Ali Zemouche

List of Publications by Year
in descending order

133 papers	2,004 citations	304368 22 h-index	288905 40 g-index
133 all docs	133 docs citations	133 times ranked	1038 citing authors

#	Article	IF	Citations
1	On LMI conditions to design observers for Lipschitz nonlinear systems. Automatica, 2013, 49, 585-591.	3.0	280
2	Observers for a class of Lipschitz systems with extension to performance analysis. Systems and Control Letters, 2008, 57, 18-27.	1.3	243
3	On LMI conditions to design observer-based controllers for linear systems with parameter uncertainties. Automatica, 2013, 49, 3700-3704.	3.0	103
4	Observer Design for Lipschitz Nonlinear Systems: The Discrete-Time Case. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2006, 53, 777-781.	2.3	100
5	A unified adaptive observer synthesis method for a class of systems with both Lipschitz and monotone nonlinearities. Systems and Control Letters, 2009, 58, 282-288.	1.3	79
6	Observer Design for Nonlinear Systems: An Approach Based on the Differential Mean Value Theorem.. , 0, , .		62
7	A nonlinear observer-based approach to fault detection, isolation and estimation for satellite formation flight application. Automatica, 2019, 107, 474-482.	3.0	62
8	Circle criterion-based <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="mml22" display="inline" overflow="scroll" altimg="si22.gif"><mml:msub><mml:mrow><mml:mi>â„‹</mml:mi></mml:mrow><mml:mrow><mml:mi>âˆž</mml:mi></mml:mrow></mml:msub></mml:math> observer design for Lipschitz and monotonic nonlinear systems â€“ Enhanced LMI conditions and constructive discussions. Automatica, 2017, 85, 412-425.	3.0	58
9	Robust observerâ€based stabilization of Lipschitz nonlinear uncertain systems via LMIs â€•discussions and new design procedure. International Journal of Robust and Nonlinear Control, 2017, 27, 1915-1939.	2.1	54
10	High-Gain Nonlinear Observer With Lower Tuning Parameter. IEEE Transactions on Automatic Control, 2019, 64, 3194-3209.	3.6	46
11	Observer synthesis method for Lipschitz nonlinear discrete-time systems with time-delay: An LMI approach. Applied Mathematics and Computation, 2011, 218, 419-429.	1.4	36
12	Tracking of Vehicle Motion on Highways and Urban Roads Using a Nonlinear Observer. IEEE/ASME Transactions on Mechatronics, 2019, 24, 644-655.	3.7	36
13	On the need for switched-gain observers for non-monotonic nonlinear systems. Automatica, 2020, 114, 108814.	3.0	36
14	â„‹_{â^’}/â„‹_{â^ž}fault detection filter for a class of nonlinear descriptor systems. International Journal of Control, 2013, 86, 253-262.	1.2	35
15	New LMI Condition for Observer-Based $mathcal{H}_{infty}$ Stabilization of a Class of Nonlinear Discrete-Time Systems. SIAM Journal on Control and Optimization, 2013, 51, 784-800.	1.1	33
16	Real-Time Attitude-Independent Three-Axis Magnetometer Calibration for Spinning Projectiles: A Sliding Window Approach. IEEE Transactions on Control Systems Technology, 2014, 22, 255-264.	3.2	33
17	A robust â„‹â^ž observer-based stabilization method for systems with uncertain parameters and Lipschitz nonlinearities. International Journal of Robust and Nonlinear Control, 2016, 26, 1962-1979.	2.1	30
18	Sequential LMI approach for the design of a BMIâ€based robust observer state feedback controller with nonlinear uncertainties. International Journal of Robust and Nonlinear Control, 2018, 28, 1246-1260.	2.1	30

