

JosÃ© C Geromel

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4770768/publications.pdf>

Version: 2024-02-01

159
papers

9,241
citations

57719

44
h-index

40954

93
g-index

159
all docs

159
docs citations

159
times ranked

2807
citing authors

#	ARTICLE	IF	CITATIONS
1	A new discrete-time robust stability condition. <i>Systems and Control Letters</i> , 1999, 37, 261-265.	1.3	1,300
2	Extended H ₂ and H _∞ norm characterizations and controller parametrizations for discrete-time systems. <i>International Journal of Control</i> , 2002, 75, 666-679.	1.2	670
3	Stability and Stabilization of Continuous-time Switched Linear Systems. <i>SIAM Journal on Control and Optimization</i> , 2006, 45, 1915-1930.	1.1	445
4	Output feedback control of Markov jump linear systems in continuous-time. <i>IEEE Transactions on Automatic Control</i> , 2000, 45, 944-949.	3.6	406
5	An improved approach for constrained robust model predictive control. <i>Automatica</i> , 2002, 38, 1183-1189.	3.0	343
6	Stability and stabilization of discrete time switched systems. <i>International Journal of Control</i> , 2006, 79, 719-728.	1.2	328
7	Dynamic Output Feedback Control of Switched Linear Systems. <i>IEEE Transactions on Automatic Control</i> , 2008, 53, 720-733.	3.6	253
8	Optimal linear filtering under parameter uncertainty. <i>IEEE Transactions on Signal Processing</i> , 1999, 47, 168-175.	3.2	244
9	Switched affine systems control design with application to DC-DC converters. <i>IET Control Theory and Applications</i> , 2010, 4, 1201-1210.	1.2	229
10	H ₂ and H _∞ robust filtering for convex bounded uncertain systems. <i>IEEE Transactions on Automatic Control</i> , 2001, 46, 100-107.	3.6	194
11	Dynamic output feedback control of switched linear systems. <i>Automatica</i> , 2011, 47, 1713-1720.	3.0	189
12	Static output feedback controllers: stability and convexity. <i>IEEE Transactions on Automatic Control</i> , 1998, 43, 120-125.	3.6	171
13	LMI characterization of structural and robust stability. <i>Linear Algebra and Its Applications</i> , 1998, 285, 69-80.	0.4	166
14	Continuous-time state-feedback H ₂ -control of Markovian jump linear systems via convex analysis. <i>Automatica</i> , 1999, 35, 259-268.	3.0	163
15	The H ₂ -control for jump linear systems: cluster observations of the Markov state. <i>Automatica</i> , 2002, 38, 343-349.	3.0	158
16	A Nonconservative LMI Condition for Stability of Switched Systems With Guaranteed Dwell Time. <i>IEEE Transactions on Automatic Control</i> , 2012, 57, 1297-1302.	3.6	138
17	Stabilization of continuous-time switched nonlinear systems. <i>Systems and Control Letters</i> , 2008, 57, 95-103.	1.3	136
18	Decentralized control through parameter space optimization. <i>Automatica</i> , 1994, 30, 1565-1578.	3.0	135

#	ARTICLE	IF	CITATIONS
19	H2 and H_{∞} Robust Filtering for Discrete-Time Linear Systems. SIAM Journal on Control and Optimization, 2000, 38, 1353-1368.	1.1	133
20	Linear quadratic suboptimal control with static output feedback. Systems and Control Letters, 1994, 23, 421-430.	1.3	131
21	Robust stability of time varying polytopic systems. Systems and Control Letters, 2006, 55, 81-85.	1.3	126
22	On Inexact LPV Control Design of Continuous-Time Polytopic Systems. IEEE Transactions on Automatic Control, 2008, 53, 1674-1678.	3.6	123
23	H_{∞} Filtering of Discrete-Time Markov Jump Linear Systems Through Linear Matrix Inequalities. IEEE Transactions on Automatic Control, 2009, 54, 1347-1351.	3.6	116
24	Convex analysis of output feedback control problems: robust stability and performance. IEEE Transactions on Automatic Control, 1996, 41, 997-1003.	3.6	108
25	LMI characterization of structural and robust stability: the discrete-time case. Linear Algebra and Its Applications, 1999, 296, 27-38.	0.4	108
26	A convex programming approach to H2 control of discrete-time markovian jump linear systems. International Journal of Control, 1997, 66, 557-580.	1.2	100
27	H_2 -norm optimization with constrained dynamic output feedback controllers: decentralized and reliable control. IEEE Transactions on Automatic Control, 1999, 44, 1449-1454.	3.6	95
28	Dynamic Output Feedback Control of Discrete-Time Markov Jump Linear Systems through Linear Matrix Inequalities. SIAM Journal on Control and Optimization, 2009, 48, 573-593.	1.1	95
29	Markov jump linear systems and filtering through network transmitted measurements. Signal Processing, 2010, 90, 2842-2850.	2.1	84
30	Synthesis of positive real H_2 controllers. IEEE Transactions on Automatic Control, 1997, 42, 988-992.	3.6	81
31	Discrete-Time Switched Linear Systems State Feedback Design With Application to Networked Control. IEEE Transactions on Automatic Control, 2015, 60, 877-881.	3.6	81
32	Filtering of discrete-time Markov jump linear systems with uncertain transition probabilities. International Journal of Robust and Nonlinear Control, 2011, 21, 613-624.	2.1	75
33	A simple approach for switched control design with control bumps limitation. Systems and Control Letters, 2012, 61, 1215-1220.	1.3	75
34	Analysis and Synthesis of Robust Control Systems Using Linear Parameter Dependent Lyapunov Functions. IEEE Transactions on Automatic Control, 2006, 51, 1984-1989.	3.6	74
35	Switched state feedback control for continuous-time uncertain systems. Automatica, 2009, 45, 593-597.	3.0	71
36	Design of dynamic output feedback decentralized controllers via a separation procedure. International Journal of Control, 2000, 73, 371-381.	1.2	69

