Riccardo Scattolini

List of Publications by Year
in descending order

99 papers	4,452 citations	257450 24 h-index	114465 63 g-index
102 all docs	102 docs citations	102 times ranked	2602 citing authors

#	Article	IF	Citations
1	Architectures for distributed and hierarchical Model Predictive Control â€" A review. Journal of Process Control, 2009, 19, 723-731.	3.3	1,056
2	Distributed model predictive control: A tutorial review and future research directions. Computers and Chemical Engineering, 2013, 51, 21-41.	3.8	697
3	Stochastic linear Model Predictive Control with chance constraints â€" A review. Journal of Process Control, 2016, 44, 53-67.	3.3	226
4	Distributed predictive control: A non-cooperative algorithm with neighbor-to-neighbor communication for linear systems. Automatica, 2012, 48, 1088-1096.	5.0	219
5	Model Predictive Control Schemes for Consensus in Multi-Agent Systems with Single- and Double-Integrator Dynamics. IEEE Transactions on Automatic Control, 2009, 54, 2560-2572.	5.7	211
6	Distributed Moving Horizon Estimation for Linear Constrained Systems. IEEE Transactions on Automatic Control, 2010, 55, 2462-2475.	5.7	168
7	A Two-Layer Stochastic Model Predictive Control Scheme for Microgrids. IEEE Transactions on Control Systems Technology, 2018, 26, 1-13.	5.2	113
8	Moving-horizon partition-based state estimation of large-scale systems. Automatica, 2010, 46, 910-918.	5.0	99
9	Robustness and Robust Design of MPC for Nonlinear Discrete-Time Systems. , 2007, , 239-254.		82
10	An approach to output-feedback MPC of stochastic linear discrete-time systems. Automatica, 2015, 55, 140-149.	5.0	75
11	An MPC approach to the design of two-layer hierarchical control systems. Automatica, 2010, 46, 823-831.	5.0	72
12	A Robust MPC Algorithm for Offset-Free Tracking of Constant Reference Signals. IEEE Transactions on Automatic Control, 2013, 58, 2394-2400.	5.7	71
13	On the choice of the horizon in long-range predictive controlâ€"Some simple criteria. Automatica, 1990, 26, 915-917.	5.0	63
14	Distributed moving horizon estimation for nonlinear constrained systems. International Journal of Robust and Nonlinear Control, 2012, 22, 123-143.	3.7	63
15	A probabilistic approach to Model Predictive Control. , 2013, , .		62
16	Hierarchical Predictive Control of Microgrids in Islanded Operation. IEEE Transactions on Automation Science and Engineering, 2017, 14, 536-546.	5.2	53
17	Switched model predictive control for performance enhancement. International Journal of Control, 2008, 81, 1859-1869.	1.9	52
18	Tube-based robust sampled-data MPC for linear continuous-time systems. Automatica, 2012, 48, 1473-1476.	5.0	50

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19	Hierarchical model predictive control. , 2007, , .		47
20	Development of a Control-Oriented Model of Floating Wind Turbines. IEEE Transactions on Control Systems Technology, 2014, 22, 69-82.	5.2	47
21	Self-tuning control of systems with infrequent and delayed output sampling. IEE Proceedings D: Control Theory and Applications, 1988, 135, 213.	0.4	37
22	Learning-based predictive control for linear systems: A unitary approach. Automatica, 2019, 108, 108473.	5.0	35
23	Model predictive control of linear systems with multiplicative unbounded uncertainty and chance constraints. Automatica, 2016, 70, 258-265.	5.0	30
24	Model Predictive Control Design for Dynamical Systems Learned by Echo State Networks. , 2019, 3, 1044-1049.		30
25	A multivariable self-tuning controller with integral action. Automatica, 1986, 22, 619-627.	5.0	28
26	Application of distributed predictive control to motion and coordination problems for unicycle autonomous robots. Robotics and Autonomous Systems, 2015, 72, 248-260.	5.1	27
27	Production scheduling of parallel machines with model predictive control. Control Engineering Practice, 2015, 42, 28-40.	5.5	26
28	Hierarchical Control in Islanded DC Microgrids With Flexible Structures. IEEE Transactions on Control Systems Technology, 2021, 29, 2379-2392.	5.2	25
29	On Recurrent Neural Networks for learning-based control: Recent results and ideas for future developments. Journal of Process Control, 2022, 114, 92-104.	3.3	25
30	An Approach to Distributed Predictive Control for Tracking–Theory and Applications. IEEE Transactions on Control Systems Technology, 2014, 22, 1558-1566.	5.2	24
31	A hybrid model predictive control scheme for containment and distributed sensing in multi-agent systems. Systems and Control Letters, 2013, 62, 413-419.	2.3	23
32	Realization issues, tuning, and testing of a distributed predictive control algorithm. Journal of Process Control, 2014, 24, 424-434.	3.3	23
33	Learning model predictive control with long short–term memory networks. International Journal of Robust and Nonlinear Control, 2021, 31, 8877-8896.	3.7	23
34	An MPC-based reference governor approach for offset-free control of constrained linear systems. International Journal of Control, 2013, 86, 1534-1539.	1.9	22
35	Fault detection and isolation of bearings in a drive reducer of a hot steel rolling mill. Control Engineering Practice, 2015, 39, 35-44.	5.5	22
36	Robust Stability Analysis of Nonlinear Discrete-Time Systems With Application to MPC. IEEE Transactions on Automatic Control, 2012, 57, 185-191.	5.7	21

