

Antoine Chaillet

List of Publications by Year in descending order

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Version: 2024-02-01

70
papers

1,089
citations

471371

17
h-index

454834

30
g-index

72
all docs

72
docs citations

72
times ranked

970
citing authors

#	ARTICLE	IF	CITATIONS
1	Closing the loop of deep brain stimulation. <i>Frontiers in Systems Neuroscience</i> , 2013, 7, 112.	1.2	97
2	Spacecraft relative rotation tracking without angular velocity measurements. <i>Automatica</i> , 2009, 45, 750-756.	3.0	86
3	Uniform semiglobal practical asymptotic stability for non-autonomous cascaded systems and applications. <i>Automatica</i> , 2008, 44, 337-347.	3.0	78
4	Combining iISS and ISS With Respect to Small Inputs: The Strong iISS Property. <i>IEEE Transactions on Automatic Control</i> , 2014, 59, 2518-2524.	3.6	70
5	Integral Input to State Stable systems in cascade. <i>Systems and Control Letters</i> , 2008, 57, 519-527.	1.3	54
6	Experimental assessment of the safety and potential efficacy of high irradiance photostimulation of brain tissues. <i>Scientific Reports</i> , 2017, 7, 43997.	1.6	48
7	Fornical Closed-Loop Stimulation for Alzheimer's Disease. <i>Trends in Neurosciences</i> , 2018, 41, 418-428.	4.2	39
8	Strong iISS is preserved under cascade interconnection. <i>Automatica</i> , 2014, 50, 2424-2427.	3.0	36
9	Delay compensation in packet-switching networked controlled systems. , 2008, , .		33
10	Exploiting packet size in uncertain nonlinear networked control systems. <i>Automatica</i> , 2012, 48, 2801-2811.	3.0	31
11	Desynchronization and inhibition of Kuramoto oscillators by scalar mean-field feedback. <i>Mathematics of Control, Signals, and Systems</i> , 2012, 24, 169-217.	1.4	31
12	Existence and robustness of phase-locking in coupled Kuramoto oscillators under mean-field feedback. <i>Automatica</i> , 2011, 47, 1193-1202.	3.0	28
13	Stability of Neuronal Networks with Homeostatic Regulation. <i>PLoS Computational Biology</i> , 2015, 11, e1004357.	1.5	27
14	Uniform stabilization for linear systems with persistency of excitation: the neutrally stable and the double integrator cases. <i>Mathematics of Control, Signals, and Systems</i> , 2008, 20, 135-156.	1.4	26
15	Necessary and sufficient conditions for uniform semiglobal practical asymptotic stability: Application to cascaded systems. <i>Automatica</i> , 2006, 42, 1899-1906.	3.0	23
16	Closed-loop stimulation of a delayed neural fields model of parkinsonian STN-GPe network: a theoretical and computational study. <i>Frontiers in Neuroscience</i> , 2015, 9, 237.	1.4	23
17	Uniform Global Practical Asymptotic Stability for Time-varying Cascaded Systems*. <i>European Journal of Control</i> , 2006, 12, 595-605.	1.6	22
18	Robust stabilization of delayed neural fields with partial measurement and actuation. <i>Automatica</i> , 2017, 83, 262-274.	3.0	22

#	ARTICLE	IF	CITATIONS
19	Flux and Position Observer of Permanent Magnet Synchronous Motors with Relaxed Persistency of Excitation Conditions—This article is supported by Government of Russian Federation (grant 074-U01,) TJ ETQg1 1 0.784314 rgBT (project 14.Z50.31.0031).. IFAC-PapersOnLine, 2015, 48, 301-306.	0.5	20
20	Self-Tuning Deep Brain Stimulation Controller for Suppression of Beta Oscillations: Analytical Derivation and Numerical Validation. Frontiers in Neuroscience, 2020, 14, 639.	1.4	18
21	Closed-loop firing rate regulation of two interacting excitatory and inhibitory neural populations of the basal ganglia. Biological Cybernetics, 2016, 110, 55-71.	0.6	17
22	Lyapunov—Krasovskii Characterizations of Integral Input-to-State Stability of Delay Systems With Nonstrict Dissipation Rates. IEEE Transactions on Automatic Control, 2022, 67, 3259-3272.	3.6	16
23	Phase-locking between Kuramoto oscillators: Robustness to time-varying natural frequencies. , 2010, , .		15
24	Adaptive Output Feedback Control of Spacecraft Relative Translation. , 2006, , .		13
25	Robustness of PID-controlled Manipulators vis-À-vis Actuator Dynamics and External Disturbances. European Journal of Control, 2007, 13, 563-576.	1.6	13
26	Quantised control of nonlinear systems: analysis of robustness to parameter uncertainty, measurement errors, and exogenous disturbances. International Journal of Control, 2010, 83, 2453-2462.	1.2	13
27	Lyapunov conditions for uniform asymptotic output stability and a relaxation of BarbÅflatâ€™s lemma. Automatica, 2021, 132, 109792.	3.0	12
28	An Input-Output approach to the robust synchronization of dynamical systems with an application to the Hindmarsh-Rose neuronal model. , 2011, , .		11
29	Robustness of Stochastic Discrete-Time Switched Linear Systems With Application to Control With Shared Resources. IEEE Transactions on Automatic Control, 2015, 60, 3168-3179.	3.6	11
30	Model order reduction for linear time delay systems: A delay-dependent approach based on energy functionals. Automatica, 2020, 112, 108701.	3.0	11
31	Closed-loop deep brain stimulation based on firing-rate regulation. , 2013, , .		9
32	A Razumikhin approach for the incremental stability of delayed nonlinear systems. , 2013, , .		9
33	Strong iISS for a class of systems under saturated feedback. Automatica, 2016, 71, 272-280.	3.0	9
34	Is a point-wise dissipation rate enough to show ISS for time-delay systems? * *This work is supported by a public grant overseen by the French National Research Agency (ANR) as part of the Investissement dAvenir program, through the iCODE Institute project funded by the IDEX Paris-Saclay, ANR-11-IDEX-0003-02, and by the ANR JCJC project SynchNeuro.. IFAC-PapersOnLine, 2017, 50, 14356-14361.	0.5	9
35	Counterexample to a Lyapunov Condition for Uniform Asymptotic Partial Stability. , 2020, 4, 397-401.		9
36	Revisiting the <scp>ISS</scp> Smallâ€™Gain Theorem through Transient Plus <scp>ISS</scp> Smallâ€™Gain Regulation. Asian Journal of Control, 2013, 15, 11-19.	1.9	8