#	ARTICLE	IF	CITATIONS
37	\mathcal{H}_∞ and Dwell Time Specifications of Continuous-Time Switched Linear Systems. IEEE Transactions on Automatic Control, 2010, 55, 207-212.	3.6	66
38	Optimal H_∞ state feedback sampled-data control design of Markov Jump Linear Systems. Automatica, 2015, 54, 182-188.	3.6	65
39	H_2 and H_∞ robust output feedback control for continuous time polytopic systems. IET Control Theory and Applications, 2007, 1, 1541-1549.	1.2	62
40	An alternate numerical solution to the linear quadratic problem. IEEE Transactions on Automatic Control, 1994, 39, 198-202.	3.6	59
41	robust and networked control of discrete-time MJLS through LMIs. Journal of the Franklin Institute, 2012, 349, 2171-2181.	1.0	65
42	Passivity of switched linear systems: Analysis and control design. Systems and Control Letters, 2012, 61, 549-554.	1.3	55
43	Suboptimal Switching Control Consistency Analysis for Switched Linear Systems. IEEE Transactions on Automatic Control, 2013, 58, 1857-1861.	3.6	51
44	Stability Analysis and Control Design of Discrete-Time Switched Affine Systems. IEEE Transactions on Automatic Control, 2017, 62, 4058-4065.	3.6	51
45	H_∞ guaranteed cost control for uncertain continuous-time linear systems. Systems and Control Letters, 1993, 20, 413-418.	1.3	48
46	Synthesis of non-rational controllers for linear delay systems. Automatica, 2004, 40, 171-188.	3.0	43
47	Dwell time analysis for continuous-time switched linear positive systems. , 2010, , .		43
48	Self-triggered linear quadratic networked control. Optimal Control Applications and Methods, 2014, 35, 524-538.	1.3	42
49	Solutions for the Linear-Quadratic Control Problem of Markov Jump Linear Systems. Journal of Optimization Theory and Applications, 1999, 103, 283-311.	0.8	41
50	H_2 filtering of discrete-time Markov jump linear systems through linear matrix inequalities. International Journal of Control, 2008, 81, 1221-1231.	1.2	40
51	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.	1.3	37
52	Discrete-time output feedback for Markov jump systems with uncertain transition probabilities. International Journal of Robust and Nonlinear Control, 2013, 23, 894-902.	2.1	36
53	A convex approach to the absolute stability problem. IEEE Transactions on Automatic Control, 1994, 39, 1929-1932.	3.6	35
54	robust filter design with performance certificate via convex programming. Automatica, 2008, 44, 937-948.	1.0	35

