Zhiyun Lin

List of Publications by Citations

154 papers	4,026 citations	28 h-index	61 g-index
198 ext. papers	5,158 ext. citations	3.6 avg, IF	5.78 L-index

#	Paper	IF	Citations
154	Necessary and sufficient graphical conditions for formation control of unicycles. *IEEE Transactions on Automatic Control*, **2005**, 50, 121-127	5.9	677
153	Local control strategies for groups of mobile autonomous agents. *IEEE Transactions on Automatic Control*, **2004**, 49, 622-629	5.9	542
152	State Agreement for Continuous-Time Coupled Nonlinear Systems. *SIAM Journal on Control and Optimization*, **2007**, 46, 288-307	1.9	322
151	Distributed Formation Control of Multi-Agent Systems Using Complex Laplacian. *IEEE Transactions on Automatic Control*, **2014**, 59, 1765-1777	5.9	230
150	Leaderfollower formation via complex Laplacian. *Automatica*, **2013**, 49, 1900-1906	5.7	126
149	Local control strategy for moving-target-enclosing under dynamically changing network topology. *Systems and Control Letters*, **2010**, 59, 654-661	2.4	101
148	Distributed Bisection Method for Economic Power Dispatch in Smart Grid. *IEEE Transactions on Power Systems*, **2015**, 30, 3024-3035	7	100
147	. *IEEE Transactions on Smart Grid*, **2015**, 6, 726-736	10.7	99
146	Decentralized Optimal Scheduling for Charging and Discharging of Plug-In Electric Vehicles in Smart Grids. *IEEE Transactions on Power Systems*, **2016**, 31, 4118-4127	7	87
145	Necessary and Sufficient Graphical Conditions for Affine Formation Control. *IEEE Transactions on Automatic Control*, **2016**, 61, 2877-2891	5.9	78
144	Distributed control of cooperative target enclosing based on reachability and invariance analysis. *Systems and Control Letters*, **2010**, 59, 381-389	2.4	78
143	Combined Flocking and Distance-Based Shape Control of Multi-Agent Formations. *IEEE Transactions on Automatic Control*, **2016**, 61, 1824-1837	5.9	68
142	A Graph Laplacian Approach to Coordinate-Free Formation Stabilization for Directed Networks. *IEEE Transactions on Automatic Control*, **2016**, 61, 1269-1280	5.9	67
141	Formation Control With Size Scaling Via a Complex Laplacian-Based Approach. *IEEE Transactions on Cybernetics*, **2016**, 46, 2348-2359	10.2	66
140	A Barycentric Coordinate Based Distributed Localization Algorithm for Sensor Networks. *IEEE Transactions on Signal Processing*, **2014**, 62, 4760-4771	4.8	62
139	A Dual Quaternion Solution to Attitude and Position Control for Rigid-Body Coordination. *IEEE Transactions on Robotics*, **2012**, 28, 1162-1170	6.5	60
138	Integrated Relative Localization and Leaderfollower Formation Control. *IEEE Transactions on Automatic Control*, **2019**, 64, 20-34	5.9	59

137	. *IEEE Transactions on Signal Processing*, **2017**, 65, 2600-2612	4.8	49
136	Collective motions and formations under pursuit strategies on directed acyclic graphs. *Automatica*, **2010**, 46, 174-181	5.7	47
135	Controlling the polarization rotation of an optical field via asymmetry in electromagnetically induced transparency. *Physical Review A*, **2006**, 73,	2.6	47
134	Distributed control for uniform circumnavigation of ring-coupled unicycles. *Automatica*, **2015**, 53, 23-29	5.7	44
133	A distributed algorithm for efficiently solving linear equations and its applications (Special Issue JCW). *Systems and Control Letters*, **2016**, 91, 21-27	2.4	38
132	Robust guaranteed cost control for discrete-time uncertain systems with delay. *IET Control Theory and Applications*, **1999**, 146, 598-602		38
131	Adaptive control schemes for mobile robot formations with triangularised structures. *IET Control Theory and Applications*, **2010**, 4, 1817-1827	2.5	37
130	Ring-coupled unicycles: Boundedness, convergence, and control. *Automatica*, **2009**, 45, 2699-2706	5.7	35
129	Quantification for the importance degree of engineering characteristics with a multi-level hierarchical structure in QFD. *International Journal of Production Research*, **2016**, 54, 1627-1649	7.8	31
128	On modeling of electrical cyber-physical systems considering cyber security. *Frontiers of Information Technology and Electronic Engineering*, **2016**, 17, 465-478	2.2	30
127	Feedback Control of Planar Biped Robot With Regulable Step Length and Walking Speed. *IEEE Transactions on Robotics*, **2011**, 27, 162-169	6.5	29
126	Distributed Localization for 2-D Sensor Networks With Bearing-Only Measurements Under Switching Topologies. *IEEE Transactions on Signal Processing*, **2016**, 64, 6345-6359	4.8	27
125	Distributed Self Localization for Relative Position Sensing Networks in 2D Space. *IEEE Transactions on Signal Processing*, **2015**, 63, 3751-3761	4.8	26
124	Synthesis of Distributed Control of Coordinated Path Following Based on Hybrid Approach. *IEEE Transactions on Automatic Control*, **2011**, 56, 1170-1175	5.9	26
123	A Barycentric Coordinate-Based Approach to Formation Control Under Directed and Switching Sensing Graphs. *IEEE Transactions on Cybernetics*, **2018**, 48, 1202-1215	10.2	25
122	Combining distance-based formation shape control with formation translation121-130		21
121	Distributed algorithm for dynamic economic power dispatch with energy storage in smart grids. *IET Control Theory and Applications*, **2017**, 11, 1813-1821	2.5	20
120	A distributed reconfigurable control law for escorting and patrolling missions using teams of unicycles **2010**,		18

