

Constantino Lagoa

List of Publications by Year in descending order

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116
papers

1,334
citations

430442

18
h-index

454577

30
g-index

120
all docs

120
docs citations

120
times ranked

1032
citing authors

#	ARTICLE	IF	CITATIONS
1	A Sparsification Approach to Set Membership Identification of Switched Affine Systems. IEEE Transactions on Automatic Control, 2012, 57, 634-648.	3.6	95
2	Seasons, weather, and device-measured movement behaviors: a scoping review from 2006 to 2020. International Journal of Behavioral Nutrition and Physical Activity, 2021, 18, 24.	2.0	87
3	Probabilistically Constrained Linear Programs and Risk-Adjusted Controller Design. SIAM Journal on Optimization, 2005, 15, 938-951.	1.2	57
4	Adaptive Control Algorithms for Decentralized Optimal Traffic Engineering in the Internet. IEEE/ACM Transactions on Networking, 2004, 12, 415-428.	2.6	55
5	Set membership identification of switched linear systems with known number of subsystems. Automatica, 2015, 51, 180-191.	3.0	52
6	Personalized models of physical activity responses to text message micro-interventions: A proof-of-concept application of control systems engineering methods. Psychology of Sport and Exercise, 2019, 41, 172-180.	1.1	48
7	End-to-End Optimal Algorithms for Integrated QoS, Traffic Engineering, and Failure Recovery. IEEE/ACM Transactions on Networking, 2007, 15, 813-823.	2.6	38
8	A sparsification approach to set membership identification of a class of affine hybrid systems. , 2008, , .		37
9	Vehicle Localization Using In-Vehicle Pitch Data and Dynamical Models. IEEE Transactions on Intelligent Transportation Systems, 2015, 16, 206-220.	4.7	37
10	Bridging the gap between sensor noise modeling and sensor characterization. Measurement: Journal of the International Measurement Confederation, 2018, 116, 350-366.	2.5	36
11	Unconstrained optimal control of regular languages. Automatica, 2004, 40, 639-646.	3.0	32
12	Robust identification of switched affine systems via moments-based convex optimization. , 2009, , .		32
13	Convex Certificates for Model (In)validation of Switched Affine Systems With Unknown Switches. IEEE Transactions on Automatic Control, 2014, 59, 2921-2932.	3.6	31
14	Semidefinite Programming For Chance Constrained Optimization Over Semialgebraic Sets. SIAM Journal on Optimization, 2015, 25, 1411-1440.	1.2	29
15	Designing adaptive intensive interventions using methods from engineering.. Journal of Consulting and Clinical Psychology, 2014, 82, 868-878.	1.6	27
16	Optimal supervisory control of finite state automata. International Journal of Control, 2004, 77, 1083-1100.	1.2	26
17	Decentralized optimal traffic engineering in the internet. Computer Communication Review, 2000, 30, 39-47.	1.5	25
18	Decentralized optimal traffic engineering in connectionless networks. IEEE Journal on Selected Areas in Communications, 2005, 23, 293-303.	9.7	25