#	ARTICLE	IF	CITATIONS
55	On strict positive real systems design: guaranteed cost and robustness issues. Systems and Control Letters, 1999, 36, 135-141.	1.3	34
56	Root mean square gain of discrete-time switched linear systems under dwell time constraints. Automatica, 2011, 47, 1677-1684.	3.0	32
57	Optimal and Robust Sampled-Data Control of Markov Jump Linear Systems: A Differential LMI Approach. IEEE Transactions on Automatic Control, 2018, 63, 3054-3060.	3.6	32
58	Stabilization of continuous-time switched linear positive systems. , 2010, , .		30
59	On an LMI approach to optimal sampled-data state feedback control design. International Journal of Control, 2015, 88, 2369-2379.	1.2	30
60	H ₂ control for discrete-time systems optimality and robustness. Automatica, 1993, 29, 225-228.	3.0	26
61	Uncoupled Riccati iterations for the linear quadratic control problem of discrete-time Markov jump linear systems. IEEE Transactions on Automatic Control, 1998, 43, 1727-1733.	3.6	26
62	Switched state-feedback control for continuous time-varying polytopic systems. International Journal of Control, 2011, 84, 1500-1508.	1.2	26
63	\mathcal{H}_2 State Feedback Control Design of Continuous-Time Positive Linear Systems. IEEE Transactions on Automatic Control, 2017, 62, 5844-5849.	3.6	25
64	H_{∞} model reduction with application to flexible systems. IEEE Transactions on Automatic Control, 2005, 50, 402-406.	3.6	24
65	Chattering free control of continuous-time switched linear systems. IET Control Theory and Applications, 2014, 8, 348-354.	1.2	23
66	\mathcal{H}_2 and \mathcal{H}_{∞} Performance Optimization of Singularly Perturbed Switched Systems. SIAM Journal on Control and Optimization, 2012, 50, 1597-1615.	1.1	22
67	A note on the robust control of Markov jump linear uncertain systems. Optimal Control Applications and Methods, 2002, 23, 105-112.	1.3	21
68	H ₂ and H _∞ Filtering Design Subject to Implementation Uncertainty. SIAM Journal on Control and Optimization, 2005, 44, 515-530.	1.1	21
69	\mathcal{H}_2 Sampled-Data Filtering of Linear Systems. IEEE Transactions on Signal Processing, 2014, 62, 4839-4846.	3.2	21
70	Stability and performance of discrete-time switched linear systems. Systems and Control Letters, 2018, 118, 1-7.	1.3	21
71	Quadratic stabilizability of linear uncertain systems in convex-bounded domains. Automatica, 1993, 29, 491-493.	3.0	20
72	Model reduction of discrete time systems through linear matrix inequalities*. International Journal of Control, 2004, 77, 978-984.	1.2	20

#	ARTICLE	IF	CITATIONS
73	H [∞] Control for Continuous-Time Switched Linear Systems. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2010, 132, .	0.9	20
74	State and output feedback control of time-delay switched linear systems. International Journal of Robust and Nonlinear Control, 2012, 22, 1674-1690.	2.1	20
75	Optimal and mode-independent filters for generalised Bernoulli jump systems. International Journal of Systems Science, 2015, 46, 405-417.	3.7	20
76	H_2 control and H_∞ control	2.1	20
77	Differential linear matrix inequality in optimal sampled-data control. Automatica, 2019, 100, 289-298.	3.0	20
78	Suboptimal reduced-order filtering through an LMI-based method. IEEE Transactions on Signal Processing, 2006, 54, 2588-2595.	3.2	19
79	Suboptimal switching control consistency analysis for discrete-time switched linear systems. European Journal of Control, 2013, 19, 214-219.	1.6	17
80	On a Rational Transfer Function-Based Approach to H_∞ Filtering Design for Time-Delay Linear Systems. IEEE Transactions on Signal Processing, 2011, 59, 979-988.	3.2	15
81	H_∞ state feedback switched control for discrete time-varying polytopic systems. International Journal of Control, 2013, 86, 591-598.	1.2	15
82	Stability Analysis of Lur'e-Type Switched Systems. IEEE Transactions on Automatic Control, 2014, 59, 3046-3050.	3.6	15
83	Analysis and control of DC-DC converters based on Lyapunov Stability Theory. , 2009, , .		13
84	Filter inputs with Markovian lossy links: Zero or hold?. , 2011, , .		13
85	DC motor speed control via buck-boost converter through a state dependent limited frequency switching rule. , 2017, , .		13
86	Optimal H_2 -state feedback control for continuous-time linear systems. Journal of Optimization Theory and Applications, 1994, 82, 343-359.	0.8	12
87	H2 Optimal Robust Filtering. European Journal of Control, 2006, 12, 30-39.	1.6	12
88	Trajectory-dependent filter design for discrete-time switched linear systems. Nonlinear Analysis: Hybrid Systems, 2010, 4, 1-8.	2.1	12
89	Differential Linear Matrix Inequalities Optimization. , 2019, 3, 380-385.		12
90	Minimax control of Markov jump linear systems. International Journal of Adaptive Control and Signal Processing, 2016, 30, 1152-1162.	2.3	11

