

Carlos de Souza

List of Publications by Year in descending order

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135
papers

9,802
citations

53794

45
h-index

38395

95
g-index

135
all docs

135
docs citations

135
times ranked

3081
citing authors

#	ARTICLE	IF	CITATIONS
1	Robust control of a class of uncertain nonlinear systems. Systems and Control Letters, 1992, 19, 139-149.	2.3	1,352
2	Robust H_{∞} / control for linear systems with norm-bounded time-varying uncertainty. IEEE Transactions on Automatic Control, 1992, 37, 1188-1191.	5.7	518
3	H_{∞} / control and quadratic stabilization of systems with parameter uncertainty via output feedback. IEEE Transactions on Automatic Control, 1992, 37, 1253-1256.	5.7	508
4	Robust Kalman filtering for uncertain discrete-time systems. IEEE Transactions on Automatic Control, 1994, 39, 1310-1314.	5.7	468
5	Criteria for robust stability and stabilization of uncertain linear systems with state delay. Automatica, 1997, 33, 1657-1662.	5.0	446
6	Delay-dependent robust H_{∞} control of uncertain linear state-delayed systems. Automatica, 1999, 35, 1313-1321.	5.0	421
7	Delay-dependent robust stability and stabilization of uncertain linear delay systems: a linear matrix inequality approach. IEEE Transactions on Automatic Control, 1997, 42, 1144-1148.	5.7	415
8	Mode-Independent H_{∞} Filters for Markovian Jump Linear Systems. IEEE Transactions on Automatic Control, 2006, 51, 1837-1841.	5.7	279
9	Robust Stability and Stabilization of Uncertain Discrete-Time Markovian Jump Linear Systems. IEEE Transactions on Automatic Control, 2006, 51, 836-841.	5.7	241
10	Robust H_{∞} filter design for uncertain linear systems with multiple time-varying state delays. IEEE Transactions on Signal Processing, 2001, 49, 569-576.	5.3	214
11	H_{∞} estimation for discrete-time linear uncertain systems. International Journal of Robust and Nonlinear Control, 1991, 1, 111-123.	3.7	208
12	A necessary and sufficient condition for output feedback stabilizability. Automatica, 1995, 31, 1357-1359.	5.0	202
13	H_{∞} estimation for uncertain systems. International Journal of Robust and Nonlinear Control, 1992, 2, 87-105.	3.7	195
14	On the discrete-time bounded real Lemma with application in the characterization of static state feedback controllers. Systems and Control Letters, 1992, 18, 61-71.	2.3	180
15	Robust H_{∞} filtering for uncertain discrete-time state-delayed systems. IEEE Transactions on Signal Processing, 2001, 49, 1696-1703.	5.3	177
16	State estimation for linear discrete-time systems using quantized measurements. Automatica, 2009, 45, 2937-2945.	5.0	157
17	Riccati equations in optimal filtering of nonstabilizable systems having singular state transition matrices. IEEE Transactions on Automatic Control, 1986, 31, 831-838.	5.7	156
18	Input and Output Quantized Feedback Linear Systems. IEEE Transactions on Automatic Control, 2010, 55, 761-766.	5.7	155

