

Mario di Bernardo

List of Publications by Year in descending order

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294
papers

9,505
citations

47006

47
h-index

49909

87
g-index

314
all docs

314
docs citations

314
times ranked

5795
citing authors

#	ARTICLE	IF	CITATIONS
1	Controllability of complex networks via pinning. <i>Physical Review E</i> , 2007, 75, 046103.	2.1	382
2	Distributed Consensus Strategy for Platooning of Vehicles in the Presence of Time-Varying Heterogeneous Communication Delays. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2015, 16, 102-112.	8.0	368
3	A Yeast Synthetic Network for In Vivo Assessment of Reverse-Engineering and Modeling Approaches. <i>Cell</i> , 2009, 137, 172-181.	28.9	348
4	Distributed Adaptive Control of Synchronization in Complex Networks. <i>IEEE Transactions on Automatic Control</i> , 2012, 57, 2153-2158.	5.7	323
5	Bifurcations in Nonsmooth Dynamical Systems. <i>SIAM Review</i> , 2008, 50, 629-701.	9.5	296
6	Novel decentralized adaptive strategies for the synchronization of complex networks. <i>Automatica</i> , 2009, 45, 1312-1318.	5.0	286
7	Criteria for global pinning-controllability of complex networks. <i>Automatica</i> , 2008, 44, 3100-3106.	5.0	240
8	Bifurcations of dynamical systems with sliding: derivation of normal-form mappings. <i>Physica D: Nonlinear Phenomena</i> , 2002, 170, 175-205.	2.8	223
9	On QUAD, Lipschitz, and Contracting Vector Fields for Consensus and Synchronization of Networks. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2011, 58, 576-583.	5.4	196
10	A comparative analysis of synthetic genetic oscillators. <i>Journal of the Royal Society Interface</i> , 2010, 7, 1503-1524.	3.4	180
11	Grazing and Border-Collision in Piecewise-Smooth Systems: A Unified Analytical Framework. <i>Physical Review Letters</i> , 2001, 86, 2553-2556.	7.8	161
12	Synchronization of complex networks through local adaptive coupling. <i>Chaos</i> , 2008, 18, 037110.	2.5	151
13	Global Entrainment of Transcriptional Systems to Periodic Inputs. <i>PLoS Computational Biology</i> , 2010, 6, e1000739.	3.2	148
14	SELF-OSCILLATIONS AND SLIDING IN RELAY FEEDBACK SYSTEMS: SYMMETRY AND BIFURCATIONS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2001, 11, 1121-1140.	1.7	147
15	Event-Triggered Pinning Control of Switching Networks. <i>IEEE Transactions on Control of Network Systems</i> , 2015, 2, 204-213.	3.7	147
16	Comparing different ODE modelling approaches for gene regulatory networks. <i>Journal of Theoretical Biology</i> , 2009, 261, 511-530.	1.7	138
17	AN ADAPTIVE APPROACH TO THE CONTROL AND SYNCHRONIZATION OF CONTINUOUS-TIME CHAOTIC SYSTEMS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 1996, 06, 557-568.	1.7	125
18	A network model of Italy shows that intermittent regional strategies can alleviate the COVID-19 epidemic. <i>Nature Communications</i> , 2020, 11, 5106.	12.8	122

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19	Evolution of Complex Networks via Edge Snapping. IEEE Transactions on Circuits and Systems I: Regular Papers, 2010, 57, 2132-2143.	5.4	116
20	BSim: An Agent-Based Tool for Modeling Bacterial Populations in Systems and Synthetic Biology. PLoS ONE, 2012, 7, e42790.	2.5	116
21	In-Vivo Real-Time Control of Protein Expression from Endogenous and Synthetic Gene Networks. PLoS Computational Biology, 2014, 10, e1003625.	3.2	114
22	Synchronization and Control of Complex Networks via Contraction, Adaptation and Evolution. IEEE Circuits and Systems Magazine, 2010, 10, 64-82.	2.3	113
23	Grazing, skipping and sliding: Analysis of the non-smooth dynamics of the DC/DC buck converter. Nonlinearity, 1998, 11, 859-890.	1.4	110
24	TWO-PARAMETER DISCONTINUITY-INDUCED BIFURCATIONS OF LIMIT CYCLES: CLASSIFICATION AND OPEN PROBLEMS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2006, 16, 601-629.	1.7	106
25	Distributed model based event-triggered control for synchronization of multi-agent systems. Automatica, 2016, 73, 1-7.	5.0	98
26	Bifurcations of piecewise smooth flows: Perspectives, methodologies and open problems. Physica D: Nonlinear Phenomena, 2012, 241, 1845-1860.	2.8	92
27	Hybrid Model Reference Adaptive Control of Piecewise Affine Systems. IEEE Transactions on Automatic Control, 2013, 58, 304-316.	5.7	88
28	Contraction Theory and Master Stability Function: Linking Two Approaches to Study Synchronization of Complex Networks. IEEE Transactions on Circuits and Systems II: Express Briefs, 2009, 56, 177-181.	3.0	85
29	Multiplex PI control for consensus in networks of heterogeneous linear agents. Automatica, 2016, 67, 310-320.	5.0	85
30	Distributed PID Control for Consensus of Homogeneous and Heterogeneous Networks. IEEE Transactions on Control of Network Systems, 2015, 2, 154-163.	3.7	84
31	Discontinuity-induced bifurcations of equilibria in piecewise-smooth and impacting dynamical systems. Physica D: Nonlinear Phenomena, 2008, 237, 119-136.	2.8	82
32	Design, Analysis, and Experimental Validation of a Distributed Protocol for Platooning in the Presence of Time-Varying Heterogeneous Delays. IEEE Transactions on Control Systems Technology, 2015, , 1-1.	5.2	78
33	Synchronization in weighted scale-free networks with degree-degree correlation. Physica D: Nonlinear Phenomena, 2006, 224, 123-129.	2.8	76
34	<i>In Vivo</i> Real-Time Control of Gene Expression: A Comparative Analysis of Feedback Control Strategies in Yeast. ACS Synthetic Biology, 2016, 5, 154-162.	3.8	76
35	Dynamic similarity promotes interpersonal coordination in joint action. Journal of the Royal Society Interface, 2016, 13, 20151093.	3.4	76
36	A Contraction Approach to the Hierarchical Analysis and Design of Networked Systems. IEEE Transactions on Automatic Control, 2013, 58, 1328-1331.	5.7	66

