Xiao Fan Wang

List of Publications by Year
in descending order

134 papers	9,904 citations	117625 34 h-index	40979 93 g-index
137 all docs	137 docs citations	137 times ranked	4452 citing authors

#	Article	IF	Citations
1	Complex networks: Small-world, scale-free and beyond. IEEE Circuits and Systems Magazine, 2003, 3, 6-20.	2.3	1,048
2	Synchronization in scale-free dynamical networks: robustness and fragility. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2002, 49, 54-62.	0.1	982
3	Pinning control of scale-free dynamical networks. Physica A: Statistical Mechanics and Its Applications, 2002, 310, 521-531.	2.6	868
4	Pinning a Complex Dynamical Network to Its Equilibrium. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2004, 51, 2074-2087.	0.1	829
5	Flocking of Multi-Agents With a Virtual Leader. IEEE Transactions on Automatic Control, 2009, 54, 293-307.	5.7	778
6	SYNCHRONIZATION IN SMALL-WORLD DYNAMICAL NETWORKS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2002, 12, 187-192.	1.7	772
7	COMPLEX NETWORKS: TOPOLOGY, DYNAMICS AND SYNCHRONIZATION. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2002, 12, 885-916.	1.7	496
8	Adaptive second-order consensus of networked mobile agents with nonlinear dynamics. Automatica, 2011, 47, 368-375.	5.0	471
9	Semiglobal Observer-Based Leader-Following Consensus With Input Saturation. IEEE Transactions on Industrial Electronics, 2014, 61, 2842-2850.	7.9	265
10	Rendezvous of multiple mobile agents with preserved network connectivity. Systems and Control Letters, 2010, 59, 313-322.	2.3	241
11	Decentralized Adaptive Pinning Control for Cluster Synchronization of Complex Dynamical Networks. IEEE Transactions on Cybernetics, 2013, 43, 394-399.	9.5	241
12	Challenges for the cyber-physical manufacturing enterprises of the future. Annual Reviews in Control, 2019, 47, 200-213.	7.9	225
13	Fully Distributed Event-Triggered Semiglobal Consensus of Multi-agent Systems With Input Saturation. IEEE Transactions on Industrial Electronics, 2017, 64, 5055-5064.	7.9	194
14	Synchronization of coupled harmonic oscillators in a dynamic proximity network. Automatica, 2009, 45, 2286-2291.	5.0	178
15	A connectivity-preserving flocking algorithm for multi-agent systems based only on position measurements. International Journal of Control, 2009, 82, 1334-1343.	1.9	155
16	Stochastic sensor activation for distributed state estimation over a sensor network. Automatica, 2014, 50, 2070-2076.	5.0	117
17	Flocking in multiâ€agent systems with multiple virtual leaders. Asian Journal of Control, 2008, 10, 238-245.	3.0	110
18	Pinning control of complex networked systems: A decade after and beyond. Annual Reviews in Control, 2014, 38, 103-111.	7.9	80

