

Giulia Giordano

List of Publications by Year in descending order

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Version: 2024-02-01

103
papers

2,693
citations

394286

19
h-index

223716

46
g-index

113
all docs

113
docs citations

113
times ranked

3460
citing authors

#	ARTICLE	IF	CITATIONS
1	Modelling the COVID-19 epidemic and implementation of population-wide interventions in Italy. <i>Nature Medicine</i> , 2020, 26, 855-860.	15.2	1,373
2	Modeling vaccination rollouts, SARS-CoV-2 variants and the requirement for non-pharmaceutical interventions in Italy. <i>Nature Medicine</i> , 2021, 27, 993-998.	15.2	161
3	An action plan for pan-European defence against new SARS-CoV-2 variants. <i>Lancet, The</i> , 2021, 397, 469-470.	6.3	101
4	Calling for pan-European commitment for rapid and sustained reduction in SARS-CoV-2 infections. <i>Lancet, The</i> , 2021, 397, 92-93.	6.3	71
5	Piecewise-linear Lyapunov functions for structural stability of biochemical networks. <i>Automatica</i> , 2014, 50, 2482-2493.	3.0	70
6	Negative Autoregulation Matches Production and Demand in Synthetic Transcriptional Networks. <i>ACS Synthetic Biology</i> , 2014, 3, 589-599.	1.9	54
7	A Structural Classification of Candidate Oscillatory and Multistationary Biochemical Systems. <i>Bulletin of Mathematical Biology</i> , 2014, 76, 2542-2569.	0.9	46
8	Molecular Titration Promotes Oscillations and Bistability in Minimal Network Models with Monomeric Regulators. <i>ACS Synthetic Biology</i> , 2016, 5, 321-333.	1.9	40
9	Computing the structural influence matrix for biological systems. <i>Journal of Mathematical Biology</i> , 2016, 72, 1927-1958.	0.8	38
10	Stabilization of negative capacitance in ferroelectric capacitors with and without a metal interlayer. <i>Nanoscale</i> , 2020, 12, 6121-6129.	2.8	34
11	Risk assessment of COVID-19 epidemic resurgence in relation to SARS-CoV-2 variants and vaccination passes. <i>Communications Medicine</i> , 2022, 2, .	1.9	32
12	Network-Decentralized Control Strategies for Stabilization. <i>IEEE Transactions on Automatic Control</i> , 2015, 60, 491-496.	3.6	31
13	Active Fault Isolation: A Duality-Based Approach via Convex Programming. <i>SIAM Journal on Control and Optimization</i> , 2017, 55, 1619-1640.	1.1	29
14	Polyhedral Lyapunov functions structurally ensure global asymptotic stability of dynamical networks iff the Jacobian is non-singular. <i>Automatica</i> , 2017, 86, 183-191.	3.0	29
15	Biometric Palmprint Verification: A Dynamical System Approach. <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i> , 2019, 49, 2676-2687.	5.9	29
16	Data-driven methods for present and future pandemics: Monitoring, modelling and managing. <i>Annual Reviews in Control</i> , 2021, 52, 448-464.	4.4	28
17	The joint network/control design of platooning algorithms can enforce guaranteed safety constraints. <i>Ad Hoc Networks</i> , 2019, 94, 101962.	3.4	23
18	Guide on set invariance for delay difference equations. <i>Annual Reviews in Control</i> , 2016, 41, 13-23.	4.4	22

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19	Compartmental flow control: Decentralization, robustness and optimality. <i>Automatica</i> , 2016, 64, 18-28.	3.0	20
20	Aggregates of Monotonic Step Response Systems: A Structural Classification. <i>IEEE Transactions on Control of Network Systems</i> , 2018, 5, 782-792.	2.4	18
21	Determining the structural properties of a class of biological models. , 2012, , .		15
22	The Smallest Eigenvalue of the Generalized Laplacian Matrix, with Application to Network-Decentralized Estimation for Homogeneous Systems. <i>IEEE Transactions on Network Science and Engineering</i> , 2016, 3, 312-324.	4.1	15
23	Model-Free Plant Tuning. <i>IEEE Transactions on Automatic Control</i> , 2017, 62, 2623-2634.	3.6	15
24	Structured-LMI conditions for stabilizing network-decentralized control. , 2013, , .		14
25	Structural conditions for oscillations and multistationarity in aggregate monotone systems. , 2015, , .		14
26	Homogeneous Time Constants Promote Oscillations in Negative Feedback Loops. <i>ACS Synthetic Biology</i> , 2018, 7, 1481-1487.	1.9	14
27	Qualitative and quantitative responses to press perturbations in ecological networks. <i>Scientific Reports</i> , 2017, 7, 11378.	1.6	13
28	A convex programming approach to the inverse kinematics problem for manipulators under constraints. <i>European Journal of Control</i> , 2017, 33, 11-23.	1.6	13
29	Practical differentiation using ultrasensitive molecular circuits. , 2019, , .		13
30	Challenges and Future Directions in Pandemic Control. , 2022, 6, 722-727.		13
31	Mal de Debarquement Syndrome: A Matter of Loops?. <i>Frontiers in Neurology</i> , 2020, 11, 576860.	1.1	12
32	A convex optimization approach to cancer treatment to address tumor heterogeneity and imperfect drug penetration in physiological compartments. , 2016, , .		11
33	Robust constrained Model Predictive Control of fast electromechanical systems. <i>Journal of the Franklin Institute</i> , 2016, 353, 2087-2103.	1.9	11
34	Stability analysis of an artificial biomolecular oscillator with non-cooperative regulatory interactions. <i>Journal of Biological Dynamics</i> , 2017, 11, 102-120.	0.8	11
35	First special section on systems and control research efforts against COVID-19 and future pandemics. <i>Annual Reviews in Control</i> , 2020, 50, 343-344.	4.4	11
36	Design of a molecular clock with RNA-mediated regulation. , 2014, , .		10

