

Corentin Briat

List of Publications by Year in descending order

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84
papers

3,070
citations

236925

25
h-index

175258

52
g-index

91
all docs

91
docs citations

91
times ranked

1597
citing authors

#	ARTICLE	IF	CITATIONS
1	Antithetic Integral Feedback Ensures Robust Perfect Adaptation in Noisy Biomolecular Networks. <i>Cell Systems</i> , 2016, 2, 15-26.	6.2	320
2	Robust stability and stabilization of uncertain linear positive systems via integral linear constraints: \mathcal{L}_1 -gain and \mathcal{L}_∞ -gain characterization. <i>International Journal of Robust and Nonlinear Control</i> , 2013, 23, 1932-1954.	3.7	277
3	Convex conditions for robust stability analysis and stabilization of linear aperiodic impulsive and sampled-data systems under dwell-time constraints. <i>Automatica</i> , 2013, 49, 3449-3457.	5.0	209
4	A looped-functional approach for robust stability analysis of linear impulsive systems. <i>Systems and Control Letters</i> , 2012, 61, 980-988.	2.3	195
5	Convergence and Equivalence Results for the Jensen's Inequality Application to Time-Delay and Sampled-Data Systems. <i>IEEE Transactions on Automatic Control</i> , 2011, 56, 1660-1665.	5.7	182
6	Dwell-time stability and stabilization conditions for linear positive impulsive and switched systems. <i>Nonlinear Analysis: Hybrid Systems</i> , 2017, 24, 198-226.	3.5	134
7	Stability analysis of uncertain sampled-data systems with incremental delay using looped-functionals. <i>Automatica</i> , 2015, 55, 274-278.	5.0	119
8	Linear Parameter-Varying and Time-Delay Systems. <i>Advances in Delays and Dynamics</i> , 2015, , .	0.4	108
9	Stability analysis and stabilization of stochastic linear impulsive, switched and sampled-data systems under dwell-time constraints. <i>Automatica</i> , 2016, 74, 279-287.	5.0	108
10	Convex Dwell-Time Characterizations for Uncertain Linear Impulsive Systems. <i>IEEE Transactions on Automatic Control</i> , 2012, 57, 3241-3246.	5.7	94
11	Design of a Synthetic Integral Feedback Circuit: Dynamic Analysis and DNA Implementation. <i>ACS Synthetic Biology</i> , 2016, 5, 1108-1116.	3.8	90
12	Affine Characterizations of Minimal and Mode-Dependent Dwell-Times for Uncertain Linear Switched Systems. <i>IEEE Transactions on Automatic Control</i> , 2013, 58, 1304-1310.	5.7	86
13	Convex lifted conditions for robust stability analysis and stabilization of linear discrete-time switched systems with minimum dwell-time constraint. <i>Automatica</i> , 2014, 50, 976-983.	5.0	82
14	A Scalable Computational Framework for Establishing Long-Term Behavior of Stochastic Reaction Networks. <i>PLoS Computational Biology</i> , 2014, 10, e1003669.	3.2	77
15	Convex conditions for robust stabilization of uncertain switched systems with guaranteed minimum and mode-dependent dwell-time. <i>Systems and Control Letters</i> , 2015, 78, 63-72.	2.3	77
16	Antithetic proportional-integral feedback for reduced variance and improved control performance of stochastic reaction networks. <i>Journal of the Royal Society Interface</i> , 2018, 15, 20180079.	3.4	71
17	Interval peak-to-peak observers for continuous- and discrete-time systems with persistent inputs and delays. <i>Automatica</i> , 2016, 74, 206-213.	5.0	57
18	Stability analysis and control of a class of LPV systems with piecewise constant parameters. <i>Systems and Control Letters</i> , 2015, 82, 10-17.	2.3	45

