

Tarek Raissi

List of Publications by Year in descending order

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152
papers

3,473
citations

218381

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54
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155
all docs

155
docs citations

155
times ranked

979
citing authors

#	ARTICLE	IF	CITATIONS
1	Interval State Estimation for a Class of Nonlinear Systems. IEEE Transactions on Automatic Control, 2012, 57, 260-265.	3.6	385
2	Interval state observer for nonlinear time varying systems. Automatica, 2013, 49, 200-205.	3.0	227
3	Interval estimation for LPV systems applying high order sliding mode techniques. Automatica, 2012, 48, 2365-2371.	3.0	171
4	Control of Nonlinear and LPV Systems: Interval Observer-Based Framework. IEEE Transactions on Automatic Control, 2013, 58, 773-778.	3.6	167
5	Interval Observers for Time-Varying Discrete-Time Systems. IEEE Transactions on Automatic Control, 2013, 58, 3218-3224.	3.6	160
6	Interval observers for continuous-time LPV systems with L performance. Automatica, 2015, 58, 82-89.	3.0	151
7	Set membership state and parameter estimation for systems described by nonlinear differential equations. Automatica, 2004, 40, 1771-1777.	3.0	149
8	Interval observer design for consistency checks of nonlinear continuous-time systems. Automatica, 2010, 46, 518-527.	3.0	145
9	Design of interval observers for uncertain dynamical systems. Automation and Remote Control, 2016, 77, 191-225.	0.4	144
10	Interval Estimation Methods for Discrete-Time Linear Time-Invariant Systems. IEEE Transactions on Automatic Control, 2019, 64, 4717-4724.	3.6	114
11	Interval estimation for continuous-time switched linear systems. Automatica, 2018, 90, 230-238.	3.0	83
12	An effective method to interval observer design for time-varying systems. Automatica, 2014, 50, 2677-2684.	3.0	78
13	Actuator fault detection and compensation under feedback control. Automatica, 2011, 47, 1699-1705.	3.0	74
14	On interval observer design for time-invariant discrete-time systems. , 2013, , .		68
15	Bounded error moving horizon state estimator for non-linear continuous-time systems: application to a bioprocess system. Journal of Process Control, 2005, 15, 537-545.	1.7	50
16	Non-fragile saturation control of nonlinear positive Markov jump systems with time-varying delays. Nonlinear Dynamics, 2019, 97, 1495-1513.	2.7	47
17	A note on interval observer design for unknown input estimation. International Journal of Control, 2016, 89, 25-37.	1.2	43
18	A state augmentation approach to interval fault estimation for descriptor systems. European Journal of Control, 2020, 51, 19-29.	1.6	43

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19	Saturation control of switched nonlinear systems. <i>Nonlinear Analysis: Hybrid Systems</i> , 2019, 32, 320-336.	2.1	42
20	Some recent results on the design and implementation of interval observers for uncertain systems. <i>Automatisierungstechnik</i> , 2018, 66, 213-224.	0.4	41
21	Interval observer design for continuous-time linear parameter-varying systems. <i>Systems and Control Letters</i> , 2019, 134, 104541.	1.3	40
22	Optimal interval observers for discrete-time linear switched systems. <i>International Journal of Control</i> , 2020, 93, 2613-2621.	1.2	35
23	Interval observer framework for fault-tolerant control of linear parameter-varying systems. <i>International Journal of Control</i> , 2018, 91, 524-533.	1.2	34
24	Complex Interval Arithmetic Using Polar Form. <i>Reliable Computing</i> , 2006, 12, 1-20.	0.8	33
25	Interval observers design for continuous-time linear switched systems. <i>IFAC-PapersOnLine</i> , 2017, 50, 6259-6264.	0.5	30
26	Set membership parameter estimation of fractional models based on bounded frequency domain data. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2010, 15, 927-938.	1.7	28
27	Robust estimation of fractional models in the frequency domain using set membership methods. <i>Signal Processing</i> , 2012, 92, 1591-1601.	2.1	28
28	Functional Interval Observer for Discrete-Time Switched Descriptor Systems. <i>IEEE Transactions on Automatic Control</i> , 2022, 67, 2497-2504.	3.6	27
29	Design of interval observers for estimation and stabilization of discrete-time LPV systems. <i>IMA Journal of Mathematical Control and Information</i> , 2016, 33, 1051-1066.	1.1	26
30	On Interval Observer Design for a Class of Continuous-Time LPV Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2013, 46, 68-73.	0.4	24
31	Fault detection in the distillation column process using Kullback Leibler divergence. <i>ISA Transactions</i> , 2016, 63, 394-400.	3.1	22
32	Interval observer design for unknown input estimation of linear time-invariant discrete-time systems. <i>IFAC-PapersOnLine</i> , 2017, 50, 4021-4026.	0.5	22
33	Fast interval estimation for discrete-time linear systems: An ϵ -optimization method. <i>Automatica</i> , 2022, 137, 110029.	3.0	21
34	Estimation and control of discrete-time LPV systems using interval observers. , 2013, , .		19
35	Non-minimum phase switched systems: HOSM-based fault detection and fault identification via Volterra integral equation. <i>International Journal of Adaptive Control and Signal Processing</i> , 2014, 28, 1372-1397.	2.3	19
36	Set-membership methodology for model-based prognosis. <i>ISA Transactions</i> , 2017, 66, 216-225.	3.1	19