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37	Block-wise discretization accounting for structural constraints. Automatica, 2013, 49, 3411-3417.	5.0	21
38	A hierarchical multi-rate MPC scheme for interconnected systems. Automatica, 2018, 90, 38-46.	5.0	21
39	Moving horizon estimation for distributed nonlinear systems with application to cascade river reaches. Journal of Process Control, 2011, 21, 767-774.	3.3	20
40	On the stability properties of Gated Recurrent Units neural networks. Systems and Control Letters, 2021, 157, 105049.	2.3	20
41	Distributed non-cooperative MPC with neighbor-to-neighbor communication. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 404-409.	0.4	19
42	A model predictive control scheme for consensus in multi-agent systems with single-integrator dynamics and input constraints. , 2007, , .		17
43	Supervised model predictive control of large‐scale electricity networks via clustering methods. Optimal Control Applications and Methods, 2022, 43, 44-64.	2.1	17
44	A receding horizon approach to the multiobjective control problem. , 2007, , .		16
45	An output feedback distributed predictive control algorithm. , 2011, , .		16
46	Hierarchical Model Predictive Control of independent systems with joint constraints. Automatica, 2016, 74, 99-106.	5.0	15
47	Design of Aggregators for the Day-Ahead Management of Microgrids Providing Active and Reactive Power Services. IEEE Transactions on Control Systems Technology, 2020, 28, 2616-2624.	5.2	14
48	Stabilization, Regulation, and Optimization of Multirate Sampled-Data Systems. Control and Dynamic Systems, 1995, , 95-130.	0.1	13
49	A moving horizon scheme for distributed state estimation. , 2009, , .		13
50	Plug-and-play distributed state estimation for linear systems. , 2013, , .		13
51	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
52	Stability of discrete-time feed-forward neural networks in NARX configuration. IFAC-PapersOnLine, 2021, 54, 547-552.	0.9	13
53	ROBUST MODEL PREDICTIVE CONTROL OF DISCRETE-TIME SWITCHED SYSTEMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 208-212.	0.4	12
54	A switched MPC approach to hierarchical control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 7790-7795.	0.4	12

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55	Stochastic Model Predictive Control of constrained linear systems with additive uncertainty. , 2009, , .		12
56	An MPC algorithm for offset-free tracking of constant reference signals. , 2012, , .		12
57	Two-layer predictive control of a micro-grid including stochastic energy sources. , 2015, , .		11
58	A Two-Layer Control Architecture for Islanded AC Microgrids with Storage Devices. , 2018, , .		11
59	Distributed predictive control of continuous-time systems. Systems and Control Letters, 2014, 74, 32-40.	2.3	9
60	Learning multi-step prediction models for receding horizon control. , 2018, , .		9
61	Multi€rate model predictive control algorithm for systems with fast€slow dynamics. IET Control Theory and Applications, 2018, 12, 2468-2477.	2.1	9
62	Microgrids aggregation management providing ancillary services. , 2018, , .		9
63	Modelling, simulation and predictive control of a spark ignition engine. International Journal of Modelling, Identification and Control, 2008, 3, 258.	0.2	8
64	Formation control and collision avoidance of unicycle robots with distributed predictive control. IFAC-PapersOnLine, 2015, 48, 260-265.	0.9	8
65	Distributed Predictive Control of stochastic linear systems with chance constraints. , 2016, , .		8
66	Two-layer model predictive control of systems with independent dynamics and shared control resources. IFAC-PapersOnLine, 2019, 52, 96-101.	0.9	8
67	Recurrent Neural Network-based Internal Model Control design for stable nonlinear systems. European Journal of Control, 2022, 65, 100632.	2.6	8
68	An Overview of Nonlinear Model Predictive Control. Lecture Notes in Control and Information Sciences, 2010, , 107-117.	1.0	7
69	Distributed moving horizon estimation for nonlinear constrained systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 909-914.	0.4	6
70	Secondary Control Strategies for DC Islanded Microgrids Operation. , 2019, , .		6
71	Stochastic identification and digital control of a heat exchanger: a simulation test case. Journal of the Franklin Institute, 1984, 318, 29-56.	3.4	5
72	Supervised control of hybrid AC-DC grids for power balance restoration. Electric Power Systems Research, 2021, 196, 107107.	3.6	5

