JosÃ© A De DonÃ¡

List of Publications by Year
in descending order

81 papers	1,269 citations	430874 18 h-index	377865 34 g-index
82 all docs	82 docs citations	82 times ranked	759 citing authors

#	Article	IF	Citations
1	Finite constraint set receding horizon quadratic control. International Journal of Robust and Nonlinear Control, 2004, 14, 355-377.	3.7	125
2	Multisensor switching control strategy with fault tolerance guarantees. Automatica, 2008, 44, 88-97.	5.0	121
3	Robust fault estimation and compensation for LPV systems under actuator and sensor faults. Automatica, 2015, 52, 294-301.	5.0	67
4	Fault Tolerant Control Allowing Sensor Healthy-to-Faulty and Faulty-to-Healthy Transitions. IEEE Transactions on Automatic Control, 2012, 57, 1657-1669.	5.7	52
5	Reference governor design for tracking problems with fault detection guarantees. Journal of Process Control, 2012, 22, 829-836.	3.3	42
6	Probabilistic set invariance and ultimate boundedness. Automatica, 2012, 48, 2670-2676.	5.0	36
7	Actuator fault tolerant control of systems with polytopic uncertainties using set-based diagnosis and virtual-actuator-based reconfiguration. Automatica, 2017, 75, 182-190.	5.0	33
8	Actuator fault tolerant multi-controller scheme using set separation based diagnosis. International Journal of Control, 2010, 83, 2328-2339.	1.9	32
9	Solution of the input-constrained LQR problem using dynamic programming. Systems and Control Letters, 2007, 56, 342-348.	2.3	26
10	Fault tolerant control using virtual actuators and setâ€separation detection principles. International Journal of Robust and Nonlinear Control, 2012, 22, 709-742.	3.7	26
11	Robust multisensor fault tolerant model-following MPC design for constrained systems. International Journal of Applied Mathematics and Computer Science, 2012, 22, 211-223.	1.5	24
12	Lagrangian duality between constrained estimation and control. Automatica, 2005, 41, 935-944.	5.0	23
13	Multisensor fusion fault tolerant control. Automatica, 2011, 47, 1461-1466.	5.0	23
14	Sensor fault-tolerant control of a magnetic levitation system. International Journal of Robust and Nonlinear Control, 2010, 20, 2108-2121.	3.7	20
15	On Barriers in State and Input Constrained Nonlinear Systems. SIAM Journal on Control and Optimization, 2013, 51, 3208-3234.	2.1	20
16	Integrated sensor and actuator fault-tolerant control. International Journal of Control, 2013, 86, 689-708.	1.9	19
17	Virtual actuator for Lure systems with Lipschitz-continuous nonlinearity. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 222-227.	0.4	18
18	Robust multiactuator faultâ€tolerant MPC design for constrainedâ€‰systems. International Journal of Robust and Nonlinear Control, 2013, 23, 1828-1845.	3.7	18

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19	Control of constrained linear systems using fast sampling rates. Systems and Control Letters, 2005, 54, 981-990.	2.3	17
20	Splines and polynomial tools for flatness-based constrained motion planning. International Journal of Systems Science, 2012, 43, 1396-1411.	5.5	17
21	Methods for trajectory generation in a magnetic-levitation system under constraints. , 2010, , .		15
22	Bank of Virtual Actuators for Fault Tolerant Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 5436-5441.	0.4	13
23	Invariant-set-based fault diagnosis in Lure systems. International Journal of Robust and Nonlinear Control, 2014, 24, 2405-2422.	3.7	13
24	Diagnosis and actuator fault tolerant control in vehicle active suspension. , 2007, , .		11
25	Multistep Detector for Linear ISI-Channels Incorporating Degrees of Belief in Past Estimates. IEEE Transactions on Communications, 2007, 55, 2092-2103.	7.8	11
26	Fault tolerant control using virtual actuators and invariant-set based fault detection and identification. , 2009, , .		10
27	Robust MPC design for fault tolerance of constrained multisensor linear systems. , 2010, , .		10
28	Zonotopic ultimate bounds for linear systems with bounded disturbances. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 9224-9229.	0.4	10
29	On robust stability and set invariance of switched linear parameter varying systems. International Journal of Control, 2015, 88, 2588-2597.	1.9	9
30	A fault tolerant control scheme based on sensorâ€“actuation channel switching and dwell time. International Journal of Robust and Nonlinear Control, 2014, 24, 775-792.	3.7	7
31	On invariant sets and closedâ€loop boundedness of Lureâ€type nonlinear systems by LPVâ€embedding. International Journal of Robust and Nonlinear Control, 2016, 26, 1092-1111.	3.7	7
32	Continuous-time probabilistic ultimate bounds and invariant sets: Computation and assignment. Automatica, 2016, 71, 98-105.	5.0	7
33	On splines and polynomial tools for constrained motion planning. , 2010, , .		6
34	Robust MPC multicontroller design for actuator fault tolerance of constrained systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 4678-4683.	0.4	6
35	Robust actuator fault compensation accounting for uncertainty in the fault estimation. International Journal of Adaptive Control and Signal Processing, 2014, 28, 1440-1453.	4.1	6
36	Orthonormal function parametrisation of model-predictive control for linear time-varying systems. International Journal of Systems Science, 2018, 49, 868-883.	5.5	6