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19	Nonlinear-Observer-Based ${cal H}_{infty}$ Synchronization and Unknown Input Recovery. IEEE Transactions on Circuits and Systems I: Regular Papers, 2009, 56, 1720-1731.	3.5	28
20	Output feedback stabilization of switching discrete-time linear systems with parameter uncertainties. Journal of the Franklin Institute, 2017, 354, 5895-5918.	1.9	27
21	â„‹_{âˆž}Observers design for a class of nonlinear time-delay systems in descriptor form. International Journal of Control, 2011, 84, 1653-1663.	1.2	25
22	Robust Unknown Input Observers for Nonlinear Time-Delay Systems. SIAM Journal on Control and Optimization, 2013, 51, 2735-2752.	1.1	24
23	Fuzzy Adaptive Cooperative Consensus Tracking of High-Order Nonlinear Multiagent Networks With Guaranteed Performances. IEEE Transactions on Cybernetics, 2022, 52, 8838-8850.	6.2	24
24	Observer-based stabilisation of linear systems with parameter uncertainties by using enhanced LMI conditions. International Journal of Control, 2015, 88, 1189-1200.	1.2	23
25	On LMI conditions to design robust static output feedback controller for continuous-time linear systems subject to norm-bounded uncertainties. International Journal of Systems Science, 2021, 52, 12-46.	3.7	21
26	Hâˆž circle criterion observer design for Lipschitz nonlinear systems with enhanced LMI conditions. , 2016, , .		19
27	Simultaneous Cyber-Attack Detection and Radar Sensor Health Monitoring in Connected ACC Vehicles. IEEE Sensors Journal, 2021, 21, 15741-15752.	2.4	19
28	Interval Observer Design and Consensus of MultiAgent Systems with Time-Varying Interval Uncertainties. SIAM Journal on Control and Optimization, 2021, 59, 3392-3417.	1.1	19
29	Observer synthesis for Lipschitz discrete-time systems. , 0, , .		17
30	Comments on â€œA Note on Observers for Discrete-Time Lipschitz Nonlinear Systemsâ€• IEEE Transactions on Circuits and Systems II: Express Briefs, 2013, 60, 56-60.	2.2	15
31	On observers design for nonlinear time-delay systems. , 2006, , .		14
32	Sobolev Norms-Based State Estimation and Input Recovery for a Class of Nonlinear Systems. Design and Experimental Results. IEEE Transactions on Signal Processing, 2009, 57, 1021-1029.	3.2	14
33	A new LMI condition for decentralized observer-based control of linear systems with nonlinear interconnections. , 2014, , .		14
34	A quadratic matrix inequality based PID controller design for LPV systems. Systems and Control Letters, 2019, 126, 67-76.	1.3	13
35	A discreteâ€time nonlinear state observer for the anaerobic digestion process. International Journal of Robust and Nonlinear Control, 2019, 29, 1279-1301.	2.1	13
36	A new LMI based H<inf>âˆž</inf> observer design method for Lipschitz nonlinear systems. , 2016, , .		12

