MaurÃ-cio Carvalho de Oliveira

List of Publications by Year
in descending order

101 papers	2,952 citations	304743 22 h-index	182427 51 g-index
102 all docs	102 docs citations	102 times ranked	1524 citing authors

#	Article	IF	Citations
1	Extended H 2 and H norm characterizations and controller parametrizations for discrete-time systems. International Journal of Control, 2002, 75, 666-679.	1.9	670
2	Stability tests for constrained linear systems. Lecture Notes in Control and Information Sciences, 2001, , 241-257.	1.0	428
3	H/sub 2/ and H/sub âˆž/ robust filtering for convex bounded uncertain systems. IEEE Transactions on Automatic Control, 2001, 46, 100-107.	5.7	194
4	LMI characterization of structural and robust stability. Linear Algebra and Its Applications, 1998, 285, 69-80.	0.9	166
5	H2 and H_infty Robust Filtering for Discrete-Time Linear Systems. SIAM Journal on Control and Optimization, 2000, 38, 1353-1368.	2.1	133
6	Conditions for Consensus of Multi-Agent Systems With Time-Delays and Uncertain Switching Topology. IEEE Transactions on Industrial Electronics, 2016, 63, 1258-1267.	7.9	98
7	H/sub 2/-norm optimization with constrained dynamic output feedback controllers: decentralized and reliable control. IEEE Transactions on Automatic Control, 1999, 44, 1449-1454.	5.7	95
8	Experimental investigation of the softeningâ€“stiffening response of tensegrity prisms under compressive loading. Composite Structures, 2014, 117, 234-243.	5.8	89
9	Design of dynamic output feedback decentralized controllers via a separation procedure. International Journal of Control, 2000, 73, 371-381.	1.9	69
10	Convergent LMI relaxations for robust analysis of uncertain linear systems using lifted polynomial parameter-dependent Lyapunov functions. Systems and Control Letters, 2008, 57, 680-689.	2.3	63
11	Robust state feedback LMI methods for continuous-time linear systems: Discussions, extensions and numerical comparisons. , 2011, , .		62
12	DuCTT: A tensegrity robot for exploring duct systems. , 2014, , .		56
13	Switching rule design for affine switched systems using a max-type composition rule. Systems and Control Letters, 2014, 68, 1-8.	2.3	51
14	Robust <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si3.gif" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi>H</mml:mi></mml:mrow><mml:mrow><mml:mi>â^ž</mml:mi></mml:mrow></m filter design with past output measurements for uncertain discrete-time systems. Automatica, 2016, 71, 151-158.	5.0	44
15	Synthesis of non-rational controllers for linear delay systems. Automatica, 2004, 40, 171-188.	5.0	43
16	Stability independent of delay using rational functions. Automatica, 2009, 45, 2128-2133.	5.0	40
17	Optimizing the location of ambulances in Tijuana, Mexico. Computers in Biology and Medicine, 2017, 80, 107-115.	7.0	40
18	Optimal tensegrity structures in bending: The discrete Michell truss. Journal of the Franklin Institute, 2010, 347, 257-283.	3.4	38

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19	A class of robust stability conditions where linear parameter dependence of the Lyapunov function is a necessary condition for arbitrary parameter dependence. Systems and Control Letters, 2005, 54, 1131-1134.	2.3	37
20	Linear output feedback controller design with joint selection of sensors and actuators. IEEE Transactions on Automatic Control, 2000, 45, 2412-2419.	5.7	33
21	Optimal complexity of deployable compressive structures. Journal of the Franklin Institute, 2010, 347, 228-256.	3.4	28
22	â€œConvexifyingâ€•Linear Matrix Inequality Methods for Integrating Structure and Control Design. Journal of Structural Engineering, 2003, 129, 978-988.	3.4	27
23	Investigating duality on stability conditions. Systems and Control Letters, 2004, 52, 1-6.	2.3	26
24	Modelling and control of non-minimal non-linear realisations of tensegrity systems. International Journal of Control, 2009, 82, 389-407.	1.9	23
25	A new discrete-time stabilizability condition for Linear Parameter-Varying systems. Automatica, 2017, 79, 214-217.	5.0	23
26	H2 and H$_infty$ Filtering Design Subject to Implementation Uncertainty. SIAM Journal on Control and Optimization, 2005, 44, 515-530.	2.1	21
27	Stabilizing switching rule design for affine switched systems. , 2011, , .		20
28	Motion planning for the Snakeboard. International Journal of Robotics Research, 2012, 31, 872-885.	8.5	19
29	Optimal Kalman Estimation of Symmetrical Sequence Components. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 8844-8852.	4.7	19
30	An alternative Kalmanâ€“Yakubovichâ€“Popov lemma and some extensions. Automatica, 2009, 45, 1489-1496.	5.0	16
31	State feedback control of linear systems in the presence of devices with finite signal-to-noise ratio. International Journal of Control, 2001, 74, 1501-1509.	1.9	15
32	A simple necessary and sufficient LMI condition for the strong delay-independent stability of LTI systems with single delay. Automatica, 2018, 89, 407-410.	5.0	15
33	On the Necessity of LMI-Based Design Conditions for Discrete Time LPV Filters. IEEE Transactions on Automatic Control, 2018, 63, 3187-3188.	5.7	14
34	LMI relaxations for robust H2 performance analysis of polytopic linear systems. , 2006, , .		13
35	Special time-varying Lyapunov function for robust stability analysis of linear parameter varying systems with bounded parameter variation. IET Control Theory and Applications, 2009, 3, 1448-1461.	2.1	13
36	Computer algebra tailored to matrix inequalities in control. International Journal of Control, 2006, 79, 1382-1400.	1.9	9