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37	Stability analysis and saturation control for nonlinear positive Markovian jump systems with randomly occurring actuator faults. International Journal of Robust and Nonlinear Control, 2020, 30, 5062-5100.	2.1	19
38	Event-Triggered Filter Design of Positive Systems With State Saturation. IEEE Systems Journal, 2021, 15, 4281-4292.	2.9	19
39	Unknown Input Observer Design for Linear Parameter-Varying Systems in a Bounded Error Context. IEEE Transactions on Automatic Control, 2021, 66, 4246-4251.	3.6	18
40	Event-triggered positive non-fragile filter design for positive Markov jump systems. Information Sciences, 2021, 573, 562-584.	4.0	18
41	Interval State and Unknown Inputs Estimation for Linear Time-Invariant Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 7375-7381.	0.4	17
42	Interval observer design for Linear Parameter-Varying systems subject to component faults. , 2016, , .		17
43	Optimal Interval Observer for Switched Takagi-Sugeno Systems: An Application to Interval Fault Estimation. IEEE Transactions on Fuzzy Systems, 2021, 29, 2296-2309.	6.5	17
44	Sensor fault detection for switched systems using interval observer with L^∞ performance. European Journal of Control, 2021, 57, 147-156.	1.6	17
45	Observer-based output feedback robust MPC via zonotopic set-membership state estimation for LPV systems with bounded disturbances and noises. Journal of the Franklin Institute, 2020, 357, 7368-7398.	1.9	17
46	Interval observer design for continuous-time switched systems under known switching and unknown inputs. International Journal of Control, 2020, 93, 1088-1101.	1.2	16
47	Unknown input interval observers for discrete-time linear switched systems. European Journal of Control, 2021, 59, 165-174.	1.6	14
48	Robust Output Feedback MPC for LPV Systems Using Interval Observers. IEEE Transactions on Automatic Control, 2022, 67, 3188-3195.	3.6	14
49	Interval estimation based on the reduced-order observer and peak-to-peak analysis. International Journal of Control, 2022, 95, 2876-2884.	1.2	13
50	Actuator fault diagnosis for flat systems: A constraint satisfaction approach. International Journal of Applied Mathematics and Computer Science, 2013, 23, 171-181.	1.5	12
51	Design of optimal interval observers using set-theoretic methods for robust state estimation. International Journal of Robust and Nonlinear Control, 2020, 30, 3692-3705.	2.1	12
52	Reliable control for positive switched systems with random nonlinearities. ISA Transactions, 2021, 108, 48-57.	3.1	12
53	Stabilization of nonlinear uncertain systems based on interval observers. , 2011, , .		10
54	Actuator Fault Compensation in a Set-membership Framework for Linear Parameter-Varying Systems. IFAC-PapersOnLine, 2017, 50, 4033-4038.	0.5	10