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37	Actuator fault tolerant control based on probabilistic ultimate bounds. ISA Transactions, 2019, 84, 20-30.	5.7	6
38	Duality and symmetry in constrained estimation and control problems. Automatica, 2006, 42, 2183-2188.	5.0	5
39	Moving Horizon Estimation of Constrained Nonlinear Systems by Carleman Approximations. , 2006, , .		5
40	Multisensor fusion fault-tolerant control with diagnosis via a set separation principle. , 2009, , .		5
41	Multisensor fusion fault-tolerant control of a magnetic levitation system. , 2010, , .		5
42	Minimum-time trajectory generation for constrained linear systems using flatness and B-splines. International Journal of Control, 2011, 84, 1565-1585.	1.9	5
43	Feasibility of Constrained Receding Horizon Control Implementation in Adaptive Optics. IEEE Transactions on Control Systems Technology, 2015, 23, 274-289.	5.2	5
44	Fault estimation and controller compensation in Lure systems by LPV-embedding. International Journal of Control, 2019, 92, 1914-1927.	1.9	5
45	Convergence of Eigenvalues in State-Discretization of Linear Stochastic Systems. SIAM Journal on Matrix Analysis and Applications, 2000, 21, 1102-1111.	1.4	4
46	Symmetry between constrained reference tracking and constrained state estimation. Automatica, 2009, 45, 207-211.	5.0	4
47	Flatness-based Minimum-time Trajectory Generation for Constrained Linear Systems Using B-Splines. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 6674-6679.	0.4	4
48	Set Invariance Approach for Fault Detection and Isolation in Lure Systems by LPV-embedding. IFAC-PapersOnLine, 2015, 48, 1036-1041.	0.9	4
49	Optimal parallel model solutions using the polynomial approach. International Journal of Control, 1996, 65, 681-697.	1.9	3
50	Disturbance sensitivity issues in predictive control. International Journal of Adaptive Control and Signal Processing, 1999, 13, 507-519.	4.1	3
51	A fault tolerant control scheme based on sensor-actuation channel switching and dwell time. , 2010, , .		3
52	Fault detection, isolation, and recovery using spline tools and differential flatness with application to a magnetic lévitation system. , 2010, , .		3
53	On application of constrained receding horizon control in astronomical adaptive optics. , 2012, , .		3
54	Waffle mode mitigation in adaptive optics systems: A constrained Receding Horizon Control approach. , 2013, , .		3

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55	A discussion on sensor recovery techniques for fault tolerant multisensor schemes. International Journal of Systems Science, 2014, 45, 1708-1722.	5.5	3
56	Model predictive control of linear time varying systems using Laguerre functions. , 2016, , .		3
57	Control of a Maglev System using the LPV framework: A tutorial from modelling to experimental implementation. IFAC-PapersOnLine, 2018, 51, 100-105.	0.9	3
58	Fault Tolerant Control for Lure Systems Via LPV Embedding. Advanced Science Letters, 2016, 22, 2719-2723.	0.2	3
59	An investigation of set-theoretic methods for fault detection in Lure systems. , 2014, , .		2
60	A set separation sensor switching approach to the fault tolerant control of linear parameter varying systems. , 2014, , .		2
61	Actuator Fault Diagnosis Using Probabilistic Ultimate Bounds. IEEE Latin America Transactions, 2016, 14, 2550-2555.	1.6	2
62	Improved multisensor switching scheme for fault tolerant control. , 2009, , .		1
63	Set-based Actuator Fault Diagnosis in Lure Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 234-239.	0.4	1
64	Hot-start efficiency of quadratic programming algorithms for fast model predictive control: A comparison via an adaptive optics case study. , 2014, , .		1
65	A state-dependent switching law to quadratically stabilise switched linear systems. , 2014, , .		1
66	Integrated framework for constrained minimumâ€time trajectory generation, fault detection and reconfiguration: A caseâ€study. International Journal of Adaptive Control and Signal Processing, 2016, 30, 986-1001.	4.1	1
67	Invariant sets via LPV-embedding for Lure nonlinear systems with unmatched nonlinearities. , 2017, , .		1
68	Modeling and identification of adaptive optics systems to satisfy distributed Kalman filter model structural constraints. , 2017, , .		1
69	Identification Scheme with Stability Constraints for High Velocity Turbulence in Adaptive Optics. , 2018, , .		1
70	Observerâ€“based Fault Tolerant Control for a Class of Lure Nonlinear Systems. , 2019, , .		1
71	Adaptive-pole selection in the Laguerre parametrisation of model predictive control to achieve high performance. International Journal of Systems Science, 2021, 52, 3539-3555.	5.5	1
72	An integrated identification and predictive control strategy for high wind velocity adaptive optics applications. , 2018, , .		1

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73	Singular structure convergence for linear quadratic problems. , 2003, , .		0
74	Fault-Tolerant Control of Convex Polytopic Linear Parameter Varying Systems Using Virtual-Sensor-Based Reconfiguration. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 240-246.	0.4	0
75	On constrained continuous-time nonlinear control systems. , 2013, , .		0
76	Preliminary evaluation and comparison of atmospheric turbulence rejection performance for infinite and receding horizon control in adaptive optics systems. Proceedings of SPIE, 2014, , .	0.8	0
77	Observers and Invariant Sets for Lureâ€“type Nonlinear Systems using LPVâ€“Embedding. , 2018, , .		0
78	A strategy for fault tolerant control of full-state feedback linearisable nonlinear systems. , 2019, , .		0
79	On Robustly Positively Invariant Sets and Coordinate Transformations for Discrete-time Nonlinear Systems: a Tutorial. , 2019, , .		0
80	Switched mRPI Sets are Strictly Contained in Time-Delay mRPI Sets. , 2020, , .		0
81	Optimising Wavefront Sensing Super-Resolution in the Control of Tomographic Adaptive Optics. , 2021, , .		0