#	Article	IF	Citations
19	Control and Flocking of Networked Systems via Pinning. IEEE Circuits and Systems Magazine, 2010, 10, 83-91.	2.3	76
20	Generating chaos in Chua's circuit via time-delay feedback. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2001, 48, 1151-1156.	0.1	74
21	Adaptive flocking with a virtual leader of multiple agents governed by locally Lipschitz nonlinearity. Nonlinear Analysis: Real World Applications, 2013, 14, 798-806.	1.7	73
22	Observer-Based Robust Coordinated Control of Multiagent Systems With Input Saturation. IEEE Transactions on Neural Networks and Learning Systems, 2018, 29, 1933-1946.	11.3	71
23	Quantized consensus over directed networks with switching topologies. Systems and Control Letters, 2014, 65, 13-22.	2.3	66
24	On synchronization in scale-free dynamical networks. Physica A: Statistical Mechanics and Its Applications, 2005, 349, 443-451.	2.6	62
25	Pinning Control of Complex Networked Systems. , 2013, , .		62
26	Fast consensus seeking in multi-agent systems with time delay. Systems and Control Letters, 2013, 62, 269-276.	2.3	61
27	Consensus seeking over directed networks with limited information communication. Automatica, 2013, 49, 610-618.	5.0	59
28	Coordination Control for Uncertain Networked Systems Using Interval Observers. IEEE Transactions on Cybernetics, 2020, 50, 4008-4019.	9.5	53
29	Target localization and enclosing control for networked mobile agents with bearing measurements. Automatica, 2020, 118, 109022.	5.0	49
30	Cascading failures in scale-free coupled map lattices. Physica A: Statistical Mechanics and Its Applications, 2005, 349, 685-692.	2.6	48
31	Nonnegative Edge Quasi-Consensus of Networked Dynamical Systems. IEEE Transactions on Circuits and Systems II: Express Briefs, 2017, 64, 304-308.	3.0	46
32	Adaptive velocity strategy for swarm aggregation. Physical Review E, 2007, 75, 021917.	2.1	43
33	Reduced-order interval observer based consensus for MASs with time-varying interval uncertainties. Automatica, 2022, 135, 109989.	5.0	38
34	Semiâ€global consensus of multiâ€agent systems with intermittent communications and lowâ€gain feedback. IET Control Theory and Applications, 2015, 9, 766-774.	2.1	37
35	Making a continuous-time minimum-phase system chaotic by using time-delay feedback. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2001, 48, 641-645.	0.1	36
36	Consensus in a heterogeneous influence network. Physical Review E, 2006, 74, 037101.	2.1	36

#	Article	IF	Citations
37	Adaptive cluster synchronisation of coupled harmonic oscillators with multiple leaders. IET Control Theory and Applications, 2013, 7, 765-772.	2.1	35
38	Reaching Non-Negative Edge Consensus of Networked Dynamical Systems. IEEE Transactions on Cybernetics, 2018, 48, 2712-2722.	9.5	35
39	On synchronous preference of complex dynamical networks. Physica A: Statistical Mechanics and Its Applications, 2005, 355, 657-666.	2.6	34
40	Stability of a second order consensus algorithm with time delay. , 2008, , .		30
41	Optimal consensus-based distributed estimation with intermittent communication. International Journal of Systems Science, 2011, 42, 1521-1529.	5.5	28
42	Online Power Scheduling for Distributed Filtering Over an Energy-Limited Sensor Network. IEEE Transactions on Industrial Electronics, 2018, 65, 4216-4226.	7.9	28
43	Second-Order Consensus of Multi-agent Systems via Periodically Intermittent Pinning Control. Circuits, Systems, and Signal Processing, 2016, 35, 2413-2431.	2.0	25
44	Controllability of networked higher-dimensional systems with one-dimensional communication. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160215.	3.4	25
45	Reconstruction of Complex Directional Networks with Group Lasso Nonlinear Conditional Granger Causality. Scientific Reports, 2017, 7, 2991.	3.3	25
46	Optimal linear state estimation over a packet-dropping network using linear temporal coding. Automatica, 2013, 49, 1075-1082.	5.0	24
47	Global coordinated tracking of multi-agent systems with disturbance uncertainties via bounded control inputs. Nonlinear Dynamics, 2015, 82, 2059-2068.	5.2	24
48	Competitive Dynamics on Complex Networks. Scientific Reports, 2014, 4, 5858.	3.3	23
49	Synchronization in weighted complex networks: Heterogeneity and synchronizability. Physica A: Statistical Mechanics and Its Applications, 2006, 370, 381-389.	2.6	22
50	Swarming of heterogeneous multi-agent systems with periodically intermittent control. Neurocomputing, 2016, 207, 213-219.	5.9	22
51	Security Analysis of a Distributed Networked System Under Eavesdropping Attacks. IEEE Transactions on Circuits and Systems II: Express Briefs, 2020, 67, 1254-1258.	3.0	22
52	Social learning with time-varying weights. Journal of Systems Science and Complexity, 2014, 27, 581-593.	2.8	21
53	Topological transition features and synchronizability of a weighted hybrid preferential network. Physica A: Statistical Mechanics and Its Applications, 2006, 371, 841-850.	2.6	20
54	An overview of coordinated control for multi-agent systems subject to input saturation. Perspectives in Science, 2016, 7, 133-139.	0.6	20