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37	Adaptive Pinning Control of Networks of Circuits and Systems in Lur'e Form. IEEE Transactions on Circuits and Systems I: Regular Papers, 2013, 60, 3033-3042.	5.4	65
38	Pinning control of complex networks via edge snapping. Chaos, 2011, 21, 033119.	2.5	64
39	Evolving dynamical networks. Physica D: Nonlinear Phenomena, 2014, 267, 1-6.	2.8	61
40	A purely adaptive controller to synchronize and control chaotic systems. Physics Letters, Section A: General, Atomic and Solid State Physics, 1996, 214, 139-144.	2.1	60
41	Experimental and numerical verification of bifurcations and chaos in cam-follower impacting systems. Nonlinear Dynamics, 2007, 50, 409-429.	5.2	58
42	Analysis, design and implementation of a novel scheme for in-vivo control of synthetic gene regulatory networks. Automatica, 2011, 47, 1265-1270.	5.0	58
43	Convergence and synchronization in heterogeneous networks of smooth and piecewise smooth systems. Automatica, 2015, 56, 1-11.	5.0	58
44	Two-parameter degenerate sliding bifurcations in Filippov systems. Physica D: Nonlinear Phenomena, 2005, 204, 204-229.	2.8	57
45	Evolving enhanced topologies for the synchronization of dynamical complex networks. Physical Review E, 2010, 81, 056212.	2.1	56
46	<i>In-Silico</i> Analysis and Implementation of a Multicellular Feedback Control Strategy in a Synthetic Bacterial Consortium. ACS Synthetic Biology, 2017, 6, 507-517.	3.8	54
47	An Orthogonal Multi-input Integration System to Control Gene Expression in <i>Escherichia coli</i> . ACS Synthetic Biology, 2017, 6, 1816-1824.	3.8	52
48	C-bifurcations and period-adding in one-dimensional piecewise-smooth maps. Chaos, Solitons and Fractals, 2003, 18, 953-976.	5.1	50
49	EFFECTS OF DEGREE CORRELATION ON THE SYNCHRONIZATION OF NETWORKS OF OSCILLATORS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2007, 17, 3499-3506.	1.7	50
50	Data-driven modelling of social forces and collective behaviour in zebrafish. Journal of Theoretical Biology, 2018, 443, 39-51.	1.7	50
51	Modeling RNA interference in mammalian cells. BMC Systems Biology, 2011, 5, 19.	3.0	48
52	Adaptive synchronization of complex networks. International Journal of Computer Mathematics, 2008, 85, 1189-1218.	1.8	47
53	NONHYPERBOLIC BOUNDARY EQUILIBRIUM BIFURCATIONS IN PLANAR FILIPPOV SYSTEMS: A CASE STUDY APPROACH. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2008, 18, 1377-1392.	1.7	45
54	Data-driven stochastic modelling of zebrafish locomotion. Journal of Mathematical Biology, 2015, 71, 1081-1105.	1.9	45

