

Joao M Lemos

List of Publications by Year in descending order

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113
papers

1,039
citations

535685

17
h-index

563245

28
g-index

123
all docs

123
docs citations

123
times ranked

866
citing authors

#	ARTICLE	IF	CITATIONS
1	Optimal Impulsive Control for Cancer Therapy. Springer Briefs in Electrical and Computer Engineering, 2021, , .	0.3	3
2	Cancer Therapy Optimization. Springer Briefs in Electrical and Computer Engineering, 2021, , 43-78.	0.3	1
3	Complementary Aspects. Springer Briefs in Electrical and Computer Engineering, 2021, , 79-93.	0.3	0
4	Conclusions and Research Topics. Springer Briefs in Electrical and Computer Engineering, 2021, , 95-99.	0.3	0
5	Predictive Control for Spacecraft Rendezvous. SpringerBriefs in Applied Sciences and Technology, 2021, , .	0.2	1
6	Rendezvous with Model Predictive Control. SpringerBriefs in Applied Sciences and Technology, 2021, , 55-103.	0.2	1
7	Model Predictive Control. SpringerBriefs in Applied Sciences and Technology, 2021, , 9-28.	0.2	0
8	Relative Orbital Mechanics. SpringerBriefs in Applied Sciences and Technology, 2021, , 29-53.	0.2	0
9	Distributed Inverse Optimal Control for Discrete-Time Nonlinear Multi-Agent Systems. , 2021, 5, 2096-2101.		9
10	Distributed LQ Control of a Water Delivery Canal Based on a Selfish Game. Lecture Notes in Electrical Engineering, 2021, , 466-476.	0.3	1
11	Trajectory Planning for Landing with a Direct Optimal Control Algorithm. Lecture Notes in Electrical Engineering, 2021, , 648-657.	0.3	0
12	Distributed MPC control of a Water Delivery Canal based on D-ADMM. , 2020, , .		0
13	Multi-agent detection and labelling of activity patterns. Signal, Image and Video Processing, 2020, 14, 1207-1215.	1.7	1
14	The Fokker-Planck equation in estimation and control. IFAC-PapersOnLine, 2019, 52, 91-95.	0.5	0
15	Cancer therapy optimization based on multiple model adaptive control. Biomedical Signal Processing and Control, 2019, 48, 255-264.	3.5	21
16	Solar furnace temperature control with active cooling. Solar Energy, 2018, 159, 66-77.	2.9	7
17	A Fokker-Planck approach to joint state-parameter estimation. IFAC-PapersOnLine, 2018, 51, 389-394.	0.5	1
18	Temperature Control of a Heliostat Field Solar Furnace. , 2018, , .		0

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19	Control Ótimo Aplicado a Campos de Colectores Solares Distribuidos. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2018, 15, 327.	0.6	11
20	A high-order Discontinuous Galerkin Method with mesh refinement for optimal control. Automatica, 2017, 85, 70-82.	3.0	16
21	Optimal control of the temperature in a solar furnace. Optimal Control Applications and Methods, 2016, 37, 466-478.	1.3	8
22	Control of a solar furnace using active cooling. , 2016, , .		3
23	Identification and automatic segmentation of multiphasic cell growth using a linear hybrid model. Mathematical Biosciences, 2016, 279, 83-89.	0.9	4
24	Control of a Solar Furnace using MPC with Integral Action. IFAC-PapersOnLine, 2016, 49, 961-966.	0.5	6
25	Fault-tolerant control of an air heating fan using set-valued observers: An experimental evaluation. International Journal of Adaptive Control and Signal Processing, 2016, 30, 336-358.	2.3	3
26	Optimal and receding horizon control of tumor growth in myeloma bone disease. Biomedical Signal Processing and Control, 2016, 24, 128-134.	3.5	13
27	Identification of switched ARX models via convex optimization and expectation maximization. Journal of Process Control, 2015, 28, 9-16.	1.7	31
28	An information geometric framework for the optimization on a discrete probability spaces: Application to human trajectory classification. Neurocomputing, 2015, 150, 155-162.	3.5	2
29	Modeling multiple experiments using regularized optimization: A case study on bacterial glucose utilization dynamics. Computers in Biology and Medicine, 2015, 63, 301-309.	3.9	4
30	D-ADMM based distributed MPC with input-output models. , 2014, , .		8
31	Identifying IIR filter coefficients using particle swarm optimization with application to reconstruction of missing cardiovascular signals. Engineering Applications of Artificial Intelligence, 2014, 34, 193-198.	4.3	13
32	Solar Energy Collector Systems. Advances in Industrial Control, 2014, , 1-25.	0.4	1
33	Information Geometric Algorithm for Estimating Switching Probabilities in Space-Varying HMM. IEEE Transactions on Image Processing, 2014, 23, 5263-5273.	6.0	4
34	Predictive Adaptive Control with Linear Models. Advances in Industrial Control, 2014, , 53-103.	0.4	0
35	Multiple Model Adaptive Control. Advances in Industrial Control, 2014, , 105-130.	0.4	15
36	Multivariable and Distributed LQG Control of a Water Delivery Canal. Journal of Irrigation and Drainage Engineering - ASCE, 2013, 139, 855-863.	0.6	6