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37	A Discussion on Control of Tensegrity Systems. , 2006, , .		9
38	State-feedback and filtering problems using the generalized KYP lemma. , 2016, , .		9
39	Robust non-minimal order filter and smoother design for discrete-time uncertain systems. International Journal of Robust and Nonlinear Control, 2017, 27, 661-678.	3.7	9
40	Discrete-time H_{â^ž} control of linear parameter-varying systems. International Journal of Control, 2019, 92, 2750-2760.	1.9	9
41	Nanomechanics of Multiple Units in the Erythrocyte Membrane Skeletal Network. Annals of Biomedical Engineering, 2010, 38, 2956-2967.	2.5	8
42	LMI designmethod for networked-based PID control. International Journal of Control, 2016, 89, 1962-1971.	1.9	8
43	On the problem of optimal estimation of balanced and symmetric three-phase signals. International Journal of Electrical Power and Energy Systems, 2017, 91, 155-165.	5.5	8
44	Estimation of transmission line parameters by using two leastâ€squares methods. IET Generation, Transmission and Distribution, 2021, 15, 568-575.	2.5	8
45	Assessing stability of time-delay systems using rational systems. , 2008, , .		7
46	RobustHâ^žperformance using lifted polynomial parameter-dependent Lyapunov functions. International Journal of Control, 2008, 81, 1089-1101.	1.9	7
47	Pre-filtering in gain-scheduled and robust control. , 2016, , .		7
48	Quadratic and Poly-Quadratic Discrete-Time Stabilizability of Linear Parameter-Varying Systems. IFAC-PapersOnLine, 2017, 50, 8624-8629.	0.9	7
49	Minimum Mass Design of Tensegrity Towers and Plates. , 2006, , .		6
50	Linear matrix inequality tests for frequency domain inequalities with affine multipliers. Automatica, 2010, 46, 897-901.	5.0	6
51	MixedH2/Hâ^žcontrol of flexible structures. Mathematical Problems in Engineering, 2001, 6, 557-598.	1.1	5
52	Preâ€filtering and postâ€filtering in gainâ€scheduled outputâ€feedback control. International Journal of Robust and Nonlinear Control, 2017, 27, 3259-3279.	3.7	5
53	Model Predictive Control for Gas Turbine Engines. , 2018, , .		5
54	Phasor estimation in power transmission lines by using the Kalman filter. Electrical Engineering, 2022, 104, 991-1000.	2.0	5

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55	Nonlinear Analysis on Transmission Line Parameters Estimation From Noisy Phasorial Measurements. IEEE Access, 2022, 10, 1720-1730.	4.2	5
56	Impedance Parameters Estimation of Transmission Lines by an Extended Kalman Filter-Based Algorithm. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-10.	4.7	5
57	Integrating control design and sensor/actuator selection. , 2006, , .		4
58	Asymptotically exact H<inf>2</inf> guaranteed cost computation by means of a special parameter-dependent Lyapunov function. , 2007, , .		4
59	Analysis and Design Methodologies for Robust Aeroservoelastic Structures. , 2007, , .		4
60	Gas Turbine Machinery Diagnostics: A Brief Review and a Sample Application. , 2017, , .		4
61	Dynamics of Systems with Rods. , 2006, , .		3
62	Parameter-dependent Lyapunov functions for robust stability analysis of time-varying systems in polytopic domains. , 2007, , .		3
63	LMI-based stability tests for LPV and switched discrete-time linear systems through redundant equations. IFAC-PapersOnLine, 2018, 51, 149-154.	0.9	3
64	Discrete time Hâˆž synthesis conditions for LPV filter design. IFAC-PapersOnLine, 2018, 51, 7-12.	0.9	3
65	An Analytic Motion Planning Solution for the Snakeboard. , 0, , .		3
66	A new topology of tensegrity towers with uniform force distribution. , 2005, , .		2
67	A new method for robust Schur stability analysis. International Journal of Control, 2010, 83, 2181-2192.	1.9	2
68	Dynamics of Tensegrity Systems. , 2010, , 73-88.		2
69	High-fidelity modulation parameter estimation of non-cooperative transmitters: Carrier frequency. , 2011, 21, 632-637.		2
70	Stability criteria for uncertain linear time-varying systems. , 2014, , .		2
71	Fault Detection Using Reduced Rank Linear Engine Models. , 2016, , .		2
72	Pre-filtering in continuous-time quadratic gain-scheduled and robust state-feedback control. International Journal of Control, 2020, 93, 554-564.	1.9	2