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55	Interaction patterns and individual dynamics shape the way we move in synchrony. <i>Scientific Reports</i> , 2017, 7, 6846.	3.3	44
56	BSim 2.0: An Advanced Agent-Based Cell Simulator. <i>ACS Synthetic Biology</i> , 2017, 6, 1969-1972.	3.8	43
57	How to Turn a Genetic Circuit into a Synthetic Tunable Oscillator, or a Bistable Switch. <i>PLoS ONE</i> , 2009, 4, e8083.	2.5	42
58	Analysis and stability of consensus in networked control systems. <i>Applied Mathematics and Computation</i> , 2010, 217, 988-1000.	2.2	41
59	Discontinuity-induced bifurcations of piecewise smooth dynamical systems. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010, 368, 4915-4935.	3.4	40
60	Organization of feed-forward loop motifs reveals architectural principles in natural and engineered networks. <i>Science Advances</i> , 2018, 4, eaap9751.	10.3	40
61	Minimal Control Synthesis Adaptive Control of Continuous Bimodal Piecewise Affine Systems. <i>SIAM Journal on Control and Optimization</i> , 2010, 48, 4242-4261.	2.1	39
62	Extended hybrid model reference adaptive control of piecewise affine systems. <i>Nonlinear Analysis: Hybrid Systems</i> , 2016, 21, 11-21.	3.5	39
63	How to Synchronize Biological Clocks. <i>Journal of Computational Biology</i> , 2009, 16, 379-393.	1.6	38
64	Synchronization of Networks of Non-Identical Chua's Circuits: Analysis and Experiments. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2012, 59, 1029-1041.	5.4	38
65	<i>In Vivo</i> Feedback Control of an Antithetic Molecular-Titration Motif in <i>Escherichia coli</i> Using Microfluidics. <i>ACS Synthetic Biology</i> , 2020, 9, 2617-2624.	3.8	37
66	Qualitative theory of non-smooth dynamical systems. , 2008, , 47-119.		37
67	SYNCHRONIZABILITY AND SYNCHRONIZATION DYNAMICS OF WEIGHED AND UNWEIGHED SCALE FREE NETWORKS WITH DEGREE MIXING. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2007, 17, 2419-2434.	1.7	36
68	Coexisting solutions and bifurcations in mechanical oscillators with backlash. <i>Journal of Sound and Vibration</i> , 2007, 305, 854-885.	3.9	36
69	Corner-Impact Bifurcations: A Novel Class of Discontinuity-Induced Bifurcations in Cam-Follower Systems. <i>SIAM Journal on Applied Dynamical Systems</i> , 2008, 7, 18-38.	1.6	36
70	Model reference adaptive control of discrete-time piecewise linear systems. <i>International Journal of Robust and Nonlinear Control</i> , 2013, 23, 709-730.	3.7	36
71	Existence, stability and robustness analysis of limit cycles in hybrid anti-lock braking systems. <i>International Journal of Control</i> , 2009, 82, 659-678.	1.9	35
72	Teixeira singularities in 3D switched feedback control systems. <i>Systems and Control Letters</i> , 2010, 59, 615-622.	2.3	34

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73	Evolving dynamical networks: A formalism for describing complex systems. <i>Complexity</i> , 2012, 17, 18-25.	1.6	34
74	Analytical Approximations of Critical Clearing Time for Parametric Analysis of Power System Transient Stability. <i>IEEE Journal on Emerging and Selected Topics in Circuits and Systems</i> , 2015, 5, 465-476.	3.6	34
75	Synthesis and Experimental Validation of the Novel LQ-NEMCSI Adaptive Strategy on an Electronic Throttle Valve. <i>IEEE Transactions on Control Systems Technology</i> , 2010, , .	5.2	33
76	Temperature dependence of ssrA-tag mediated protein degradation. <i>Journal of Biological Engineering</i> , 2012, 6, 10.	4.7	32
77	Contraction analysis of switched systems via regularization. <i>Automatica</i> , 2016, 73, 279-288.	5.0	32
78	Unravelling socio-motor biomarkers in schizophrenia. <i>NPJ Schizophrenia</i> , 2017, 3, 8.	3.6	32
79	Catastrophic sliding bifurcations and onset of oscillations in a superconducting resonator. <i>Physical Review E</i> , 2010, 81, 016213.	2.1	31
80	A Graphical Approach to Prove Contraction of Nonlinear Circuits and Systems. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2011, 58, 336-348.	5.4	30
81	Contraction Analysis for a Class of NonDifferentiable Systems with Applications to Stability and Network Synchronization. <i>SIAM Journal on Control and Optimization</i> , 2014, 52, 3203-3227.	2.1	30
82	Hybrid optimal scheduling for intermittent androgen suppression of prostate cancer. <i>Chaos</i> , 2010, 20, 045125.	2.5	29
83	Using Aging to Visually Uncover Evolutionary Processes on Networks. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2012, 18, 1343-1352.	4.4	29
84	Tunable genetic devices through simultaneous control of transcription and translation. <i>Nature Communications</i> , 2020, 11, 2095.	12.8	29
85	Experimental and Numerical Investigation of Coexistence, Novel Bifurcations, and Chaos in a Cam-Follower System. <i>SIAM Journal on Applied Dynamical Systems</i> , 2009, 8, 592-623.	1.6	27
86	Two-parameter discontinuity-induced bifurcation curves in a ZAD-strategy-controlled dc-dc buck converter. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2008, 55, 2392-2401.	5.4	26
87	A Multi-Functional Synthetic Gene Network: A Frequency Multiplier, Oscillator and Switch. <i>PLoS ONE</i> , 2011, 6, e16140.	2.5	26
88	Design, validation and experimental testing of a robust AQM control. <i>Control Engineering Practice</i> , 2009, 17, 394-407.	5.5	25
89	Event-triggered pinning control of complex networks with switching topologies. , 2014, , .		25
90	Pinning Controllability of Complex Network Systems With Noise. <i>IEEE Transactions on Control of Network Systems</i> , 2019, 6, 874-883.	3.7	25

