

# Dalil Ichalal

## List of Publications by Year in descending order

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91  
papers

1,178  
citations

623188

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552369

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91  
all docs

91  
docs citations

91  
times ranked

615  
citing authors

#	ARTICLE	IF	CITATIONS
1	State estimation of Takagi-Sugeno systems with unmeasurable premise variables. IET Control Theory and Applications, 2010, 4, 897-908.	1.2	140
2	On Unknown Input Observers for LPV Systems. IEEE Transactions on Industrial Electronics, 2015, 62, 5870-5880.	5.2	95
3	Simultaneous state and unknown inputs estimation with PI and PMI observers for Takagi Sugeno model with unmeasurable premise variables. , 2009, , .		58
4	Fault detection, isolation and estimation for Takagi-Sugeno nonlinear systems. Journal of the Franklin Institute, 2014, 351, 3651-3676.	1.9	56
5	New fault tolerant control strategies for nonlinear Takagi-Sugeno systems. International Journal of Applied Mathematics and Computer Science, 2012, 22, 197-210.	1.5	47
6	Sensor fault tolerant control of nonlinear Takagi-Sugeno systems. Application to vehicle lateral dynamics. International Journal of Robust and Nonlinear Control, 2016, 26, 1376-1394.	2.1	43
7	Unknown input observer for LPV systems. Automatica, 2019, 100, 67-74.	3.0	42
8	How to cope with unmeasurable premise variables in Takagi-Sugeno observer design: Dynamic extension approach. Engineering Applications of Artificial Intelligence, 2018, 67, 430-435.	4.3	38
9	Advances in observer design for Takagi-Sugeno systems with unmeasurable premise variables. , 2012, , .		35
10	State and unknown input estimation for nonlinear systems described by Takagi-Sugeno models with unmeasurable premise variables. , 2009, , .		33
11	Observer design for two-wheeled vehicle: A Takagi-Sugeno approach with unmeasurable premise variables. , 2011, , .		32
12	Interval observer for LPV systems with unknown inputs. IET Control Theory and Applications, 2018, 12, 649-660.	1.2	31
13	Robust interval observer for switched systems with unknown inputs: Application to vehicle dynamics estimation. European Journal of Control, 2018, 44, 3-14.	1.6	31
14	A Unified Framework for Asymptotic Observer Design of Fuzzy Systems With Unmeasurable Premise Variables. IEEE Transactions on Fuzzy Systems, 2021, 29, 2938-2948.	6.5	31
15	Fault tolerant control for Takagi-Sugeno systems with unmeasurable premise variables by trajectory tracking. , 2010, , .		25
16	Observer based actuator fault tolerant control for nonlinear Takagi-Sugeno systems : an LMI approach. , 2010, , .		24
17	An Unknown-Input HOSM Approach to Estimate Lean and Steering Motorcycle Dynamics. IEEE Transactions on Vehicular Technology, 2014, 63, 3116-3127.	3.9	20
18	New fault tolerant control strategy for nonlinear systems with multiple model approach. , 2010, , .		19

#	ARTICLE	IF	CITATIONS
19	Unknown-input observer design for motorcycle lateral dynamics: TS approach. Control Engineering Practice, 2016, 54, 12-26.	3.2	19
20	An approach for the state estimation of Takagi-Sugeno models and application to sensor fault diagnosis. , 2009, , .		18
21	Fault diagnosis for Takagi-Sugeno nonlinear systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 504-509.	0.4	17
22	Observer design for motorcycle lean and steering dynamics estimation: A Takagi-Sugeno approach. , 2013, , .		17
23	State estimation of nonlinear systems using multiple model approach. , 2009, , .		16
24	Takagi-Sugeno Observers: Experimental Application for Vehicle Lateral Dynamics Estimation. IEEE Transactions on Control Systems Technology, 2015, 23, 754-761.	3.2	15
25	Synchronous interval observer design for switched LPV systems using multiple quadratic ISS-Lyapunov functions. , 2017, , .		15
26	Estimation of lateral motorcycle dynamics and rider action with Luenberger observer. , 2016, , .		12
27	On Unknown Input Observers of Linear Systems: Asymptotic Unknown Input Decoupling Approach. IEEE Transactions on Automatic Control, 2020, 65, 1197-1202.	3.6	12
28	Estimation of Lateral Dynamics and Road Curvature for Two-Wheeled Vehicles: A HOSM Observer approach. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 2806-2811.	0.4	10
29	State estimation of system with bounded uncertain parameters: Interval multimodel approach. International Journal of Adaptive Control and Signal Processing, 2018, 32, 480-493.	2.3	10
30	Observer for Lipschitz nonlinear systems: Mean Value Theorem and sector nonlinearity transformation. , 2012, , .		9
31	Lateral motorcycle dynamics and rider action estimation: An LPV unknown input observer approach. , 2016, , .		9
32	Quadrotor Control and Actuator Fault Detection: LQG Versus Robust $H_{\infty}$ observer. , 2019, , .		9
33	Auxiliary dynamics for observer design of nonlinear TS systems with unmeasurable premise variables. IFAC-PapersOnLine, 2016, 49, 1-6.	0.5	8
34	A method to avoid the unmeasurable premise variables in observer design for discrete time TS systems. , 2016, , .		8
35	Robust estimation of vehicle lateral velocity and yaw rate using switched T-S fuzzy interval observers. , 2017, , .		8
36	Robust observer design for uncertain Takagi-Sugeno model with unmeasurable decision variables: an $L_2$ approach. , 2008, , .		7

