Jorge Goncalves

List of Publications by Year
in descending order

69 papers	2,956 citations	331670 21 h-index	197818 49 g-index
78 all docs	78 docs citations	78 times ranked	4255 citing authors

#	Article	IF	Citations
1	An interpretable mortality prediction model for COVID-19 patients. Nature Machine Intelligence, 2020, 2, 283-288.	16.0	686
2	EARLY FLOWERING4 Recruitment of EARLY FLOWERING3 in the Nucleus Sustains the <i>Arabidopsis</i> Circadian Clock. Plant Cell, 2012, 24, 428-443.	6.6	275
3	The <i>Arabidopsis</i> Circadian Clock Incorporates a cADPR-Based Feedback Loop. Science, 2007, 318, 1789-1792.	12.6	212
4	Necessary and Sufficient Conditions for Dynamical Structure Reconstruction of LTI Networks. IEEE Transactions on Automatic Control, 2008, 53, 1670-1674.	5.7	176
5	PaCER - A fully automated method for electrode trajectory and contact reconstruction in deep brain stimulation. NeuroImage: Clinical, 2018, 17, 80-89.	2.7	174
6	Data driven discovery of cyber physical systems. Nature Communications, 2019, 10, 4894.	12.8	118
7	Robust dynamical network structure reconstruction. Automatica, 2011, 47, 1230-1235.	5.0	110
8	A Sparse Bayesian Approach to the Identification of Nonlinear State-Space Systems. IEEE Transactions on Automatic Control, 2016, 61, 182-187.	5.7	94
9	Critical transitions in chronic disease: transferring concepts from ecology to systems medicine. Current Opinion in Biotechnology, 2015, 34, 48-55.	6.6	86
10	Almost Global Consensus on the <inline-formula> <tex-math notation="LaTeX">n</tex-math> </inline-formula> -Sphere. IEEE Transactions on Automatic Control, 2018, 63, 1664-1675.	5.7	83
11	SARS-CoV-2 transmission risk from asymptomatic carriers: Results from a mass screening programme in Luxembourg. Lancet Regional Health - Europe, The, 2021, 4, 100056.	5.6	68
12	Global State Synchronization in Networks of Cyclic Feedback Systems. IEEE Transactions on Automatic Control, 2012, 57, 478-483.	5.7	62
13	Consensus and formation control on <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si3.gif" display="inline" overflow="scroll"><mml:mi>S</mml:mi><mml:mi>E</mml:mi><mml:mrow><mml:mo>(</mml:mo><mml:mn>3</mml:mn><mml:mo>) for switching topologies. Automatica, 2016, 66, 109-121.	5.0	59
14	Koopman-Based Lifting Techniques for Nonlinear Systems Identification. IEEE Transactions on Automatic Control, 2020, 65, 2550-2565.	5.7	58
15	Clinical data based optimal STI strategies for HIV: a reinforcement learning approach. , 2006, , .		40
16	Online fault diagnosis for nonlinear power systems. Automatica, 2015, 55, 27-36.	5.0	36
17	Gene regulatory network inference from sparsely sampled noisy data. Nature Communications, 2020, 11, 3493.	12.8	35
18	High-dimensional Kuramoto models on Stiefel manifolds synchronize complex networks almost globally. Automatica, 2020, 113, 108736.	5.0	32

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19	Differential Effects of Day/Night Cues and the Circadian Clock on the Barley Transcriptome. Plant Physiology, 2020, 183, 765-779.	4.8	29
20	Model-based assessment of COVID-19 epidemic dynamics by wastewater analysis. Science of the Total Environment, 2022, 827, 154235.	8.0	29
21	FastField: An open-source toolbox for efficient approximation of deep brain stimulation electric fields. NeuroImage, 2020, 223, 117330.	4.2	28
22	Reconstruction of arbitrary biochemical reaction networks: A compressive sensing approach. , 2012, , .		23
23	Output synchronization in networks of cyclic biochemical oscillators. Proceedings of the American Control Conference, 2007, , .	0.0	22
24	Modelling COVID-19 dynamics and potential for herd immunity by vaccination in Austria, Luxembourg and Sweden. Journal of Theoretical Biology, 2021, 530, 110874.	1.7	22
25	Network Identifiability from Intrinsic Noise. IEEE Transactions on Automatic Control, 2017, 62, 3717-3728.	5.7	20
26	A lifting method for analyzing distributed synchronization on the unit sphere. Automatica, 2018, 96, 253-258.	5.0	20
27	Decentralised final value theorem for discrete-time LTI systems with application to minimal-time distributed consensus. , 2009, , .		18
28	Development and Validation of a Prognostic Risk Score System for COVID-19 Inpatients: A Multi-Center Retrospective Study in China. Engineering, 2022, 8, 116-121.	6.7	17
29	Distributed methods for synchronization of orthogonal matrices over graphs. Automatica, 2017, 80, 243-252.	5.0	16
30	Post-operative deep brain stimulation assessment: Automatic data integration and report generation. Brain Stimulation, 2018, 11, 863-866.	1.6	16
31	Constructive synchronization of networked feedback systems. , 2010, , .		14
32	Local Lyapunov Functions for Consensus in Switching Nonlinear Systems. IEEE Transactions on Automatic Control, 2017, 62, 6466-6472.	5.7	14
33	Decentralised minimal-time dynamic consensus. , 2012, , .		13
34	Identification of Nonlinear State-Space Systems From Heterogeneous Datasets. IEEE Transactions on Control of Network Systems, 2018, 5, 737-747.	3.7	13
35	Dynamical differential expression (DyDE) reveals the period control mechanisms of the Arabidopsis circadian oscillator. PLoS Computational Biology, 2019, 15, e1006674.	3.2	13
36	Quantifying crosstalk in biochemical systems. , 2012, , .		12