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37	Parameter estimation and identifiability of a HIV-1 model. , 2013, , .		0
38	Hybrid identification of time-varying parameter with particle filtering and expectation maximization. , 2013, , .		2
39	A velocity field approach to the detection of pedestrian interactions. , 2013, , .		1
40	Reconfigurable distributed control of water delivery canals. , 2013, , .		0
41	Modeling and Classifying Human Activities From Trajectories Using a Class of Space-Varying Parametric Motion Fields. IEEE Transactions on Image Processing, 2013, 22, 2066-2080.	6.0	13
42	Design of depth of anesthesia controllers in the presence of model uncertainty. , 2013, , .		2
43	A polynomial design approach to robust control of neuromuscular blockade of patients subject to general anesthesia. , 2013, , .		2
44	A nonlinear continuous-discrete filter with model parameter uncertainty and application to anesthesia. , 2013, , .		1
45	Efficient Optimization Algorithm for Space-Variant Mixture of Vector Fields. Lecture Notes in Computer Science, 2013, , 79-88.	1.0	1
46	Predictive adaptive control of neuromuscular relaxation. , 2012, , .		0
47	Control of a water delivery canal with cooperative distributed MPC. , 2012, , .		12
48	A class of space-varying parametric motion fields for human activity recognition. , 2012, , .		1
49	A bi-phase algorithm to identify hypnotic models of patients subject to deep sedation for ultrasonographic endoscopy*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 775-780.	0.4	2
50	Online Bayesian Time-varying Parameter Estimation of HIV-1 Time-series. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 1294-1299.	0.4	5
51	Multiple-model adaptive control of an air heating fan using set-valued observers. , 2012, , .		4
52	Distributed Linear-Quadratic Control of Serially Chained Systems: Application to a Water Delivery Canal [Applications of Control]. IEEE Control Systems, 2012, 32, 26-38.	1.0	21
53	Predictive adaptive temperature control in a solar furnace for material stress tests. , 2012, , .		9
54	Alignment of velocity fields for video surveillance. Pattern Recognition Letters, 2012, 33, 1632-1637.	2.6	0

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55	Distributed LQG control of a water delivery canal with feedforward from measured consumptions. , 2012, , .		3
56	Flexible trajectory modeling using a mixture of parametric motion fields for video surveillance. , 2011, , .		1
57	Multi-drug therapy design for HIV-1 infection using nonlinear model predictive control. , 2011, , .		5
58	Nonlinear feedback control of a HIV-1 infection model. , 2011, , .		3
59	Nonlinear and Adaptive Control of a HIV-1 Infection Model. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 14183-14188.	0.4	3
60	Hybrid Dynamic Optimization for Cruise Speed Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 5082-5087.	0.4	1
61	Application of distributed model predictive control to a water delivery canal. , 2011, , .		5
62	Robust Pointwise Min-Norm Control of distributed systems with fluid flow. , 2011, , .		3
63	Batch identification of neuromuscular blockade models. , 2011, , .		2
64	Nonlinear MPC of HIV-1 infection with periodic inputs. , 2011, , .		9
65	Optimal Control for Vehicle Cruise Speed Transfer. , 2011, , .		0
66	Trajectory Analysis Using Switched Motion Fields: A Parametric Approach. Lecture Notes in Computer Science, 2011, , 420-427.	1.0	0
67	Optimal cruise control with reduced complexity models. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 390-395.	0.4	0
68	Adaptive Nonlinear Model Predictive Control for a Class of Transport Phenomena Processes. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 729-734.	0.4	1
69	Nonlinear Receding Horizon Control based on Pontryagin Optimum Principle *. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 1069-1074.	0.4	3
70	Moving Horizon Estimation with Decimated Observations *. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 296-301.	0.4	2
71	Optimization strategies for metabolic networks. BMC Systems Biology, 2010, 4, 113.	3.0	3
72	Neuromuscular blockade model identification based on the Hill function inversion. , 2010, , .		0

