Damiano Rotondo

List of Publications by Year
in descending order

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109	1,702	304743	315739
papers	citations	22 h-index	38 g-index

110	110	110	1191
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	FDI and FTC of wind turbines using the interval observer approach and virtual actuators/sensors. Control Engineering Practice, 2014, 24, 138-155.	5.5	111
2	A virtual actuator and sensor approach for fault tolerant control of LPV systems. Journal of Process Control, 2014, 24, 203-222.	3.3	107
3	Quasi-LPV modeling, identification and control of a twin rotor MIMO system. Control Engineering Practice, 2013, 21, 829-846.	5.5	99
4	Bibliographical review on cyber attacks from a control oriented perspective. Annual Reviews in Control, 2019, 48, 103-128.	7.9	79
5	An LMI approach to robust fault estimation for a class of nonlinear systems. International Journal of Robust and Nonlinear Control, 2016, 26, 1530-1548.	3.7	78
6	Robust Quasiâ€“LPV Model Reference FTC of a Quadrotor Uav Subject to Actuator Faults. International Journal of Applied Mathematics and Computer Science, 2015, 25, 7-22.	1.5	71
7	Robust unknown input observer for state and fault estimation in discrete-time Takagiâ€“Sugeno systems. International Journal of Systems Science, 2016, 47, 3409-3424.	5.5	68
8	Robust fault diagnosis of proton exchange membrane fuel cells using a Takagi-Sugeno interval observer approach. International Journal of Hydrogen Energy, 2016, 41, 2875-2886.	7.1	62
9	Automated generation and comparison of Takagiâ€“Sugeno and polytopic quasi-LPV models. Fuzzy Sets and Systems, 2015, 277, 44-64.	2.7	57
10	Robust state-feedback control of uncertain LPV systems: An LMI-based approach. Journal of the Franklin Institute, 2014, 351, 2781-2803.	3.4	53
11	A bounded-error approach to simultaneous state and actuator fault estimation for a class of nonlinear systems. Journal of Process Control, 2017, 52, 14-25.	3.3	53
12	Model reference FTC for LPV systems using virtual actuators and setâ€membership fault estimation. International Journal of Robust and Nonlinear Control, 2015, 25, 735-760.	3.7	43
13	A Review of Convex Approaches for Control, Observation and Safety of Linear Parameter Varying and Takagi-Sugeno Systems. Processes, 2019, 7, 814.	2.8	40
14	Detection of replay attacks in cyber-physical systems using a frequency-based signature. Journal of the Franklin Institute, 2019, 356, 2798-2824.	3.4	38
15	A Fault-Hiding Approach for the Switching Quasi-LPV Fault Tolerant Control of a Four-Wheeled Omnidirectional Mobile Robot. IEEE Transactions on Industrial Electronics, 2014, , 1-1.	7.9	37
16	Actuator multiplicative fault estimation in discrete-time LPV systems using switched observers. Journal of the Franklin Institute, 2016, 353, 3176-3191.	3.4	35
17	A virtual actuator approach for the fault tolerant control of unstable linear systems subject to actuator saturation and fault isolation delay. Annual Reviews in Control, 2015, 39, 68-80.	7.9	31
18	Fault-Tolerant Control Based on Virtual Actuator and Sensor for Discrete-Time Descriptor Systems. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 5316-5325.	5.4	29