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37	$mathcal{H}_{infty}$ Observer for Descriptor Nonlinear Systems with Nonlinear Output Equations. , 2018, , .		12
38	A Nonlinear observer-based trajectory tracking method applied to an anaerobic digestion process. Journal of Process Control, 2019, 75, 120-135.	1.7	12
39	A new observer-based controller design method for a class of time-varying delay systems with Lipschitz nonlinearities. , 2014, , .		11
40	On high-gain observer design for nonlinear systems with delayed output measurements. Automatica, 2022, 141, 110281.	3.0	11
41	Robust Observer and Observerâ€Based Controller for Timeâ€Delay Singular Systems. Asian Journal of Control, 2014, 16, 80-94.	1.9	10
42	Robust Data-Driven Neuro-Adaptive Observers With Lipschitz Activation Functions. , 2019, , .		10
43	A new observer-based stabilization method for linear systems with uncertain parameters. , 2013, , .		10
44	Performance analysis of stand-alone six-phase induction generator using heuristic algorithms. Mathematics and Computers in Simulation, 2020, 167, 231-249.	2.4	8
45	Magnetic position estimation using optimal sensor placement and nonlinear observer for smart actuators. Control Engineering Practice, 2021, 112, 104817.	3.2	8
46	High-Gain Observer Design for Nonlinear Systems with Delayed Outputs. IFAC-PapersOnLine, 2020, 53, 5057-5062.	0.5	8
47	Robust Packetized MPC for Networked Systems Subject to Packet Dropouts and Input Saturation With Quantized Feedback. IEEE Transactions on Cybernetics, 2023, 53, 6987-6997.	6.2	8
48	Observer design for a class of Lipschitz time-delay systems. International Journal of Modelling, Identification and Control, 2008, 4, 28.	0.2	7
49	A new LMI observer-based controller design method for discrete-time LPV systems with uncertain parameters. , 2016, , .		7
50	Observers with Dual Spatially Separated Sensors for Enhanced Estimation: Industrial, Automotive, and Biomedical Applications. IEEE Control Systems, 2017, 37, 42-58.	1.0	7
51	Nonlinear Observer for Vehicle Motion Tracking. , 2018, , .		7
52	Simultaneous State Estimation and Tire Model Learning for Autonomous Vehicle Applications. IEEE/ASME Transactions on Mechatronics, 2021, 26, 1941-1950.	3.7	7
53	New decentralized control design for interconnected nonlinear discrete-time systems with nonlinear interconnections. , 2016, , .		6
54	Convex optimization based dual gain observer design for Lipschitz nonlinear systems. , 2016, , .		6

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55	A New LMI-Based Output Feedback Controller Design Method for Discrete-Time LPV Systems with Uncertain Parameters. IFAC-PapersOnLine, 2017, 50, 11349-11354.	0.5	6
56	LMI-Based Trajectory Tracking for a Class of Nonlinear Systems with Application to an Anaerobic Digestion Process. , 2018, , .		6
57	LMI-Based Observer Design for Non-Globally Lipschitz Systems Using Kirszbraunâ€“Valentine Extension Theorem. , 2022, 6, 2617-2622.		6
58	On the enhancement of high-gain observers for state estimation of nonlinear systems. , 2016, , .		5
59	A sequential LMI approach to design a BMI-based multi-objective nonlinear observer. European Journal of Control, 2018, 44, 50-57.	1.6	5
60	Finite-time estimation algorithms for LPV discrete-time systems with application to output feedback stabilization. Automatica, 2021, 125, 109436.	3.0	5
61	Unknown Input Observer Synthesis Method with Modified Hâˆž Criteria for Nonlinear Systems Using Sobolev Norms. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 8588-8593.	0.4	4
62	A sliding window filter for real-time attitude independent TAM calibration. , 2010, , .		4
63	Hâˆž Unknown Input Observers Design for a Class of Nonlinear Time-Delay Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 3879-3884.	0.4	4
64	Robust ℋ<inf>∞</inf> observer-based controller for lipschitz nonlinear discrete-time systems with parameter uncertainties. , 2014, , .		4
65	Observer-based stabilization via LMIs for linear uncertain systems. , 2015, , .		4
66	Observer-based control design via LMIs for a class of switched discrete-time linear systems with parameter uncertainties. , 2016, , .		4
67	Nonlinear observer-based control with application to an anaerobic digestion process. European Journal of Control, 2019, 45, 74-84.	1.6	4
68	Observer Design for a Certain Class of Nonlinear Systems. , 2006, , .		3
69	Observer Design for a Class of Nonlinear Time-Delay Systems. Proceedings of the American Control Conference, 2007, , .	0.0	3
70	A software based approach for autonomous projectile attitude and position estimation. , 2008, , .		3
71	Output feedback control for discrete-time linear systems by using luenberger observers under unknown switching. , 2013, , .		3
72	LMI-based H<inf>âˆž</inf> nonlinear state observer design for anaerobic digestion model. , 2017, , .		3