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73	Explicit Controller Parametrizations for Linear Parameter-Varying Affine Systems Using Linear Matrix Inequalities. , 2012, , 91-104.		2
74	Revisiting stability analysis of Phase-Locked Loops with the Popov Stability Criterion. IFAC Journal of Systems and Control, 2021, 18, 100177.	1.7	2
75	Linearization Algorithm for a Reduced Order Hâˆž Control Design of an Active Suspension System. European Journal of Control, 2006, 12, 205-219.	2.6	1
76	Schur stability of polytopic systems through positivity analysis of matrix-valued polynomials. , 2007, , .		1
77	Spectral over-bounding of frequency data for modeling product variability in hard disk drive actuators. , 2007, , .		1
78	Symbolic computer algebra algorithms for factorizations of Sylvester mappings with applications to the production of linear matrix inequalities in systems and controls. , 2011, , .		1
79	High-fidelity modulation parameter estimation of non-cooperative transmitters: Baud-period and timing. , 2011, 21, 625-631.		1
80	Exact motion planning solution for principally kinematic systems. , 2011, , .		1
81	Robust stabilization of linear continuous-time parameter-varying systems without quadratic stability. , 2015, , .		1
82	Robust Hâˆž filtering with auxiliary past output measurements. , 2016, , .		1
83	A catalog of LMI conditions for gain-scheduled output-feedback H<inf>âˆž</inf>-control. , 2016, , .		1
84	Non-minimal order low-frequency H âˆž filtering for uncertain discrete-time systems. IFAC-PapersOnLine, 2017, 50, 6477-6482.	0.9	1
85	Multi-Stage System Identification of a Gas Turbine. , 2017, , .		1
86	An Alternative Algorithm to the D-K Iterations for Robust Control Design. , 2021, 5, 115-120.		1
87	Designing Instrumentation for Control. , 2009, , 71-88.		1
88	Event-driven Gaussian process for object localization in wireless sensor networks. , 2011, , .		1
89	Unstable-unit tensegrity plate: modeling and design. , 2003, 5056, 615.		0
90	A Necessary and Sufficient First Delay-Interval Stability Condition. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 319-324.	0.4	0

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91	Exact motion planning solution for principally kinematic systems. , 2011, , .		0
92	Simplification of symbolic polynomials on non-commutative variables. Linear Algebra and Its Applications, 2012, 437, 1734-1748.	0.9	0
93	Switching rule design for affine switched systems with ℋ<inf>∞</inf> performance. , 2012, , .		0
94	Robust H<inf>2</inf> filtering for discrete-time uncertain systems with auxiliary past output measurements. , 2016, , .		0
95	Gain-scheduled H 2 non-minimal order filtering design for linear parameter-varying discrete-time systems * *Supported by Brazilian agencies CAPES, CNPq, and grant 2013/05957-1, SÃ£o Paulo Research Foundation (FAPESP). IFAC-PapersOnLine, 2017, 50, 11391-11396.	0.9	0
96	Best modeling practices for optimal estimation of balanced and symmetric three-phase signals. , 2017, , .		0
97	Estimating Recoverable Performance Degradation Rates and Optimizing Maintenance Scheduling. , 2018, , .		0
98	Planar time-optimal paths for asymmetric vehicles in constant flows. International Journal of Robotics Research, 2018, 37, 1168-1183.	8.5	0
99	$mathscr{H}_{infty}$ filter design with low- and middle-frequency specifications for continuous-time linear systems: LMI conditions derived from two different extensions of the KYP lemma. , 2018, , .		0
100	Low-Cost Open-Source Solution to Optimize Emergency Medical Services in Developing Communities by Tracking, Dispatching, and Simulating. , 2019, , .		0
101	A New Approach for Transmission Line Parameter Estimation from Noisy PMU Data. , 2021, , .		0