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19	Fault estimation of wind turbines using combined adaptive and parameter estimation schemes. International Journal of Adaptive Control and Signal Processing, 2018, 32, 549-567.	4.1	28
20	An Interval NLPV Parity Equations Approach for Fault Detection and Isolation of a Wind Farm. IEEE Transactions on Industrial Electronics, 2014, , 1-1.	7.9	26
21	A virtual actuator approach for the secure control of networked LPV systems under pulse-width modulated DoS attacks. Neurocomputing, 2019, 365, 21-30.	5.9	24
22	Fault tolerant control of a proton exchange membrane fuel cell using Takagiâ€“Sugeno virtual actuators. Journal of Process Control, 2016, 45, 12-29.	3.3	23
23	State estimation and decoupling of unknown inputs in uncertain LPV systems using interval observers. International Journal of Control, 2018, 91, 1944-1961.	1.9	22
24	Robust fault and icing diagnosis in unmanned aerial vehicles using LPV interval observers. International Journal of Robust and Nonlinear Control, 2019, 29, 5456-5480.	3.7	21
25	Fault Tolerant Control of the Wind Turbine Benchmark using Virtual Sensors/Actuators. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 114-119.	0.4	20
26	Fault Tolerant Control design for polytopic uncertain LPV systems: Application to a quadrotor. , 2013, , .		19
27	Diagnosis of Icing and Actuator Faults in UAVs Using LPV Unknown Input Observers. Journal of Intelligent and Robotic Systems: Theory and Applications, 2018, 91, 651-665.	3.4	19
28	Design of parameter-scheduled state-feedback controllers using shifting specifications. Journal of the Franklin Institute, 2015, 352, 93-116.	3.4	17
29	Fault tolerant control of uncertain dynamical systems using interval virtual actuators. International Journal of Robust and Nonlinear Control, 2018, 28, 611-624.	3.7	17
30	Quasi-LPV modelling and non-linear identification of a Twin Rotor System. , 2012, , .		15
31	Advances in Gain-Scheduling and Fault Tolerant Control Techniques. Springer Theses, 2018, , .	0.1	14
32	LPV modelling and control of a Twin Rotor MIMO System. , 2011, , .		13
33	A practical test for assessing the reachability of discrete-time Takagiâ€“Sugeno fuzzy systems. Journal of the Franklin Institute, 2015, 352, 5936-5951.	3.4	13
34	Analysis and design of quadratic parameter varying (QPV) control systems with polytopic attractive region. Journal of the Franklin Institute, 2018, 355, 3488-3507.	3.4	13
35	Actuator and sensor fault estimation based on a proportional multipleâ€integral sliding mode observer for linear parameter varying systems with inexact scheduling parameters. International Journal of Robust and Nonlinear Control, 2021, 31, 8420-8441.	3.7	13
36	Model reference quasi-LPV control of a quadrotor UAV. , 2014, , .		12

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37	Linear quadratic control of LPV systems using static and shifting specifications. , 2015, , .		12
38	Icing detection in unmanned aerial vehicles with longitudinal motion using an LPV unknown input observer. , 2015, , .		12
39	Dilated LMI characterization for the robust finite time control of discrete-time uncertain linear systems. Automatica, 2016, 63, 16-20.	5.0	12
40	Adaptive Observer for Switching Linear Parameter-Varying (LPV) Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 1471-1476.	0.4	11
41	A necessary and sufficient condition for total observability of discrete-time linear time-varying systems. IFAC-PapersOnLine, 2017, 50, 729-734.	0.9	10
42	Design of State-Feedback Controllers for Linear Parameter Varying Systems Subject to Time-Varying Input Saturation. Applied Sciences (Switzerland), 2019, 9, 3606.	2.5	10
43	A zonotopic set-invariance analysis of replay attacks affecting the supervisory layer. Systems and Control Letters, 2021, 157, 105056.	2.3	10
44	Fault estimation and virtual sensor FTC approach for LPV systems. , 2011, , .		9
45	A shifting pole placement approach for the design of parameter-scheduled state-feedback controllers. , 2013, , .		9
46	Icing diagnosis in unmanned aerial vehicles using an LPV multiple model estimator * *D. Rotondo acknowledges that this work was carried out during the tenure of an ERCIM Alain Bensoussan Fellowship Programme. This work was also supported by the Research Council of Norway through the Centers of Excellence funding scheme, Project number 223254 - Centre for Autonomous Marine Operations and Systems (NTNU-AMOS). IFAC-PapersOnLine, 2017, 50, 5238-5243.	0.9	9
47	Optimal state observation using quadratic boundedness: Application to UAV disturbance estimation. International Journal of Applied Mathematics and Computer Science, 2019, 29, 99-109.	1.5	9
48	Fault Estimation and Virtual Actuator FTC Approach for LPV Systems*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 824-829.	0.4	7
49	Detection of icing and actuators faults in the longitudinal dynamics of small UAVs using an LPV proportional integral unknown input observer. , 2016, , .		7
50	On the analogies in control design of non-linear systems using LPV and Takagi-Sugeno models. , 2016, , .		7
51	LPV model reference control for fixed-wing UAVs * *D. Rotondo acknowledges that this work was carried out during the tenure of an ERCIM Alain Bensoussan Fellowship Programme. This work was supported by the Research Council of Norway through the Centers of Excellence funding scheme, Project number 223254 - Centre for Autonomous Marine Operations and Systems (NTNU-AMOS), and project 261791.. IFAC-PapersOnLine, 2017, 50, 11559-11564.	0.9	7
52	D-stable Controller Design for Lipschitz NLPV System. IFAC-PapersOnLine, 2019, 52, 88-93.	0.9	7
53	Fault tolerant control of unstable LPV systems subject to actuator saturations using virtual actuators â˜… â˜…This work has been funded by the Spanish Ministry of Science and Technology through the projects CICYT ECOCIS (Ref. DPI2013-48243-C2-1-R) and HARCRICS (Ref. DPI2014-58104-R), by AGAUR through the contract FIDGR 2014 (ref. 2014FI B1 00172) and by the DGR of Generalitat de Catalunya (SAC group) Tj ETQq1 1 0.784314 rgBT	0.9	6
54	Fault Tolerant Control of a PEM Fuel Cell using qLPV Virtual Actuators. IFAC-PapersOnLine, 2015, 48, 271-276.	0.9	6