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73	Feedforward adaptive control of the Bispectral Index of the EEG using the intravenous anaesthetic drug propofol. International Journal of Adaptive Control and Signal Processing, 2009, 23, 485-503.	2.3	19
74	A simple model for the identification of drug effects. , 2009, , .		8
75	Adaptive and non-adaptive model predictive control of an irrigation channel. Networks and Heterogeneous Media, 2009, 4, 303-324.	0.5	26
76	Nonlinear Model Predictive Control of a Water Distribution Canal Pool. Lecture Notes in Control and Information Sciences, 2009, , 521-529.	0.6	2
77	Drug Delivery for Neuromuscular Blockade With Supervised Multimodel Adaptive Control. IEEE Transactions on Control Systems Technology, 2009, 17, 1237-1244.	3.2	59
78	Clustering in Supervised Multi-model Adaptive Control Applied to Neuromuscular Blockade. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 1000-1005.	0.4	0
79	Predictive adaptive control of plants with online structural changes based on multiple models. International Journal of Adaptive Control and Signal Processing, 2008, 22, 774-794.	2.3	7
80	An efficient Kullback-Leibler optimization algorithm for probabilistic control design. , 2008, , .		8
81	An adaptive temperature control law for a solar furnace. , 2008, , .		6
82	Model Predictive control of Depth of Anaesthesia: Guidelines for controller configuration. , 2008, 2008, 5822-5.		14
83	A target control infusion method for neuromuscular blockade based on hybrid parameter estimation. , 2008, 2008, 707-10.		8
84	Stability of Discrete Systems Controlled in the Presence of Intermittent Sensor Faults. Journal of Control Science and Engineering, 2008, 2008, 1-11.	0.8	0
85	Control of Depth of Anesthesia using MUSMAR - Exploring Electromyography and the Analgesic dose as Accessible Disturbances. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 1574-7.	0.5	1
86	Model analysis and control of a four segment irrigation canal. , 2007, , .		1
87	HMM based sensor fault detection in neuromuscular blockade control. , 2007, , .		0
88	Controlling Distributed Hyperbolic Plants with Adaptive Nonlinear Model Predictive Control. Lecture Notes in Control and Information Sciences, 2007, , 435-441.	0.6	2
89	A New Hand-Held Microsystem Architecture for Biological Analysis. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2006, 53, 2384-2395.	0.1	28
90	Adaptive Control in the Presence of Outliers. , 2006, , .		1

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91	Learning in switching multiple model adaptive control. IEEE Instrumentation and Measurement Magazine, 2006, 9, 24-29.	1.2	21
92	Observer design in switching control of neuromuscular blockade: clinical cases. , 2006, 2006, 5436-9.		2
93	Adaptive control of distributed collector solar fields. International Journal of Systems Science, 2006, 37, 523-533.	3.7	11
94	Predictive adaptive control of unconsciousness - exploiting remifentanil as an accessible disturbance. , 2006, , .		1
95	Diode/magnetic tunnel junction cell for fully scalable matrix-based biochip. Journal of Applied Physics, 2006, 99, 08B307.	1.1	30
96	Temperature modelling of a biochip for DNA analysis. , 2006, , .		1
97	Control of Neuromuscular Blockade in the Presence of Sensor Faults. IEEE Transactions on Biomedical Engineering, 2005, 52, 1902-1911.	2.5	29
98	Time scaling internal state predictive control of a solar plant. Control Engineering Practice, 2003, 11, 1459-1467.	3.2	48
99	Variable sampling adaptive control of a distributed collector solar field. IEEE Transactions on Control Systems Technology, 2003, 11, 765-772.	3.2	64
100	Reduced complexity adaptive nonlinear control of a distributed collector solar field. Journal of Process Control, 2002, 12, 131-141.	1.7	52
101	A HMM approach to the estimation of random trajectories on manifolds. Signal Processing, 2002, 82, 1205-1214.	2.1	3
102	Optimal and suboptimal shape tracking based on multiple switched dynamic models. Image and Vision Computing, 2001, 19, 539-550.	2.7	10
103	Adaptive regulation of super-heated steam temperature: a case study in an industrial boiler. Control Engineering Practice, 2000, 8, 1405-1415.	3.2	55
104	Multipredictive adaptive control of arc welding trailing centerline temperature. IEEE Transactions on Control Systems Technology, 2000, 8, 159-169.	3.2	31
105	Integrating Predictive and Switching Control: Basic Concepts and an Experimental Case Study. , 2000, , 181-190.		15
106	Switching reconfigurable control based on hidden Markov models. , 1999, , .		8
107	A methodology for impact evaluation of alternative control strategies in a large-scale power plant. Control Engineering Practice, 1997, 5, 325-335.	3.2	9
108	ADAPTIVE CONTROL OF A SOLAR ENERGY PLANT: EXPLOITING ACCESSIBLE DISTURBANCES. International Journal of Adaptive Control and Signal Processing, 1997, 11, 327-342.	2.3	67

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109	Mathematical modelling of industrial pilot-plant penicillin-G fed-batch fermentations. Journal of Chemical Technology and Biotechnology, 1994, 61, 123-138.	1.6	43
110	A semi-infinite horizon LQ self-tuning regulator for ARMAX plants based on RLS. Automatica, 1992, 28, 401-406.	3.0	6
111	Adaptive predictive control with mean-square input constraint. Automatica, 1992, 28, 593-597.	3.0	10
112	Long-range adaptive control with input constraints. International Journal of Control, 1991, 54, 289-306.	1.2	13
113	A long-range adaptive controller for time-varying plants with sudden changes. International Journal of Adaptive Control and Signal Processing, 1991, 5, 219-230.	2.3	1