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91	Experimental Analysis and Modeling of Limit Cycles in a Dynamic Wind-Tunnel Rig. <i>Journal of Aircraft</i> , 2003, 40, 776-785.	2.4	24
92	Novel switched model reference adaptive control for continuous piecewise affine systems. , 2008, , .		24
93	Full Characterization of Act-and-wait Control for First-order Unstable Lag Processes. <i>JVC/Journal of Vibration and Control</i> , 2010, 16, 1209-1233.	2.6	24
94	Balancing Cell Populations Endowed with a Synthetic Toggle Switch <i>via</i> Adaptive Pulsatile Feedback Control. <i>ACS Synthetic Biology</i> , 2020, 9, 793-803.	3.8	23
95	Cheetah: A Computational Toolkit for Cybergenetic Control. <i>ACS Synthetic Biology</i> , 2021, 10, 979-989.	3.8	23
96	Design of a Virtual Player for Joint Improvisation with Humans in the Mirror Game. <i>PLoS ONE</i> , 2016, 11, e0154361.	2.5	23
97	Entrainment and synchronization in networks of Rayleigh–van der Pol oscillators with diffusive and Haken–Kelso–Buzs couplings. <i>Biological Cybernetics</i> , 2016, 110, 151-169.	1.3	22
98	Decision landscapes: visualizing mouse-tracking data. <i>Royal Society Open Science</i> , 2017, 4, 170482.	2.4	22
99	Self-Organization of Weighted Networks for Optimal Synchronizability. <i>IEEE Transactions on Control of Network Systems</i> , 2018, 5, 1541-1550.	3.7	22
100	Analysis and Control of Genetic Toggle Switches Subject to Periodic Multi-Input Stimulation. , 2019, 3, 278-283.		22
101	Feedback control of limit cycles: a switching control strategy based on nonsmooth bifurcation theory. <i>IEEE Transactions on Circuits and Systems Part 1: Regular Papers</i> , 2005, 52, 366-378.	0.1	21
102	Modelling emergence of oscillations in communicating bacteria: a structured approach from one to many cells. <i>Journal of the Royal Society Interface</i> , 2013, 10, 20120612.	3.4	21
103	Leadership emergence in a data-driven model of zebrafish shoals with speed modulation. <i>European Physical Journal: Special Topics</i> , 2015, 224, 3343-3360.	2.6	21
104	Design of a Gain-Scheduled Flight Control System Using Bifurcation Analysis. <i>Journal of Guidance, Control, and Dynamics</i> , 2006, 29, 444-453.	2.8	20
105	Canonical Forms of Generic Piecewise Linear Continuous Systems. <i>IEEE Transactions on Automatic Control</i> , 2011, 56, 1911-1915.	5.7	20
106	Extended Cooperative Adaptive Cruise Control. , 2014, , .		20
107	Adaptive pinning control: A review of the fully decentralized strategy and its extensions. <i>European Physical Journal: Special Topics</i> , 2014, 223, 2649-2664.	2.6	20
108	Reconstructing the structure of directed and weighted networks of nonlinear oscillators. <i>Physical Review E</i> , 2017, 95, 042302.	2.1	20

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109	Complex Dynamics in a Hysteretic Relay Feedback System with Delay. <i>Journal of Nonlinear Science</i> , 2007, 17, 85-108.	2.1	19
110	Stability of networked systems: A multi-scale approach using contraction. , 2010, , .		19
111	Heterogeneity induces emergent functional networks for synchronization. <i>Physical Review E</i> , 2015, 91, 062913.	2.1	19
112	Exploiting Nodes Symmetries to Control Synchronization and Consensus Patterns in Multiagent Systems. , 2017, 1, 364-369.		19
113	Robust output feedback active queue management control in TCP networks. , 2004, , .		18
114	Dynamics of Symmetric Dynamical Systems with Delayed Switching. <i>JVC/Journal of Vibration and Control</i> , 2010, 16, 1111-1140.	2.6	18
115	Third-order consensus in vehicles platoon with heterogeneous time-varying delays. <i>IFAC-PapersOnLine</i> , 2015, 48, 358-363.	0.9	18
116	Design and Validation of a Virtual Player for Studying Interpersonal Coordination in the Mirror Game. <i>IEEE Transactions on Cybernetics</i> , 2018, 48, 1018-1029.	9.5	18
117	Fully adaptive pinning control of complex networks. , 2010, , .		17
118	Experimental implementation and validation of a novel minimal control synthesis adaptive controller for continuous bimodal piecewise affine systems. <i>Control Engineering Practice</i> , 2012, 20, 269-281.	5.5	17
119	Experimental validation of the discrete-time MCS adaptive strategy. <i>Control Engineering Practice</i> , 2013, 21, 847-859.	5.5	17
120	A novel cognitive architecture for a human-like virtual player in the mirror game. , 2014, , .		17
121	Influence of facial feedback during a cooperative human-robot task in schizophrenia. <i>Scientific Reports</i> , 2017, 7, 15023.	3.3	17
122	A Novel Computer-Based Set-Up to Study Movement Coordination in Human Ensembles. <i>Frontiers in Psychology</i> , 2017, 8, 967.	2.1	17
123	Synchronization in Multiplex Networks of Chua's Circuits: Theory and Experiments. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2020, 67, 927-938.	5.4	17
124	Self-adaptive biosystems through tunable genetic parts and circuits. <i>Current Opinion in Systems Biology</i> , 2020, 24, 78-85.	2.6	17
125	Limit cycles analysis in hybrid anti-lock braking systems. , 2007, , .		16
126	Two-Parameter Bifurcation Analysis of the Buck Converter. <i>SIAM Journal on Applied Dynamical Systems</i> , 2009, 8, 1507-1522.	1.6	16