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55	Actuator and sensor fault estimation based on a proportional-integral quasi-LPV observer with inexact scheduling parameters. IFAC-PapersOnLine, 2019, 52, 100-105.	0.9	6
56	Fault tolerant control design for polytopic uncertain LPV systems. , 2013, , .		5
57	Robust fault detection and isolation of wind turbines using interval observers. , 2013, , .		5
58	A Virtual Actuator Approach for Fault Tolerant Control of Switching LPV Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 11667-11672.	0.4	5
59	Fault Diagnosis of a Wind Farm using Interval Parity Equations. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 4322-4327.	0.4	5
60	Observer-based Event-triggered Model Reference Control for Multi-agent Systems. , 2020, , .		5
61	Observerâ€based model reference control of Takagiâ€“Sugenoâ€“Lipschitz systems affected by disturbances using quadratic boundedness. Asian Journal of Control, 2021, 23, 42-56.	3.0	5
62	Guaranteed cost estimation and control for a class of nonlinear systems subject to actuator saturation. European Journal of Control, 2021, 61, 119-132.	2.6	5
63	Gain-scheduled observer-based consensus for linear parameter varying multi-agent systems. Automatica, 2022, 135, 109979.	5.0	5
64	Virtual actuator-based FTC for LPV systems with saturating actuators and FDI delays. , 2016, , .		4
65	A multiple model adaptive architecture for the state estimation in discrete-time uncertain LPV systems. , 2017, , .		4
66	A two-tank benchmark for detection and isolation of cyber attacks. IFAC-PapersOnLine, 2018, 51, 770-775.	0.9	4
67	Frequency-based detection of replay attacks: application to a quadrotor UAV. , 2019, , .		4
68	An Lmiâ€“Based Heuristic Algorithm for Vertex Reduction in LPV Systems. International Journal of Applied Mathematics and Computer Science, 2019, 29, 725-737.	1.5	4
69	Simultaneous state and process fault estimation in linear parameter varying systems using robust quadratic parameter varying observers. International Journal of Robust and Nonlinear Control, 2021, 31, 8390-8407.	3.7	4
70	AnÃ¡lisis y diseÃ±o de sistemas lineales con parÃ¡metros variamtes utilizando LMIs. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2018, 16, 1.	1.0	4
71	Identification and switching quasi-LPV control of a four wheeled omnidirectional robot. , 2014, , .		3
72	Predictive Fault Tolerant Control for LPV systems using model reference. IFAC-PapersOnLine, 2015, 48, 30-35.	0.9	3

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73	Shifting finite time stability and boundedness design for continuous-time LPV systems. , 2015, , .		3
74	Fault-tolerant Control of Discrete-time Descriptor Systems using Virtual Actuators. , 2019, , .		3
75	Analysis and design of quadratically bounded QPV control systems. IFAC-PapersOnLine, 2019, 52, 76-81.	0.9	3
76	Towards a Taylor-Carleman bilinearization approach for the design of nonlinear state-feedback controllers. European Journal of Control, 2022, 68, 100670.	2.6	3
77	FTC of LPV systems using a bank of virtual sensors:Aapplication to wind turbines. , 2013, , .		2
78	Shifting linear quadratic control of constrained continuous-time descriptor LPV systems**This work has been funded by the Spanish Ministry of Science and Technology through the projects CICYT ECOCIS (ref. DPI2013-48243-C2-1-R) and CICYT HARCRICS (ref. DPI2014-58104-R), by AGAUR through the contract FI-DGR 2014 (ref. 2014FI B1 00172) and by the DGR of Generalitat de Catalunya (SAC group Ref.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.9	2
79	State observer design for quadratic parameter varying (QPV) systems. , 2019, , .		2
80	Detection of replay attacks in autonomous vehicles using a bank of QPV observers. , 2021, , .		2
81	LMI-based design of state-feedback controllers for pole clustering of LPV systems in a union of ?_R-regions. International Journal of Systems Science, 2022, 53, 291-312.	5.5	2
82	Design of shifting state-feedback controllers for LPV systems subject to time-varying saturations via parameter-dependent Lyapunov functions. ISA Transactions, 2022, 126, 213-225.	5.7	2
83	Emerging approaches for nonlinear parameter varying systems. International Journal of Robust and Nonlinear Control, 2021, 31, 8121-8123.	3.7	2
84	Shifting H Linear Parameter Varying State-Feedback Controllers Subject to Time-Varying Input Saturations. IFAC-PapersOnLine, 2020, 53, 7338-7343.	0.9	2
85	FTC design for polytopic LPV systems subject to actuator saturations. , 2012, , .		1
86	A bank of virtual sensors for active Fault Tolerant Control of LPV systems. , 2014, , .		1
87	A robust ℋ<inf>∞</inf> observer design for unknown input nonlinear systems: Application to fault diagnosis of a wind turbine. , 2015, , .		1
88	Towards a practical reachability test for dynamic systems under process faults. , 2016, , .		1
89	Optimizing output regulation for a class of underactuated LPV systems. , 2017, , .		1
90	Fault Tolerant Control of Unstable LPV Systems Subject to Actuator Saturations and Fault Isolation Delay. Springer Theses, 2018, , 215-240.	0.1	1

