

Frédéric Mazenc

List of Publications by Year in descending order

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97
papers

2,343
citations

257450

24
h-index

214800

47
g-index

97
all docs

97
docs citations

97
times ranked

1062
citing authors

#	ARTICLE	IF	CITATIONS
1	Interval observers for linear time-invariant systems with disturbances. <i>Automatica</i> , 2011, 47, 140-147.	5.0	365
2	Constructions of Strict Lyapunov Functions. <i>Communications and Control Engineering</i> , 2009, , .	1.6	204
3	Further results on input-to-state stability for nonlinear systems with delayed feedbacks. <i>Automatica</i> , 2008, 44, 2415-2421.	5.0	150
4	Lyapunovâ€“Krasovskii functionals and application to input delay compensation for linear time-invariant systems. <i>Automatica</i> , 2012, 48, 1317-1323.	5.0	115
5	Robustness of nonlinear systems with respect to delay and sampling of the controls. <i>Automatica</i> , 2013, 49, 1925-1931.	5.0	86
6	Reduction Model Approach for Linear Time-Varying Systems With Delays. <i>IEEE Transactions on Automatic Control</i> , 2014, 59, 2068-2082.	5.7	68
7	Generating positive and stable solutions through delayed state feedback. <i>Automatica</i> , 2011, 47, 525-533.	5.0	64
8	Design of continuousâ€“discrete observers for time-varying nonlinear systems. <i>Automatica</i> , 2015, 57, 135-144.	5.0	64
9	Stabilization of Nonlinear Time-Varying Systems Through a New Prediction Based Approach. <i>IEEE Transactions on Automatic Control</i> , 2017, 62, 2908-2915.	5.7	60
10	Construction of interval observers for continuous-time systems with discrete measurements. <i>Automatica</i> , 2014, 50, 2555-2560.	5.0	59
11	Stabilization of linear systems with both input and state delays by observerâ€“predictors. <i>Automatica</i> , 2017, 83, 368-377.	5.0	59
12	Backstepping for Nonlinear Systems with Delay in the Input Revisited. <i>SIAM Journal on Control and Optimization</i> , 2011, 49, 2263-2278.	2.1	52
13	Extensions of Razumikhinâ€™s theorem and Lyapunovâ€“Krasovskii functional constructions for time-varying systems with delay. <i>Automatica</i> , 2017, 78, 1-13.	5.0	52
14	Reduction Model Approach for Linear Systems With Sampled Delayed Inputs. <i>IEEE Transactions on Automatic Control</i> , 2013, 58, 1263-1268.	5.7	51
15	Partial Lyapunov Strictification: Smooth Angular Velocity Observers for Attitude Tracking Control. <i>Journal of Guidance, Control, and Dynamics</i> , 2015, 38, 442-451.	2.8	49
16	Stability Analysis for Time-Varying Systems With Delay Using Linear Lyapunov Functionals and a Positive Systems Approach. <i>IEEE Transactions on Automatic Control</i> , 2016, 61, 771-776.	5.7	48
17	High-Gain Nonlinear Observer With Lower Tuning Parameter. <i>IEEE Transactions on Automatic Control</i> , 2019, 64, 3194-3209.	5.7	46
18	Trajectory Based Approach for the Stability Analysis of Nonlinear Systems with Time Delays. <i>IEEE Transactions on Automatic Control</i> , 2015, 60, 1716-1721.	5.7	45