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127	Energy-Based Key-On Control of a Double Magnet Electromechanical Valve Actuator. IEEE Transactions on Control Systems Technology, 2012, 20, 1133-1145.	5.2	16
128	Structural Stability of the Two-Fold Singularity. SIAM Journal on Applied Dynamical Systems, 2012, 11, 1215-1230.	1.6	16
129	Modelling and Control for Bounded Synchronization in Multi-Terminal VSC-HVDC Transmission Networks. IEEE Transactions on Circuits and Systems I: Regular Papers, 2016, 63, 916-925.	5.4	16
130	Ratiometric control for differentiation of cell populations endowed with synthetic toggle switches. , 2019, , .		16
131	Reduction-based robust active queue management control. Control Engineering Practice, 2007, 15, 177-186.	5.5	15
132	Novel hybrid MRAC-LQ control schemes: synthesis, analysis and applications. International Journal of Control, 2008, 81, 940-961.	1.9	15
133	Derivation, identification and validation of a computational model of a novel synthetic regulatory network in yeast. Journal of Mathematical Biology, 2011, 62, 685-706.	1.9	15
134	Tracking a mobile target by multi-robot circumnavigation using bearing measurements. , 2017, , .		15
135	Moving in unison after perceptual interruption. Scientific Reports, 2020, 10, 18032.	3.3	15
136	Multicellular Feedback Control of a Genetic Toggle-Switch in Microbial Consortia. , 2021, 5, 151-156.		15
137	Measuring Zebrafish Turning Rate. Zebrafish, 2015, 12, 250-254.	1.1	14
138	Contraction and incremental stability of switched Carathéodory systems using multiple norms. Automatica, 2016, 70, 1-8.	5.0	14
139	Convergence, Consensus and Synchronization of Complex Networks via Contraction Theory. Understanding Complex Systems, 2016, , 313-339.	0.6	14
140	Model-Based Feedback Control of Live Zebrafish Behavior via Interaction With a Robotic Replica. IEEE Transactions on Robotics, 2020, 36, 28-41.	10.3	14
141	Convergence and synchronization in networks of piecewise-smooth systems via distributed discontinuous coupling. Automatica, 2021, 129, 109596.	5.0	14
142	Control engineering meets synthetic biology: Foundations and applications. Current Opinion in Systems Biology, 2021, 28, 100397.	2.6	14
143	Control of Nonlinear Aircraft Models Using Dynamic State-Feedback Gain Scheduling. , 2003, , .		13
144	Effects of variations of load distribution on network performance. , 0, , .		13

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145	Hybrid modeling and dynamics of a controlled reverse flow reactor. <i>AIChE Journal</i> , 2007, 53, 2084-2096.	3.6	13
146	Discrete-time minimal control synthesis adaptive algorithm. <i>International Journal of Control</i> , 2010, 83, 2641-2657.	1.9	13
147	Two-fold singularity in nonsmooth electrical systems. , 2011, , .		13
148	Consensus and synchronization of complex networks via proportional-integral coupling. , 2014, , .		13
149	Distributed optimisation and control of graph Laplacian eigenvalues for robust consensus via an adaptive multilayer strategy. <i>International Journal of Robust and Nonlinear Control</i> , 2017, 27, 1499-1525.	3.7	13
150	To Pass or Not to Pass: Modeling the Movement and Affordance Dynamics of a Pick and Place Task. <i>Frontiers in Psychology</i> , 2017, 8, 1061.	2.1	13
151	ChipSeg: An Automatic Tool to Segment Bacterial and Mammalian Cells Cultured in Microfluidic Devices. <i>ACS Omega</i> , 2021, 6, 2473-2476.	3.5	13
152	Automatic synchronisation of the cell cycle in budding yeast through closed-loop feedback control. <i>Nature Communications</i> , 2021, 12, 2452.	12.8	13
153	ON THE ROBUSTNESS OF PERIODIC SOLUTIONS IN RELAY FEEDBACK SYSTEMS. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2002, 35, 191-196.	0.4	12
154	Synchronizability of coupled PWL maps. <i>Chaos, Solitons and Fractals</i> , 2009, 41, 1353-1367.	5.1	12
155	Solving the rendezvous problem for multi-agent systems using contraction theory. , 2009, , .		12
156	An experimental approach to identify dynamical models of transcriptional regulation in living cells. <i>Chaos</i> , 2013, 23, 025106.	2.5	12
157	Distributed Model Based Event-Triggered Control for Synchronization of Multi-Agent Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2013, 46, 329-334.	0.4	12
158	Adaptive tracking control of a virtual player in the mirror game. , 2014, , .		12
159	A model predictive approach to control the motion of a virtual player in the mirror game. , 2015, , .		12
160	Modular experimental setup for real-time analysis of emergent behavior in networks of Chua's circuits. <i>International Journal of Circuit Theory and Applications</i> , 2016, 44, 1551-1571.	2.0	12
161	Nonverbal leadership emergence in walking groups. <i>Scientific Reports</i> , 2020, 10, 18948.	3.3	12
162	In-silico feedback control of a MIMO synthetic Toggle Switch via Pulse-Width Modulation. , 2019, , .		11

