

Christian Ebenbauer

List of Publications by Year in descending order

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69
papers

997
citations

567281

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526287

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69
docs citations

69
times ranked

506
citing authors

#	ARTICLE	IF	CITATIONS
1	Lie bracket approximation of extremum seeking systems. Automatica, 2013, 49, 1538-1552.	5.0	161
2	Analysis and design of polynomial control systems using dissipation inequalities and sum of squares. Computers and Chemical Engineering, 2006, 30, 1590-1602.	3.8	87
3	On a class of generating vector fields for the extremum seeking problem: Lie bracket approximation and stability properties. Automatica, 2018, 94, 151-160.	5.0	68
4	Ensemble Observability of Linear Systems. IEEE Transactions on Automatic Control, 2016, 61, 1452-1465.	5.7	40
5	Relaxed Logarithmic Barrier Function Based Model Predictive Control of Linear Systems. IEEE Transactions on Automatic Control, 2017, 62, 1223-1238.	5.7	36
6	Extremum seeking for dynamic maps using Lie brackets and singular perturbations. Automatica, 2017, 83, 91-99.	5.0	35
7	Saddle Point Seeking for Convex Optimization Problems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 540-545.	0.4	30
8	Robust and structure exploiting optimisation algorithms: an integral quadratic constraint approach. International Journal of Control, 2021, 94, 2956-2979.	1.9	30
9	A stabilizing iteration scheme for model predictive control based on relaxed barrier functions. Automatica, 2017, 80, 328-339.	5.0	29
10	Feedback design for multi-agent systems: A saddle point approach. , 2012, , .		27
11	Locating omega-limit sets using height functions. Journal of Differential Equations, 2010, 248, 2458-2469.	2.2	26
12	Newton-based extremum seeking: A second-order Lie bracket approximation approach. Automatica, 2019, 105, 356-367.	5.0	24
13	Extremum seeking on submanifolds in the Euclidian space. Automatica, 2014, 50, 2591-2596.	5.0	23
14	A smooth vector field for saddle point problems. , 2011, , .		21
15	Robust Optimal Power Flow for Mixed AC/DC Transmission Systems With Volatile Renewables. IEEE Transactions on Power Systems, 2018, 33, 5171-5182.	6.5	21
16	Singularly Perturbed Lie Bracket Approximation. IEEE Transactions on Automatic Control, 2015, 60, 3287-3292.	5.7	19
17	Weight recentered barrier functions and smooth polytopic terminal set formulations for linear model predictive control. , 2015, , .		18
18	Swinging up the Stephenson-Kapitza pendulum. , 2013, , .		17

#	ARTICLE	IF	CITATIONS
19	Extremum Seeking for Time-Varying Functions using Lie Bracket Approximations * *This work is supported in part by the Alexander von Humboldt Foundation, the Deutsche Forschungsgemeinschaft (EB 425/4-1), and the State Fund for Fundamental Research of Ukraine (F63-726).. IFAC-PapersOnLine, 2017, 50, 5522-5528.	0.9	16
20	Refining LaSalle's invariance principle. , 2009, , .		15
21	Iterative Learning and Extremum Seeking for Repetitive Time-Varying Mappings. IEEE Transactions on Automatic Control, 2017, 62, 3339-3353.	5.7	15
22	A smooth vector field for quadratic programming. , 2012, , .		14
23	The multidimensional n-th order heavy ball method and its application to extremum seeking. , 2014, , .		14
24	Obstacle avoidance for an extremum seeking system using a navigation function. , 2013, , .		12
25	Multi-Agent Coordination with Lagrangian Measurements**This work was supported in part by the Alexander von Humboldt Foundation.. IFAC-PapersOnLine, 2016, 49, 115-120.	0.9	11
26	A barrier function based continuous-time algorithm for linear model predictive control. , 2013, , .		9
27	Extremum seeking control of nonlinear dynamic systems using Lie bracket approximations. International Journal of Adaptive Control and Signal Processing, 2021, 35, 1233-1255.	4.1	9
28	Model-based extremum seeking for a class of nonlinear systems. , 2015, , .		8
29	Extremum control of linear systems based on output feedback. , 2016, , .		8
30	A new approach for minimum phase output definition. International Journal of Systems Science, 2017, 48, 264-271.	5.5	8
31	Distributed Optimization over Directed Graphs with the help of Lie Brackets. IFAC-PapersOnLine, 2017, 50, 15343-15348.	0.9	8
32	Derivative-Free Optimization Algorithms Based on Non-Commutative Maps. , 2018, 2, 743-748.		8
33	A solution for a class of output regulation problems on $SO(n)$. , 2012, , .		7
34	Output Regulation for Control Systems on $\mathbb{S}E(n)$; A Separation Principle Based Approach. IEEE Transactions on Automatic Control, 2014, 59, 3057-3062.	5.7	7
35	Distributed extremum seeking over directed graphs. , 2017, , .		6
36	Online learning with stability guarantees: A memory-based warm starting for real-time MPC. Automatica, 2020, 122, 109247.	5.0	6