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19	Simple approximations of semialgebraic sets and their applications to control. <i>Automatica</i> , 2017, 78, 110-118.	3.0	21
20	Engineering Person-Specific Behavioral Interventions to Promote Physical Activity. <i>Exercise and Sport Sciences Reviews</i> , 2020, 48, 170-179.	1.6	21
21	Predictive analytics of crude oil prices by utilizing the intelligent model search engine. <i>Applied Energy</i> , 2018, 228, 2387-2397.	5.1	19
22	Learning Hidden Influences in Large-Scale Dynamical Social Networks: A Data-Driven Sparsity-Based Approach, in <i>Memory of Roberto Tempo</i> . <i>IEEE Control Systems</i> , 2021, 41, 61-103.	1.0	19
23	Control Engineering Methods for the Design of Robust Behavioral Treatments. <i>IEEE Transactions on Control Systems Technology</i> , 2017, 25, 979-990.	3.2	18
24	Malicious Corruption Resilience in PMU Data and Wide-Area Damping Control. <i>IEEE Transactions on Smart Grid</i> , 2020, 11, 958-967.	6.2	18
25	A Kinship Function Approach to Robust and Probabilistic Optimization Under Polynomial Uncertainty. <i>IEEE Transactions on Automatic Control</i> , 2011, 56, 1509-1523.	3.6	17
26	A Randomized Algorithm for Parsimonious Model Identification. <i>IEEE Transactions on Automatic Control</i> , 2018, 63, 532-539.	3.6	17
27	Evaluating the effect of smoking cessation treatment on a complex dynamical system. <i>Drug and Alcohol Dependence</i> , 2017, 180, 215-222.	1.6	15
28	A risk adjusted approach to robust simultaneous fault detection and isolation. <i>Automatica</i> , 2007, 43, 499-504.	3.0	14
29	Model (in) validation of switched ARX systems with unknown switches and its application to activity monitoring. , 2010, , .		14
30	Identification of switched autoregressive exogenous systems from large noisy datasets. <i>International Journal of Robust and Nonlinear Control</i> , 2020, 30, 5777-5801.	2.1	14
31	Convex Chance Constrained Model Predictive Control. , 2016, , .		13
32	GPCA with denoising: A moments-based convex approach. , 2010, , .		11
33	TERSE: A Unified End-to-End Traffic Control Mechanism to Enable Elastic, Delay Adaptive, and Rate Adaptive Services. <i>IEEE Journal on Selected Areas in Communications</i> , 2011, 29, 938-950.	9.7	11
34	An efficient atomic norm minimization approach to identification of low order models. , 2013, , .		11
35	Parsimonious model identification via atomic norm minimization. , 2014, , .		11
36	Recursive approximation of complex behaviours with IoT-data imperfections. <i>IEEE/CAA Journal of Automatica Sinica</i> , 2020, 7, 656-667.	8.5	11

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37	Robust Observer Design for a Class of Switched Systems. , 2006, , .		10
38	Hard Bounds on the Probability of Performance With Application to Circuit Analysis. IEEE Transactions on Circuits and Systems I: Regular Papers, 2008, 55, 3178-3187.	3.5	10
39	Terrain-based vehicle localization from real-time data using dynamical models. , 2012, , .		10
40	Probabilistically Robust AC Optimal Power Flow. IEEE Transactions on Control of Network Systems, 2019, 6, 1135-1147.	2.4	10
41	Convex relaxations of a probabilistically robust control design problem. , 2013, , .		9
42	A Method for Identification of Markovian Jump ARX Processes. IFAC-PapersOnLine, 2017, 50, 14088-14093.	0.5	9
43	Person-specific dose-finding for a digital messaging intervention to promote physical activity.. Health Psychology, 2021, 40, 502-512.	1.3	9
44	Integrated, Distributed Traffic Control in Multidomain Networks. IEEE Transactions on Control Systems Technology, 2015, 23, 1373-1386.	3.2	8
45	On the mathematical modeling of the effect of treatment on human physical activity. , 2016, , .		8
46	A nonlinear term selection method for improving synchronous machine parameters estimation. International Journal of Electrical Power and Energy Systems, 2017, 85, 77-86.	3.3	8
47	Ergodic Opinion Dynamics Over Networks: Learning Influences From Partial Observations. IEEE Transactions on Automatic Control, 2021, 66, 2709-2723.	3.6	8
48	Utility function of TCP. Computer Communications, 2009, 32, 800-805.	3.1	7
49	Convex relaxations for robust identification of Wiener systems and applications. , 2011, , .		7
50	Low-order model identification of MIMO systems from noisy and incomplete data. , 2015, , .		7
51	Validation of Model Order Assumption and Noise Reduction Method for the Impact Resonance Testing of Asphalt Concrete. Journal of Nondestructive Evaluation, 2017, 36, 1.	1.1	7
52	Non-concave network utility maximization: A distributed optimization approach. , 2017, , .		7
53	A fully distributed traffic allocation algorithm for nonconcave utility maximization in connectionless communication networks. Automatica, 2019, 109, 108506.	3.0	7
54	Surviving the upcoming data deluge: A systems and control perspective. , 2014, , .		6