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163	Spontaneous emergence of leadership patterns drives synchronization in complex human networks. Scientific Reports, 2021, 11, 18379.	3.3	11
164	Ratiometric control of cell phenotypes in a monostrain microbial consortia. Journal of the Royal Society Interface, 2022, 19, .	3.4	11
165	The Importance of Choosing Attractors for Optimizing Chaotic Communications. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2004, 51, 511-516.	2.2	10
166	Minimal control synthesis adaptive control of nonlinear systems: utilizing the properties of chaos. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2006, 364, 2397-2415.	3.4	10
167	FROM COMPLETE TO INCOMPLETE CHATTERING: A NOVEL ROUTE TO CHAOS IN IMPACTING CAM-FOLLOWER SYSTEMS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1250102.	1.7	10
168	Comparing different control approaches to implement a human-like virtual player in the mirror game. , 2016, , .		10
169	Aircraft Flight Dynamics Analysis and Controller Design Using Bifurcation Tailoring. , 2002, , .		9
170	Editorial: Cooperative Multi-Agent Systems with Engineering Applications. IET Control Theory and Applications, 2015, 9, 309-311.	2.1	9
171	Design of a multicellular feedback control strategy in a synthetic bacterial consortium. , 2016, , .		9
172	Pinning Controllability of Complex Stochastic Networks. IFAC-PapersOnLine, 2017, 50, 8327-8332.	0.9	9
173	Synchronization of Networks of Piecewise-Smooth Systems. , 2018, 2, 653-658.		9
174	Herding stochastic autonomous agents via local control rules and online target selection strategies. Autonomous Robots, 2022, 46, 469-481.	4.8	9
175	Modelling and control of a single degree-of-freedom dynamic wind tunnel RIG. , 2003, , .		8
176	Hybrid Minimal Control Synthesis identification of continuous piecewise linear systems. , 2009, , .		8
177	Adaptive weight selection for optimal consensus performance. , 2014, , .		8
178	Kinematic characteristics of motion in the mirror game. , 2014, , .		8
179	Decentralized Gain Adaptation for Optimal Pinning Controllability of Complex Networks. , 2020, 4, 253-258.		8
180	Characterisation of cortical activity in response to deep brain stimulation of ventral lateral nucleus: Modelling and experiment. Journal of Neuroscience Methods, 2009, 183, 77-85.	2.5	7

#	ARTICLE	IF	CITATIONS
181	On Contraction of Piecewise Smooth Dynamical Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 13299-13304.	0.4	7
182	Self-tuning proportional integral control for consensus in heterogeneous multi-agent systems. European Journal of Applied Mathematics, 2016, 27, 923-940.	2.9	7
183	Distributed Discontinuous Coupling for Convergence in Heterogeneous Networks. , 2021, 5, 1037-1042.		7
184	Feedback Ratiometric Control of Two Microbial Populations in a Single Chemostat. , 2022, 6, 800-805.		7
185	Control-Based Continuation: A New Approach to Prototype Synthetic Gene Networks. ACS Synthetic Biology, 2022, 11, 2300-2313.	3.8	7
186	Robustness of local adaptive synchronization strategies to topological variations and delays. , 2009, , .		6
187	Active Chaos Control of a Cam-Follower Impacting System using FPIC Technique. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 327-332.	0.4	6
188	On some recent advances in synchronization and control of Complex Networks. , 2010, , .		6
189	Discrete-Time MRAC with Minimal Controller Synthesis of an Electronic Throttle Body. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 5064-5069.	0.4	6
190	On adaptive bounded synchronization in Power Network models. , 2012, , .		6
191	Existence and stability of limit cycles in a delayed dry-friction oscillator. Nonlinear Dynamics, 2012, 67, 483-496.	5.2	6
192	On convergence and robustness of the Extended Cooperative Cruise Control. , 2014, , .		6
193	Synchronization and local convergence analysis of networks with dynamic diffusive coupling. Chaos, 2016, 26, 116308.	2.5	6
194	Entrainment and Control of Bacterial Populations: An <i>in Silico</i> Study over a Spatially Extended Agent Based Model. ACS Synthetic Biology, 2016, 5, 639-653.	3.8	6
195	Dynamic Cell Mapping Algorithm for Computing Basins of Attraction in Planar Filippov Systems. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2017, 27, 1730041.	1.7	6
196	Multicellular PI Control for Gene Regulation in Microbial Consortia. , 2022, 6, 3373-3378.		6
197	Effects of Degree Correlation on the synchronizability of networks of nonlinear oscillators. , 0, , .		5
198	A comparative study of the new LQ-MCS control on an automotive electro-mechanical system. , 2008, , .		5

#	ARTICLE	IF	CITATIONS
199	Design and Validation of a Novel Model Reference Adaptive Algorithm to Control ETB for Drive-by-wire Applications. SAE International Journal of Passenger Cars - Mechanical Systems, 2009, 2, 1268-1284.	0.4	5
200	An algorithm for the construction of synthetic self synchronizing biological circuits. , 2009, , .		5
201	Experiments on synchronization in networks of nonlinear oscillators with dynamic links. Nonlinear Theory and Its Applications IEICE, 2013, 4, 462-472.	0.6	5
202	Incremental stability of planar Filippov systems. , 2013, , .		5
203	Switching control for incremental stabilization of nonlinear systems via contraction theory. , 2016, , .		5
204	Towards feedback control of the cell-cycle across a population of yeast cells. , 2019, , .		5
205	Using Learning to Control Artificial Avatars in Human Motor Coordination Tasks. IEEE Transactions on Robotics, 2021, 37, 2067-2082.	10.3	5
206	On a novel Hybrid LQ-MCS control strategy and its application to a DC motor. , 2007, , .		4
207	An Algorithm to Prove Contraction, Consensus, and Network Synchronization. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 60-65.	0.4	4
208	Contraction Theory for Systems Biology. , 2011, , 93-114.		4
209	Model-Based Soft Landing Control of an Electromechanical Engine Valve Actuator. , 2012, , .		4
210	Convergence and cluster synchronization in networks of discrete-time and asynchronous systems. , 2013, , .		4
211	Model reference adaptive control of a full-bridge buck inverter with minimal controller synthesis. , 2013, , .		4
212	Correction to Section V-B of "Contraction Theory and the Master Stability Function: Linking Two Approaches to Study Synchronization in Complex Networks" [Feb 09 177-181]. IEEE Transactions on Circuits and Systems II: Express Briefs, 2014, 61, 915-915.	3.0	4
213	Multilayer proportional-integral consensus of heterogeneous multi-agent systems. , 2015, , .		4
214	Distributed adaptive optimization and control of network structures. , 2016, , .		4
215	An interactive control architecture for interpersonal coordination in mirror game. Control Engineering Practice, 2018, 80, 36-48.	5.5	4
216	On distributed coordination in networks of cyber-physical systems. Chaos, 2019, 29, 053126.	2.5	4

