Rafal Goebel

List of Publications by Year
in descending order

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49 papers	2,512 citations	643344 15 h-index	511568 30 g-index
49 all docs	49 docs citations	49 times ranked	1561 citing authors

#	Article	IF	Citations
1	Piecewise structure of Lyapunov functions and densely checked decrease conditions for hybrid systems. Mathematics of Control, Signals, and Systems, 2021, 33, 123-149.	1.4	12
2	A unifying convex analysis and switching system approach to consensus with undirected communication graphs. Automatica, 2020, 111, 108598.	3.0	3
3	Almost Everywhere Conditions for Hybrid Lipschitz Lyapunov Functions. , 2019, , .		1
4	A Lyapunov-like characterization of robustness of pointwise asymptotic stability for differential inclusions. IFAC-PapersOnLine, 2019, 52, 251-255.	0.5	2
5	Existence of optimal controls on hybrid time domains. Nonlinear Analysis: Hybrid Systems, 2019, 31, 153-165.	2.1	10
6	A Glimpse at Pointwise Asymptotic Stability for Continuous-Time and Discrete-Time Dynamics. , 2019, , 243-267.		1
7	Pointwise Asymptotic Stability in a Hybrid System and Well-Posed Behavior Beyond Zeno. SIAM Journal on Control and Optimization, 2018, 56, 1358-1385.	1.1	15
8	Applications of convex analysis to consensus algorithms, pointwise asymptotic stability, and its robustness. , 2018, , .		3
9	Optimal control for pointwise asymptotic stability in a hybrid control system. Automatica, 2017, 81, 397-402.	3.0	6
10	Approximate Consensus of Multiagent Systems With Inaccurate Sensor Measurements. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2017, 139, .	0.9	5
11	Stability and robustness for saddle-point dynamics through monotone mappings. Systems and Control Letters, 2017, 108, 16-22.	1.3	24
12	Results on optimal stabilization of a continuum of equilibria. , 2016, , .		1
13	How well-posedness of hybrid systems can extend beyond Zeno times. , 2016, , .		5
14	Results on robust stability and feedback stabilization for systems with a continuum of equilibria. , 2014, , .		3
15	Linear systems with conical constraints and convex Lyapunov functions in the framework of convex processes. , 2014, , .		1
16	Robustness of stability through necessary and sufficient Lyapunov-like conditions for systems with a continuum of equilibria. Systems and Control Letters, 2014, 65, 81-88.	1.3	12
17	Set-valued protocols for almost consensus of multiagent systems with uncertain interagent communication. , 2014, , .		5
18	Lyapunov Functions and Duality for Convex Processes. SIAM Journal on Control and Optimization, 2013, 51, 3332-3350.	1.1	7

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19	The optimal value and optimal solutions of the proximal average of convex functions. Nonlinear Analysis: Theory, Methods & Applications, 2012, 75, 1290-1304.	0.6	4
20	Hybrid Control Systems. , 2012, , 704-728.		4
21	Set-valued Lyapunov functions for difference inclusions. Automatica, 2011, 47, 127-132.	3.0	20
22	The value function for the Linear-Quadratic Regulator with conical control constraints. , 2010, , .		0
23	Preasymptotic Stability and Homogeneous Approximations of Hybrid Dynamical Systems. SIAM Review, 2010, 52, 87-109.	4.2	38
24	Basic results on pointwise asymptotic stability and set-valued Lyapunov functions. , 2010, , .		1
25	Direct design of robustly asymptotically stabilizing hybrid feedback. ESAIM - Control, Optimisation and Calculus of Variations, 2009, 15, 205-213.	0.7	7
26	Smooth patchy control Lyapunov functions. Automatica, 2009, 45, 675-683.	3.0	27
27	Hybrid dynamical systems. IEEE Control Systems, 2009, 29, 28-93.	1.0	1,255
28	Relaxation Results for Hybrid Inclusions. Set-Valued and Variational Analysis, 2008, 16, 733-757.	0.5	13
29	Invariance principles for switching systems via hybrid systems techniques. Systems and Control Letters, 2008, 57, 980-986.	1.3	62
30	Smooth Lyapunov Functions for Hybrid Systems Part II: (Pre)Asymptotically Stable Compact Sets. IEEE Transactions on Automatic Control, 2008, 53, 734-748.	3.6	157
31	The Proximal Average: Basic Theory. SIAM Journal on Optimization, 2008, 19, 766-785.	1.2	71
32	Generalized solutions to hybrid dynamical systems. ESAIM - Control, Optimisation and Calculus of Variations, 2008, 14, 699-724.	0.7	61
33	Zeno behavior in homogeneous hybrid systems. , 2008, , .		15
34	Lyapunov characterization of Zeno behavior in hybrid systems. , 2008, , .		26
35	Supervising a family of hybrid controllers for robust global asymptotic stabilization. , 2008, , .		19
36	Hybrid systems techniques for convergence of solutions to switching systems. , 2007, , .		1

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37	RELAXED CHARACTERIZATIONS OF SMOOTH PATCHY CONTROL LYAPUNOV FUNCTIONS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 486-491.	0.4	0
38	Hybrid Feedback Control and Robust Stabilization of Nonlinear Systems. IEEE Transactions on Automatic Control, 2007, 52, 2103-2117.	3.6	65
39	Smooth Lyapunov Functions for Hybrid Systemsâ€”Part I: Existence Is Equivalent to Robustness. IEEE Transactions on Automatic Control, 2007, 52, 1264-1277.	3.6	87
40	Invariance Principles for Hybrid Systems With Connections to Detectability and Asymptotic Stability. IEEE Transactions on Automatic Control, 2007, 52, 2282-2297.	3.6	251
41	Continuous Time Linear Quadratic Regulator With Control Constraints via Convex Duality. IEEE Transactions on Automatic Control, 2007, 52, 886-892.	3.6	29
42	A Feedback Control Motivation for Generalized Solutions to Hybrid Systems. Lecture Notes in Computer Science, 2006, , 522-536.	1.0	14
43	Results on relaxation theorems for hybrid systems. , 2006, , .		3
44	Smooth patchy control Lyapunov functions. , 2006, , .		8
45	Duality and uniqueness of convex solutions to stationary Hamilton-Jacobi equations. Transactions of the American Mathematical Society, 2005, 357, 2187-2203.	0.5	14
46	Convex Optimal Control Problems with Smooth Hamiltonians. SIAM Journal on Control and Optimization, 2005, 43, 1787-1811.	1.1	16
47	Regularity of the Optimal Feedback and the Value Function in Convex Problems of Optimal Control. Set-Valued and Variational Analysis, 2004, 12, 127-145.	0.5	10
48	Hybrid systems: Generalized solutions and robust stability. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 1-12.	0.4	114
49	Stationary Hamilton-Jacobi Equations for Convex Control Problems: Uniqueness and Duality of Solutions. Lecture Notes in Control and Information Sciences, 0, , 313-322.	0.6	4