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91	Reachability and stabilization of scheduled steady-states for LPV single-input systems. Journal of the Franklin Institute, 2019, 356, 4478-4495.	3.4	1
92	Observer Design for Takagi-Sugeno Lipschitz Systems Affected by Disturbances using Quadratic Boundedness. , 2019, , .		1
93	Recent Advances on Optimization for Control, Observation, and Safety. Processes, 2020, 8, 201.	2.8	1
94	A recursive LMI-based algorithm for efficient vertex reduction in LPV systems. International Journal of Control, 2022, 95, 3379-3391.	1.9	1
95	On the optimization of actuator saturation limits for LTI systems: an LMI-based invariant ellipsoid approach. IFAC-PapersOnLine, 2020, 53, 5567-5572.	0.9	1
96	Observer-based fault-tolerant leader-following control for multi-agent systems. , 2021, , .		1
97	Observer-based quadratic boundedness leader-following control for multi-agent systems. International Journal of Control, 2023, 96, 1314-1323.	1.9	1
98	Fault tolerant control of an omnidirectional robot using a switched Takagi-Sugeno approach. , 2014, , .		0
99	Robust adaptive simultaneous state and fault estimation for nonlinear systems: Application to an aerodynamical system. , 2016, , .		0
100	Fault Tolerant Control of LPV Systems Using Reconfigured Reference Model and Virtual Actuators. Springer Theses, 2018, , 175-214.	0.1	0
101	Automated Generation and Comparison of Takagi-Sugeno and Polytopic Quasi-LPV Models. Springer Theses, 2018, , 51-73.	0.1	0
102	Robust State-Feedback Control of Uncertain LPV Systems. Springer Theses, 2018, , 75-99.	0.1	0
103	Shifting State-Feedback Control of LPV Systems. Springer Theses, 2018, , 101-125.	0.1	0
104	Fault Tolerant Control of LPV Systems Using Robust State-Feedback Control. Springer Theses, 2018, , 147-174.	0.1	0
105	A shifting pole placement approach for the design of performance-varying multivariable PID controllers via BMIs âŽ âŽThis work has been partly funded by MINECO and FEDER through the project CICYT HARCRICS (ref.DPI2014-58104-R) and SCAV (ref.DPI2017-88403-R). This work has been also supported by the Spanish State Research Agency through the MarÃa de Maeztu Seal of Excellence to IRI (MDM-2016-0656) and the grant Juan de la Cierva-FormaciÃ³n (FICI-2016-2901).. IFAC-PapersOnLine, 2018, 51, 256-261.	0.9	0
106	Time Evolution Pattern Analysis for Cyber Attack Detection in a Two-tank Benchmark. , 2019, , .		0
107	Model Reference Gain Scheduling Control of a PEM Fuel Cell Using Takagi-Sugeno Modelling. Communications in Computer and Information Science, 2014, , 518-527.	0.5	0
108	Estimation in uncertain switched systems using a bank of interval observers: local vs glocal approach. IFAC-PapersOnLine, 2020, 53, 4701-4706.	0.9	0

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109	Weighted Linearization of Nonlinear Systems. IEEE Transactions on Circuits and Systems II: Express Briefs, 2022, 69, 3239-3243.	3.0	0