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73	LMI-based discrete-time nonlinear state observer for an anaerobic digestion model. , 2017, , .		3
74	Observer with small gains in the presence of a long delay in the measurements. , 2017, , .		3
75	Practical Absolute Stabilization of Lur'e Systems via Periodic Event-Triggered Feedback. , 2019, , .		3
76	Linear Position Estimation on Smart Actuators Using a Nonlinear Observer. , 2019, , .		3
77	Observer-Based Control Design for Nonlinear Systems With Unknown Delays. IEEE Transactions on Circuits and Systems II: Express Briefs, 2022, 69, 1327-1331.	2.2	3
78	Robust Static Output Feedback Stabilization of Continuous-Time Linear Systems via Enhanced LMI Conditions. IFAC-PapersOnLine, 2020, 53, 4540-4545.	0.5	3
79	Coupled Tanks State Estimation Using a High-Gain Like Observer. IFAC-PapersOnLine, 2021, 54, 96-101.	0.5	3
80	LMI Feasibility Improvement to Design Observers for a Class of Lipschitz Nonlinear Systems. , 2021, , .		3
81	Observer Design for Non-Globally Lipschitz Nonlinear Systems Using Hilbert Projection Theorem. , 2022, 6, 2581-2586.		3
82	An LMI-based discrete time nonlinear observer for Light-Emitting Diode optical communication. Automatica, 2022, 141, 110309.	3.0	3
83	Observers design for discrete-time Lipschitz nonlinear systems. State of the art and new results. , 2012, , .		2
84	Observer-based control design for a class of nonlinear systems subject to unknown inputs: LMI approach. , 2015, , .		2
85	An LMI-Based H âˆž Discrete-Time Nonlinear State Observer Design for an Anaerobic Digestion Model. IFAC-PapersOnLine, 2017, 50, 11547-11552.	0.5	2
86	Observer design for nonlinear systems by using high-gain and LPV/LMI-based technique. , 2017, , .		2
87	Robust $$mathcal{H}_infty$$ Observer-based Stabilization of Linear Discrete-time Systems with Parameter Uncertainties. International Journal of Control, Automation and Systems, 2019, 17, 2261-2273.	1.6	2
88	Control of Anaerobic Digestion Process. , 2019, , 99-135.		2
89	Static Output Feedback Control of Discrete-Time Linear Systems: Background Results and New LMI Conditions. , 2019, , .		2
90	Observer-Based Stabilization of Switched Discrete-Time Linear Systems With Parameter Uncertainties. , 2019, , 209-239.		2

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91	Output-Feedback Self-Synchronization of Directed Lurâ€™e Networks via Global Connectivity. IEEE Transactions on Cybernetics, 2022, 52, 6490-6503.	6.2	2
92	Adaptive output tracking control design of a gun launched micro aerial vehicle based on approximate feedback linearization. , 2013, , .		2
93	A Switched-Gain Nonlinear Observer for LED Optical Communication. IFAC-PapersOnLine, 2020, 53, 4941-4946.	0.5	2
94	Optimistic vs Pessimistic Moving-Horizon Estimation for Quasiâ€“LPV Discrete-Time Systems. IFAC-PapersOnLine, 2020, 53, 5004-5009.	0.5	2
95	State observer design method for a class of nonâ€linear systems. IET Control Theory and Applications, 2020, 14, 1648-1655.	1.2	2
96	Nonlinear observer for electromagnetic position estimation using active current control. Mechanical Systems and Signal Processing, 2022, 167, 108449.	4.4	2
97	Unknown input estimation algorithms for a class of LPV/nonlinear systems with application to wastewater treatment process. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2022, 236, 1372-1385.	0.7	2
98	Robust fault diagnosis for a class of nonlinear descriptor systems. , 2010, , .		1
99	H<inf>∞</inf>-based fault diagnosis for diesel engines. , 2014, , .		1
100	Output feedback control for a class of switching discrete-time linear systems. , 2014, , .		1
101	LPV unknown input observer for vehiclelateral dynamics. , 2016, , .		1
102	Real-time automotive slip angle estimation with extended H_{âˆž} circle criterion observer for nonlinear output system. , 2017, , .		1
103	LMI-based invariant like nonlinear state observer for anaerobic digestion model. , 2017, , .		1
104	A modified two-step LMI method to design observer-based controller for linear discrete-time systems with parameter uncertainties. , 2017, , .		1
105	Robust observer-based H<inf>âˆž</inf> stabilization of switched discrete-time linear systems with parameter uncertainties. , 2017, , .		1
106	Advanced control and observer design for nonlinear systems via LMIs. European Journal of Control, 2018, 44, 1-2.	1.6	1
107	Multi-Objective Nonlinear Observer Design using BMIs. , 2018, , .		1
108	Robust $mathcal{H}_{infty}$ Observer-Based Stabilization of Linear Discrete-Time Systems with Parameter Uncertaintes. , 2018, , .		1

