Jos C Geromel

List of Publications by Year in Descending Order

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	Trajectory tracking for a class of switched nonlinear systems: Application to PMSM. *Nonlinear Analysis: Hybrid Systems*, **2022**, 44, 101164	4.5	0
149	Sampled-data control of Lurê systems. *Nonlinear Analysis: Hybrid Systems*, **2021**, 40, 100994	4.5	1
148	Sampled-Data Model Predictive Control. *IEEE Transactions on Automatic Control*, **2021**, 1-1	5.9	
147	Limit cycle global asymptotic stability of continuous-time switched affine systems. *IFAC-PapersOnLine*, **2020**, 53, 6121-6126	0.7	1
146	Robust partial sampled-data state feedback control of Markov jump linear systems. *International Journal of Systems Science*, **2019**, 50, 2142-2152	2.3	1
145	A nonlinear switched control strategy for permanent magnet synchronous machines **2019**,		1
144	Differential linear matrix inequality in optimal sampled-data control. *Automatica*, **2019**, 100, 289-298	5.7	6
143	Differential Linear Matrix Inequalities Optimization **2019**, 3, 380-385		5
142	Optimal and Robust Sampled-Data Control of Markov Jump Linear Systems: A Differential LMI Approach. *IEEE Transactions on Automatic Control*, **2018**, 63, 3054-3060	5.9	18
141	Generalized Kleinman-Newton method. *Optimal Control Applications and Methods*, **2018**, 39, 1130-1140	1.7	
140	Optimal state feedback sampled-data control design for Markov jump linear systems. *International Journal of Control*, **2018**, 91, 1609-1619	1.5	5
139	Stability and performance of discrete-time switched linear systems. *Systems and Control Letters*, **2018**, 118, 1-7	2.4	17
138	H2 state-feedback synthesis for discrete-time systems under positivity constraint **2018**,		1
137	Unified Approach to the Analysis and Performance Evaluation of Sampled-Data Control Applied to Nonlinear Systems. *IFAC-PapersOnLine*, **2018**, 51, 216-221	0.7	
136	Partial Sampled-Data State Feedback Control of Markov Jump Linear Systems. *IFAC-PapersOnLine*, **2018**, 51, 222-227	0.7	2
135	Bounds for the remainders of uncertain matrix exponential and sampled-data control of polytopic linear systems. *Automatica*, **2017**, 82, 202-208	5.7	4
134	${mathcal{H}}_2$ State Feedback Control Design of Continuous-Time Positive Linear Systems. *IEEE Transactions on Automatic Control*, **2017**, 62, 5844-5849	5.9	11

133	Performance evaluation of sampled-data control of Markov jump linear systems. *Automatica*, **2017**, 86, 212-215	5.7	7
132	Stability Analysis and Control Design of Discrete-Time Switched Affine Systems. *IEEE Transactions on Automatic Control*, **2017**, 62, 4058-4065	5.9	33
131	DC motor speed control via buck-boost converter through a state dependent limited frequency switching rule **2017**,		11
130	Generalized Kleinman-Newton method in discrete-time. *IFAC-PapersOnLine*, **2017**, 50, 6697-6702	0.7	1
129	H2 State Feedback Control Design of Positive Switched Linear Systems. *IFAC-PapersOnLine*, **2017**, 50, 3081-3086	0.7	
128	H∞ state feedback control design of discrete-time switched linear systems **2017**,		5
127	Minimax control of Markov jump linear systems. *International Journal of Adaptive Control and Signal Processing*, **2016**, 30, 1152-1162	2.8	7
126	H2dynamic output feedback for local sensor remote actuator networks. *IMA Journal of Mathematical Control and Information*, **2016**, 33, 239-256	1.1	6
125	Optimal H∞ state feedback sampled-data control applied to Markov jump linear systems **2016**,		5
124	H2 and H∞ control of time-varying delay switched linear systems with application to sampled-data control. *Nonlinear Analysis: Hybrid Systems*, **2016**, 22, 43-54	4.5	16
123	State-Feedback Control of Positive Switching Systems with Markovian Jumps. *Springer Optimization and Its Applications*, **2016**, 185-219	0.4	2
122	Optimal H2 state feedback sampled-data control design of Markov Jump Linear Systems. *Automatica*, **2015**, 54, 182-188	5.7	48
121	Discrete-Time Switched Linear Systems State Feedback Design With Application to Networked Control. *IEEE Transactions on Automatic Control*, **2015**, 60, 877-881	5.9	53
120	Discretisation of sparse linear systems: An optimisation approach. *Systems and Control Letters*, **2015** , 80, 42-49	2.4	4
119	Optimal and mode-independent filters for generalised Bernoulli jump systems. *International Journal of Systems Science*, **2015**, 46, 405-417	2.3	11
118	On an LMI approach to optimal sampled-data state feedback control design. *International Journal of Control*, **2015**, 88, 2369-2379	1.5	26
117	On a convex characterisation of stability and performance for hybrid linear systems **2015**,		3
116	Switching control resource allocation in Networked Control Systems **2015**,		1

