

# Jorge Goncalves

## List of Publications by Year in descending order

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69  
papers

2,956  
citations

331259

21  
h-index

197535

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.	8.3	686
2	EARLY FLOWERING4 Recruitment of EARLY FLOWERING3 in the Nucleus Sustains the <i>Arabidopsis</i> Circadian Clock. Plant Cell, 2012, 24, 428-443.	3.1	275
3	The <i>Arabidopsis</i> Circadian Clock Incorporates a cADPR-Based Feedback Loop. Science, 2007, 318, 1789-1792.	6.0	212
4	Necessary and Sufficient Conditions for Dynamical Structure Reconstruction of LTI Networks. IEEE Transactions on Automatic Control, 2008, 53, 1670-1674.	3.6	176
5	PaCER - A fully automated method for electrode trajectory and contact reconstruction in deep brain stimulation. NeuroImage: Clinical, 2018, 17, 80-89.	1.4	174
6	Data driven discovery of cyber physical systems. Nature Communications, 2019, 10, 4894.	5.8	118
7	Robust dynamical network structure reconstruction. Automatica, 2011, 47, 1230-1235.	3.0	110
8	A Sparse Bayesian Approach to the Identification of Nonlinear State-Space Systems. IEEE Transactions on Automatic Control, 2016, 61, 182-187.	3.6	94
9	Critical transitions in chronic disease: transferring concepts from ecology to systems medicine. Current Opinion in Biotechnology, 2015, 34, 48-55.	3.3	86
10	Almost Global Consensus on the $S^n$ -Sphere. IEEE Transactions on Automatic Control, 2018, 63, 1664-1675.	3.6	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.	3.0	68
12	Global State Synchronization in Networks of Cyclic Feedback Systems. IEEE Transactions on Automatic Control, 2012, 57, 478-483.	3.6	62
13	Consensus and formation control on $S^3$ for switching topologies. Automatica, 2016, 66, 109-121.	3.0	59
14	Koopman-Based Lifting Techniques for Nonlinear Systems Identification. IEEE Transactions on Automatic Control, 2020, 65, 2550-2565.	3.6	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.	3.0	36
17	Gene regulatory network inference from sparsely sampled noisy data. Nature Communications, 2020, 11, 3493.	5.8	35
18	High-dimensional Kuramoto models on Stiefel manifolds synchronize complex networks almost globally. Automatica, 2020, 113, 108736.	3.0	32

#	ARTICLE	IF	CITATIONS
19	Differential Effects of Day/Night Cues and the Circadian Clock on the Barley Transcriptome. <i>Plant Physiology</i> , 2020, 183, 765-779.	2.3	29
20	Model-based assessment of COVID-19 epidemic dynamics by wastewater analysis. <i>Science of the Total Environment</i> , 2022, 827, 154235.	3.9	29
21	FastField: An open-source toolbox for efficient approximation of deep brain stimulation electric fields. <i>NeuroImage</i> , 2020, 223, 117330.	2.1	28
22	Reconstruction of arbitrary biochemical reaction networks: A compressive sensing approach. , 2012, , .		23
23	Output synchronization in networks of cyclic biochemical oscillators. <i>Proceedings of the American Control Conference</i> , 2007, , .	0.0	22
24	Modelling COVID-19 dynamics and potential for herd immunity by vaccination in Austria, Luxembourg and Sweden. <i>Journal of Theoretical Biology</i> , 2021, 530, 110874.	0.8	22
25	Network Identifiability from Intrinsic Noise. <i>IEEE Transactions on Automatic Control</i> , 2017, 62, 3717-3728.	3.6	20
26	A lifting method for analyzing distributed synchronization on the unit sphere. <i>Automatica</i> , 2018, 96, 253-258.	3.0	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. <i>Engineering</i> , 2022, 8, 116-121.	3.2	17
29	Distributed methods for synchronization of orthogonal matrices over graphs. <i>Automatica</i> , 2017, 80, 243-252.	3.0	16
30	Post-operative deep brain stimulation assessment: Automatic data integration and report generation. <i>Brain Stimulation</i> , 2018, 11, 863-866.	0.7	16
31	Constructive synchronization of networked feedback systems. , 2010, , .		14
32	Local Lyapunov Functions for Consensus in Switching Nonlinear Systems. <i>IEEE Transactions on Automatic Control</i> , 2017, 62, 6466-6472.	3.6	14
33	Decentralised minimal-time dynamic consensus. , 2012, , .		13
34	Identification of Nonlinear State-Space Systems From Heterogeneous Datasets. <i>IEEE Transactions on Control of Network Systems</i> , 2018, 5, 737-747.	2.4	13
35	Dynamical differential expression (DyDE) reveals the period control mechanisms of the Arabidopsis circadian oscillator. <i>PLoS Computational Biology</i> , 2019, 15, e1006674.	1.5	13
36	Quantifying crosstalk in biochemical systems. , 2012, , .		12

#	ARTICLE	IF	CITATIONS
37	Linear Dynamic Network Reconstruction from Heterogeneous Datasets. IFAC-PapersOnLine, 2017, 50, 10586-10591.	0.5	12
38	Almost global convergence to practical synchronization in the generalized Kuramoto model on networks over the n-sphere. Communications Physics, 2021, 4, .	2.0	12
39	Performance of early warning signals for disease re-emergence: A case study on COVID-19 data. PLoS Computational Biology, 2022, 18, e1009958.	1.5	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.	3.0	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.	2.7	9
44	Dynamical SPQEIR model assesses the effectiveness of non-pharmaceutical interventions against COVID-19 epidemic outbreaks. PLoS ONE, 2021, 16, e0252019.	1.1	9
45	Data-Driven Discovery of Stochastic Differential Equations. Engineering, 2022, 17, 244-252.	3.2	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.	0.5	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.	2.4	8
49	Li Yan et al. reply. Nature Machine Intelligence, 2021, 3, 28-32.	8.3	8
50	COVID-19 crisis management in Luxembourg: Insights from an epidemionomic approach. Economics and Human Biology, 2021, 43, 101051.	0.7	8
51	Shaping Pulses to Control Bistable Monotone Systems Using Koopman Operator. IFAC-PapersOnLine, 2016, 49, 698-703.	0.5	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.	2.7	7
53	A Cost-Effective Atomic Force Microscope for Undergraduate Control Laboratories. IEEE Transactions on Education, 2010, 53, 328-334.	2.0	6
54	High precision variational Bayesian inference of sparse linear networks. Automatica, 2020, 118, 109017.	3.0	6

#	ARTICLE	IF	CITATIONS
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.	3.6	3
60	Reply to: Consider the laboratory aspects in developing patient prediction models. Nature Machine Intelligence, 2021, 3, 19-19.	8.3	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.	8.3	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 $\hat{1}/2$ -gap. , 2015, , .		1
65	A multifactorial evaluation framework for gene regulatory network reconstruction. IFAC-PapersOnLine, 2019, 52, 262-268.	0.5	1
66	System Aliasing in Dynamic Network Reconstruction:Issues on Low Sampling Frequencies. IEEE Transactions on Automatic Control, 2021, 66, 5788-5801.	3.6	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.	1.3	0