

Jos C Geromel

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

150
papers

6,889
citations

40
h-index

82
g-index

159
ext. papers

8,369
ext. citations

3.1
avg. IF

6.08
L-index

#	Paper	IF	Citations
150	A new discrete-time robust stability condition. <i>Systems and Control Letters</i> , 1999 , 37, 261-265	2.4	982
149	Extended H ₂ and H _∞ norm characterizations and controller parametrizations for discrete-time systems. <i>International Journal of Control</i> , 2002 , 75, 666-679	1.5	498
148	Stability and Stabilization of Continuous-Time Switched Linear Systems. <i>SIAM Journal on Control and Optimization</i> , 2006 , 45, 1915-1930	1.9	341
147	Output feedback control of Markov jump linear systems in continuous-time. <i>IEEE Transactions on Automatic Control</i> , 2000 , 45, 944-949	5.9	313
146	An improved approach for constrained robust model predictive control. <i>Automatica</i> , 2002 , 38, 1183-1189	3.7	263
145	Stability and stabilization of discrete time switched systems. <i>International Journal of Control</i> , 2006 , 79, 719-728	1.5	256
144	Dynamic Output Feedback Control of Switched Linear Systems. <i>IEEE Transactions on Automatic Control</i> , 2008 , 53, 720-733	5.9	197
143	Optimal linear filtering under parameter uncertainty. <i>IEEE Transactions on Signal Processing</i> , 1999 , 47, 168-175	4.8	193
142	Switched affine systems control design with application to DCDC converters. <i>IET Control Theory and Applications</i> , 2010 , 4, 1201-1210	2.5	150
141	Dynamic output feedback . <i>Automatica</i> , 2011 , 47, 1713-1720	5.7	146
140	H ₂ and H _∞ robust filtering for convex bounded uncertain systems. <i>IEEE Transactions on Automatic Control</i> , 2001 , 46, 100-107	5.9	139
139	LMI characterization of structural and robust stability. <i>Linear Algebra and Its Applications</i> , 1998 , 285, 69-80	3.9	136
138	Continuous-time state-feedback H ₂ -control of Markovian jump linear systems via convex analysis. <i>Automatica</i> , 1999 , 35, 259-268	5.7	136
137	. <i>IEEE Transactions on Automatic Control</i> , 1998 , 43, 120-125	5.9	123
136	The H ₂ -control for jump linear systems: cluster observations of the Markov state. <i>Automatica</i> , 2002 , 38, 343-349	5.7	121
135	Stabilization of continuous-time switched nonlinear systems. <i>Systems and Control Letters</i> , 2008 , 57, 95-103	3.1	114
134	Decentralized control through parameter space optimization. <i>Automatica</i> , 1994 , 30, 1565-1578	5.7	110

133	A Nonconservative LMI Condition for Stability of Switched Systems With Guaranteed Dwell Time. <i>IEEE Transactions on Automatic Control</i> , 2012 , 57, 1297-1302	5.9	105
132	Robust stability of time varying polytopic systems. <i>Systems and Control Letters</i> , 2006 , 55, 81-85	2.4	104
131	H ₂ and \mathcal{H}_∞ Robust Filtering for Discrete-Time Linear Systems. <i>SIAM Journal on Control and Optimization</i> , 2000 , 38, 1353-1368	1.9	101
130	On Inexact LPV Control Design of Continuous-Time Polytopic Systems. <i>IEEE Transactions on Automatic Control</i> , 2008 , 53, 1674-1678	5.9	97
129	\mathcal{H}_∞ Filtering of Discrete-Time Markov Jump Linear Systems Through Linear Matrix Inequalities. <i>IEEE Transactions on Automatic Control</i> , 2009 , 54, 1347-1351	5.9	88
128	LMI characterization of structural and robust stability: the discrete-time case. <i>Linear Algebra and Its Applications</i> , 1999 , 296, 27-38	0.9	87
127	Linear quadratic suboptimal control with static output feedback. <i>Systems and Control Letters</i> , 1994 , 23, 421-430	2.4	87
126	A convex programming approach to H ₂ control of discrete-time markovian jump linear systems. <i>International Journal of Control</i> , 1997 , 66, 557-580	1.5	73
125	Convex analysis of output feedback control problems: robust stability and performance. <i>IEEE Transactions on Automatic Control</i> , 1996 , 41, 997-1003	5.9	73
124	Dynamic Output Feedback Control of Discrete-Time Markov Jump Linear Systems through Linear Matrix Inequalities. <i>SIAM Journal on Control and Optimization</i> , 2009 , 48, 573-593	1.9	69
123	H ₂ -norm optimization with constrained dynamic output feedback controllers: decentralized and reliable control. <i>IEEE Transactions on Automatic Control</i> , 1999 , 44, 1449-1454	5.9	69
122	Markov jump linear systems and filtering through network transmitted measurements. <i>Signal Processing</i> , 2010 , 90, 2842-2850	4.4	63
121	Switched state feedback control for continuous-time uncertain systems. <i>Automatica</i> , 2009 , 45, 593-597	5.7	59
120	Synthesis of positive real \mathcal{H}_∞ controllers. <i>IEEE Transactions on Automatic Control</i> , 1997 , 42, 988-992	5.9	57
119	H ₂ and \mathcal{H}_∞ robust output feedback control for continuous time polytopic systems. <i>IET Control Theory and Applications</i> , 2007 , 1, 1541-1549	2.5	56
118	Filtering of discrete-time Markov jump linear systems with uncertain transition probabilities. <i>International Journal of Robust and Nonlinear Control</i> , 2011 , 21, 613-624	3.6	54
117	Design of dynamic output feedback decentralized controllers via a separation procedure. <i>International Journal of Control</i> , 2000 , 73, 371-381	1.5	54
116	Discrete-Time Switched Linear Systems State Feedback Design With Application to Networked Control. <i>IEEE Transactions on Automatic Control</i> , 2015 , 60, 877-881	5.9	53