115	Robust H2 switched filter design for discrete-time polytopic linear parameter-varying systems. *Signal Processing*, **2014**, 97, 91-99	4.4	3
114	Stability Analysis of Lur'e-Type Switched Systems. *IEEE Transactions on Automatic Control*, **2014**, 59, 3046-3050	5.9	11
113	Switched Linear Systems Control Design: A Transfer Function Approach. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 4068-4073		
112	Optimal Sampled□Data State Feedback Control of Linear Systems. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 5556-5561		4
111	On the discretisation of sparse linear systems **2014**,		1
110	Chattering free control of continuous-time switched linear systems. *IET Control Theory and Applications*, **2014**, 8, 348-354	2.5	21
109	${cal H}_2$ Sampled□Data Filtering of Linear Systems. *IEEE Transactions on Signal Processing*, **2014**, 62, 4839-4846	4.8	16
108	Self-triggered linear quadratic networked control. *Optimal Control Applications and Methods*, **2014**, 35, 524-538	1.7	36
107	Discrete-time output feedback for Markov jump systems with uncertain transition probabilities. *International Journal of Robust and Nonlinear Control*, **2013**, 23, 894-902	3.6	32
106	Suboptimal switching control consistency analysis for discrete-time switched linear systems. *European Journal of Control*, **2013**, 19, 214-219	2.5	14
105	State feedback switched control of discrete-time switched linear systems with application to networked control **2013**,		4
104	Obtaining alternative LMI constraints with applications to discrete-time MJLS and switched systems. *Journal of the Franklin Institute*, **2013**, 350, 2212-2228	4	3
103	H2 filtering design for sampled-data systems **2013**,		1
102	Authors' response to discussion on □Suboptimal switching control consistency analysis for discrete-time switched linear systems□*European Journal of Control*, **2013**, 19, 221	2.5	
101	Extended small gain theorem for time-delay switched systems control and closed-loop robustness enhancement. *International Journal of Control*, **2013**, 86, 1018-1025	1.5	3
100	H□state feedback switched control for discrete time-varying polytopic systems. *International Journal of Control*, **2013**, 86, 591-598	1.5	11
99	Suboptimal Switching Control Consistency Analysis for Switched Linear Systems. *IEEE Transactions on Automatic Control*, **2013**, 58, 1857-1861	5.9	42
98	H2 self-triggered dynamic output feedback for networked control **2013**,		2