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55	Interval estimation of state and unknown input for linear discrete-time systems. Journal of the Franklin Institute, 2020, 357, 9045-9062.	1.9	10
56	Reliable actuator fault control of positive switched systems with double switchings. Asian Journal of Control, 2021, 23, 1831-1844.	1.9	10
57	A linear framework on the distributed model predictive control of positive systems. Systems and Control Letters, 2020, 138, 104665.	1.3	10
58	Design of interval observers for LPV systems subject to exogenous disturbances. , 2013, , .		10
59	Robust output feedback model predictive control for constrained linear systems via interval observers. Automatica, 2022, 135, 109951.	3.0	10
60	On interval observer design for active Fault Tolerant Control of Linear Parameter-Varying systems. Systems and Control Letters, 2022, 164, 105218.	1.3	10
61	Set Adaptive Observers for Linear Parameter-Varying Systems: Application to Fault Detection. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2014, 136, .	0.9	9
62	Interval observers design for discrete-time linear switched systems. , 2018, , .		9
63	IPR-based distributed interval observers design for uncertain LTI systems. ISA Transactions, 2022, 121, 147-155.	3.1	9
64	Zonotope-based Interval Estimation for Discrete-Time Linear Switched Systems. IFAC-PapersOnLine, 2020, 53, 4707-4712.	0.5	9
65	Ellipsoid-Based Interval Estimation for Lipschitz Nonlinear Systems. IEEE Transactions on Automatic Control, 2022, 67, 6802-6809.	3.6	9
66	Interval Prediction for Continuous-Time Systems with Parametric Uncertainties. , 2019, , .		8
67	Interval Estimation for Discrete-Time Switched Linear Systems Based on L -Observer and Ellipsoid Analysis. , 2021, 5, 13-18.		8
68	Zonotopic Kalman Filter-Based Interval Estimation for Discrete-Time Linear Systems With Unknown Inputs. , 2022, 6, 806-811.		8
69	Robust Fault Detection for switched Takagi-Sugeno systems with unmeasurable premise variables: Interval-Observer-based approach. IFAC-PapersOnLine, 2020, 53, 7947-7952.	0.5	8
70	Robust Output Feedback MPC: An Interval-Observer Approach. , 2020, , .		8
71	Interval estimation for linear discrete-time delay systems. IFAC-PapersOnLine, 2020, 53, 4798-4803.	0.5	8
72	Fractional interval observers and initialization of fractional systems. Communications in Nonlinear Science and Numerical Simulation, 2020, 82, 105030.	1.7	7

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73	Indefinite Krasovskii and Razumikhin Stability for Nonlinear Positive Time-Varying Systems. IEEE Transactions on Circuits and Systems II: Express Briefs, 2022, 69, 2321-2325.	2.2	7
74	Interval observer-based methodology for passive fault tolerant control of linear parameter-varying systems. Transactions of the Institute of Measurement and Control, 2022, 44, 986-999.	1.1	7
75	Robust Interval Observer for Systems Described by the Fornasini-Marchesini Second Model. , 2022, 6, 1940-1945.		7
76	Set membership parameter estimation in the frequency domain based on complex intervals. International Journal of Control, Automation and Systems, 2009, 7, 824-834.	1.6	6
77	Application of Interval Observers and HOSM Differentiators for Fault Detection. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 516-521.	0.4	6
78	On set-membership observer design for a class of periodical time-varying systems. , 2012, , .		6
79	Set-membership fault detection under noisy environment with application to the detection of abnormal aircraft control surface positions. International Journal of Control, 2015, 88, 1878-1894.	1.2	6
80	Set-membership methods applied to FDI and FTC. International Journal of Adaptive Control and Signal Processing, 2016, 30, 150-153.	2.3	6
81	Interval Observer Design for Actuator Fault Estimation of Linear Parameter-Varying Systems. IFAC-PapersOnLine, 2018, 51, 1199-1204.	0.5	6
82	Ellipsoid-based interval estimation for Takagi-Sugeno fuzzy systems. , 2019, , .		6
83	Prognosis of uncertain linear time-invariant discrete systems using unknown input interval observer. International Journal of Control, 2020, 93, 2690-2706.	1.2	6
84	Indefinite Lyapunov-Razumikhin Functions-Based Stability and Event-Triggered Control of Switched Nonlinear Time-Delay Systems. IEEE Transactions on Circuits and Systems II: Express Briefs, 2021, 68, 3286-3290.	2.2	6
85	Robust output feedback model predictive control of time-delayed systems using interval observers. International Journal of Robust and Nonlinear Control, 2022, 32, 1180-1193.	2.1	6
86	Watermark-Based Proactive Defense Strategy Design for Cyber-Physical Systems With Unknown-but-Bounded Noises. IEEE Transactions on Automatic Control, 2023, 68, 3300-3315.	3.6	6
87	State Estimation for Linear Switched Systems with Unknown Inputs. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 271-276.	0.4	5
88	Interval observers design for singularly perturbed systems. , 2014, , .		5
89	Robust state estimation for singularly perturbed systems. International Journal of Control, 2017, 90, 566-579.	1.2	5
90	Filtering and Uncertainty Propagation Methods for Model-Based Prognosis of Fatigue Crack Growth in Unidirectional Fiber-Reinforced Composites. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, 2018, 4, 04018040.	1.1	5

