

# Matthias A MÃ¼ller

## List of Publications by Year in descending order

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58  
papers

1,489  
citations

394421

19  
h-index

330143

37  
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58  
all docs

58  
docs citations

58  
times ranked

753  
citing authors

#	ARTICLE	IF	CITATIONS
1	Input/output-to-state stability and state-norm estimators for switched nonlinear systems. <i>Automatica</i> , 2012, 48, 2029-2039.	5.0	166
2	Cooperative control of dynamically decoupled systems via distributed model predictive control. <i>International Journal of Robust and Nonlinear Control</i> , 2012, 22, 1376-1397.	3.7	99
3	On Necessity and Robustness of Dissipativity in Economic Model Predictive Control. <i>IEEE Transactions on Automatic Control</i> , 2015, 60, 1671-1676.	5.7	98
4	On the relation between strict dissipativity and turnpike properties. <i>Systems and Control Letters</i> , 2016, 90, 45-53.	2.3	86
5	Economic model predictive control with self-tuning terminal cost. <i>European Journal of Control</i> , 2013, 19, 408-416.	2.6	74
6	Economic model predictive control without terminal constraints for optimal periodic behavior. <i>Automatica</i> , 2016, 70, 128-139.	5.0	72
7	Model predictive control of switched nonlinear systems under average dwell-time. <i>Journal of Process Control</i> , 2012, 22, 1702-1710.	3.3	71
8	Tube-based robust economic model predictive control. <i>Journal of Process Control</i> , 2014, 24, 1237-1246.	3.3	70
9	Economic Nonlinear Model Predictive Control. <i>Foundations and Trends in Systems and Control</i> , 2018, 5, 224-409.	7.5	65
10	Nonlinear moving horizon estimation in the presence of bounded disturbances. <i>Automatica</i> , 2017, 79, 306-314.	5.0	63
11	Nonlinear Reference Tracking: An Economic Model Predictive Control Perspective. <i>IEEE Transactions on Automatic Control</i> , 2019, 64, 254-269.	5.7	61
12	Improving performance in model predictive control: Switching cost functionals under average dwell-time. <i>Automatica</i> , 2012, 48, 402-409.	5.0	56
13	On the performance of economic model predictive control with self-tuning terminal cost. <i>Journal of Process Control</i> , 2014, 24, 1179-1186.	3.3	42
14	Convergence in economic model predictive control with average constraints. <i>Automatica</i> , 2014, 50, 3100-3111.	5.0	39
15	On the role of dissipativity in economic model predictive control. <i>IFAC-PapersOnLine</i> , 2015, 48, 110-116.	0.9	38
16	On convergence of averagely constrained economic MPC and necessity of dissipativity for optimal steady-state operation. , 2013, , .		34
17	Robust economic Model Predictive Control using stochastic information. <i>Automatica</i> , 2016, 74, 151-161.	5.0	33
18	A nonlinear tracking model predictive control scheme for dynamic target signals. <i>Automatica</i> , 2020, 118, 109030.	5.0	30

#	ARTICLE	IF	CITATIONS
19	On optimal system operation in robust economic MPC. Automatica, 2018, 88, 98-106.	5.0	22
20	A distributed economic MPC framework for cooperative control under conflicting objectives. Automatica, 2018, 96, 368-379.	5.0	21
21	Dissipativity properties in constrained optimal control: A computational approach. Automatica, 2020, 114, 108840.	5.0	18
22	Robustness of steady-state optimality in economic model predictive control. , 2012, , .		17
23	A general distributed MPC framework for cooperative control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 7987-7992.	0.4	14
24	Robust Global Exponential Stability for Moving Horizon Estimation. , 2018, , .		14
25	On Periodic Dissipativity Notions in Economic Model Predictive Control. , 2018, 2, 501-506.		12
26	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
27	Stabilizing Model Predictive Control without Terminal Constraints for Switched Nonlinear Systems. IFAC-PapersOnLine, 2016, 49, 65-70.	0.9	11
28	Min-max economic model predictive control approaches with guaranteed performance. , 2016, , .		11
29	Indefinite Linear Quadratic Optimal Control: Strict Dissipativity and Turnpike Properties. , 2018, 2, 399-404.		10
30	Predictive Control Over a Dynamical Token Bucket Network. , 2019, 3, 859-864.		10
31	Robust Stability of Suboptimal Moving Horizon Estimation using an Observer-Based Candidate Solution. IFAC-PapersOnLine, 2021, 54, 226-231.	0.9	9
32	Time-Discounted Incremental Input/Output-to-State Stability. , 2020, , .		9
33	Cost-to-travel functions: A new perspective on optimal and model predictive control. Systems and Control Letters, 2017, 106, 79-86.	2.3	8
34	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
35	Economic model predictive control without terminal constraints: Optimal periodic operation. , 2015, , .		7
36	Nonlinear moving horizon estimation for systems with bounded disturbances. , 2016, , .		7

#	ARTICLE	IF	CITATIONS
37	MPC for nonlinear periodic tracking using reference generic offline computations. IFAC-PapersOnLine, 2018, 51, 556-561.	0.9	6
38	Robust Economic Model Predictive Control without Terminal Conditions. IFAC-PapersOnLine, 2020, 53, 7097-7104.	0.9	6
39	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
40	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
41	A distributed economic MPC scheme for coordination of self-interested systems. , 2016, , .		5
42	Interconnections of dissipative systems and distributed economic MPC. IFAC-PapersOnLine, 2018, 51, 86-91.	0.9	5
43	Strict dissipativity for discrete time discounted optimal control problems. Mathematical Control and Related Fields, 2021, 11, 771.	1.1	5
44	On the relation between dissipativity and discounted dissipativity. , 2017, , .		4
45	A simple framework for nonlinear robust output-feedback MPC. , 2019, , .		4
46	Economic MPC using a Cyclic Horizon with Application to Networked Control Systems. IFAC-PapersOnLine, 2019, 52, 502-507.	0.9	4
47	Economic Model Predictive Control: Some Design Tools and Analysis Techniques. Control Engineering, 2019, , 145-167.	0.3	4
48	Distributed Model Predictive Control for Consensus of Constrained Heterogeneous Linear Systems. , 2020, , .		4
49	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
50	Periodic optimal control of nonlinear constrained systems using economic model predictive control. Journal of Process Control, 2020, 92, 185-201.	3.3	3
51	On Exploitation of Supply Chain Properties by Sequential Distributed MPC **P. Käppler, M. Mäller 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. Mäller and J. Pannek are also supported by the DFG, grant WO 2056/1. IFAC-PapersOnLine, 2017, 50, 7947-7952.	0.9	2
52	A set-theoretic generalization of dissipativity with applications in Tube MPC. Automatica, 2020, 122, 109179.	5.0	2
53	Transient Performance of Tube-based Robust Economic Model Predictive Control. IFAC-PapersOnLine, 2021, 54, 28-35.	0.9	2
54	Performance analysis of economic MPC with self-tuning terminal cost. , 2014, , .		1

#	ARTICLE	IF	CITATIONS
55	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
56	Transient performance of economic model predictive control with average constraints. , 2017, , .		1
57	Graph topology and subsystem centrality in approximately dissipative system interconnections. , 2019, , .		1
58	Average Constraints in Robust Economic Model Predictive Control—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