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109	Delay-dependent unknown input observer for nonlinear time-delay systems with both Hâˆž and W1,2 optimality criteria. , 2019, , 79-97.		1
110	Observer design of descriptor nonlinear system with nonlinear outputs by using <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:msup><mml:mrow><mml:mi mathvariant="bold-script">W</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn><mml:mo>,</mml:mo><mml:mn>2</mml:mn></mml:mr criterion. Journal of the Franklin Institute, 2019, 356, 3531-3553.	1.9	1
111	State Estimation of LPV Discrete-Time Systems with Application to Output Feedback Stabilization. , 2019, , .		1
112	POD-based state estimation of simulated moving bed chromatographic processes. , 2013, , .		1
113	Prescribed-Time High-Gain Nonlinear Observer Design for Triangular Systems. , 2021, , .		1
114	Observers Synthesis Method for a Class of Nonlinear Discrete-Time Systems with Extension to Observer-Based Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 9865-9870.	0.4	0
115	Observer Based Synchronization for a Class of Chaotic Time-Delay Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 262-266.	0.4	0
116	Observers Design for a Class of Lipschitz Discrete-Time Systems with Time-Delay. , 2011, , .		0
117	Observers for continuous-time Lipschitz nonlinear systems. Analysis and comparisons. , 2012, , .		0
118	Observer based ℌ<inf>∞</inf> controllers for a class of nonlinear lipschitz discrete-time systems. , 2012, , .		0
119	Convex optimization approach to observer-based stabilization of linear systems with parameter uncertainties. , 2013, , .		0
120	A multiplicative filter for GLMAV attitude estimation. , 2013, , .		0
121	Delay-dependent robust unknown input observer for nonlinear time-delay systems. , 2014, , .		0
122	Observer-based control design for diesel engines via LMI. , 2014, , .		0
123	â„‹<inf>âˆž</inf> observer-based stabilization of switched discrete-time linear systems. , 2017, , .		0
124	Application of metaheuristic algorithms for steady state analysis of six-phase self-exited induction generator. , 2017, , .		0
125	Observer Design of Descriptor Nonlinear System with N onlinear Outputs by Using W12 -Optimality Criterion. , 2018, , .		0
126	Fault Sensor Detection and Estimation based on LPV Observer for Vehicle Lateral Dynamics. , 2018, , .		0

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127	Actuator Fault Detection for Vehicle Lateral Dynamics. , 2018, , .		0
128	A Robust Decentralized Observer-Based Stabilization Method for Interconnected Nonlinear Systems: Improved LMI Conditions. , 2019, , 267-291.		0
129	Absolute Stabilization of Lurâ€™e Systems by Periodically Intermittent Control. , 2019, , .		0
130	Vehicle Motion Estimation Using A Switched Gain Nonlinear Observer. , 2020, , .		0
131	Nonlinear Observer design for Systems with Sampled Measurements: An LPV Approach. IFAC-PapersOnLine, 2020, 53, 560-565.	0.5	0
132	State Observer Design Method for a Class of Nonlinear Systems. IFAC-PapersOnLine, 2020, 53, 4935-4940.	0.5	0
133	Hâˆž Switched-Gain Based Observer vs Nonlinear Transformation Based Observer for a Vehicle Tracking Model. IFAC-PapersOnLine, 2021, 54, 126-131.	0.5	0