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91	Set-Membership Fault Detection for Continuous-time Switched Linear Systems. , 2019, , .		5
92	Interval estimation of switched Takagi-Sugeno systems with unmeasurable premise variables. IFAC-PapersOnLine, 2019, 52, 73-78.	0.5	5
93	A Convexity Approach to Dynamic Output Feedback Robust MPC for LPV Systems with Bounded Disturbances. International Journal of Control, Automation and Systems, 2020, 18, 1378-1391.	1.6	5
94	Special issue on interval estimation applied to diagnosis and control of uncertain systems. International Journal of Control, 2020, 93, 2525-2527.	1.2	5
95	Fault Detection for Switched Systems based on Pole Assignment and Zonotopic Residual Evaluation. IFAC-PapersOnLine, 2020, 53, 4695-4700.	0.5	5
96	Two-step zonotopic estimation method for discrete-time linear delayed systems. European Journal of Control, 2022, 64, 100608.	1.6	5
97	Active fault tolerant control using zonotopic techniques for linear parameter varying systems: Application to wind turbine system. European Journal of Control, 2022, 67, 100700.	1.6	5
98	Robust Fault Diagnosis based on Constraint Satisfaction and Interval Continuous-time Parity Equations. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 1293-1298.	0.4	4
99	Model-based prognosis using an explicit degradation model and Inverse FORM for uncertainty propagation. IFAC-PapersOnLine, 2017, 50, 14242-14247.	0.5	4
100	Finite-time guaranteed state estimation for discrete-time systems with disturbances. , 2019, , .		4
101	Interval Observers Design for Uncertain Multiple Model systems. , 2019, , .		4
102	Interval observers based fault detection for switched systems with L_2 performances. , 2020, , .		4
103	Further results on the design of a class of discrete-time set-valued state estimators. International Journal of Robust and Nonlinear Control, 2022, 32, 649-668.	2.1	4
104	Control strategy for the combustion optimization for waste-to-energy incineration plant. IFAC-PapersOnLine, 2020, 53, 13167-13172.	0.5	4
105	Outlier-robust set-membership estimation for discrete-time linear systems. International Journal of Robust and Nonlinear Control, 2022, 32, 2313-2329.	2.1	4
106	Reliable amplitude and frequency estimation for biased and noisy signals. Communications in Nonlinear Science and Numerical Simulation, 2011, 16, 4153-4157.	1.7	3
107	Set-membership methodology for model-based systems prognosis. IFAC-PapersOnLine, 2015, 48, 302-307.	0.5	3
108	Model-based prognosis algorithms with uncertainty propagation: Application to fatigue crack growth. , 2016, , .		3