#	Article	IF	Citations
55	Moving-Target Enclosing Control for Mobile Agents With Collision Avoidance. IEEE Transactions on Control of Network Systems, 2021, 8, 1669-1679.	3.7	20
56	Pinning control of directed dynamical networks based on ControlRank. International Journal of Computer Mathematics, 2008, 85, 1279-1286.	1.8	19
57	Social learning with bounded confidence and heterogeneous agents. Physica A: Statistical Mechanics and Its Applications, 2013, 392, 2368-2374.	2.6	19
58	Leader-Follower Opinion Dynamics of Signed Social Networks With Asynchronous Trust/Distrust Level Evolution. IEEE Transactions on Network Science and Engineering, 2022, 9, 495-509.	6.4	19
59	Coverage Control for Heterogeneous Mobile Sensor Networks Subject to Measurement Errors. IEEE Transactions on Automatic Control, 2018, 63, 3479-3486.	5.7	18
60	Connectivity Preserving Flocking without Velocity Measurement. Asian Journal of Control, 2013, 15, 521-532.	3.0	15
61	Robust Global Coordination of Networked Systems With Input Saturation and External Disturbances. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2021, 51, 7788-7800.	9.3	15
62	Connectivity maintenance and distributed tracking for double-integrator agents with bounded potential functions. International Journal of Robust and Nonlinear Control, 2015, 25, 542-558.	3.7	14
63	Distributed Fault-Tolerant Consensus Tracking of Multi-Agent Systems Under Cyber-Attacks. IEEE/CAA Journal of Automatica Sinica, 2022, 9, 1037-1048.	13.1	14
64	Robust semiglobal swarm tracking of coupled harmonic oscillators with input saturation and external disturbance. International Journal of Robust and Nonlinear Control, 2018, 28, 1566-1582.	3.7	13
65	Nonlinear analysis of RED——a comparative study. Chaos, Solitons and Fractals, 2004, 21, 1153-1162.	5.1	12
66	Propagation of interacting diseases on multilayer networks. Physical Review E, 2018, 98, 012303.	2.1	11
67	Continuous-Time Opinion Dynamics With Stochastic Multiplicative Noises. IEEE Transactions on Circuits and Systems II: Express Briefs, 2019, 66, 988-992.	3.0	11
68	Controlling a complex dynamical network to attain an inhomogeneous equilibrium. Physica D: Nonlinear Phenomena, 2010, 239, 341-347.	2.8	10
69	New conditions for synchronization in dynamical communication networks. Systems and Control Letters, 2011, 60, 219-225.	2.3	10
70	Edge consensus on complex networks: a structural analysis. International Journal of Control, 2017, 90, 1584-1596.	1.9	10
71	Conspiracy vs science: A large-scale analysis of online discussion cascades. World Wide Web, 2021, 24, 585-606.	4.0	10
72	Almost sure exponential stability of two-strategy evolutionary games with multiplicative noise. Information Sciences, 2021, 579, 888-903.	6.9	10