#	ARTICLE	IF	CITATIONS
91	Performance evaluation of sampled-data control of Markov jump linear systems. <i>Automatica</i> , 2017, 86, 212-215.	3.0	11
92	Optimal H_2 state feedback sampled-data control applied to Markov jump linear systems. , 2016, , .		9
93	Bounds for the remainders of uncertain matrix exponential and sampled-data control of polytopic linear systems. <i>Automatica</i> , 2017, 82, 202-208.	3.0	9
94	Filtering of discrete-time Markov jump linear systems with cluster observation: An approach to Gilbert-Elliott's network channel. , 2009, , .		8
95	RH2 Control. , 1997, , 87-119.		7
96	H_2 and dwell time specifications of switched linear systems. , 2008, , .		7
97	Optimal Sampled-Data State Feedback Control of Linear Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 5556-5561.	0.4	7
98	Full order dynamic output feedback control design for discrete-time switched linear systems. , 2010, , .		6
99	Suboptimal Switching State Feedback Control Consistency Analysis for Switched Linear Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 5849-5854.	0.4	6
100	State feedback switched control of discrete-time switched linear systems with application to networked control. , 2013, , .		6
101	Discretisation of sparse linear systems: An optimisation approach. <i>Systems and Control Letters</i> , 2015, 80, 42-49.	1.3	6
102	H_2 dynamic output feedback for local sensor remote actuator networks. <i>IMA Journal of Mathematical Control and Information</i> , 2016, 33, 239-256.	1.1	6
103	H_2 state feedback control design of discrete-time switched linear systems. , 2017, , .		6
104	H_2 state-feedback synthesis for discrete-time systems under positivity constraint. , 2018, , .		6
105	Sampled-data control of Lur'e systems. <i>Nonlinear Analysis: Hybrid Systems</i> , 2021, 40, 100994.	2.1	6
106	Mixed H_2/H_∞ control of flexible structures. <i>Mathematical Problems in Engineering</i> , 2001, 6, 557-598.	0.6	5
107	MULTI-OBJECTIVE H_∞ CONTROL VIA SWITCHED LINEAR SYSTEMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 238-243.	0.4	5
108	Extended small gain theorem for time-delay switched systems control and closed-loop robustness enhancement. <i>International Journal of Control</i> , 2013, 86, 1018-1025.	1.2	5

#	ARTICLE	IF	CITATIONS
109	<p>ARTICLE: $\text{mml:math altimg="si0003.gif" overflow="scroll"}$</p> <p>xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:tbl_struct="http://www.elsevier.com/xml/common/struct-bib/dtd"</p>	2.1	5
110	Optimal $\langle b \rangle$ state feedback sampled-data control design for Markov jump linear systems. International Journal of Control, 2018, 91, 1609-1619.	1.2	5
111	Limit cycle global asymptotic stability of continuous-time switched affine systems. IFAC-PapersOnLine, 2020, 53, 6121-6126.	0.5	5
112	Trajectory tracking for a class of switched nonlinear systems: Application to PMSM. Nonlinear Analysis: Hybrid Systems, 2022, 44, 101164.	2.1	5
113	RMS gain with dwell time for discrete-time switched linear systems. , 2008, , .		4
114	On a rational transfer function-based approach to \hat{a}_{∞} filter design for time-delay linear systems. , 2009, , .		4
115	Self-triggered linear quadratic Networked Control. , 2012, , .		4
116	\hat{a}_{∞} Control Design for Time-Delay Linear Systems: A Rational Transfer Function Based Approach. European Journal of Control, 2012, 18, 425-436.	1.6	4
117	On a convex characterisation of stability and performance for hybrid linear systems. , 2015, , .		4
118	State-Feedback Control of Positive Switching Systems with Markovian Jumps. Springer Optimization and Its Applications, 2016, , 185-219.	0.6	4
119	Robust partial sampled-data state feedback control of Markov jump linear systems. International Journal of Systems Science, 2019, 50, 2142-2152.	3.7	4
120	Sampled-Data Model Predictive Control. IEEE Transactions on Automatic Control, 2022, 67, 2466-2472.	3.6	4
121	An improved discrete-time robust approach for constrained model predictive control. , 2001, , .		3
122	Dynamic Output Feedback Stabilization of Continuous-Time Switched Systems. , 2006, , 347-352.		3
123	MATRIX QUADRATIC POLYNOMIALS WITH APPLICATION TO ROBUST STABILITY ANALYSIS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 549-554.	0.4	3
124	Controle de sistemas lineares com comutaçãõ. Controle and Automacao, 2008, 19, 431-443.	0.2	3
125	Full order dynamic output feedback \hat{a}_{∞} control for continuous-time switched linear systems. , 2009, , .		3
126	Extended Small Gain Theorem with application to time-delay switched linear systems. , 2012, , .		3

