Matthias A MÃ¼ller

List of Publications by Year
in descending order

58	1,489	394421	330143
papers	citations	19	37
		h-index	g-index

58	58	58	753
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Distributed economic model predictive control for cooperative supply chain management using customer forecast information. IFAC Journal of Systems and Control, 2021, 15, 100125.	1.7	8
2	Robust Stability of Suboptimal Moving Horizon Estimation using an Observer-Based Candidate Solution. IFAC-PapersOnLine, 2021, 54, 226-231.	0.9	9
3	Transient Performance of Tube-based Robust Economic Model Predictive Control. IFAC-PapersOnLine, 2021, 54, 28-35.	0.9	2
4	Strict dissipativity for discrete time discounted optimal control problems. Mathematical Control and Related Fields, 2021, 11, 771.	1.1	5
5	A set-theoretic generalization of dissipativity with applications in Tube MPC. Automatica, 2020, 122, 109179.	5.0	2
6	Periodic optimal control of nonlinear constrained systems using economic model predictive control. Journal of Process Control, 2020, 92, 185-201.	3.3	3
7	Dissipativity properties in constrained optimal control: A computational approach. Automatica, 2020, 114, 108840.	5.0	18
8	A nonlinear tracking model predictive control scheme for dynamic target signals. Automatica, 2020, 118, 109030.	5.0	30
9	Robust Economic Model Predictive Control without Terminal Conditions. IFAC-PapersOnLine, 2020, 53, 7097-7104.	0.9	6
10	Distributed Model Predictive Control for Consensus of Constrained Heterogeneous Linear Systems. , 2020, , .		4
11	Time-Discounted Incremental Input/Output-to-State Stability. , 2020, , .		9
12	A simple framework for nonlinear robust output-feedback MPC. , 2019, , .		4
13	Predictive Control Over a Dynamical Token Bucket Network. , 2019, 3, 859-864.		10
14	Graph topology and subsystem centrality in approximately dissipative system interconnections. , 2019, , .		1
15	Economic MPC using a Cyclic Horizon with Application to Networked Control Systems. IFAC-PapersOnLine, 2019, 52, 502-507.	0.9	4
16	Economic Model Predictive Control: Some Design Tools and Analysis Techniques. Control Engineering, 2019, , 145-167.	0.3	4
17	Nonlinear Reference Tracking: An Economic Model Predictive Control Perspective. IEEE Transactions on Automatic Control, 2019, 64, 254-269.	5.7	61
18	Economic Nonlinear Model Predictive Control. Foundations and Trends in Systems and Control, 2018, 5, 224-409.	7.5	65

#	Article	IF	Citations
19	On optimal system operation in robust economic MPC. Automatica, 2018, 88, 98-106.	5.0	22
20	Interconnections of dissipative systems and distributed economic MPC. IFAC-PapersOnLine, 2018, 51, 86-91.	0.9	5
21	MPC for nonlinear periodic tracking using reference generic offline computations. IFAC-PapersOnLine, 2018, 51, 556-561.	0.9	6
22	Robust Global Exponential Stability for Moving Horizon Estimation. , 2018, , .		14
23	Indefinite Linear Quadratic Optimal Control: Strict Dissipativity and Turnpike Properties. , 2018, 2, 399-404.		10
24	A distributed economic MPC framework for cooperative control under conflicting objectives. Automatica, 2018, 96, 368-379.	5.0	21
25	On Periodic Dissipativity Notions in Economic Model Predictive Control. , 2018, 2, 501-506.		12
26	Nonlinear moving horizon estimation in the presence of bounded disturbances. Automatica, 2017, 79, 306-314.	5.0	63
27	Cost-to-travel functions: A new perspective on optimal and model predictive control. Systems and Control Letters, 2017, 106, 79-86.	2.3	8
28	On Exploitation of Supply Chain Properties by Sequential Distributed MPC * *P. Köhler, M. Müller and F. Allgöwer thank the German Research Foundation (DFG) for support of this work within grant AL 316/11-1 and within the Cluster of Excellence in Simulation Technology (EXC 310/2) at the University of Stuttgart. M. Müller and J. Pannek are also supported by the DFG, grant WO 2056/1. IFAC-PapersOnLine, 2017, 50, 7947-7952.	0.9	2
29	Transient performance of economic model predictive control with average constraints. , 2017, , .		1
30	On the relation between dissipativity and discounted dissipativity. , 2017, , .		4
31	A distributed economic MPC scheme for coordination of self-interested systems. , 2016, , .		5
32	Stabilizing Model Predictive Control without Terminal Constraints for Switched Nonlinear Systems. IFAC-PapersOnLine, 2016, 49, 65-70.	0.9	11
33	Min-max economic model predictive control approaches with guaranteed performance. , 2016, , .		11
34	Nonlinear moving horizon estimation for systems with bounded disturbances. , 2016, , .		7
35	Economic model predictive control without terminal constraints for optimal periodic behavior. Automatica, 2016, 70, 128-139.	5.0	72
36	Robust economic Model Predictive Control using stochastic information. Automatica, 2016, 74, 151-161.	5.0	33