#	ARTICLE	IF	CITATIONS
37	A relaxed Lyapunov-Krasovskii condition for global exponential stability of Lipschitz time-delay systems. , 2019, , .		8
38	Strong iISS: Combination of iISS and ISS with respect to small inputs. , 2012, , .		7
39	Relaxed conditions for the stability of switched nonlinear triangular systems under arbitrary switching. Systems and Control Letters, 2015, 84, 52-56.	1.3	7
40	Integral Input-to-State Stability of Delay Systems Based on Lyapunov-Krasovskii Functionals with Point-Wise Dissipation Rate. , 2018, , .		7
41	Robustness of PID-controlled manipulators with respect to external disturbances. , 2006, , .		6
42	Adaptive control of Lipschitz time-delay systems by sigma modification with application to neuronal population dynamics. Systems and Control Letters, 2022, 159, 105082.	1.3	6
43	Interpreting the iISS small-gain theorem as transient plus ISS small-gain regulation. , 2010, , .		5
44	Desynchronization of coupled phase oscillators, with application to the Kuramoto system under mean-field feedback. , 2011, , .		5
45	Global stabilization of classes of linear control systems with bounds on the feedback and its successive derivatives. Systems and Control Letters, 2017, 99, 17-24.	1.3	5
46	Global stabilization of multiple integrators by a bounded feedback with constraints on its successive derivatives. , 2015, , .		4
47	Incremental stability of spatiotemporal delayed dynamics and application to neural fields. , 2017, , .		4
48	Robustness under saturated feedback: Strong iISS for a class of nonlinear systems. , 2014, , .		3
49	Analysis of delay-induced basal ganglia oscillations: the role of external excitatory nuclei. International Journal of Control, 2014, 87, 1936-1956.	1.2	3
50	Adaptive Scheme for Pathological Oscillations Disruption in a Delayed Neuronal Population Model. , 2018, , .		3
51	Cascades stability analysis applied to a control design for unmatched perturbation rejection based on HOSM. , 2010, , .		2
52	Validity of the phase approximation for coupled nonlinear oscillators: A case study. , 2012, , .		2
53	Global Stabilization of Linear Systems with Bounds on the Feedback and its Successive Derivatives. SIAM Journal on Control and Optimization, 2017, 55, 2783-2810.	1.1	2
54	Optimal Controller Gain Tuning for Robust Stability of Spacecraft Formation. Lecture Notes in Electrical Engineering, 2011, , 335-347.	0.3	2

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55	Integral input-to-state stable time-delay systems in cascade. <i>Automatica</i> , 2022, 139, 110175.	3.0	2
56	Towards uniform linear time-invariant stabilization of systems with persistency of excitation. , 2007, , .		1
57	Uniform practical output-feedback stabilization of spacecraft relative rotation. , 2008, , .		1
58	The HYCON-EECI Graduate School on Control 2008 [Conference Report]. <i>IEEE Control Systems</i> , 2008, 28, 144-145.	1.0	1
59	On the robustness analysis of triangular nonlinear systems: iISS and practical stability. , 2009, , .		1
60	A sensitivity trade-off arising in small-gain design for nonlinear systems: An iISS framework. , 2011, , .		1
61	Robustness of ISS systems to inputs with limited moving average: Application to spacecraft formations. <i>International Journal of Robust and Nonlinear Control</i> , 2016, 26, 816-833.	2.1	1
62	On Extended Model Order Reduction for Linear Time Delay Systems. <i>International Series of Numerical Mathematics</i> , 2021, , 191-215.	1.0	1
63	Analysis of Integral Input-to-State Stable time-delay systems in cascade. <i>IFAC-PapersOnLine</i> , 2020, 53, 6404-6409.	0.5	1
64	Output control of spacecraft in leader follower formation. , 2008, , .		0
65	A Packet-Switching Strategy for Uncertain Nonlinear Networked Control Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011, 44, 14404-14409.	0.4	0
66	Incremental stability of delayed neural fields: a unifying framework for endogenous and exogenous sources of pathological oscillations. <i>BMC Neuroscience</i> , 2015, 16, P24.	0.8	0
67	Strong iISS for neutrally stable systems by saturated linear state feedback. , 2015, , .		0
68	Adaptive stimulation strategy for selective brain oscillations disruption in a neuronal population model with delays. <i>IFAC-PapersOnLine</i> , 2019, 51, 250-251.	0.5	0
69	Rodent models used in preclinical studies of deep brain stimulation to rescue memory deficits. <i>Neuroscience and Biobehavioral Reviews</i> , 2021, 130, 410-432.	2.9	0
70	ISS-Stabilization of Delayed Neural Fields by Small-Gain Arguments. <i>Advances in Delays and Dynamics</i> , 2019, , 65-81.	0.4	0