#	Article	IF	Citations
73	BIFURCATION TAILORING VIA NEWTON FLOW-AIDED ADAPTIVE CONTROL. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2003, 13, 677-684.	1.7	7
74	On decentralized adaptive pinning synchronization of complex dynamical networks. , 2010, , .		7
75	Distributed quantized consensus for agents on directed networks. Journal of Systems Science and Complexity, 2013, 26, 489-511.	2.8	7
76	Multiâ€agent model of group polarisation with biased assimilation of arguments. IET Control Theory and Applications, 2015, 9, 485-492.	2.1	7
77	Finite-size scaling of geometric renormalization flows in complex networks. Physical Review E, 2021, 104, 034304.	2.1	7
78	Automatic Overtaking on Two-way Roads with Vehicle Interactions Based on Proximal Policy Optimization. , 2021, , .		7
79	Quantized consensus for agents on digraphs. , 2011, , .		5
80	A Multi-Agent Model of Opinion Formation with Truth Seeking and Endogenous Leaders. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 11709-11714.	0.4	5
81	Nonnegative edge consensus of networked linear systems. , 2016, , .		5
82	Community-based informed agents selection for flocking with a virtual leader. International Journal of Control, Automation and Systems, 2017, 15, 394-403.	2.7	5
83	Analysis and prediction of team performance based on interaction networks. , 2017, , .		5
84	Swarming of multi-agents with topological-based random interaction. , 2013, , .		4
85	Swarm aggregations of heterogeneous multi-agent systems. International Journal of Control, 2014, 87, 2594-2603.	1.9	4
86	Optimal periodic scheduling for remote state estimation under sensor energy constraint. IET Control Theory and Applications, 2014, 8, 907-915.	2.1	4
87	Towards data-driven identification and control of complex networks. National Science Review, 2014, 1, 335-336.	9.5	4
88	Relative influence maximization in competitive dynamics on complex networks. , 2015, , .		4
89	Robust Semi-global Coordinated Tracking of Saturated Networked Systems * *This work was supported by the National Natural Science Foundation of China under Grant Nos. 61374176, 61473129 and 61374160, the Science Fund for Creative Research Groups of the National Natural Science Foundation of China (Nos. 61521063).. IFAC-PapersOnLine, 2017, 50, 8303-8308.	0.9	4
90	Global consensus tracking of discrete-time saturated networked systems via nonlinear feedback laws. Journal of the Franklin Institute, 2019, 356, 722-733.	3.4	4

#	Article	IF	Citations
91	Distributed consensus over directed networks with limited information communication. , 2011, , .		3
92	Social learning in networks with time-varying topologies. , 2012, , .		3
93	Optimal two-sensor scheduling under duty cycle constraint. Systems and Control Letters, 2013, 62, 1175-1179.	2.3	3
94	Optimal control over a lossy communication network based on linear predictive compensation. IET Control Theory and Applications, 2014, 8, 2297-2304.	2.1	3
95	Quantization Effects on Complex Networks. Scientific Reports, 2016, 6, 26733.	3.3	3
96	Network reconstruction based on grouped sparse nonlinear graphical granger causality. , 2016, , .		3
97	Inferring time-delayed dynamic networks with nonlinearity and nonuniform lags. Europhysics Letters, 2017, 119, 28001.	2.0	3
98	The Strength of Structural Diversity in Online Social Networks. Research, 2021, 2021, 9831621.	5.7	3
99	Cooperative Adaptive Fault-Tolerant Control for Multi-agent Systems with Deception Attacks. , 2021, , .		3
100	Second-order leader-following consensus of multi-agent systems with nonlinear dynamics and time delay via periodically intermittent pinning control. , 2013, , .		2
101	Robust consensus for multi-agent systems over unbalanced directed networks. Journal of Systems Science and Complexity, 2014, 27, 1121-1137.	2.8	2
102	Observer-based robust coordinated tracking of multi-agent systems with input saturation. , 2015, , .		2
103	State estimation over lossy channel via online measurement coding: Algorithm design and performance optimization. Journal of the Franklin Institute, 2019, 356, 6638-6655.	3.4	2
104	The Infimum on Laplacian Eigenvalues of a Connected Extended Graph: An Edge-Grafting Perspective. IEEE Transactions on Circuits and Systems II: Express Briefs, 2020, 67, 2627-2631.	3.0	2
105	Enclose a Target with Multiple Nonholonomic Agents. , 2020, , .		2
106	Impact of Heterogeneity on Network Embedding. IEEE Transactions on Network Science and Engineering, 2022, 9, 1296-1307.	6.4	2
107	Fast-Learning Grasping and Pre-Grasping via Clutter Quantization and Q-map Masking. , 2021, , .		2
108	Enhancing Synchronizabilities of Power-Law Networks. , 2007, , .		1

