

# Mathias Bäcker

## List of Publications by Year in descending order

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Version: 2024-02-01

31  
papers

846  
citations

933447

10  
h-index

940533

16  
g-index

31  
all docs

31  
docs citations

31  
times ranked

660  
citing authors

#	ARTICLE	IF	CITATIONS
1	An internal model approach to (optimal) frequency regulation in power grids with time-varying voltages. <i>Automatica</i> , 2016, 64, 240-253.	5.0	145
2	Simultaneous task allocation and planning for temporal logic goals in heterogeneous multi-robot systems. <i>International Journal of Robotics Research</i> , 2018, 37, 818-838.	8.5	92
3	Duality and network theory in passivity-based cooperative control. <i>Automatica</i> , 2014, 50, 2051-2061.	5.0	79
4	A distributed simplex algorithm for degenerate linear programs and multi-agent assignments. <i>Automatica</i> , 2012, 48, 2298-2304.	5.0	77
5	Robust Constraint Satisfaction for Continuous-Time Nonlinear Systems in Strict Feedback Form. <i>IEEE Transactions on Automatic Control</i> , 2010, 55, 2597-2601.	5.7	75
6	Dynamic coupling design for nonlinear output agreement and time-varying flow control. <i>Automatica</i> , 2015, 51, 210-222.	5.0	74
7	A Polyhedral Approximation Framework for Convex and Robust Distributed Optimization. <i>IEEE Transactions on Automatic Control</i> , 2014, 59, 384-395.	5.7	56
8	Practical synchronization with diffusive couplings. <i>Automatica</i> , 2015, 53, 235-243.	5.0	54
9	Discrete-time Incremental ISS: A framework for Robust NMPC. , 2013, , .		36
10	Hierarchical Clustering of Dynamical Networks Using a Saddle-Point Analysis. <i>IEEE Transactions on Automatic Control</i> , 2013, 58, 113-124.	5.7	27
11	On the zeros of consensus networks. , 2011, , .		18
12	Internal models for nonlinear output agreement and optimal flow control. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2013, 46, 289-294.	0.4	14
13	Multi-objective search for optimal multi-robot planning with finite LTL specifications and resource constraints. , 2017, , .		11
14	A distributed simplex algorithm and the multi-agent assignment problem. , 2011, , .		10
15	Network clustering: A dynamical systems and saddle-point perspective. , 2011, , .		10
16	Dynamic Pricing Control for Constrained Distribution Networks With Storage. <i>IEEE Transactions on Control of Network Systems</i> , 2015, 2, 88-97.	3.7	10
17	Compensating Drift Vector Fields With Gradient Vector Fields for Asymptotic Submanifold Stabilization. <i>IEEE Transactions on Automatic Control</i> , 2016, 61, 388-399.	5.7	10
18	Locally constrained decision making via two-stage distributed simplex. , 2011, , .		7

#	ARTICLE	IF	CITATIONS
19	On State-Constrained Control of a CSTR*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 6079-6084.	0.4	5
20	A backstepping approach to multivariable robust constraint satisfaction with application to a VTOL helicopter. , 2009, , .		4
21	Adaptive control of state constrained nonlinear systems in strict feedback form. , 2012, , .		4
22	Distributed robust optimization via Cutting-Plane Consensus. , 2012, , .		4
23	Synchronization of diffusively coupled systems on compact Riemannian manifolds in the presence of drift. Systems and Control Letters, 2015, 76, 19-27.	2.3	4
24	Topological and Graph-Coloring Conditions on the Parameter-Independent Stability of Second-Order Networked Systems. SIAM Journal on Control and Optimization, 2017, 55, 3750-3778.	2.1	4
25	Robust constraint satisfaction for continuous-time nonlinear systems. , 2008, , .		3
26	Exact convex formulations of network-oriented optimal operator placement. , 2012, , .		3
27	Practical cluster synchronization of heterogeneous systems on graphs with acyclic topology. , 2013, , .		3
28	On the Steady-State Inverse-Optimality of Passivity-based Cooperative Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 138-143.	0.4	3
29	Extensions on a certainty-equivalence feedback design with a class of feedbacks which guarantee ISS. , 2008, , .		2
30	Combinatorial insights and robustness analysis for clustering in dynamical networks. , 2012, , .		1
31	From non-cooperative to cooperative distributed MPC: A simplicial approximation perspective. , 2013, , .		1