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109	Interval estimation for discrete-time LPV switched systems. , 2019, , .		3
110	Interval estimation for continuous-time LPV switched systems. International Journal of Control, 2020, 93, 2622-2633.	1.2	3
111	Multimodel analysis and control of multivariable systems. , 0, , .		2
112	Parameter estimation for non-linear continuous-time systems in a bounded error context. , 0, , .		2
113	Set membership estimation of fractional models in the frequency domain. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 4078-4083.	0.4	2
114	Adaptive set observers design for fault detection and diagnosis. , 2010, , .		2
115	Computing reachable sets for nonlinear systems in presence of bounded uncertainties. , 2014, , .		2
116	Set-membership fault detection under noisy environment in aircraft control surface servo-loops. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 8265-8271.	0.4	2
117	On Robust Pseudo State Estimation of Fractional Order Systems. Lecture Notes in Control and Information Sciences, 2017, , 97-111.	0.6	2
118	Supervision of Nonlinear Networked Control Systems Under Network Constraints. , 2019, , .		2
119	Robust Fault Detection for Switched Systems based on Interval Observers. , 2020, , .		2
120	Fault tolerant control in a set-membership framework. , 2016, , .		2
121	On Interval Observer Design for Continuous-Time LPV Switched Systems. Acta Cybernetica, 2020, 24, 539-555.	0.5	2
122	On Fixed-Time Interval Estimation of Discrete-Time Nonlinear Time-Varying Systems With Disturbances. , 2020, , .		2
123	Interval Observer Design for Uncertain Discrete-Time Polytopic Systems. , 2020, , .		2
124	Zonotopic unknown input state estimator for discrete-time linear systems. Systems and Control Letters, 2022, 162, 105168.	1.3	2
125	H_{∞} interval observer design for uncertain discrete-time linear switched systems with unknown inputs. , 2021, , .		2
126	Guaranteed method for the estimation of dielectric relaxation model parameters. , 2004, , .		1

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127	Complex Interval Constraint Propagation for Non Linear Bounded-Error Parameter Identification. , 2005, , .		1
128	ROBUST NONLINEAR CONTINUOUS-TIME STATE ESTIMATION USING INTERVAL TAYLOR MODELS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 691-696.	0.4	1
129	Guaranteed state estimation for nonlinear continuous-time systems based on qLPV approximations. , 2009, , .		1
130	Comparison between two set membership methods for frequency domain system identification using fractional models. , 2010, , .		1
131	Change detection in flat systems by constraint satisfaction techniques. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 12009-12014.	0.4	1
132	State Estimation and Fault Detection for Linear Switched Systems with Unstable Internal Dynamics*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 522-527.	0.4	1
133	Model-based prognosis of fatigue crack growth under variable amplitude loading. IFAC-PapersOnLine, 2018, 51, 176-183.	0.5	1
134	Set-membership state estimation approach for discrete-time switched linear systems based on ellipsoidal approximation. , 2019, , .		1
135	Switching signal estimation based on interval observer for a class of switched linear systems. , 2019, , .		1
136	Partial and Full Order Interval Unknown Input State Estimators. , 2020, , .		1
137	Fault Detection and Isolation for Continuous-time Switched Linear Systems: A Set Membership Approach. , 2020, , .		1
138	Joint interval state and actuator fault estimation for linear discrete-time delayed systems. , 2021, , .		1
139	State Estimation for Nonlinear Continuous Systems in a Bounded-Error Context. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 1687-1692.	0.4	0
140	SET MEMBERSHIP PARAMETER IDENTIFICATION WITH COMPLEX INTERVALS USING POLAR FORMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 1221-1226.	0.4	0
141	MONOTONE ADAPTIVE SET OBSERVERS FOR NONLINEAR CONTINUOUS-TIME SYSTEMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 54-59.	0.4	0
142	Phase Resetting Control Based On Direct Phase Response Curve. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 332-337.	0.4	0
143	Robust fault detection based on adaptive set observers. , 2010, , .		0
144	Robust state estimation for flat systems using set-membership techniques. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 7450-7455.	0.4	0

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145	HYBRID UNKNOWN INPUT OBSERVER FOR ACTUATOR FAULT DETECTION AND COMPENSATION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 4356-4361.	0.4	0
146	Set-membership estimation improvement applying HOSM differentiators. , 2012, , .		0
147	A Collaborative Observer for Switched Linear Systems with Unknown Inputs. , 2021, , .		0
148	Stabilisation robuste dâ€™une classe de systÃ©mes non linÃ©aires incertains. Journal Europeen Des Systemes Automatises, 2012, 46, 335-348.	0.3	0
149	Ellipsoid-based sensor fault detection for discrete-time switched systems. , 2020, , .		0
150	Fast interval estimation for discrete-time systems based on fixed-time convergence. IFAC-PapersOnLine, 2020, 53, 4571-4575.	0.5	0
151	Interval Observers Design for Actuator Fault Detection of Discrete-Time Linear Switched Systems. , 2021, , .		0
152	Interval Estimation for Discrete-Time Linear Parameter-Varying System with Unknown Inputs. , 2021, , .		0