#	Article	IF	Citations
109	Partitioning graphs to speed up point-to-point shortest path computations. , 2011, , .		1
110	Adaptive group consensus of coupled harmonic oscillators with multiple leaders. , 2012, , .		1
111	A new pricing mechanism for power control in multicell wireless data networks. , 2013, , .		1
112	Optimal leader selection for fast consensus via consensus centrality. , 2014, , .		1
113	Limit set problem of multi-agent systems with finite states: An eigenvalue-based approach. Journal of Systems Science and Complexity, 2015, 28, 570-579.	2.8	1
114	A comparative study of online communities and popularity of BBS in four Chinese universities. PLoS ONE, 2020, 15, e0234469.	2.5	1
115	Tampering Detection of LiDAR Data for Autonomous Vehicles. , 2021, , .		1
116	Pinning Control for Complete Synchronization of Complex Dynamical Networks. , 2013, , 17-44.		1
117	LineMe: A platform for constructing evolving social networks. , 2017, , .		1
118	Prediction of Intra-Urban Human Mobility by Integrating Regional Functions and Trip Intentions. IEEE Transactions on Knowledge and Data Engineering, 2022, 34, 4972-4981.	5.7	1
119	Privacy-Preserving Average Consensus in Finite Time. , 2021, , .		1
120	Controlling bifurcating dynamics via chaotification. , 0, , .		0
121	Towards Optimal Synchronization in Power Law Networks. , 2006, , .		0
122	Synchronizability is Enhanced in Homogeneous Small-world Networks. , 2007, , .		0
123	Eigenvalue-based investigation of multi-agent system with logical dynamics. , 2011, , .		0
124	Social learning on networks with community structure. , 2011, , .		0
125	Social learning with bounded confidence. , 2012, , .		0
126	State estimation over a lossy network using linear temporal coding. , 2012, , .		0

#	ARTICLE	IF	CITATIONS
127	Distributed Pinning-Controlled Second-Order Consensus of Multi-Agent Systems. , 2013, , 61-101.		0
128	Performance analysis for remote state estimation via measurement combination* *This work is supported by the National Natural Science Foundation of China under Grant No. 61074125 and 61104137, the Science Fund for Creative Research Groups of the National Natural Science Foundation of China (No. 61221003), and the National Key Basic Research Program (973 Program) of China (No.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 692 296-301.	0.4	0
129	A multi-agent model of opinion formation with group polarization. , 2014, , .		0
130	A Typical Power Allocation for Distributed Filtering * *This work was supported in part by the National Natural Science Foundation of China under Grant(61573143,61503139), the Innovation Program of Shanghai Municipal Education Commission under Grant No. 14zz55, China Postdoctoral Science Funding 2015M570337. IFAC-PapersOnLine, 2017, 50, 10550-10555.	0.9	0
131	Detecting Hierarchical and Overlapping Network Communities Based on Opinion Dynamics. IEEE Transactions on Knowledge and Data Engineering, 2021, , 1-1.	5.7	0
132	A New Hybrid Algorithm for the Continuous Site Inspection Points Location-Assignment-Path Planning Problem. , 2021, , .		0
133	Almost Sure Exponential Stability in the Stochastic Delay Replicator Dynamics for Evolutionary Snowdrift Games. , 2020, , .		0
134	An experimental study of tie transparency and individual perception in social networks. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2022, 478, .	2.1	0