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19	Stabilization and robustness analysis for time-varying systems with time-varying delays using a sequential subpredictors approach. <i>Automatica</i> , 2017, 82, 118-127.	5.0	44
20	Lyapunov functions for time-varying systems satisfying generalized conditions of Matrosov theorem. <i>Mathematics of Control, Signals, and Systems</i> , 2007, 19, 151-182.	2.3	33
21	Stability and Control Design for Time-Varying Systems with Time-Varying Delays using a Trajectory-Based Approach. <i>SIAM Journal on Control and Optimization</i> , 2017, 55, 533-556.	2.1	32
22	Local Stabilization of Nonlinear Systems Through the Reduction Model Approach. <i>IEEE Transactions on Automatic Control</i> , 2014, 59, 3033-3039.	5.7	30
23	New control design for bounded backstepping under input delays. <i>Automatica</i> , 2016, 66, 48-55.	5.0	27
24	Asymptotic stabilization for feedforward systems with delayed feedbacks. <i>Automatica</i> , 2013, 49, 780-787.	5.0	26
25	Estimation of solutions of observable nonlinear systems with disturbances. <i>Systems and Control Letters</i> , 2015, 79, 47-58.	2.3	22
26	Dynamic output feedback stabilization of switched linear systems with delay via a trajectory based approach. <i>Automatica</i> , 2018, 93, 92-97.	5.0	22
27	A Simplified Design for Strict Lyapunov Functions Under Matrosov Conditions. <i>IEEE Transactions on Automatic Control</i> , 2009, 54, 177-183.	5.7	21
28	Robust compensation of a chattering time-varying input delay with jumps. <i>Automatica</i> , 2018, 92, 225-234.	5.0	21
29	Stability and Robustness Analysis for Switched Systems with Time-Varying Delays. <i>SIAM Journal on Control and Optimization</i> , 2018, 56, 158-182.	2.1	21
30	Partial Lyapunov Strictification: Dual-Quaternion-Based Observer for 6-DOF Tracking Control. <i>IEEE Transactions on Control Systems Technology</i> , 2019, 27, 2453-2469.	5.2	21
31	Backstepping with Bounded Feedbacks for Time-Varying Systems. <i>SIAM Journal on Control and Optimization</i> , 2004, 43, 856-871.	2.1	20
32	ISS interval observers for nonlinear systems transformed into triangular systems. <i>International Journal of Robust and Nonlinear Control</i> , 2014, 24, 1241-1261.	3.7	20
33	Predictor-based sampled-data exponential stabilization through continuous discrete observers. <i>Automatica</i> , 2016, 63, 74-81.	5.0	17
34	Continuous Discrete Sequential Observers for Time-Varying Systems Under Sampling and Input Delays. <i>IEEE Transactions on Automatic Control</i> , 2020, 65, 1704-1709.	5.7	17
35	Global Stabilization of Discrete-Time Linear Systems Subject to Input Saturation and Time Delay. <i>IEEE Transactions on Automatic Control</i> , 2021, 66, 1345-1352.	5.7	17
36	Continuous-discrete interval observers for systems with discrete measurements. , 2013, , .		15

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37	Lyapunov Technique and Backstepping for Nonlinear Neutral Systems. IEEE Transactions on Automatic Control, 2013, 58, 512-517.	5.7	15
38	Finite time estimation through a continuous-discrete observer. International Journal of Robust and Nonlinear Control, 2018, 28, 4831-4849.	3.7	15
39	New prediction approach for stabilizing time-varying systems under time-varying input delay. , 2016, , .		14
40	Event-triggered control for continuous-time linear systems with a delay in the input. Systems and Control Letters, 2022, 159, 105075.	2.3	12
41	Control in dormancy or eradication of cancer stem cells: Mathematical modeling and stability issues. Journal of Theoretical Biology, 2018, 449, 103-123.	1.7	11
42	Finite time estimation for time-varying systems with delay in the measurements. Systems and Control Letters, 2019, 133, 104551.	2.3	11
43	Delay-Hybrid-Dependent Stability for Systems With Large Delays. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2020, 50, 2752-2759.	9.3	10
44	Reduced order finite time observers and output feedback for time-varying nonlinear systems. Automatica, 2020, 119, 109083.	5.0	10
45	Event-triggered control using a positive systems approach. European Journal of Control, 2021, 62, 63-68.	2.6	10
46	Bounded backstepping control and robustness analysis for time-varying systems under converging-input-converging-state conditions. European Journal of Control, 2018, 42, 15-24.	2.6	9
47	Sequential predictors for delay compensation for discrete time systems with time-varying delays. Automatica, 2020, 122, 109188.	5.0	9
48	Lyapunov stability analysis of a model describing hematopoiesis. , 2015, , .		8
49	Backstepping design for output feedback stabilization for a class of uncertain systems. Systems and Control Letters, 2019, 123, 134-143.	2.3	8
50	Vector Extensions of Halanay's Inequality. IEEE Transactions on Automatic Control, 2022, 67, 1453-1459.	5.7	8
51	Event-triggered control for linear time-varying systems using a positive systems approach. Systems and Control Letters, 2022, 161, 105131.	2.3	8
52	Asymptotic stabilization of linear time-varying systems with input delays via delayed static output feedback. , 2015, , .		7
53	Continuous-Discrete Observers for Time-Varying Nonlinear Systems: A Tutorial on Recent Results. , 2015, , 181-188.		6
54	New bounded backstepping control designs for time-varying systems under converging-input-converging-state conditions. , 2016, , .		6