#	ARTICLE	IF	CITATIONS
127	Obtaining alternative LMI constraints with applications to discrete-time MJLS and switched systems. Journal of the Franklin Institute, 2013, 350, 2212-2228.	1.9	3
128	Generalized Kleinman-Newton method in discrete-time * *This research was supported by grants 443166/2014-5, 306911/2015-9 and 303887/2014-1 from the "Brazilian National Research Council-CNPq". IFAC-PapersOnLine, 2017, 50, 6697-6702.	0.5	3
129	A nonlinear switched control strategy for permanent magnet synchronous machines. , 2019, , .		3
130	On an Alternative Susceptible-Infected-Removed Epidemic Model in Discrete-time. , 0, , .		3
131	Robust H_2 filtering for discrete LTI systems with linear fractional representation. , 2008, , .		2
132	A new method to H_2 robust filter design. Linear Algebra and Its Applications, 2009, 430, 145-154.	0.4	2
133	Robust H_2 filtering for LTI systems with linear fractional representation. International Journal of Control, 2009, 82, 2127-2136.	1.2	2
134	Filtering for discrete-time Markov jump systems with network transmitted mode. , 2010, , .		2
135	H_2 self-triggered dynamic output feedback for networked control. , 2013, , .		2
136	H_2 state feedback sampled-data control for Markov Jump Linear Systems. , 2014, , .		2
137	Switching control resource allocation in Networked Control Systems. , 2015, , .		2
138	Partial Sampled-Data State Feedback Control of Markov Jump Linear Systems. IFAC-PapersOnLine, 2018, 51, 222-227.	0.5	2
139	H_2 State-Feedback Control for Continuous-Time Systems under Positivity Constraint. , 2019, , .		2
140	On the Continuous-time and Discrete-Time Versions of an Alternative Epidemic Model of the SIR Class. Journal of Control, Automation and Electrical Systems, 0, , 1.	1.2	2
141	Output-feedback stabilization of discrete-time switched systems. Proceedings of the American Control Conference, 2007, , .	0.0	1
142	Switched state feedback control for continuous-time polytopic systems and its relationship with LPV control. , 2009, , .		1
143	Analysis and control synthesis of continuous-time passive switched linear systems. , 2010, , .		1
144	On H_2 control design of continuous-time switched linear systems. , 2010, , .		1

#	ARTICLE	IF	CITATIONS
145	Switching Control Consistency Analysis for Discrete-time Switched Linear Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 599-604.	0.4	1
146	H ² filtering design for sampled-data systems. , 2013, , .		1
147	On the discretisation of sparse linear systems. , 2014, , .		1
148	H ₂ State Feedback Control Design of Positive Switched Linear Systems * *This work was supported by Brazilian National Research Council (CNPq/Brazil).. IFAC-PapersOnLine, 2017, 50, 3081-3086.	0.5	1
149	STABILIZATION OF DISCRETE-TIME SWITCHED SYSTEMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 160-165.	0.4	0
150	H ROBUST FILTERING WITH OPTIMALITY GAP CERTIFICATION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 292-302.	0.4	0
151	Output feedback stabilization of time-delay switched linear systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 1279-1284.	0.4	0
152	H [∞] control design for time-delay linear systems: A rational transfer function based approach. , 2011, , .		0
153	Performance Optimization of Singularly Perturbed Switched Linear Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 228-233.	0.4	0
154	Authors' response to discussion on "Suboptimal switching control consistency analysis for discrete-time switched linear systems". European Journal of Control, 2013, 19, 221.	1.6	0
155	Switched Linear Systems Control Design: A Transfer Function Approach. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 4068-4073.	0.4	0
156	Optimal sampled-data control of Markov jump linear systems through differential LMIs. , 2017, , .		0
157	Generalized Kleinman-Newton method. Optimal Control Applications and Methods, 2018, 39, 1130-1140.	1.3	0
158	Unified Approach to the Analysis and Performance Evaluation of Sampled-Data Control Applied to Nonlinear Systems. IFAC-PapersOnLine, 2018, 51, 216-221.	0.5	0
159	Trajectory tracking control with convergence time assessment. International Journal of Control, 0, , 1-9.	1.2	0