#	ARTICLE	IF	CITATIONS
37	A proximity moving horizon estimator for a class of nonlinear systems. International Journal of Adaptive Control and Signal Processing, 2020, 34, 721-742.	4.1	6
38	Proximity Moving Horizon Estimation for Discrete-Time Nonlinear Systems. , 2021, 5, 2090-2095.		6
39	ISS-like properties in Lie-bracket approximations and application to extremum seeking. Automatica, 2022, 136, 110041.	5.0	6
40	Barrier function based linear model predictive control with polytopic terminal sets. , 2014, , .		5
41	Extremum Seeking and Obstacle Avoidance on the Special Orthogonal Group. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 8229-8234.	0.4	5
42	A first step toward moving horizon state estimation based on relaxed logarithmic barrier functions. , 2017, , .		5
43	Parameter Tuning and Optimal Design of Decentralized Structured Controllers for Power Oscillation Damping in Electrical Networks. , 2018, , .		5
44	Proximity moving horizon estimation for linear time-varying systems and a Bayesian filtering view. , 2019, , .		5
45	Passivity-based Feedback Design for Polynomial Control Systems (Passivitätsbasierter Reglerentwurf) Tj ETQq1 1 0.784314 rgBT /Over	0.8	4
46	A dynamical system that computes eigenvalues and diagonalizes matrices with a real spectrum. , 2007, , .		4
47	Robust stability properties of MPC iteration schemes based on relaxed barrier functions. , 2016, , .		4
48	On extremum seeking controllers based on the Lie bracket approximation in domains with obstacles. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800298.	0.2	4
49	A family of extremum seeking laws for a unicycle model with a moving target: theoretical and experimental studies. , 2018, , .		4
50	A novel scheme for output definition in feedback passivation of nonlinear systems. International Journal of Systems Science, 2018, 49, 3196-3201.	5.5	4
51	A proximity moving horizon estimator based on Bregman distances and relaxed barrier functions. , 2019, , .		4
52	Sparsity-Exploiting Anytime Algorithms for Model Predictive Control: A Relaxed Barrier Approach. IEEE Transactions on Control Systems Technology, 2020, 28, 425-435.	5.2	4
53	A Lie bracket approximation approach to distributed optimization over directed graphs. Automatica, 2020, 112, 108691.	5.0	4
54	Examples of distance-based synchronization: An extremum seeking approach. , 2013, , .		3

#	ARTICLE	IF	CITATIONS
55	Characterizing the learning dynamics in extremum seeking: The role of gradient averaging and non-convexity. , 2018, , .		3
56	Gradient-Based Extremum Seeking: Performance Tuning via Lie Bracket Approximations. , 2018, , .		3
57	Extremum Seeking Algorithms based on Non-Commutative Maps. IFAC-PapersOnLine, 2019, 52, 688-693.	0.9	3
58	Output regulation for attitude control: A global approach. , 2013, , .		2
59	Extremum Seeking with Drift —a —All authors 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. Hans-Bernd DÄ¼rr and Christian Ebenbauer are additionally supported by the German Research Foundation (DFG) within the Emmy-Noether-Grant â€œNovel Ways in Control and Computationâ€ (EB 425/2-1).. IFAC-PapersOnLine, 2015, 48, 126-130.	0.9	2
60	A Hessenbergâ€™Jacobi isospectral flow. Nonlinear Differential Equations and Applications, 2015, 22, 87-103.	0.8	2
61	Gradient approximation and extremum seeking via needle variations. , 2016, , .		2
62	Anytime MHE-based output feedback MPC. IFAC-PapersOnLine, 2021, 54, 264-271.	0.9	2
63	On an eigenflow equation and its structure preserving properties. , 2009, , .		1
64	An iteration scheme with stability guarantees for proximity moving horizon estimation. , 2020, , .		1
65	A Note on Nussbaum-type Control and Lie-bracket Approximation. , 2021, , .		1
66	Synchronization conditions for Lyapunov oscillators. , 2010, , .		0
67	Observability properties of the periodic Toda lattice. , 2011, , .		0
68	Proximity Moving Horizon Estimation for Discrete-Time Nonlinear Systems. , 2021, , .		0
69	Relaxed Barrier MPC for Path Following in Constrained Environments. , 2021, , .		0