#	ARTICLE	IF	CITATIONS
19	Robust minimum variance filtering. IEEE Transactions on Signal Processing, 1995, 43, 2474-2483.	5.3	154
20	Robust exponential stability of uncertain systems with time-varying delays. IEEE Transactions on Automatic Control, 1998, 43, 743-748.	5.7	135
21	H_∞ analysis and synthesis of discrete-time systems with time-varying uncertainty. IEEE Transactions on Automatic Control, 1993, 38, 459-462.	5.7	122
22	\hat{H}_∞ filtering for continuous-time linear systems with delay. IEEE Transactions on Automatic Control, 1999, 44, 1412-1417.	5.7	122
23	A game theory approach to robust discrete-time H_∞ -estimation. IEEE Transactions on Signal Processing, 1994, 42, 1486-1495.	5.3	114
24	An LMI approach to stabilization of linear discrete-time periodic systems. International Journal of Control, 2000, 73, 696-703.	1.9	109
25	Continuous-time tracking problems in an H_∞ setting: a game theory approach. IEEE Transactions on Automatic Control, 1995, 40, 841-852.	5.7	102
26	Finite-horizon robust Kalman filter design. IEEE Transactions on Signal Processing, 2001, 49, 2103-2112.	5.3	101
27	Robust H_∞ filtering for discrete-time linear systems with uncertain time-varying parameters. IEEE Transactions on Signal Processing, 2006, 54, 2110-2118.	5.3	100
28	Robust \hat{H}_∞ filtering for continuous time varying uncertain systems with deterministic input signals. IEEE Transactions on Signal Processing, 1995, 43, 709-719.	5.3	97
29	\hat{H}_∞ filtering for a class of uncertain nonlinear systems. Systems and Control Letters, 1993, 20, 419-426.	2.3	94
30	Biquadratic stability of uncertain linear systems. IEEE Transactions on Automatic Control, 2001, 46, 1303-1307.	5.7	91
31	Robust filtering for uncertain linear systems: LMI based methods with parametric Lyapunov functions. Systems and Control Letters, 2005, 54, 251-262.	2.3	90
32	Robust dissipative control for linear systems with dissipative uncertainty. International Journal of Control, 1998, 70, 169-191.	1.9	86
33	A New Approach to Linearly Perturbed Riccati Equations Arising in Stochastic Control. Applied Mathematics and Optimization, 1998, 37, 99-126.	1.6	83
34	An adaptive control algorithm for linear systems having unknown time delay. Automatica, 1988, 24, 327-341.	5.0	81
35	Gain-scheduled \hat{H}_2 controller synthesis for linear parameter varying systems via parameter-dependent Lyapunov functions. International Journal of Robust and Nonlinear Control, 2006, 16, 243-257.	3.7	78
36	Robust control for linear time-invariant systems with norm-bounded uncertainty in the input matrix. Systems and Control Letters, 1990, 14, 389-396.	2.3	72

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37	H ∞ filtering for Markovian jump linear systems. International Journal of Systems Science, 2002, 33, 909-915.	5.5	72
38	Bounded real criteria for linear time-delay systems. IEEE Transactions on Automatic Control, 1998, 43, 1016-1022.	5.7	71
39	H ∞ filtering for linear periodic systems with parameter uncertainty. Systems and Control Letters, 1991, 17, 343-350.	2.3	70
40	Robust filtering for 2-D discrete-time linear systems with convex-bounded parameter uncertainty. Automatica, 2010, 46, 673-681.	5.0	68
41	Robust filtering for a class of discrete-time uncertain nonlinear systems: An H ∞ approach. International Journal of Robust and Nonlinear Control, 1996, 6, 297-312.	3.7	64
42	H_2 filtering for discrete-time linear systems with Markovian jumping parameters?. International Journal of Robust and Nonlinear Control, 2003, 13, 1299-1316.	3.7	59
43	Robust control of discrete time uncertain dynamical systems. Automatica, 1993, 29, 1133-1137.	5.0	53
44	On stabilizing properties of solutions of the Riccati difference equation. IEEE Transactions on Automatic Control, 1989, 34, 1313-1316.	5.7	52
45	Delay-dependent robust stability and H_2 analysis of a class of nonlinear time-delay systems. Automatica, 2008, 44, 2006-2018.	5.0	52
46	9. A Linear Matrix Inequality Approach to the Design of Robust H_2 Filters. , 2000, , 175-185.		49
47	Prior knowledge in model reference adaptive control of multiinput multioutput systems. IEEE Transactions on Automatic Control, 1984, 29, 761-764.	5.7	47
48	Robust H_2 filtering for uncertain Markovian jump linear systems. International Journal of Robust and Nonlinear Control, 2002, 12, 435-446.	3.7	46
49	Nonlinear State Feedback Design With a Guaranteed Stability Domain for Locally Stabilizable Unstable Quadratic Systems. IEEE Transactions on Circuits and Systems I: Regular Papers, 2012, 59, 360-370.	5.4	46
50	Robust filtering for uncertain linear discrete-time descriptor systems. Automatica, 2008, 44, 792-798.	5.0	44
51	On designing controllers for a class of uncertain sampled-data nonlinear systems. IEE Proceedings D: Control Theory and Applications, 1993, 140, 119.	0.4	42
52	Robust stability and control of uncertain linear discrete-time periodic systems with time-delay. Automatica, 2014, 50, 431-441.	5.0	42
53	On the existence of maximal solution for generalized algebraic Riccati equations arising in stochastic control. Systems and Control Letters, 1990, 14, 233-239.	2.3	38
54	Parametric Lyapunov function approach to H_2 analysis and control of linear parameter-dependent systems. IET Control Theory and Applications, 2003, 150, 501-508.	1.7	38