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19	Stability Analysis for LTI Control Systems With Controller Failures and Its Application in Failure Tolerant Control. IEEE Transactions on Automatic Control, 2016, 61, 811-816.	5.7	42
20	Memory-resilient gain-scheduled state-feedback control of uncertain LTI/LPV systems with time-varying delays. Systems and Control Letters, 2010, 59, 451-459.	2.3	41
21	Theoretical and numerical comparisons of looped functionals and clock-dependent Lyapunov functions-The case of periodic and pseudo-periodic systems with impulses. International Journal of Robust and Nonlinear Control, 2016, 26, 2232-2255.	3.7	38
22	Stability and performance analysis of linear positive systems with delays using input-output methods. International Journal of Control, 2018, 91, 1669-1692.	1.9	37
23	Design of LPV observers for LPV time-delay systems: an algebraic approach. International Journal of Control, 2011, 84, 1533-1542.	1.9	34
24	Perfect Adaptation and Optimal Equilibrium Productivity in a Simple Microbial Biofuel Metabolic Pathway Using Dynamic Integral Control. ACS Synthetic Biology, 2018, 7, 419-431.	3.8	33
25	A new delay-SIR model for pulse vaccination. Biomedical Signal Processing and Control, 2009, 4, 272-277.	5.7	32
26	Robust stability analysis of uncertain linear positive systems via integral linear constraints: L_1 - and L_1 -gain characterizations. , 2011, , .		30
27	Computer control of gene expression: Robust setpoint tracking of protein mean and variance using integral feedback. , 2012, , .		25
28	Sign properties of Metzler matrices with applications. Linear Algebra and Its Applications, 2017, 515, 53-86.	0.9	25
29	L_1 - and L_1 -gain characterizations. Nonlinear Analysis: Hybrid Systems, 2019, 34, 1-17.	3.5	22
30	Deterministic and stochastic approaches to supervisory control design for networked systems with time-varying communication delays. Nonlinear Analysis: Hybrid Systems, 2013, 10, 94-110.	3.5	19
31	\mathcal{H}_∞ Delay-Scheduled Control of Linear Systems With Time-Varying Delays. IEEE Transactions on Automatic Control, 2009, 54, 2255-2260.	5.7	17
32	Delay-scheduled state-feedback design for time-delay systems with time-varying delays—A LPV approach. Systems and Control Letters, 2009, 58, 664-671.	2.3	16
33	Robust stability of impulsive systems: A functional-based approach. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 412-417.	0.4	16
34	Nonlinear state-dependent delay modeling and stability analysis of internet congestion control. , 2010, , .		14
35	Limitations and performances of robust control over WSN: UFAD control in intelligent buildings. IMA Journal of Mathematical Control and Information, 2010, 27, 527-543.	1.7	13
36	Integral population control of a quadratic dimerization process. , 2013, , .		12

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37	On the necessity of looped-functionals arising in the analysis of pseudo-periodic, sampled-data and hybrid systems. <i>International Journal of Control</i> , 2015, 88, 2563-2569.	1.9	12
38	Simple interval observers for linear impulsive systems with applications to sampled-data and switched systems. <i>IFAC-PapersOnLine</i> , 2017, 50, 5079-5084.	0.9	12
39	A Biology-Inspired Approach to the Positive Integral Control of Positive Systems: The Antithetic, Exponential, and Logistic Integral Controllers. <i>SIAM Journal on Applied Dynamical Systems</i> , 2020, 19, 619-664.	1.6	12
40	A LFT $\hat{\Sigma}$ state feedback design for linear parameter varying time delay systems. , 2007, , .		11
41	Stability analysis of LPV systems with piecewise differentiable parameters. <i>IFAC-PapersOnLine</i> , 2017, 50, 7554-7559.	0.9	11
42	Introduction to LPV Systems. <i>Advances in Delays and Dynamics</i> , 2015, , 3-36.	0.4	11
43	Stability Analysis of Time-Delay Systems. <i>Advances in Delays and Dynamics</i> , 2015, , 165-242.	0.4	11
44	The Conservation of Information, Towards an Axiomatized Modular Modeling Approach to Congestion Control. <i>IEEE/ACM Transactions on Networking</i> , 2015, 23, 851-865.	3.8	10
45	Stability Analysis and State-Feedback Control of LPV Systems With Piecewise Constant Parameters Subject to Spontaneous Poissonian Jumps. , 2018, 2, 230-235.		10
46	Stability Criteria for Asynchronous Sampled-data Systems – A Fragmentation Approach. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011, 44, 1313-1318.	0.4	9
47	A Class of $\{L_{1}\}$ -to- $\{L_{1}\}$ and $\{L_{\infty}\}$ -to- $\{L_{\infty}\}$ Interval Observers for (Delayed) Markov Jump Linear Systems. , 2019, 3, 410-415.		9
48	Hybrid $\langle \mathbb{R}^n, \mathbb{R}^m \rangle$ $\hat{\Sigma}$ state feedback design for linear parameter varying time delay systems. , 2019, 3, 410-415.		9
48	Stability analysis and control of linear time-varying impulsive and switched positive systems. <i>Nonlinear Analysis and Hybrid Systems</i> , 2020, 109, 109803.	3.5	9
49	Stability and \mathcal{L}_1 $\langle \mathbb{R}^n, \mathbb{R}^m \rangle$ $\hat{\Sigma}$ state feedback design for linear parameter varying time delay systems. , 2019, 3, 410-415.	1.9	8
49	Stability analysis of uncertain impulsive linear positive systems with applications to the interval observation of impulsive and switched systems with constant delays. <i>International Journal of Control</i> , 2020, 93, 2634-2652.		8
50	Ergodicity Analysis and Antithetic Integral Control of a Class of Stochastic Reaction Networks with Delays. <i>SIAM Journal on Applied Dynamical Systems</i> , 2020, 19, 1575-1608.	1.6	7
51	Robust stability analysis in the ∞ -norm and Lyapunov-Razumikhin functions for the stability analysis of time-delay systems. , 2011, , .		6
52	Dynamic equations on time-scale: application to stability analysis and stabilization of aperiodic sampled-data systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011, 44, 11374-11379.	0.4	6
53	Stability analysis of asynchronous sampled-data systems with discrete-time constant input delay. , 2014, , .		6
54	Spectral necessary and sufficient conditions for sampling-period-independent stabilisation of aperiodic and aperiodic sampled-data systems using a class of generalised sampled-data hold functions. <i>International Journal of Control</i> , 2014, 87, 612-621.	1.9	6