97	Passivity of switched linear systems: Analysis and control design. *Systems and Control Letters*, **2012**, 61, 549-554	2.4	44
96	${cal H}_2$ and ${cal H}_infty$ Performance Optimization of Singularly Perturbed Switched Systems. *SIAM Journal on Control and Optimization*, **2012**, 50, 1597-1615	1.9	15
95	A Nonconservative LMI Condition for Stability of Switched Systems With Guaranteed Dwell Time. *IEEE Transactions on Automatic Control*, **2012**, 57, 1297-1302	5.9	105
94	Extended Small Gain Theorem with application to time-delay switched linear systems **2012**,		2
93	Self-triggered linear quadratic Networked Control **2012**,		1
92	H robust and networked control of discrete-time MJLS through LMIs. *Journal of the Franklin Institute*, **2012**, 349, 2171-2181	4	39
91	Control Design for Time-Delay Linear Systems: A Rational Transfer Function Based Approachg. *European Journal of Control*, **2012**, 18, 425-436	2.5	3
90	A simple approach for switched control design with control bumps limitation. *Systems and Control Letters*, **2012**, 61, 1215-1220	2.4	37
89	State and output feedback control of time-delay switched linear systems. *International Journal of Robust and Nonlinear Control*, **2012**, 22, 1674-1690	3.6	13
88	H2 Performance Optimization of Singularly Perturbed Switched Linear Systems. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 228-233		
87	Switching Control Consistency Analysis for Discrete-time Switched Linear Systems. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 599-604		
86	On a Rational Transfer Function-Based Approach to ${cal H}_{infty}$ Filtering Design for Time-Delay Linear Systems. *IEEE Transactions on Signal Processing*, **2011**, 59, 979-988	4.8	12
85	Switched state-feedback control for continuous time-varying polytopic systems. *International Journal of Control*, **2011**, 84, 1500-1508	1.5	23
84	Output feedback stabilization of time-delay switched linear systems. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2011**, 44, 1279-1284		
83	Suboptimal Switching State Feedback Control Consistency Analysis for Switched Linear Systems. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2011**, 44, 5849-5854		1
82	Root mean square gain of discrete-time switched linear systems under dwell time constraints. *Automatica*, **2011**, 47, 1677-1684	5.7	25
81	Dynamic output feedback . *Automatica*, **2011**, 47, 1713-1720	5.7	146
80	Filtering of discrete-time Markov jump linear systems with uncertain transition probabilities. *International Journal of Robust and Nonlinear Control*, **2011**, 21, 613-624	3.6	54

79	Filter inputs with Markovian lossy links: Zero or hold? **2011**,		6
78	Stabilization of continuous-time switched linear positive systems **2010**,		22
77	Dwell time analysis for continuous-time switched linear positive systems **2010**,		34
76	H Control for Continuous-Time Switched Linear Systems. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2010**, 132,	1.6	14
75	Analysis and control synthesis of continuous-time passive switched linear systems **2010**,		1
74	On H control design of continuous-time switched linear systems **2010**,		1
73	${cal H}_infty$ and Dwell Time Specifications of Continuous-Time Switched Linear Systems. *IEEE Transactions on Automatic Control*, **2010**, 55, 207-212	5.9	51
72	Full order dynamic output feedback H control design for discrete-time switched linear systems **2010**,		3
71	Trajectory-dependent filter design for discrete-time switched linear systems. *Nonlinear Analysis: Hybrid Systems*, **2010**, 4, 1-8	4.5	9
70	Switched affine systems control design with application to DC DC converters. *IET Control Theory and Applications*, **2010**, 4, 1201-1210	2.5	150
69	Markov jump linear systems and filtering through network transmitted measurements. *Signal Processing*, **2010**, 90, 2842-2850	4.4	63
68	Filtering of discrete-time Markov jump linear systems with cluster observation: An approach to Gilbert-Elliot's network channel **2009**,		4
67	Analysis and control of DC-DC converters based on Lyapunov Stability Theory **2009**,		11
66	A new method to . *Linear Algebra and Its Applications*, **2009**, 430, 145-154	0.9	2
65	Switched state feedback control for continuous-time uncertain systems. *Automatica*, **2009**, 45, 593-597	5.7	59
64	Robust H2 filtering for LTI systems with linear fractional representation. *International Journal of Control*, **2009**, 82, 2127-2136	1.5	0
63	${cal H}_{infty}$ Filtering of Discrete-Time Markov Jump Linear Systems Through Linear Matrix Inequalities. *IEEE Transactions on Automatic Control*, **2009**, 54, 1347-1351	5.9	88
62	Full order dynamic output feedback H control for continuous-time switched linear systems **2009**,		1