115	Analysis and Synthesis of Robust Control Systems Using Linear Parameter Dependent Lyapunov Functions. <i>IEEE Transactions on Automatic Control</i> , 2006 , 51, 1984-1989	5.9	52
114	\mathcal{H}_∞ and Dwell Time Specifications of Continuous-Time Switched Linear Systems. <i>IEEE Transactions on Automatic Control</i> , 2010 , 55, 207-212	5.9	51
113	Optimal H_2 state feedback sampled-data control design of Markov Jump Linear Systems. <i>Automatica</i> , 2015 , 54, 182-188	5.7	48
112	Passivity of switched linear systems: Analysis and control design. <i>Systems and Control Letters</i> , 2012 , 61, 549-554	2.4	44
111	Suboptimal Switching Control Consistency Analysis for Switched Linear Systems. <i>IEEE Transactions on Automatic Control</i> , 2013 , 58, 1857-1861	5.9	42
110	H_∞ robust and networked control of discrete-time MJLS through LMIs. <i>Journal of the Franklin Institute</i> , 2012 , 349, 2171-2181	4	39
109	A simple approach for switched control design with control bumps limitation. <i>Systems and Control Letters</i> , 2012 , 61, 1215-1220	2.4	37
108	Self-triggered linear quadratic networked control. <i>Optimal Control Applications and Methods</i> , 2014 , 35, 524-538	1.7	36
107	Synthesis of non-rational controllers for linear delay systems. <i>Automatica</i> , 2004 , 40, 171-188	5.7	35
106	Dwell time analysis for continuous-time switched linear positive systems 2010 ,		34
105	. <i>IEEE Transactions on Automatic Control</i> , 1994 , 39, 198-202	5.9	34
104	Stability Analysis and Control Design of Discrete-Time Switched Affine Systems. <i>IEEE Transactions on Automatic Control</i> , 2017 , 62, 4058-4065	5.9	33
103	Discrete-time output feedback for Markov jump systems with uncertain transition probabilities. <i>International Journal of Robust and Nonlinear Control</i> , 2013 , 23, 894-902	3.6	32
102	A class of robust stability conditions where linear parameter dependence of the Lyapunov function is a necessary condition for arbitrary parameter dependence. <i>Systems and Control Letters</i> , 2005 , 54, 1137-1134 ³¹	2.4	31
101	H_2 filtering of discrete-time Markov jump linear systems through linear matrix inequalities. <i>International Journal of Control</i> , 2008 , 81, 1221-1231	1.5	30
100	Solutions for the Linear-Quadratic Control Problem of Markov Jump Linear Systems. <i>Journal of Optimization Theory and Applications</i> , 1999 , 103, 283-311	1.6	30
99	On strict positive real systems design: guaranteed cost and robustness issues. <i>Systems and Control Letters</i> , 1999 , 36, 135-141	2.4	27
98	On an LMI approach to optimal sampled-data state feedback control design. <i>International Journal of Control</i> , 2015 , 88, 2369-2379	1.5	26