#	ARTICLE	IF	CITATIONS
55	Positive systems analysis via integral linear constraints. , 2015, , .		6
56	Stability analysis and stabilization of LPV systems with jumps and (piecewise) differentiable parameters using continuous and sampled-data controllers. Nonlinear Analysis: Hybrid Systems, 2021, 41, 101040.	3.5	6
57	Stability analysis and model-based control in EXTRAP-T2R with time-delay compensation. , 2008, , .		5
58	An axiomatic fluid-flow model for congestion control analysis. , 2011, , .		5
59	Co-design of aperiodic sampled-data min-jumping rules for linear impulsive, switched impulsive and sampled-data systems. Systems and Control Letters, 2019, 130, 32-42.	2.3	5
60	Ergodicity, Output-Controllability, and Antithetic Integral Control of Uncertain Stochastic Reaction Networks. IEEE Transactions on Automatic Control, 2021, 66, 2087-2098.	5.7	5
61	$\hat{\Sigma}$ -filtering of uncertain LPV systems with time-delays. , 2009, , .		5
62	H^∞ observer design for uncertain time-delay systems. , 2007, , .		4
63	Simple conditions for L2 stability and stabilization of networked control systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 96-101.	0.4	4
64	Robust ergodicity and tracking in antithetic integral control of stochastic biochemical reaction networks. , 2016, , .		4
65	Robust and structural ergodicity analysis of stochastic biomolecular networks involving synthetic antithetic integral controllers. IFAC-PapersOnLine, 2017, 50, 10918-10923.	0.9	4
66	In-Silico Proportional-Integral Moment Control of Stochastic Gene Expression. IEEE Transactions on Automatic Control, 2021, 66, 3007-3019.	5.7	4
67	Control of LPV Time-Delay Systems. Advances in Delays and Dynamics, 2015, , 293-333.	0.4	4
68	Stability analysis and stabilization of linear symmetric matrix-valued continuous, discrete, and impulsive dynamical systems "A unified approach for the stability analysis and the stabilization of linear systems. Nonlinear Analysis: Hybrid Systems, 2022, 46, 101242.	3.5	4
69	Design of H^∞ bounded non-fragile controllers for discrete-time systems. , 2009, , .		3
70	A conservation-law-based modular fluid-flow model for network congestion modeling. , 2012, , .		3
71	Supervisory Control Design for Networked Systems with Time-Varying Communication Delays. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 133-140.	0.4	3
72	Approximation of stability regions for large-scale time-delay systems using model reduction techniques. , 2015, , .		3

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73	Observation and Filtering of LPV Time-Delay Systems. Advances in Delays and Dynamics, 2015, , 265-291.	0.4	3
74	Introduction to LPV Time-Delay Systems. Advances in Delays and Dynamics, 2015, , 245-264.	0.4	2
75	H ∞ Bounded Resilient state-feedback design for linear continuous-time systems â€” A robust control approach. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 9307-9312.	0.4	1
76	Model Reduction for Norm Approximation: An Application to Large-Scale Time-Delay Systems. Advances in Delays and Dynamics, 2016, , 37-55.	0.4	1
77	Non-intrusive nonlinear and parameter varying reduced order modelling. IFAC-PapersOnLine, 2021, 54, 1-6.	0.9	1
78	Introduction to Time-Delay Systems. Advances in Delays and Dynamics, 2015, , 123-164.	0.4	1
79	Discussion on: â€œTime-Delay Model-Based Control of the Glucoseâ€“Insulin System, by Means of a State Observerâ€”, European Journal of Control, 2012, 18, 607-609.	2.6	0
80	Corrigendum to â€œConvex lifted conditions for robust \mathcal{H}_∞ analysis and \mathcal{H}_2 analysis and \mathcal{H}_∞ analysis and \mathcal{H}_2 analysisâ€”, Advances in Delays and Dynamics, 2016, , 97-112.	5.0	0
81	On the Stability Analysis of Sampled-Data Systems with Delays. Advances in Delays and Dynamics, 2016, , 97-112.	0.4	0
82	Variance reduction in stochastic gene expression under integral feedback control. , 2018, , .		0
83	Impact of Queueing Delay Estimation Error on Equilibrium and Its Stability. Lecture Notes in Computer Science, 2011, , 356-367.	1.3	0
84	Stability of LPV Systems. Advances in Delays and Dynamics, 2015, , 37-92.	0.4	0