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55	Bounded real lemma for linear systems with finite discrete jumps. International Journal of Control, 1997, 66, 145-160.	1.9	34
56	H_{∞} / state estimation for linear periodic systems. IEEE Transactions on Automatic Control, 1993, 38, 1704-1707.	5.7	33
57	Riccati differential equation in optimal filtering of periodic non-stabilizable systems. International Journal of Control, 1987, 46, 1235-1250.	1.9	32
58	Criteria for Robust Stability of Uncertain Linear Systems with Time-Varying State Delays. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1996, 29, 3532-3537.	0.4	32
59	Theory, algorithms and technology in the design of control systems. Annual Reviews in Control, 2006, 30, 19-30.	7.9	32
60	Robust Stability of a Class of Uncertain Markov Jump Nonlinear Systems. IEEE Transactions on Automatic Control, 2006, 51, 1825-1831.	5.7	30
61	Global robust disturbance attenuation and almost disturbance decoupling for uncertain cascaded nonlinear systems. Automatica, 1999, 35, 697-707.	5.0	28
62	Robust Filtering for Linear Systems With Convex-Bounded Uncertain Time-Varying Parameters. IEEE Transactions on Automatic Control, 2007, 52, 1132-1138.	5.7	27
63	Stability Analysis of Implicit Polynomial Systems. IEEE Transactions on Automatic Control, 2009, 54, 1012-1018.	5.7	26
64	Robust H_{∞} filtering for a class of discrete-time Lipschitz nonlinear systems. Automatica, 2019, 103, 69-80.	5.0	24
65	Intersample variances in discrete minimum variance control. IEEE Transactions on Automatic Control, 1984, 29, 759-761.	5.7	23
66	Periodic strong solution for the optimal filtering problem of linear discrete-time periodic systems. IEEE Transactions on Automatic Control, 1991, 36, 333-338.	5.7	23
67	Robust H_{∞} tracking: A game theory approach. International Journal of Robust and Nonlinear Control, 1995, 5, 223-238.	3.7	23
68	Gain-scheduled control of two-dimensional discrete-time linear parameter-varying systems in the Roesser model. Automatica, 2013, 49, 101-110.	5.0	23
69	Robust H_2 filtering for uncertain systems with measurable inputs. IEEE Transactions on Signal Processing, 1999, 47, 2286-2292.	5.3	22
70	Admissibility analysis of discrete linear time-varying descriptor systems. Automatica, 2018, 91, 136-143.	5.0	20
71	H_{∞} Filtering for Continuous-Time Linear Systems with Delay. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1996, 29, 4476-4481.	0.4	19
72	Local stability analysis and domain of attraction estimation for a class of uncertain nonlinear discrete-time systems. International Journal of Robust and Nonlinear Control, 2013, 23, 1456-1471.	3.7	18