#	ARTICLE	IF	CITATIONS
55	Robust Superstabilizing Controller Design from Open-Loop Experimental Input/Output Data**This work was supported in part by NSF grants IIS-1318145and ECCS-1404163; AFOSR grant FA9550-12-1-0271, and the Alert DHS Center of Excellence under Award Number 2008-ST-061-ED0001.. IFAC-PapersOnLine, 2015, 48, 1337-1342.	0.5	6
56	Non-concave network utility maximization in connectionless networks: A fully distributed traffic allocation algorithm. , 2017, , .		6
57	Randomized opinion dynamics over networks: influence estimation from partial observations. , 2018, , .		6
58	Identification of Switched Autoregressive Systems from Large Noisy Data Sets. , 2019, , .		6
59	A moments-based approach to estimation and data interpolation for a class of Wiener systems. , 2010, , .		5
60	On the complexity of randomized approximations of nonconvex sets. , 2010, , .		5
61	Terrain-Aided Localization Using Feature-Based Particle Filtering. , 2011, , .		5
62	Transfer entropy between cortical and basal ganglia electrophysiology. , 2012, , .		5
63	Robust map design by outlier point selection for terrain-based vehicle localization. , 2013, , .		5
64	An Internet of Things compliant model identification methodology for smart buildings. , 2017, , .		5
65	Steps towards digital tools for personalised physical activity promotion. British Journal of Sports Medicine, 2021, , bjsports-2021-104169.	3.1	5
66	A convex parametrization of risk-adjusted stabilizing controllers. Automatica, 2003, 39, 1829-1835.	3.0	4
67	An integrated, distributed traffic control strategy for the future internet. , 2006, , .		4
68	Parsimonious Volterra System Identification. , 2018, , .		4
69	Temporal Dynamics of Treatment Receipt in a Text Message Intervention for Physical Activity: Single-Group, Within-Person Trial. JMIR MHealth and UHealth, 2020, 8, e14270.	1.8	4
70	Sampling Random Transfer Functions. , 2006, , 331-363.		4
71	Robust Optimal Control of Regular Languages. , 2005, , 71-93.		3
72	Risk adjusted identification of a class of nonlinear systems. , 2007, , .		3

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73	Distributional robustness analysis for polynomial uncertainty. , 2009, , .		3
74	Vision based control of an autonomous blimp with actuator saturation using pulse-width modulation. , 2013, , .		3
75	An efficient approach to the radar ghost elimination problem. , 2016, , .		3
76	Hankel Matrix Rank as Indicator of Ghost in Bearing-Only Tracking. IEEE Transactions on Aerospace and Electronic Systems, 2018, 54, 2713-2723.	2.6	3
77	Comparison of Different Spike Sorting Subtechniques Based on Rat Brain Basolateral Amygdala Neuronal Activity. , 2019, , .		3
78	Robust optimal control of regular languages. Automatica, 2005, 41, 1439-1445.	3.0	2
79	A robust MPC approach to the design of behavioural treatments. , 2013, , .		2
80	Random geometric graphs as a model for bounding the endurance of soaring aircraft. , 2014, , .		2
81	Uniform sample generation in semialgebraic sets. , 2014, , .		2
82	Randomized Approximations of the Image Set of Nonlinear Mappings with Applications to Filtering—This research was partly funded by CNR-CNRS bilateral project No. 134562. IFAC-PapersOnLine, 2015, 48, 37-42.	0.5	2
83	Robust stabilization of discrete-time piecewise affine systems subject to bounded disturbances. , 2016, , .		2
84	Optimization-based, QoS-aware distributed traffic control laws for networks with time-varying link capacities. Automatica, 2016, 72, 158-165.	3.0	2
85	A Sum-of-Squares Polynomial Approach for Road Anomaly Detection Using Vehicle Sensor Measurements. , 2017, , .		2
86	System Identification Algorithm for Non-Uniformly Sampled Data * *This study was partially supported by National Institutes of Health (NIH) grant P50 DA039838 and National Science Foundation (NSF) Grants CNS-1329422 and ECCS-1201973 and the Berkeley Education Alliance for Research in Singapore (BEARS) for the Singapore-Berkeley Building Efficiency and Sustainability in the Tropics (SinBerBEST) Program. The work described is the sole responsibility of the authors and does not necessarily represent the offici. IFAC-PapersOnLine, 2017, 50, 7296-7301.	0.5	2
87	End-to-End Distributed Flow Control for Networks with Nonconcave Utilities. IEEE Transactions on Network Science and Engineering, 2019, 6, 303-313.	4.1	2
88	Design of Dynamic Inversion and Explicit Model Following Flight Control Laws for Quadrotor UAS. Journal of the American Helicopter Society, 2020, 65, 1-16.	0.5	2
89	Dynamic models of stress-smoking responses based on high-frequency sensor data. Npj Digital Medicine, 2021, 4, 162.	5.7	2
90	Quantifiable Frequency Support from Grid-Forming Converters with DC-side Current Limits in Grids with Synchronous Generators. , 2021, , .		2