97	. <i>IEEE Transactions on Automatic Control</i> , 1994 , 39, 1929-1932	5.9	26
96	Root mean square gain of discrete-time switched linear systems under dwell time constraints. <i>Automatica</i> , 2011 , 47, 1677-1684	5.7	25
95	H2 robust filter design with performance certificate via convex programming. <i>Automatica</i> , 2008 , 44, 937-948	5.7	24
94	Switched state-feedback control for continuous time-varying polytopic systems. <i>International Journal of Control</i> , 2011 , 84, 1500-1508	1.5	23
93	Guaranteed cost control for uncertain continuous-time linear systems. <i>Systems and Control Letters</i> , 1993 , 20, 413-418	2.4	23
92	Stabilization of continuous-time switched linear positive systems 2010 ,		22
91	Chattering free control of continuous-time switched linear systems. <i>IET Control Theory and Applications</i> , 2014 , 8, 348-354	2.5	21
90	Optimal and Robust Sampled-Data Control of Markov Jump Linear Systems: A Differential LMI Approach. <i>IEEE Transactions on Automatic Control</i> , 2018 , 63, 3054-3060	5.9	18
89	Uncoupled Riccati iterations for the linear quadratic control problem of discrete-time Markov jump linear systems. <i>IEEE Transactions on Automatic Control</i> , 1998 , 43, 1727-1733	5.9	18
88	H2 control for discrete-time systems optimality and robustness. <i>Automatica</i> , 1993 , 29, 225-228	5.7	18
87	Stability and performance of discrete-time switched linear systems. <i>Systems and Control Letters</i> , 2018 , 118, 1-7	2.4	17
86	H2 and H_{∞} Filtering Design Subject to Implementation Uncertainty. <i>SIAM Journal on Control and Optimization</i> , 2005 , 44, 515-530	1.9	17
85	\mathcal{H}_2 Sampled-Data Filtering of Linear Systems. <i>IEEE Transactions on Signal Processing</i> , 2014 , 62, 4839-4846	4.8	16
84	H_{∞} model reduction with application to flexible systems. <i>IEEE Transactions on Automatic Control</i> , 2005 , 50, 402-406	5.9	16
83	H2 and H_{∞} control of time-varying delay switched linear systems with application to sampled-data control. <i>Nonlinear Analysis: Hybrid Systems</i> , 2016 , 22, 43-54	4.5	16
82	\mathcal{H}_2 and H_{∞} Performance Optimization of Singularly Perturbed Switched Systems. <i>SIAM Journal on Control and Optimization</i> , 2012 , 50, 1597-1615	1.9	15
81	Suboptimal switching control consistency analysis for discrete-time switched linear systems. <i>European Journal of Control</i> , 2013 , 19, 214-219	2.5	14
80	H_{∞} Control for Continuous-Time Switched Linear Systems. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2010 , 132,	1.6	14

79	Model reduction of discrete time systems through linear matrix inequalities*. <i>International Journal of Control</i> , 2004 , 77, 978-984	1.5	14
78	State and output feedback control of time-delay switched linear systems. <i>International Journal of Robust and Nonlinear Control</i> , 2012 , 22, 1674-1690	3.6	13
77	Suboptimal reduced-order filtering through an LMI-based method. <i>IEEE Transactions on Signal Processing</i> , 2006 , 54, 2588-2595	4.8	13
76	A note on the robust control of Markov jump linear uncertain systems. <i>Optimal Control Applications and Methods</i> , 2002 , 23, 105-112	1.7	13
75	Quadratic stabilizability of linear uncertain systems in convex-bounded domains. <i>Automatica</i> , 1993 , 29, 491-493	5.7	13
74	On a Rational Transfer Function-Based Approach to \mathcal{H}_∞ Filtering Design for Time-Delay Linear Systems. <i>IEEE Transactions on Signal Processing</i> , 2011 , 59, 979-988	4.8	12
73	\mathcal{H}_2 State Feedback Control Design of Continuous-Time Positive Linear Systems. <i>IEEE Transactions on Automatic Control</i> , 2017 , 62, 5844-5849	5.9	11
72	Optimal and mode-independent filters for generalised Bernoulli jump systems. <i>International Journal of Systems Science</i> , 2015 , 46, 405-417	2.3	11
71	Stability Analysis of Lur'e-Type Switched Systems. <i>IEEE Transactions on Automatic Control</i> , 2014 , 59, 3046-3050	5.9	11
70	DC motor speed control via buck-boost converter through a state dependent limited frequency switching rule 2017 ,		11
69	H_2 state feedback switched control for discrete time-varying polytopic systems. <i>International Journal of Control</i> , 2013 , 86, 591-598	1.5	11
68	Analysis and control of DC-DC converters based on Lyapunov Stability Theory 2009 ,		11
67	H_2 Optimal Robust Filtering. <i>European Journal of Control</i> , 2006 , 12, 30-39	2.5	11
66	Trajectory-dependent filter design for discrete-time switched linear systems. <i>Nonlinear Analysis: Hybrid Systems</i> , 2010 , 4, 1-8	4.5	9
65	Minimax control of Markov jump linear systems. <i>International Journal of Adaptive Control and Signal Processing</i> , 2016 , 30, 1152-1162	2.8	7
64	Performance evaluation of sampled-data control of Markov jump linear systems. <i>Automatica</i> , 2017 , 86, 212-215	5.7	7
63	RH2 Control 1997 , 87-119		7
62	Optimal H_2 state feedback control for continuous-time linear systems state feedback control for continuous-time linear systems. <i>Journal of Optimization Theory and Applications</i> , 1994 , 82, 343-359	1.6	7