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37	Linear Dynamic Network Reconstruction from Heterogeneous Datasets. IFAC-PapersOnLine, 2017, 50, 10586-10591.	0.9	12
38	Almost global convergence to practical synchronization in the generalized Kuramoto model on networks over the n-sphere. Communications Physics, 2021, 4, .	5.3	12
39	Performance of early warning signals for disease re-emergence: A case study on COVID-19 data. PLoS Computational Biology, 2022, 18, e1009958.	3.2	12
40	Minimal dynamical structure realisations with application to network reconstruction from data. , 2009, , .		11
41	Dynamic controllers for column synchronization of rotation matrices: A QR-factorization approach. Automatica, 2018, 93, 20-25.	5.0	11
42	Robust network reconstruction in polynomial time. , 2012, , .		10
43	Uncertainty quantification and global sensitivity analysis of complex chemical processes with a large number of input parameters using compressive polynomial chaos. Chemical Engineering Research and Design, 2016, 115, 204-213.	5.6	9
44	Dynamical SPQEIR model assesses the effectiveness of non-pharmaceutical interventions against COVID-19 epidemic outbreaks. PLoS ONE, 2021, 16, e0252019.	2.5	9
45	Data-Driven Discovery of Stochastic Differential Equations. Engineering, 2022, 17, 244-252.	6.7	9
46	Robust dynamical network reconstruction. , 2010, , .		8
47	Optimising time-series experimental design for modelling of circadian rhythms: the value of transient data. IFAC-PapersOnLine, 2016, 49, 109-113.	0.9	8
48	A Minimal Realization Technique for the Dynamical Structure Function of a Class of LTI Systems. IEEE Transactions on Control of Network Systems, 2017, 4, 301-311.	3.7	8
49	Li Yan et al. reply. Nature Machine Intelligence, 2021, 3, 28-32.	16.0	8
50	COVID-19 crisis management in Luxembourg: Insights from an epidemionomic approach. Economics and Human Biology, 2021, 43, 101051.	1.7	8
51	Shaping Pulses to Control Bistable Monotone Systems Using Koopman Operator. IFAC-PapersOnLine, 2016, 49, 698-703.	0.9	7
52	A two-stage approach of multiplicative dimensional reduction and polynomial chaos for global sensitivity analysis and uncertainty quantification with a large number of process uncertainties. Journal of the Taiwan Institute of Chemical Engineers, 2017, 78, 254-264.	5.3	7
53	A Cost-Effective Atomic Force Microscope for Undergraduate Control Laboratories. IEEE Transactions on Education, 2010, 53, 328-334.	2.4	6
54	High precision variational Bayesian inference of sparse linear networks. Automatica, 2020, 118, 109017.	5.0	6

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55	Robust synchronization in networks of cyclic feedback systems. , 2008, , .		5
56	Towards Almost Global Synchronization on the Stiefel Manifold. , 2018, , .		5
57	Minimal-time network reconstruction for DTLTI systems. , 2010, , .		3
58	Identification of nonlinear sparse networks using sparse Bayesian learning. , 2017, , .		3
59	A Full Bayesian Approach to Sparse Network Inference Using Heterogeneous Datasets. IEEE Transactions on Automatic Control, 2021, 66, 3282-3288.	5.7	3
60	Reply to: Consider the laboratory aspects in developing patient prediction models. Nature Machine Intelligence, 2021, 3, 19-19.	16.0	3
61	COVID-19 Crisis Management in Luxembourg: Insights from an Epidemionomic Approach. SSRN Electronic Journal, 0, , .	0.4	3
62	Reply to: Clinical interpretation of an interpretable prognostic model for patients with COVID-19. Nature Machine Intelligence, 2021, 3, 17-17.	16.0	2
63	Heterogeneous agent models in economics: A study of heterogenous productivity of sectors. , 2008, , .		1
64	Assessing the effect of unknown widespread perturbations in complex systems using the Î½-gap. , 2015, , .		1
65	A multifactorial evaluation framework for gene regulatory network reconstruction. IFAC-PapersOnLine, 2019, 52, 262-268.	0.9	1
66	System Aliasing in Dynamic Network Reconstruction:Issues on Low Sampling Frequencies. IEEE Transactions on Automatic Control, 2021, 66, 5788-5801.	5.7	1
67	From Diagnosing Diseases to Predicting Diseases. , 2019, , 95-103.		0
68	Network Stability, Realisation and Random Model Generation. , 2019, , .		0
69	Linear system identifiability from single-cell data. Systems and Control Letters, 2022, 165, 105287.	2.3	0