#	ARTICLE	IF	CITATIONS
37	On the estimation of longitudinal dynamics of powered two-wheeled vehicles. , 2015, , .		7
38	State and Unknown Input $\hat{z}$ Observers for Discrete-Time LPV Systems. Asian Journal of Control, 2020, 22, 49-62.	1.9	7
39	Asymptotic Unknown Input Decoupling Observer for Discrete-Time LTI Systems. , 2020, 4, 361-366.		7
40	Zonotopic set-membership estimation for Switched Systems based on Wi-Radius Minimization: Vehicle application. IFAC-PapersOnLine, 2020, 53, 7446-7451.	0.5	7
41	Quadcopter Trajectory Tracking in the Presence of 4 Faulty Actuators: A Nonlinear MHE and MPC Approach. , 2022, 6, 2024-2029.		7
42	Nonlinear observer based sensor fault tolerant control for nonlinear systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 1053-1058.	0.4	6
43	Fault tolerant control for uncertain descriptor multi-models with application to wastewater treatment plant. , 2015, , .		6
44	Lateral & Steering Dynamics Estimation for Single Track Vehicle: Experimental Tests * *This work is supported by National Agency of Research under the framework VIROLO+.. IFAC-PapersOnLine, 2017, 50, 3400-3405.	0.5	6
45	Decoupling Unknown Input Observer for nonlinear quasi-LPV systems. , 2019, , .		6
46	Unknown input observer for vehicle lateral dynamics based on a Takagi-Sugeno model with unmeasurable premise variables. , 2012, , .		5
47	Interval observer for LPV systems: Application to vehicle lateral dynamics. IFAC-PapersOnLine, 2017, 50, 7572-7577.	0.5	5
48	Interval Observer-Based Controller Design for Systems with State Constraints: Application to Solid Oxide Fuel Cells Stacks. , 2019, , .		5
49	Steering and Lateral Motorcycle Dynamics Estimation: Validation of Luenberger LPV Observer Approach. IEEE Transactions on Intelligent Vehicles, 2019, 4, 277-286.	9.4	5
50	An Unknown Input Switched Functional Interval Observer for Vehicle Lateral Velocity Estimation. , 2019, , .		5
51	Fault tolerant tracking controller design for T-S fuzzy disturbed systems with uncertainties subject to actuator faults. , 2011, , .		4
52	New nonlinear Takagi-Sugeno vehicle model for state and road curvature estimation via nonlinear PMI observer. , 2013, , .		4
53	Observer based controller for single track vehicles. , 2013, , .		4
54	Actuator Fault diagnosis: $\hat{z}$ framework with relative degree notion. IFAC-PapersOnLine, 2016, 49, 321-326.	0.5	4