#	ARTICLE	IF	CITATIONS
73	$\frac{1}{s^2 + 2s + 1}$ Robust H _∞ Filtering for Linear Continuous-Time Uncertain Systems With Multiple Delays: An LMI Approach. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 249-254.	5.0	16
74	Robust H _∞ Filtering for Linear Continuous-Time Uncertain Systems With Multiple Delays: An LMI Approach. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 249-254.	0.4	14
75	ROBUST H_{∞} FILTER DESIGN VIA PARAMETER-DEPENDENT LYAPUNOV FUNCTIONS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 371-376.	0.4	13
76	Existence conditions and properties for the maximal periodic solution of periodic Riccati difference equations. International Journal of Control, 1989, 50, 731-742.	1.9	11
77	Output feedback control of linear systems with input and output quantization. , 2008, , .		11
78	Robust Linear H_{∞} Filter Design for a Class of Uncertain Nonlinear Systems: An LMI Approach. SIAM Journal on Control and Optimization, 2009, 48, 1452-1472.	2.1	11
79	Qualitative aspects of the distribution of errors in least squares estimation. Automatica, 1990, 26, 97-101.	5.0	10
80	Maximal solution of a certain class of periodic Riccati differential equations. Linear Algebra and Its Applications, 1992, 169, 61-73.	0.9	10
81	Mean square state estimation for sensor networks. Automatica, 2016, 72, 108-114.	5.0	10
82	Stability Analysis of Finite-Level Quantized Discrete-Time Linear Control Systems. European Journal of Control, 2010, 16, 258-271.	2.6	9
83	Bounds on the solution of the algebraic Riccati equation under perturbations in the coefficients. Systems and Control Letters, 1990, 15, 175-181.	2.3	8
84	State Estimation Using Quantized Measurements. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 12492-12497.	0.4	8
85	Regional Stabilization of Input-Delayed Uncertain Nonlinear Polynomial Systems. IEEE Transactions on Automatic Control, 2020, 65, 2300-2307.	5.7	8
86	Robust H _∞ Filter Design via Parameter-Dependent Lyapunov Functions *. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 65-70.	0.4	7
87	Regional Stability Analysis of Implicit Polynomial Systems. , 2006, , .		7
88	Robust stability of discrete-time linear descriptor systems with time-varying uncertainties via parametric Lyapunov function. , 2012, , .		7
89	Input and Output Finite-Level Quantized Linear Control Systems: Stability Analysis and Quantizer Design. Journal of Control, Automation and Electrical Systems, 2015, 26, 105-114.	2.0	7
90	Adaptive control of a coupled tank apparatus. International Journal of Adaptive Control and Signal Processing, 1989, 3, 319-331.	4.1	6

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91	Nonlinear control design for open-loop unstable quadratic discrete-time systems. , 2011, , .		6
92	Local input-to-state stabilization and H_2 -induced norm control of discrete-time quadratic systems. International Journal of Robust and Nonlinear Control, 2015, 25, 2420-2442.	3.7	6
93	Kalman filtering over fading channels with both transmission failure and signal fluctuation. , 2011, , .		5
94	Local Stabilization of Markov Jump Nonlinear Quadratic Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 8725-8730.	0.4	5
95	Consensus-based distributed mean square state estimation. , 2015, , .		5
96	State feedback H_2 optimal control problems for non-detectable systems. Systems and Control Letters, 1989, 13, 315-319.	2.3	4
97	H_2 Filtering for a Class of Uncertain Markov Jump Nonlinear Systems. , 2006, , .		4
98	Robust H_2 filtering for linear descriptor systems with convex bounded uncertainty. , 2007, , .		4
99	Stability analysis of input and output finite level quantized discrete-time linear control systems. , 2012, , .		4
100	Delay-Dependent Regional Stabilization of Nonlinear Quadratic Time-Delay Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 10084-10089.	0.4	4
101	Regional stability of two-dimensional nonlinear polynomial Fornasini-Marchesini systems. International Journal of Robust and Nonlinear Control, 2018, 28, 2318-2339.	3.7	4
102	H_2 CONTROL OF A CLASS OF UNCERTAIN NONLINEAR SYSTEMS: AN OBSERVER-BASED CONTROLLER DESIGN. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1996, 29, 3562-3567.	0.4	3
103	Robust Control and Filtering of Discrete-Time Uncertain Dynamical Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1992, 25, 160-163.	0.4	2
104	Delay-Dependent Robust Stabilization of Uncertain Linear State-Delayed Systems via Static Output Feedback *. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 1-6.	0.4	2
105	Stability of Linear Discrete-Time Periodic Systems with Time-Delay*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 51-56.	0.4	2
106	Control design for open-loop unstable quadratic systems. , 2011, , .		2
107	Robust tuning of current self-controlled single-phase PFC boost converters. , 2015, , .		2
108	Quantized control of nonlinear quadratic discrete-time systems. , 2016, , .		2