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37	Loop analysis of blood pressure/volume homeostasis. PLoS Computational Biology, 2019, 15, e1007346.	1.5	10
38	A joint network/control design for cooperative automatic driving. , 2017, , .		9
39	Control-theoretic methods for biological networks. , 2018, , .		9
40	Acoustic Target Tracking Through a Cluster of Mobile Agents. IEEE Transactions on Cybernetics, 2021, 51, 2587-2600.	6.2	9
41	Set Invariance for Delay Difference Equations —a —The research leading to these results has benefited from the financial support of the European Union's 7th Framework Programme under EC-GA No. 607957 TEMPO —Training in Embedded Predictive Control and Optimization. The authors acknowledge also the support of the Franco-Italian collaborative research programme No. 30188PK Galileo 2014.. IFAC PapersOnLine, 2015, 48, 215-220.	0.5	8
42	A Bounded Complementary Sensitivity Function Ensures Topology-Independent Stability of Homogeneous Dynamical Networks. IEEE Transactions on Automatic Control, 2018, 63, 1140-1146.	3.6	8
43	Analysis of coupled genetic oscillators with delayed positive feedback interconnections. , 2019, , .		8
44	A Retrospective Analysis of the COVID-19 Pandemic Evolution in Italy. Biology, 2021, 10, 311.	1.3	8
45	A multistationary loop model of ALS unveils critical molecular interactions involving mitochondria and glucose metabolism. PLoS ONE, 2020, 15, e0244234.	1.1	8
46	Checking Structural Stability of BDC-Decomposable Systems via Convex Optimisation. , 2020, 4, 205-210.		7
47	Structural analysis in biology: A control-theoretic approach. Automatica, 2021, 126, 109376.	3.0	7
48	Inverse kinematics by means of convex programming: Some developments. , 2015, , .		6
49	A dynamic algorithm for palmprint recognition. , 2015, , .		6
50	Network-decentralised optimisation and control: An explicit saturated solution. Automatica, 2019, 103, 379-389.	3.0	6
51	A Dynamic Biometric Authentication Algorithm for Near-Infrared Palm Vascular Patterns. IEEE Access, 2020, 8, 118978-118988.	2.6	6
52	Polyhedral Lyapunov functions for structural stability of biochemical systems in concentration and reaction coordinates. , 2015, , .		5
53	Design and analysis of a biomolecular positive-feedback oscillator. , 2018, , .		5
54	Ceramide-transfer protein-mediated ceramide transfer is a structurally tunable flow-inducing mechanism with structural feed-forward loops. Royal Society Open Science, 2018, 5, 180494.	1.1	5

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55	Optimal duration and planning of switching treatments taking drug toxicity into account: a convex optimisation approach. , 2019, , .		5
56	Revised analysis of negative capacitance in ferroelectric-insulator capacitors: analytical and numerical results, physical insight, comparison to experiments. , 2019, , .		5
57	<i>BDC</i> -Decomposition for Global Influence Analysis. , 2019, 3, 260-265.		5
58	Third special section on systems and control research efforts against COVID-19 and future pandemics. Annual Reviews in Control, 2021, 52, 446-447.	4.4	5
59	Aggregates of positive impulse response systems: A decomposition approach for complex networks. , 2017, , .		4
60	Interaction sign patterns in biological networks: From qualitative to quantitative criteria. , 2017, , .		4
61	Biomolecular stabilisation near the unstable equilibrium of a biological system. , 2019, , .		4
62	Periodic Switching in a Recombinase-Based Molecular Circuit. , 2020, 4, 241-246.		4
63	Signaling-based neural networks for cellular computation. , 2021, , .		4
64	A threshold mechanism ensures minimum-path flow in lightning discharge. Scientific Reports, 2021, 11, 280.	1.6	4
65	Feedback architectures to regulate flux of components in artificial gene networks. , 2013, , .		3
66	Plant tuning: A robust Lyapunov approach. , 2015, , .		3
67	A switched system approach to dynamic race modelling. Nonlinear Analysis: Hybrid Systems, 2016, 21, 37-48.	2.1	3
68	Flow-Inducing Networks. , 2017, 1, 44-49.		3
69	A network-decentralised strategy for shortest-path-flow routing. , 2019, , .		3
70	Second special section on systems and control research efforts against COVID-19 and future pandemics. Annual Reviews in Control, 2021, 51, 424-425.	4.4	3
71	An Asymmetric Stabilizer Based on Scheduling Shifted Coordinates for Single-Input Linear Systems With Asymmetric Saturation. , 2022, 6, 746-751.		3
72	Thalamocortical bistable switch as a theoretical model of fibromyalgia pathogenesis inferred from a literature survey. Journal of Computational Neuroscience, 2022, 50, 471-484.	0.6	3