61	H2dynamic output feedback for local sensor & remote actuator networks. <i>IMA Journal of Mathematical Control and Information</i> , 2016 , 33, 239-256	1.1	6
60	Filter inputs with Markovian lossy links: Zero or hold? 2011 ,		6
59	Differential linear matrix inequality in optimal sampled-data control. <i>Automatica</i> , 2019 , 100, 289-298	5.7	6
58	Optimal state feedback sampled-data control design for Markov jump linear systems. <i>International Journal of Control</i> , 2018 , 91, 1609-1619	1.5	5
57	H ∞ state feedback control design of discrete-time switched linear systems 2017 ,		5
56	Optimal H ∞ state feedback sampled-data control applied to Markov jump linear systems 2016 ,		5
55	Differential Linear Matrix Inequalities Optimization 2019 , 3, 380-385		5
54	Bounds for the remainders of uncertain matrix exponential and sampled-data control of polytopic linear systems. <i>Automatica</i> , 2017 , 82, 202-208	5.7	4
53	Discretisation of sparse linear systems: An optimisation approach. <i>Systems and Control Letters</i> , 2015 , 80, 42-49	2.4	4
52	Optimal SampledData State Feedback Control of Linear Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014 , 47, 5556-5561		4
51	State feedback switched control of discrete-time switched linear systems with application to networked control 2013 ,		4
50	Filtering of discrete-time Markov jump linear systems with cluster observation: An approach to Gilbert-Elliott's network channel 2009 ,		4
49	H ∞ and dwell time specifications of switched linear systems 2008 ,		4
48	MixedH2/H ∞ control of flexible structures. <i>Mathematical Problems in Engineering</i> , 2001 , 6, 557-598	1.1	4
47	Robust H2 switched filter design for discrete-time polytopic linear parameter-varying systems. <i>Signal Processing</i> , 2014 , 97, 91-99	4.4	3
46	Obtaining alternative LMI constraints with applications to discrete-time MJLS and switched systems. <i>Journal of the Franklin Institute</i> , 2013 , 350, 2212-2228	4	3
45	On a convex characterisation of stability and performance for hybrid linear systems 2015 ,		3
44	\mathcal{H}_2 Control Design for Time-Delay Linear Systems: A Rational Transfer Function Based Approach. <i>European Journal of Control</i> , 2012 , 18, 425-436	2.5	3