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109	Bounded real lemma for discrete linear time-varying descriptor systems. , 2017, , .		2
110	Robust observer design for a class of discrete-time nonlinear singular systems with persistent disturbances. International Journal of Adaptive Control and Signal Processing, 2021, 35, 51-68.	4.1	2
111	An Application of Adaptive Scheme to Fluid Level Control. , 1989, , .		2
112	ROBUST CONTROL AND FILTERING OF DISCRETE-TIME UNCERTAIN DYNAMICAL SYSTEMS. , 1992, , 160-163.		1
113	Stability and stabilization of linear state-delayed systems with multiplicative noise *. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 51-56.	0.4	1
114	Robust H^∞ control for uncertain discrete-time state-delayed linear systems with markovian jumping parameters 1. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 89-94.	0.4	1
115	Robust Domain of Attraction Estimates for a Class of Uncertain Discrete-Time Nonlinear Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 185-190.	0.4	1
116	H^∞ filtering for a class of 2-D discrete-time parameter-varying systems. , 2011, , .		1
117	Gain-scheduled H^∞ control of two-dimensional discrete-time linear parametrically-varying systems. , 2011, , .		1
118	Gain-Scheduled H^∞ Controller Synthesis for 2-D Discrete-Time Linear Parameter-Varying Systems*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 10168-10173.	0.4	1
119	Parameter-dependent robust H^∞ filtering for linear systems with time-varying delay and rational parameter uncertainty. IMA Journal of Mathematical Control and Information, 2011, 28, 203-224.	1.7	1
120	Stabilization of Quadratic Time-Delay Systems with a Guaranteed Region of Stability1. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 25-30.	0.4	1
121	Robust admissibility and H^∞ performance of time-varying descriptor systems. , 2013, , .		1
122	Monotonicity and Maximal Solution of Generalized Algebraic Riccati Equations. , 1990, , .		1
123	On the Design of Robust Output Feedback Controllers for Uncertain Systems. , 1992, , .		1
124	Convergence properties of an optimal filter design with correlated output noise. IEEE Transactions on Automatic Control, 1985, 30, 487-488.	5.7	0
125	Output feedback stabilization of linear systems with delayed input *. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 39-43.	0.4	0
126	Author's reply to "Comments on bounded real criteria for time-delay systems". IEEE Transactions on Automatic Control, 2000, 45, 1774-1775.	5.7	0

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127	H ∞ FILTERING FOR DISCRETE-TIME PIECEWISE LINEAR SYSTEMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 958-963.	0.4	0
128	ON THE DESIGN OF HIGH-ORDER ROBUST LINEAR H ∞ FILTERS FOR A CLASS OF UNCERTAIN NONLINEAR SYSTEMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 979-984.	0.4	0
129	A Scaling LMI Approach to Output Feedback Control of Discrete-time LTI Systems. , 2007, , .		0
130	Estimating delay-dependent stability regions for a class of nonlinear time-delay systems. , 2007, , .		0
131	Delay-Dependent Regional Stability of a Class of Uncertain Nonlinear State-Delayed Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 265-270.	0.4	0
132	Regional robust H ∞ filtering for dynamic systems. , 2009, , .		0
133	Robust Filtering for Linear Polytopic Discrete-Time Periodic Systems*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 166-171.	0.4	0
134	Numerically tractable stability tests for 2-D singular discrete-time systems. , 2013, , .		0
135	Guaranteed cost control of quadratic time-delay systems. , 2017, , .		0