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73	Structural Stability of Biochemical Networks: Quadratic vs. Polyhedral Lyapunov Functions. IFAC-PapersOnLine, 2015, 48, 278-283.	0.5	2
74	Properties of switching-dynamics race models. , 2015, , .		2
75	On the LPV Control Design and Its Applications to Some Classes of Dynamical Systems. Lecture Notes in Control and Information Sciences, 2015, , 319-338.	0.6	2
76	Negative feedback enables structurally signed steady-state influences in artificial biomolecular networks. , 2016, , .		2
77	A Robust Decentralized Control for Channel Sharing Communication. IEEE Transactions on Control of Network Systems, 2017, 4, 336-346.	2.4	2
78	Topology-Independent Robust Stability of Homogeneous Dynamic Networks * *G.G. acknowledges support from the Swedish Research Council through the LCCC Linnaeus Center and the eLLIIT Excellence Center at Lund University.. IFAC-PapersOnLine, 2017, 50, 1736-1741.	0.5	2
79	Model-free tuning of plants with parasitic dynamics. , 2017, , .		2
80	Dual Chemical Reaction Networks and Implications for Lyapunov-Based Structural Stability. , 2022, 6, 488-493.		2
81	Predicting adaptation for uncertain systems with robust real plots. , 2020, , .		2
82	Topology-Independent Robust Stability for Networks of Homogeneous MIMO Systems. IFAC-PapersOnLine, 2020, 53, 3379-3384.	0.5	2
83	Generalized epidemiological compartmental models: guaranteed bounds via optimal control. , 2021, , .		2
84	Solving Nonlinear Algebraic Loops Arising in Input-Saturated Feedbacks. IEEE Transactions on Automatic Control, 2023, 68, 2079-2093.	3.6	2
85	Network-decentralized robust congestion control with node traffic splitting. , 2014, , .		1
86	A saturated strategy robustly ensures stability of the cooperative equilibrium for Prisoner's dilemma. , 2016, , .		1
87	Discrete-Time Trials for Tuning without a Model * *G.G. acknowledges support from the Swedish Research Council through the LCCC Linnaeus Center and the eLLIIT Excellence Center at Lund University.. IFAC-PapersOnLine, 2017, 50, 1539-1544.	0.5	1
88	Fault Isolation for Large Scale Discrete-Time Systems Based on Implicit Set Representation. , 2018, , .		1
89	A Robust Saturated Strategy for n -Player Prisoner's Dilemma. SIAM Journal on Control and Optimization, 2018, 56, 3478-3498.	1.1	1
90	A switched model for mixed cooperative-competitive social dynamics. , 2019, , .		1

#	ARTICLE	IF	CITATIONS
91	Unraveling energy homeostasis in a dynamic model of glycolysis in Escherichia coli. , 2019, , .		1
92	Fair and Sparse Solutions in Network-Decentralized Flow Control. , 2022, 6, 2984-2989.		1
93	Topology-Independent Robust Stability Conditions for Uncertain MIMO Networks. , 2020, , 1-1.		0
94	Structural Properties of Biological and Ecological Systems. , 2021, , 2217-2225.		0
95	Modeling of Pandemics and Intervention Strategies: The COVID-19 Outbreak. , 2021, , 1292-1301.		0
96	Call for a pan-European COVID-19 response must be comprehensive – Authors' reply. Lancet, The, 2021, 397, 1541.	6.3	0
97	Structural Properties of Biological and Ecological Systems. , 2020, , 1-9.		0
98	Modeling of Pandemics and Intervention Strategies: The COVID-19 Outbreak. , 2020, , 1-10.		0
99	MIMO Networks with Heterogeneous Uncertainties: Topology-Independent Robust Stability and \mathbb{L}_\pm -Convergence. , 2021, , .		0
100	Title is missing!. , 2020, 15, e0244234.		0
101	Title is missing!. , 2020, 15, e0244234.		0
102	Title is missing!. , 2020, 15, e0244234.		0
103	Title is missing!. , 2020, 15, e0244234.		0