control games: When Nash equilibria achieve social welfare. Automatica, 2018, 96, 150-158.	5.0	19
35	A data-driven approach to stochastic constrained control of piecewise affine systems. , 2018, , .		2
36	Trading performance for state constraint feasibility in stochastic constrained control: A randomized approach. Journal of the Franklin Institute, 2017, 354, 501-529.	3.4	6

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37	A Randomized Approach to Probabilistic Footprint Estimation of a Space Debris Uncontrolled Reentry. IEEE Transactions on Intelligent Transportation Systems, 2017, 18, 2657-2666.	8.0	7
38	FLOPSYNC-QACS: Quantization-aware clock synchronization for wireless sensor networks. Journal of Systems Architecture, 2017, 80, 77-84.	4.3	4
39	Dual decomposition for multi-agent distributed optimization with coupling constraints. Automatica, 2017, 84, 149-158.	5.0	137
40	A proximal minimization based distributed approach to power control in wireless networks: Performance and comparative analysis. , 2017, , .		0
41	Flat-RRT*: A sampling-based optimal trajectory planner for differentially flat vehicles with constrained dynamics 1 1Research was supported by the European Commission, H2020, under the project UnCoVerCPS, grant number 643921.. IFAC-PapersOnLine, 2017, 50, 6965-6970.	0.9	7
42	A two-layer decentralized approach to the optimal energy management of a building district with a shared thermal storage * *This research was supported by the European Commission under the project UnCoVerCPS, grant number 643921. IFAC-PapersOnLine, 2017, 50, 8844-8849.	0.9	4
43	On the connection between Nash equilibria and social optima in electric vehicle charging control games. IFAC-PapersOnLine, 2017, 50, 14320-14325.	0.9	14
44	A Multi-Criteria Decision-Making Scheme for Multi-Aircraft Conflict Resolution * *This paper is supported by the National Natural Science Foundation of China (grant Nos. 61425014, 61521091,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 0 0 1 European Commission (project UnCoV-erCPS, grant No. 643921). IFAC-PapersOnLine, 2017, 50, 14674-14679.	0.9	3
45	A data-based approach to power capacity optimization. , 2017, , .		1
46	Linear programs for resource sharing among heterogeneous agents: The effect of random agent arrivals. , 2017, , .		3
47	Minimum Resource Commitment for Reachability Specifications in a Discrete Time Linear Setting. IEEE Transactions on Automatic Control, 2017, 62, 3021-3028.	5.7	1
48	Energy management of a building cooling system with thermal storage: a randomized solution with feedforward disturbance compensation. , 2016, , .		7
49	On decentralized convex optimization in a multi-agent setting with separable constraints and its application to optimal charging of electric vehicles. , 2016, , .		7
50	Model reduction of switched affine systems. Automatica, 2016, 70, 57-65.	5.0	23
51	Constrained optimal control of stochastic switched affine systems using randomization. , 2016, , .		1
52	Optimal energy management of a building cooling system with thermal storage: A convex formulation. IFAC-PapersOnLine, 2015, 48, 1150-1155.	0.9	11
53	An iterative scheme to hierarchically structured optimal energy management of a microgrid. , 2015, , .		9
54	Poli-RRT*: Optimal RRT-based planning for constrained and feedback linearisable vehicle dynamics. , 2015, , .		6

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55	Stochastic control with input and state constraints: A relaxation technique to ensure feasibility. , 2015, , .		5
56	On the Connection Between Compression Learning and Scenario Based Single-Stage and Cascading Optimization Problems. IEEE Transactions on Automatic Control, 2015, 60, 2716-2721.	5.7	39
57	A randomized algorithm for nonlinear model structure selection. Automatica, 2015, 60, 227-238.	5.0	29
58	A novel randomized approach to nonlinear system identification. , 2014, , .		2
59	Performance assessment and design of abstracted models for stochastic hybrid systems through a randomized approach. Automatica, 2014, 50, 2852-2860.	5.0	10
60	Control input design: detecting non influential inputs while satisfying a reachability specification. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 1416-1421.	0.4	6
61	Randomized sampling for large zero-sum games. Automatica, 2013, 49, 1184-1194.	5.0	12
62	Stochastic constrained control: Trading performance for state constraint feasibility. , 2013, , .		15
63	An approximate dynamic programming approach to the energy management of a building cooling system. , 2013, , .		7
64	A randomized approach to Stochastic Model Predictive Control. , 2012, , .		42
65	Air traffic complexity in future Air Traffic Management systems. Journal of Aerospace Operations, 2012, 1, 281-299.	0.1	16
66	Toward Air Traffic Complexity Assessment in New Generation Air Traffic Management Systems. IEEE Transactions on Intelligent Transportation Systems, 2011, 12, 809-818.	8.0	97
67	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
68	Approximate Model Checking of Stochastic Hybrid Systems. European Journal of Control, 2010, 16, 624-641.	2.6	140
69	Stochastic Hybrid Systems: A Powerful Framework for Complex, Large Scale Applications. European Journal of Control, 2010, 16, 583-594.	2.6	45
70	The scenario approach for systems and control design. Annual Reviews in Control, 2009, 33, 149-157.	7.9	302
71	Probabilistic reachability and safety for controlled discrete time stochastic hybrid systems. Automatica, 2008, 44, 2724-2734.	5.0	332
72	Cautious hierarchical switching control of stochastic linear systems. International Journal of Adaptive Control and Signal Processing, 2004, 18, 319-333.	4.1	15

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73	Randomized algorithms for the synthesis of cautious adaptive controllers. Systems and Control Letters, 2003, 49, 21-36.	2.3	16
74	Optimal Coordinated Maneuvers for Three-Dimensional Aircraft Conflict Resolution. Journal of Guidance, Control, and Dynamics, 2002, 25, 888-900.	2.8	120