61	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	1.9	69
60	On Inexact LPV Control Design of Continuous□ime Polytopic Systems. *IEEE Transactions on Automatic Control*, **2008**, 53, 1674-1678	5.9	97
59	H 2 filtering of discrete-time Markov jump linear systems through linear matrix inequalities. *International Journal of Control*, **2008**, 81, 1221-1231	1.5	30
58	Dynamic Output Feedback Control of Switched Linear Systems. *IEEE Transactions on Automatic Control*, **2008**, 53, 720-733	5.9	197
57	RMS gain with dwell time for discrete-time switched linear systems **2008**,		2
56	Robust H2 filtering for discrete LTI systems with linear fractional representation **2008**,		1
55	H□and dwell time specifications of switched linear systems **2008**,		4
54	Controle de sistemas lineares com comuta□. *Controle and Automacao*, **2008**, 19, 431-443		2
53	H2 robust filter design with performance certificate via convex programming. *Automatica*, **2008**, 44, 937-948	5.4	24
52	Stabilization of continuous-time switched nonlinear systems. *Systems and Control Letters*, **2008**, 57, 95-103	2.4	114
51	Output-feedback stabilization of discrete-time switched systems. *Proceedings of the American Control Conference*, **2007**,	1.2	1
50	MULTI-OBJECTIVE H2 CONTROL VIA SWITCHED LINEAR SYSTEMS. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2007**, 40, 238-243		3
49	H2 ROBUST FILTERING WITH OPTIMALITY GAP CERTIFICATION. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2007**, 40, 292-302		
48	H2 and H□robust output feedback control for continuous time polytopic systems. *IET Control Theory and Applications*, **2007**, 1, 1541-1549	2.5	56
47	Analysis and Synthesis of Robust Control Systems Using Linear Parameter Dependent Lyapunov Functions. *IEEE Transactions on Automatic Control*, **2006**, 51, 1984-1989	5.9	52
46	H2 Optimal Robust Filtering. *European Journal of Control*, **2006**, 12, 30-39	2.5	11
45	Stability and stabilization of discrete time switched systems. *International Journal of Control*, **2006**, 79, 719-728	1.5	256
44	Suboptimal reduced-order filtering through an LMI-based method. *IEEE Transactions on Signal Processing*, **2006**, 54, 2588-2595	4.8	13

43	Stability and Stabilization of Continuous-Time Switched Linear Systems. *SIAM Journal on Control and Optimization*, **2006**, 45, 1915-1930	1.9	341
42	Dynamic Output Feedback Stabilization of Continuous-Time Switched Systems **2006**, 347-352		3
41	STABILIZATION OF DISCRETE-TIME SWITCHED SYSTEMS. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2006**, 39, 160-165		
40	MATRIX QUADRATIC POLYNOMIALS WITH APPLICATION TO ROBUST STABILITY ANALYSIS. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2006**, 39, 549-554		1
39	Robust stability of time varying polytopic systems. *Systems and Control Letters*, **2006**, 55, 81-85	2.4	104
38	H2 and H$_infty$ Filtering Design Subject to Implementation Uncertainty. *SIAM Journal on Control and Optimization*, **2005**, 44, 515-530	1.9	17
37	H/sub /spl infin// model reduction with application to flexible systems. *IEEE Transactions on Automatic Control*, **2005**, 50, 402-406	5.9	16
36	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	2.4	31
35	Model reduction of discrete time systems through linear matrix inequalities*. *International Journal of Control*, **2004**, 77, 978-984	1.5	14
34	Synthesis of non-rational controllers for linear delay systems. *Automatica*, **2004**, 40, 171-188	5.7	35
33	A note on the robust control of Markov jump linear uncertain systems. *Optimal Control Applications and Methods*, **2002**, 23, 105-112	1.7	13
32	The H2-control for jump linear systems: cluster observations of the Markov state. *Automatica*, **2002**, 38, 343-349	5.7	121
31	An improved approach for constrained robust model predictive control. *Automatica*, **2002**, 38, 1183-1189	5.7	263
30	Extended H 2 and H norm characterizations and controller parametrizations for discrete-time systems. *International Journal of Control*, **2002**, 75, 666-679	1.5	498
29	H/sub 2/ and H/sub /spl infin// robust filtering for convex bounded uncertain systems. *IEEE Transactions on Automatic Control*, **2001**, 46, 100-107	5.9	139
28	MixedH2/H□ontrol of flexible structures. *Mathematical Problems in Engineering*, **2001**, 6, 557-598	1.1	4
27	Design of dynamic output feedback decentralized controllers via a separation procedure. *International Journal of Control*, **2000**, 73, 371-381	1.5	54
26	H2 and H_infty Robust Filtering for Discrete-Time Linear Systems. *SIAM Journal on Control and Optimization*, **2000**, 38, 1353-1368	1.9	101