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73	A digital temperature control system. Review of Scientific Instruments, 1991, 62, 1311-1316.	1.3	4
74	Contractive distributed MPC for consensus in networks of single- and double-integrators. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 9033-9038.	0.4	4
75	On the design of reconfigurable two layer hierarchical control systems with MPC. , 2010, , .		4
76	Distributed predictive control for tracking constant references. , 2012, , .		4
77	Stochastic distributed Predictive Control of independent systems with coupling constraints. , 2014, , .		4
78	A Hierarchical MPC Scheme for Coordination of Independent Systems With Shared Resources and Plug-and-Play Capabilities. IEEE Transactions on Control Systems Technology, 2020, 28, 521-532.	5.2	4
79	A fully distributed control scheme for power balancing in distribution networks. IFAC-PapersOnLine, 2020, 53, 13178-13183.	0.9	4
80	The Recursive Estimation of Time Delay in Sampled-Data Control Systems. Control and Dynamic Systems, 1995, 73, 159-206.	0.1	3
81	On the design of hierarchical control systems with MPC. , 2009, , .		3
82	A Note on Discretization of Sparse Linear Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 97-102.	0.4	3
83	A solution to the tracking problem using distributed predictive control. , 2013, , .		3
84	Model Predictive Control of an Automated Storage/Retrieval System. IFAC-PapersOnLine, 2016, 49, 1335-1340.	0.9	3
85	Robust predictive control with data-based multi-step prediction models. , 2018, , .		3
86	Distributed MPC for Large-Scale Systems. Control Engineering, 2019, , 239-258.	0.3	3
87	Integrated Breathing Model and Multi-Variable Control Approach for Air Management in Advanced Gasoline Engine. , 2006, , .		2
88	Rapid virtual prototyping and dynamics analysis of a common rail injection system for gasoline engines. International Journal of Vehicle Systems Modelling and Testing, 2009, 4, 17.	0.1	2
89	Set membership estimation of day-ahead microgrids scheduling. , 2019, , .		2
90	Model Predictive Control Tools for Evolutionary Plants. , 2019, , 39-56.		2

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91	Optimal Training of Echo State Networks via Scenario Optimization. IFAC-PapersOnLine, 2020, 53, 5183-5188.	0.9	2
92	Software-in-the-loop testing of a distributed optimal scheduling strategy for microgridsâ€™ aggregators. , 2020, , .		2
93	Tracking control of Wiener models with hierarchical and switching model predictive control. Optimal Control Applications and Methods, 2013, 34, 1-16.	2.1	1
94	Model predictive control of linear systems with multiplicative unbounded uncertainty and average constraints. IFAC-PapersOnLine, 2015, 48, 266-271.	0.9	1
95	Workbench Techniques in the Design of Digital Control Systems. Control and Dynamic Systems, 1995, 72, 1-23.	0.1	0
96	A hybrid model predictive control scheme for multi-agent containment and distributed sensing. , 2009, , .		0
97	Decentralized predictive control for tracking constant references. , 2013, , .		0
98	Complexity reduction of Model Predictive Control for a de-manufacturing plant. IFAC-PapersOnLine, 2018, 51, 296-301.	0.9	0
99	Safeguarded optimal policy learning for a smart discrete manufacturing plant. IFAC-PapersOnLine, 2022, 55, 396-401.	0.9	0