43	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	1.5	3
42	Full order dynamic output feedback H _∞ control design for discrete-time switched linear systems 2010 ,		3
41	MULTI-OBJECTIVE H ₂ CONTROL VIA SWITCHED LINEAR SYSTEMS. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2007 , 40, 238-243		3
40	Dynamic Output Feedback Stabilization of Continuous-Time Switched Systems 2006 , 347-352		3
39	On an Alternative Susceptible-Infected-Removed Epidemic Model in Discrete-time		3
38	Extended Small Gain Theorem with application to time-delay switched linear systems 2012 ,		2
37	H ₂ self-triggered dynamic output feedback for networked control 2013 ,		2
36	A new method to . <i>Linear Algebra and Its Applications</i> , 2009 , 430, 145-154	0.9	2
35	RMS gain with dwell time for discrete-time switched linear systems 2008 ,		2
34	Controle de sistemas lineares com comutação. <i>Controle and Automacao</i> , 2008 , 19, 431-443		2
33	State-Feedback Control of Positive Switching Systems with Markovian Jumps. <i>Springer Optimization and Its Applications</i> , 2016 , 185-219	0.4	2
32	Partial Sampled-Data State Feedback Control of Markov Jump Linear Systems. <i>IFAC-PapersOnLine</i> , 2018 , 51, 222-227	0.7	2
31	Robust partial sampled-data state feedback control of Markov jump linear systems. <i>International Journal of Systems Science</i> , 2019 , 50, 2142-2152	2.3	1
30	H ₂ state-feedback synthesis for discrete-time systems under positivity constraint 2018 ,		1
29	H ₂ filtering design for sampled-data systems 2013 ,		1
28	Generalized Kleinman-Newton method in discrete-time. <i>IFAC-PapersOnLine</i> , 2017 , 50, 6697-6702	0.7	1
27	Switching control resource allocation in Networked Control Systems 2015 ,		1
26	On the discretisation of sparse linear systems 2014 ,		1

25	Self-triggered linear quadratic Networked Control 2012 ,		1
24	Suboptimal Switching State Feedback Control Consistency Analysis for Switched Linear Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011 , 44, 5849-5854		1
23	Analysis and control synthesis of continuous-time passive switched linear systems 2010 ,		1
22	On H ∞ control design of continuous-time switched linear systems 2010 ,		1
21	Full order dynamic output feedback H ∞ control for continuous-time switched linear systems 2009 ,		1
20	Robust H ₂ filtering for discrete LTI systems with linear fractional representation 2008 ,		1
19	Output-feedback stabilization of discrete-time switched systems. <i>Proceedings of the American Control Conference</i> , 2007 ,	1.2	1
18	MATRIX QUADRATIC POLYNOMIALS WITH APPLICATION TO ROBUST STABILITY ANALYSIS. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2006 , 39, 549-554		1
17	Limit cycle global asymptotic stability of continuous-time switched affine systems. <i>IFAC-PapersOnLine</i> , 2020 , 53, 6121-6126	0.7	1
16	A nonlinear switched control strategy for permanent magnet synchronous machines 2019 ,		1
15	Sampled-data control of Lur ∞ systems. <i>Nonlinear Analysis: Hybrid Systems</i> , 2021 , 40, 100994	4.5	1
14	Robust H ₂ filtering for LTI systems with linear fractional representation. <i>International Journal of Control</i> , 2009 , 82, 2127-2136	1.5	0
13	Trajectory tracking for a class of switched nonlinear systems: Application to PMSM. <i>Nonlinear Analysis: Hybrid Systems</i> , 2022 , 44, 101164	4.5	0
12	On the Continuous-time and Discrete-Time Versions of an Alternative Epidemic Model of the SIR Class. <i>Journal of Control, Automation and Electrical Systems</i> , 1	1.5	0
11	Generalized Kleinman-Newton method. <i>Optimal Control Applications and Methods</i> , 2018 , 39, 1130-1140	1.7	
10	Switched Linear Systems Control Design: A Transfer Function Approach. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014 , 47, 4068-4073		
9	Authors' response to discussion on Suboptimal switching control consistency analysis for discrete-time switched linear systems \square <i>European Journal of Control</i> , 2013 , 19, 221	2.5	
8	H ₂ State Feedback Control Design of Positive Switched Linear Systems. <i>IFAC-PapersOnLine</i> , 2017 , 50, 3081-3086	0.7	

7	Output feedback stabilization of time-delay switched linear systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011 , 44, 1279-1284	
6	H2 Performance Optimization of Singularly Perturbed Switched Linear Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 228-233	
5	Switching Control Consistency Analysis for Discrete-time Switched Linear Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 599-604	
4	H2 ROBUST FILTERING WITH OPTIMALITY GAP CERTIFICATION. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2007 , 40, 292-302	
3	STABILIZATION OF DISCRETE-TIME SWITCHED SYSTEMS. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2006 , 39, 160-165	
2	Sampled-Data Model Predictive Control. <i>IEEE Transactions on Automatic Control</i> , 2021 , 1-1	5.9
1	Unified Approach to the Analysis and Performance Evaluation of Sampled-Data Control Applied to Nonlinear Systems. <i>IFAC-PapersOnLine</i> , 2018 , 51, 216-221	0.7