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55	Stabilization and Robustness Analysis for a Chain of Saturating Integrators With Imprecise Measurements. , 2019, 3, 428-433.		6
56	Stability and observer designs using new variants of Halanay's inequality. Automatica, 2021, 123, 109299.	5.0	6
57	Reduced-order fast converging observers for systems with discrete measurements and measurement error. Systems and Control Letters, 2021, 150, 104892.	2.3	6
58	A behavioural dynamic model for constant power loads in single-phase AC systems. Automatica, 2021, 131, 109744.	5.0	6
59	Event-Triggered Control for Discrete-Time Systems Using a Positive Systems Approach. , 2022, 6, 1843-1848.		6
60	Bounded backstepping approach under input delays. , 2015, , .		5
61	Stability of immature cell dynamics in healthy and unhealthy hematopoiesis. , 2016, , .		5
62	Bounded backstepping through a dynamic extension with delay. , 2017, , .		4
63	Stabilization with imprecise measurements: application to a vision based landing problem. , 2018, , .		4
64	Finite-time guaranteed state estimation for discrete-time systems with disturbances. , 2019, , .		4
65	Continuous-Discrete Sequential Observers under Sampling and Input Delays. , 2018, , .		3
66	Reduced Order Finite Time Observers for Time-Varying Nonlinear Systems. , 2018, , .		3
67	Global Stabilization of the Discrete-Time Integrators System by Bounded Controls. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 5175-5188.	5.4	3
68	Stability Analysis for Time-Varying Systems With Asynchronous Sampling Using Contractivity Approach. , 2021, 5, 49-54.		3
69	Stability Analysis Using Generalized Sup-Delay Inequalities. , 2021, 5, 1411-1416.		3
70	New Finite-Time and Fast Converging Observers With a Single Delay. , 2022, 6, 1561-1566.		3
71	New Versions of Halanay's Inequality With Multiple Gain Terms. , 2022, 6, 1790-1795.		3
72	Event-Triggered Control for Systems with State Delays Using a Positive Systems Approach. , 2021, , .		3

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73	Predictor-based sampled-data stabilization via continuous-discrete observers. , 2014, , .		2
74	Backstepping Design for Output Feedback Stabilization for a Class of Uncertain Systems using Dynamic Extension. IFAC-PapersOnLine, 2018, 51, 260-265.	0.9	2
75	Stabilization of a Nonlinear System that Arises in the Context of Vision Based Landing of an Airliner. , 2018, , .		2
76	Sampled-Data Observers: Scarce Arbitrarily Large Sampling Intervals*. , 2019, , .		2
77	Stabilization for a chain of saturating integrators arising in the visual landing of aircraft with sampling. Systems and Control Letters, 2020, 135, 104574.	2.3	2
78	Feedback Stabilization with Discrete Measurements using Bounds on Fundamental Matrices. , 2021, , .		2
79	Event-Triggered Prediction-Based Delay Compensation Approach. , 2022, 6, 2515-2520.		2
80	Sampled-data estimator for nonlinear systems with uncertainties and arbitrarily fast rate of convergence. Automatica, 2022, 142, 110361.	5.0	2
81	ISS inequalities for vector versions of Halanayâ€™s inequality and of the trajectory-based approach. European Journal of Control, 2022, 68, 100665.	2.6	2
82	Analysis of a Nonlinear Delay Differential-Difference Biological Model**This work is supported by a public grant overseen by the French National Research Agency (ANR) as part of the "Investissement dâ€™Avenir" program, through the "iCODE Institute project" funded by the IDEX Paris-Saclay, ANR-II-IDEX-0003-02. IFAC-PapersOnLine, 2016, 49, 246-251.	0.9	1
83	Sequential Predictors for Linear Time-Varying Systems with Delays in the Vector Field and in the Input. , 2018, , .		1
84	Stabilization and Robustness Analysis for a Chain of Saturating Integrators Arising in the Visual Landing of Aircraft. , 2019, , .		1
85	Sampled-Data Estimator for Nonlinear Systems with Arbitrarily Fast Rate of Convergence. , 2020, , .		1
86	Stability Analysis using New Variant of Halanayâ€™s Inequality. IFAC-PapersOnLine, 2021, 54, 783-786.	0.9	1
87	Reduced Order Fast Converging Observer for Systems with Discrete Measurements. IFAC-PapersOnLine, 2021, 54, 219-224.	0.9	1
88	Controls for a nonlinear system arising in visionâ€based landing of airliners. International Journal of Robust and Nonlinear Control, 2021, 31, 1227-1244.	3.7	1
89	Almost Finite-Time Observers for a Family of Nonlinear Continuous-Time Systems. , 2022, 6, 2593-2598.		1
90	Feedback stabilization and robustness analysis using bounds on fundamental matrices. Systems and Control Letters, 2022, 164, 105212.	2.3	1

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91	Finite Time Estimation via Piecewise Constant Measurements. IFAC-PapersOnLine, 2018, 51, 508-513.	0.9	0
92	On Average Values of Time-Varying Delays and a New Representation of Systems with Time-Varying Delays. , 2019, , .		0
93	Backstepping for Uncertain Nonlinear Systems with a Delay in the Control. IFAC-PapersOnLine, 2021, 54, 758-763.	0.9	0
94	Stability Analysis using Generalized Sup-Delay Inequalities. , 2021, , .		0
95	Constructive backstepping for a class of delay systems based on functionals of complete type. IFAC-PapersOnLine, 2020, 53, 4810-4815.	0.9	0
96	New Fixed Time and Fast Converging Reduced Order Observers. , 2021, , .		0
97	New Bounds for State Transition Matrices. , 2022, , 1-1.		0