#	ARTICLE	IF	CITATIONS
55	Cascaded flatness-based observation approach for lateral motorcycle dynamics estimation. , 2017, , .		4
56	Interval observer for nonlinear Lipschitz systems with unknown inputs. , 2018, , .		4
57	Invariant set based variable headway time vehicle longitudinal control assistance. , 2012, , .		3
58	Observer design for a class of discrete-time quasi-LPV systems with unknown parameters: Algebraic approach. , 2015, , .		3
59	Toward a Robust Motorcycle Braking. IEEE Transactions on Control Systems Technology, 2017, 25, 1052-1059.	3.2	3
60	Guaranteed state and unknown input estimations for linear time-invariant systems with direct feedthrough using interval observers. , 2017, , .		3
61	Vehicle Lateral Dynamics Estimation using Switched Unknown Inputs Interval Observers: Experimental Validation. , 2018, , .		3
62	Interval Observer Design for Switched Systems with State and Output Uncertainties: Application to vehicle sideslip angle estimation. , 2019, , .		3
63	Interval state estimation for uncertain polytopic systems. International Journal of Control, 2020, 93, 2564-2576.	1.2	3
64	Robust Actuator Fault Diagnosis for LPV systems: Application to Quadrotor. , 2021, , .		3
65	Proportional two Integral (P2I) observer synthesis for single track vehicle. , 2012, , .		2
66	Observer-based controller and separation principle for TS systems with unmeasurable premise variables. , 2016, , .		2
67	A new Minimum Variance Observer for Stochastic LPV systems with Unknown Inputs * *This work is supported by the CNES (Centre National d'Études spatiales), France. IFAC-PapersOnLine, 2017, 50, 4947-4953.	0.5	2
68	Rider weight consideration for observer design with an application to the estimation of the lateral motorcycle dynamics and rider's action. , 2017, , .		2
69	Minimum variance unbiased observer of a continuous LPV system with unknown input. , 2017, , .		2
70	Road Geometry and Steering Reconstruction for Powered Two Wheeled Vehicles. , 2018, , .		2
71	A maximum likelihood estimator for switching linear systems with unknown inputs. Automatica, 2019, 108, 108490.	3.0	2
72	An easy design for interval observers. International Journal of Control, 2020, 93, 2896-2907.	1.2	2

#	ARTICLE	IF	CITATIONS
73	Motorcycle maximal safe speed in cornering situation. , 2013, , .		1
74	Vehicle nonlinear observer for state and tire-road friction estimation. , 2013, , .		1
75	New Nonlinear Takagi-Sugeno Vehicle Model for State and Road Curvature Estimation via a Nonlinear PMI Observer. Journal of Intelligent Systems, 2014, 23, 155-170.	1.2	1
76	Operating mode recognition. Application to a grinding mill process.. IFAC-PapersOnLine, 2016, 49, 7-12.	0.5	1
77	PI observer robust fault estimation for motorcycle lateral dynamics. , 2017, , .		1
78	Robust Fault Detection for Vehicle Lateral Dynamics: A Zonotope-based Set-membership Approach. , 2018, , .		1
79	Interval observer for bilinear systems with unknown inputs. , 2018, , .		1
80	Polytopic Models for Observer and Fault-Tolerant Control Designs. , 2019, , 295-335.		1
81	An Interval Algebraic Approach for vehicle lateral tire forces estimation. , 2019, , .		1
82	A new unbiased minimum variance observer for stochastic LTV systems with unknown inputs. IMA Journal of Mathematical Control and Information, 2020, 37, 475-496.	1.1	1
83	Vehicle Lateral Velocity and Lateral Tire-road Forces Estimation Based on Switched Interval Observers. , 2020, , .		1
84	Model predictive control for an urban trimodal model. , 2012, , .		0
85	Detection of critical situations in vehicle lateral dynamics by LPV unknown input observers with finite time property. , 2014, , .		0
86	Analysis of the leaning limit dynamics of Powered Two Wheeled vehicles. , 2014, , .		0
87	Performance Measure of Vehicle Onboard Vision System: An Interval Observer-based Approach. , 2018, , .		0
88	Observers for switching discrete-time linear systems with Unknown Inputs and unknown switching sequence. , 2018, , .		0
89	State Estimation and Fault Detection for 2-D Discrete-Time Systems. , 2018, , .		0
90	State and fault estimation of a class of nonlinear systems with slow internal dynamics: Asymptotic Decoupling approach. IFAC-PapersOnLine, 2021, 54, 130-134.	0.5	0

#	ARTICLE	IF	CITATIONS
91	Robust Sensor Fault Estimation for LPV systems: Application to Quadrotor UAV. , 2021, , .		0