25	Output feedback control of Markov jump linear systems in continuous-time. *IEEE Transactions on Automatic Control*, **2000**, 45, 944-949	5.9	313
24	H/sub 2/-norm optimization with constrained dynamic output feedback controllers: decentralized and reliable control. *IEEE Transactions on Automatic Control*, **1999**, 44, 1449-1454	5.9	69
23	LMI characterization of structural and robust stability: the discrete-time case. *Linear Algebra and Its Applications*, **1999**, 296, 27-38	0.9	87
22	On strict positive real systems design: guaranteed cost and robustness issues. *Systems and Control Letters*, **1999**, 36, 135-141	2.4	27
21	A new discrete-time robust stability condition. *Systems and Control Letters*, **1999**, 37, 261-265	2.4	982
20	Continuous-time state-feedback H2-control of Markovian jump linear systems via convex analysis. *Automatica*, **1999**, 35, 259-268	5.7	136
19	Solutions for the Linear-Quadratic Control Problem of Markov Jump Linear Systems. *Journal of Optimization Theory and Applications*, **1999**, 103, 283-311	1.6	30
18	Optimal linear filtering under parameter uncertainty. *IEEE Transactions on Signal Processing*, **1999**, 47, 168-175	4.8	193
17	LMI characterization of structural and robust stability. *Linear Algebra and Its Applications*, **1998**, 285, 69-80	0.9	136
16	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	5.9	18
15	. *IEEE Transactions on Automatic Control*, **1998**, 43, 120-125	5.9	123
14	A convex programming approach to H2 control of discrete-time markovian jump linear systems. *International Journal of Control*, **1997**, 66, 557-580	1.5	73
13	Synthesis of positive real /spl Hscr//sub 2/ controllers. *IEEE Transactions on Automatic Control*, **1997**, 42, 988-992	5.9	57
12	RH2 Control **1997**, 87-119		7
11	Convex analysis of output feedback control problems: robust stability and performance. *IEEE Transactions on Automatic Control*, **1996**, 41, 997-1003	5.9	73
10	. *IEEE Transactions on Automatic Control*, **1994**, 39, 198-202	5.9	34
9	Optimal H□state feedback control for continuous-time linear systemsfeedback control for continuous-time linear systems. *Journal of Optimization Theory and Applications*, **1994**, 82, 343-359	1.6	7
8	Decentralized control through parameter space optimization. *Automatica*, **1994**, 30, 1565-1578	5.7	110

7	Linear quadratic suboptimal control with static output feedback. *Systems and Control Letters*, **1994**, 23, 421-430	2.4	87
6	. *IEEE Transactions on Automatic Control*, **1994**, 39, 1929-1932	5.9	26
5	Quadratic stabilizability of linear uncertain systems in convex-bounded domains. *Automatica*, **1993**, 29, 491-493	5.7	13
4	guaranteed cost control for uncertain continuous-time linear systems. *Systems and Control Letters* , **1993**, 20, 413-418	2.4	23
3	H2 control for discrete-time systems optimality and robustness. *Automatica*, **1993**, 29, 225-228	5.7	18
2	On an Alternative Susceptible-Infected-Removed Epidemic Model in Discrete-time		3
1	On the Continuous-time and Discrete-Time Versions of an Alternative Epidemic Model of the SIR Class. *Journal of Control, Automation and Electrical Systems*,1	1.5	0