#	ARTICLE	IF	CITATIONS
217	Feedback control promotes synchronisation of the cell-cycle across a population of yeast cells. , 2019, , .		4
218	A low-cost, open-source Turbidostat design for in-vivo control experiments in Synthetic Biology. IFAC-PapersOnLine, 2019, 52, 244-248.	0.9	4
219	Human-inspired strategies to solve complex joint tasks in multi agent systems. IFAC-PapersOnLine, 2021, 54, 105-110.	0.9	4
220	PREVENTING MULTIPLE SWITCHINGS IN POWER ELECTRONIC CIRCUITS: EFFECTS OF THE LATCH ON THE NONLINEAR DYNAMICS OF THE DC-DC BUCK CONVERTER. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2000, 10, 431-442.	1.7	3
221	ENHANCING THE STRUCTURAL STABILITY OF LQ OPTIMAL CONTROLLERS VIA THE MCS ADAPTIVE ALGORITHM. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 371-376.	0.4	3
222	Performance of Robust AQM controllers in multibottleneck scenarios. , 0, , .		3
223	Optimal Reference Trajectory Shaping and Robust Gain-Scheduling for Transition Control of Nonlinear Processes. Industrial & Engineering Chemistry Research, 2009, 48, 9128-9140.	3.7	3
224	Design and implementation of a feedback control strategy for IRMA, a novel synthetic gene regulatory network. , 2010, , .		3
225	TAILORING THE BIFURCATION DIAGRAM OF NONLINEAR DYNAMICAL SYSTEMS: AN OPTIMIZATION BASED APPROACH. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2010, 20, 1027-1040.	1.7	3
226	Design and Construction of a Versatile Synthetic Network for Bistable Gene Expression in Mammalian Systems. Journal of Computational Biology, 2011, 18, 195-203.	1.6	3
227	Adaptive pinning control of complex networks of Lur'e systems. , 2012, , .		3
228	Adaptive control for state dependent switched systems in Brunovsky form. , 2013, , .		3
229	Stabilizing Quorum-Sensing Networks via Noise. IEEE Transactions on Circuits and Systems II: Express Briefs, 2018, 65, 647-651.	3.0	3
230	Decentralized Adaptive Control for Synchronization and Consensus of Complex Networks. Understanding Complex Systems, 2009, , 27-42.	0.6	3
231	Modeling Frequency Reduction in Human Groups Performing a Joint Oscillatory Task. Frontiers in Psychology, 2021, 12, 753758.	2.1	3
232	Modelling Non-linear Behaviour in a Single Degree-of-Freedom Dynamic Wind Tunnel Rig. , 2003, , .		2
233	Structural Stability of Boundary Equilibria in a class of hybrid systems: Analysis and Use for Control System Design. , 0, , .		2
234	Load distribution in small world networks. , 0, , .		2

#	ARTICLE	IF	CITATIONS
235	Stick-slip Oscillations in Resonant Power Converters. , 0, , .		2
236	Vertex-based adaptive synchronization of complex networks. , 2008, , .		2
237	Synchronization of Complex Networks via Hybrid Adaptive Coupling and Evolving Topologies. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 50-55.	0.4	2
238	Experimental validation of a novel adaptive controller for piecewise affine systems. , 2010, , .		2
239	Synchronization of networked piecewise smooth systems. , 2011, , .		2
240	Synchronization of networks of non-identical Chua circuits: Analysis and experiments. , 2011, , .		2
241	Experimental validation of pinning controllability in networked Chua's circuits. , 2012, , .		2
242	Consensus via adaptation of the network structure. , 2013, , .		2
243	Incremental stability of bimodal Filippov systems in \mathbb{R}^n . , 2014, , .		2
244	Traffic dynamics and vulnerability in hypercube communication networks. , 2014, , .		2
245	A parametric investigation on the effects of inertia on the stability of power systems. , 2015, , .		2
246	Observer design for piecewise smooth and switched systems via contraction theory * *Corresponding author Mario di Bernardo.. IFAC-PapersOnLine, 2017, 50, 2959-2964.	0.9	2
247	Improved Control Strategies for Atomic Force Microscopes in Intermittent Contact Mode. IEEE Transactions on Control Systems Technology, 2018, 26, 1673-1684.	5.2	2
248	Emergence of leadership in complex networks and human groups. , 2018, , .		2
249	Controlling the collective behaviour of networks of heterogenous Kuramoto oscillators with phase lags. , 2018, , .		2
250	Generation and classification of individual behaviours for virtual players control in motor coordination tasks. , 2018, , .		2
251	Controlling Collective Behavior in Complex Systems. , 2020, , 1-10.		2
252	Switching control of limit cycles in planar systems: a nonlinear dynamics approach. , 2004, , .		1