#	ARTICLE	IF	CITATIONS
91	Fast Stochastic MPC Implementation via Policy Learning. , 2022, 6, 3020-3025.		2
92	OPTIMAL DECENTRALIZED ALGORITHMS FOR TRAFFIC ENGINEERING IN THE INTERNET. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 389-394.	0.4	1
93	Reconstruction of support of a measure from its moments. , 2014, , .		1
94	Robust data map design using chance constrained optimization. , 2014, , .		1
95	A linear temporal logic based approach for vehicle motion planning. , 2017, , .		1
96	A distributed algorithm with consistency for PageRank-like linear algebraic systems * *Research partially supported by grant OptHySYS funded by the University of Trento, and by grant PowerLyap funded by CaRITRo and National Science Foundation (NSF) Grants CNS-1329422 and ECCS-1201973.. IFAC-PapersOnLine, 2017, 50, 5172-5177.	0.5	1
97	Probability Maximization with Random Linear Inequalities: Alternative Formulations and Stochastic Approximation Schemes. , 2018, , .		1
98	Continuous-time model identification: application on a behavioural (miLife) study. International Journal of Control, 2020, , 1-12.	1.2	1
99	Probabilistic Discrete Time Robust H2 Controller Design. , 2020, , .		1
100	Abstract P196: Personalized Dynamical System Models Of Individual Text Message Effects On Changes In Physical Activity. Circulation, 2020, 141, .	1.6	1
101	Parsimonious System Identification from Quantized Observations. , 2021, , .		1
102	OPTIMAL SUPERVISORY CONTROL OF REGULAR LANGUAGES. Demonstratio Mathematica, 2004, 37, .	0.6	0
103	Optimal Supervisory Control of Regular Languages. , 2005, , 39-69.		0
104	A family of optimization-based traffic control laws for overlay networks. , 2007, , .		0
105	RACT - Randomized Algorithms Control Toolbox: A Tutorial Introduction. , 2008, , .		0
106	Multiscale Autoregressive Identification of Neuroelectrophysiological Systems. Computational and Mathematical Methods in Medicine, 2012, 2012, 1-5.	0.7	0
107	Multi-attribute data dynamics discontinuity identification: A probabilistic approach using linear modeling. , 2014, , .		0
108	Computer vision-based control of an autonomous blimp. Turkish Journal of Electrical Engineering and Computer Sciences, 2016, 24, 4015-4026.	0.9	0

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109	Distributional Robustness Analysis for Nonlinear Uncertainty Structures. IEEE Transactions on Automatic Control, 2016, 61, 1900-1905.	3.6	0
110	Suboptimal H_2 Control of Switched Linear Models: a Superstability Approach * *This work was supported in part by NSF grants IIS-1318145, ECCS-1404163, CMMI-1638234 CNS-1329422 and ECCS-1201973; AFOSR grant FA9550-15-1-0392; and the Alert DHS Center of Excellence under Award Number 2013-ST-061-ED0001.. IFAC-PapersOnLine, 2017, 50, 14380-14385.	0.5	0
111	Applying sum of squares decomposition technique to power system robust control problem. IEEE Transactions on Electrical and Electronic Engineering, 2018, 13, 218-225.	0.8	0
112	Recursive Parsimonious System Identification Algorithm for Dynamical Systems. , 2018, , .		0
113	Governing Dynamics of Crude Oil and LNG Prices. , 2018, , .		0
114	Autonomic Interference Avoidance with Extended Shortest Path Algorithm. Lecture Notes in Computer Science, 2006, , 57-66.	1.0	0
115	Identification of Markov Jump Autoregressive Processes from Large Noisy Data Sets. IFAC-PapersOnLine, 2020, 53, 1077-1083.	0.5	0
116	Affective judgments, environmental determinants, and physical activity in emerging and young adults. Psychology and Health, 2024, 39, 479-498.	1.2	0