#	Article	IF	Citations
37	On the relation between strict dissipativity and turnpike properties. Systems and Control Letters, 2016, 90, 45-53.	2.3	86
38	Average Constraints in Robust Economic Model Predictive Controlâ—â—The authors would like to thank the German Research Foundation (DFG) for financial support of the project within the Cluster of Excellence in Simulation Technology (EXC 310/2) at the University of Stuttgart.. IFAC-PapersOnLine, 2015, 48, 44-49.	0.9	0
39	Improving Performance in Robust Economic MPC Using Stochastic Information**The authors would like to thank the German Research Foundation (DFG) for financial support of the project within the Cluster of Excellence in Simulation Technology (EXC 310/2) at the University of Stuttgart.. IFAC-PapersOnLine, 2015, 48, 410-415.	0.9	3
40	Economic model predictive control without terminal constraints: Optimal periodic operation. , 2015, , .		7
41	On the role of dissipativity in economic model predictive control. IFAC-PapersOnLine, 2015, 48, 110-116.	0.9	38
42	On Necessity and Robustness of Dissipativity in Economic Model Predictive Control. IEEE Transactions on Automatic Control, 2015, 60, 1671-1676.	5.7	98
43	Performance analysis of economic MPC with self-tuning terminal cost. , 2014, , .		1
44	Convergence in economic model predictive control with average constraints. Automatica, 2014, 50, 3100-3111.	5.0	39
45	Tube-based robust economic model predictive control. Journal of Process Control, 2014, 24, 1237-1246.	3.3	70
46	On the performance of economic model predictive control with self-tuning terminal cost. Journal of Process Control, 2014, 24, 1179-1186.	3.3	42
47	Set-based Disturbance Attenuation in Economic Model Predictive Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 1898-1903.	0.4	1
48	Distributed economic MPC: a framework for cooperative control problems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 1029-1034.	0.4	11
49	A distributed model predictive control scheme for networks with communication failure. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 12004-12009.	0.4	5
50	Economic model predictive control with self-tuning terminal cost. European Journal of Control, 2013, 19, 408-416.	2.6	74
51	On convergence of averagely constrained economic MPC and necessity of dissipativity for optimal steady-state operation. , 2013, , .		34
52	Robustness of steady-state optimality in economic model predictive control. , 2012, , .		17
53	Robust cooperative control of dynamically decoupled systems via distributed MPC. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 412-417.	0.4	5
54	Input/output-to-state stability and state-norm estimators for switched nonlinear systems. Automatica, 2012, 48, 2029-2039.	5.0	166

#	Article	IF	Citations
55	Model predictive control of switched nonlinear systems under average dwell-time. Journal of Process Control, 2012, 22, 1702-1710.	3.3	71
56	Cooperative control of dynamically decoupled systems via distributed model predictive control. International Journal of Robust and Nonlinear Control, 2012, 22, 1376-1397.	3.7	99
57	Improving performance in model predictive control: Switching cost functionals under average dwell-time. Automatica, 2012, 48, 402-409.	5.0	56
58	A general distributed MPC framework for cooperative control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 7987-7992.	0.4	14