#	ARTICLE	IF	CITATIONS
253	A GAIN SCHEDULING APPROACH TO ACTIVE QUEUE MANAGEMENT. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 137-142.	0.4	1
254	Discontinuity Induced Bifurcations in a Piecewise-Smooth Satellite Power Subsystem Model*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 291-295.	0.4	1
255	Evolving Topologies for Network Synchronization. , 2010, , .		1
256	Pinning control design for bounded synchronization of complex networks of nonidentical systems. , 2014, , .		1
257	An Evolutionary Strategy For Adaptive Network Control and Synchronization and its Applications. IFAC-PapersOnLine, 2015, 48, 193-198.	0.9	1
258	Switched adaptive strategies for contraction and incremental stability of Carathéodory systems using multiple norms. , 2015, , .		1
259	A strategy for multicellular feedback control in mammalian cells. , 2019, , .		1
260	Reverse Engineering and Feedback Control of Gene Networks. , 2021, , 1873-1879.		1
261	Dynamic Input Deep Learning Control of Artificial Avatars in a Multi-Agent Joint Motor Task. Frontiers in Robotics and AI, 2021, 8, 665301.	3.2	1
262	Bifurcations and Symmetry in Relay Feedback Systems. , 2000, , .		1
263	Adaptation and Contraction Theory for the Synchronization of Complex Neural Networks. , 2012, , 9-32.		1
264	Experimental Characterization of Synchronization in Networks of Non Linear Oscillators with Dynamic Links. IEICE Proceeding Series, 2014, 1, 53-56.	0.0	1
265	Bifurcations in general piecewise-smooth maps. , 2008, , 171-217.		1
266	Embedded control of cell growth using tunable genetic systems. International Journal of Robust and Nonlinear Control, 2023, 33, 4893-4907.	3.7	1
267	Control of Limit Cycle Amplitude Through Nonsmooth Bifurcations. , 0, , .		0
268	CORNER-SLIDING BIFURCATIONS FOR CONTROL DESIGN. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 433-438.	0.4	0
269	Control of thermal runaway via optimal bifurcation tailoring aided gain-scheduling feedback. Computer Aided Chemical Engineering, 2006, 21, 1311-1316.	0.5	0
270	Analysis and control of nonlinear process systems, K.M. Hangos, J. Bokor, G. Szederkányi; Springer-Verlag London Limited 2004; ISBN: 1â€85233â€600â€5.. Automatica, 2006, 42, 1829-1831.	5.0	0

#	ARTICLE	IF	CITATIONS
271	On a novel hybrid LQ-MCS control scheme. , 2007, , .		0
272	Border-collision in piecewise-linear continuous maps. , 2008, , 121-170.		0
273	Limit cycle bifurcations in impacting systems. , 2008, , 253-305.		0
274	Boundary equilibrium bifurcations in flows. , 2008, , 219-252.		0
275	Further applications and extensions. , 2008, , 409-458.		0
276	Analysis and design of a versatile synthetic network for inducible gene expression in mammalian systems. , 2010, , .		0
277	Synchronization of bounded piecewise smooth systems. , 2011, , .		0
278	Dear Members of the IEEE CAS Society [Message from the Vice President for Administration]. IEEE Circuits and Systems Magazine, 2012, 12, 4-4.	2.3	0
279	Realization of a fully configurable complex network of non linear Chua's oscillators. , 2012, , .		0
280	Bounded synchronization in resistive multi-terminal VSC-HVDC transmission systems. , 2014, , .		0
281	[Message from the Vice President]. IEEE Circuits and Systems Magazine, 2014, 14, 4-4.	2.3	0
282	Guest Editorial &newline;>Special Section on the 2014 IEEE International Symposium on Circuits and Systems (ISCAS 2014). IEEE Transactions on Circuits and Systems I: Regular Papers, 2015, 62, 1217-1219.	5.4	0
283	Guest Editorial Special Section on the 2015 IEEE International Symposium on Circuits and Systems (ISCAS 2015). IEEE Transactions on Circuits and Systems I: Regular Papers, 2016, 63, 565-566.	5.4	0
284	â€ˆAdvances in applied nonlinear mathematicsâ€™™: a special issue in honour of John Hogan's 60th birthday. IMA Journal of Applied Mathematics, 2016, 81, 629-630.	1.6	0
285	A modular intersection controller with adaptive stage selection and duration algorithms. , 2017, , .		0
286	Comparison of different cryogenic control strategies via simulation applied to a superconducting magnet test bench at CERN. IOP Conference Series: Materials Science and Engineering, 2017, 278, 012080.	0.6	0
287	Cloud-Supported Self-Triggered Control for Multi-Agent Circumnavigation. , 2018, , .		0
288	Enhancing pinning controllability of complex networks of coupled maps. , 2018, , .		0

#	ARTICLE	IF	CITATIONS
289	Control of Painlevé Paradox in a Robotic System. , 2019, , .		0
290	Controlling Collective Behavior in Complex Systems. , 2021, , 441-450.		0
291	Reverse Engineering and Feedback Control of Gene Networks. , 2021, , 1-7.		0
292	Intermittent non-pharmaceutical strategies to mitigate the COVID-19 epidemic in a network model of Italy via constrained optimization. , 2021, , .		0
293	Limit cycle bifurcations in piecewise-smooth flows. , 2008, , 307-353.		0
294	Sliding bifurcations in Filippov systems. , 2008, , 355-408.		0