119	An incremental deployment algorithm for wireless sensor networks using one or multiple autonomous agents. *Ad Hoc Networks*, **2013**, 11, 355-367	4.8	17
118	Stability of interconnected impulsive switched systems subject to state dimension variation. *Nonlinear Analysis: Hybrid Systems*, **2012**, 6, 960-971	4.5	16
117	Integrating Vector Field Approach and Input-to-State Stability Curved Path Following for Unmanned Aerial Vehicles. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2018**, 1-8	7.3	16
116	Three-dimensional formation merging control under directed and switching topologies. *Automatica* , **2015**, 58, 99-105	5.7	14
115	Distributed Source Localization of Multi-Agent Systems With Bearing Angle Measurements. *IEEE Transactions on Automatic Control*, **2016**, 61, 1105-1110	5.9	14
114	On a reachability problem for affine hypersurface systems on polytopes. *Automatica*, **2011**, 47, 769-775	5.7	14
113	Energy-Efficient Time Synchronization in Wireless Sensor Networks via Temperature-Aware Compensation. *ACM Transactions on Sensor Networks*, **2016**, 12, 1-29	2.9	14
112	Distributed localization with mixed measurements under switching topologies. *Automatica*, **2017**, 76, 251-257	5.7	13
111	Distributed coordination in multi-agent systems: a graph Laplacian perspective. *Frontiers of Information Technology and Electronic Engineering*, **2015**, 16, 429-448	2.2	13
110	Stable running of a planar underactuated biped robot. *Robotica*, **2011**, 29, 657-665	2.1	13
109	Enhancing Sink-Location Privacy in Wireless Sensor Networks through k-Anonymity. *International Journal of Distributed Sensor Networks*, **2012**, 8, 648058	1.7	13
108	Perfectly matched layer absorbing boundary condition for truncating the boundary of the left-handed medium. *Microwave and Optical Technology Letters*, **2006**, 48, 57-63	1.2	13
107	Observer-based robust control for uncertain systems with time-varying delay. *IMA Journal of Mathematical Control and Information*, **2001**, 18, 439-450	1.1	13
106	Consensus-Based Cooperative Source Localization of Multi-Agent Systems with Sampled Range Measurements. *Unmanned Systems*, **2014**, 02, 231-241	3	12
105	Coupling mechanical design and control design for energy-efficient and stable walking of a compass-like biped. *Transactions of the Institute of Measurement and Control*, **2016**, 38, 253-265	1.8	11
104	Multi-Objective Optimization for Cyber-Physical-Social Systems: A Case Study of Electric Vehicles Charging and Discharging. *IEEE Access*, **2019**, 7, 76754-76767	3.5	11
103	Scheduling parallel Kalman filters for multiple processes. *Automatica*, **2013**, 49, 9-16	5.7	11
102	Application of online supervisory control of discrete-event systems to multi-robot warehouse automation. *Control Engineering Practice*, **2018**, 81, 97-104	3.9	11

101	Stable walking of 3D compass-like biped robot with underactuated ankles using discrete transverse linearization. *Transactions of the Institute of Measurement and Control*, **2015**, 37, 1074-1083	1.8	10
100	Performance Analysis of Raptor Codes Under Maximum Likelihood Decoding. *IEEE Transactions on Communications*, **2016**, 64, 906-917	6.9	10
99	**2014**,		10
98	Consensus based bisection approach for economic power dispatch **2014**,		10
97	A new approach to distributed charging control for plug-in hybrid electric vehicles **2014**,		10
96	Pursuit formations with dynamic control gains. *International Journal of Robust and Nonlinear Control*, **2012**, 22, 300-317	3.6	10
95	Realizability of similar formation and local control of directed multi-agent networks in discrete-time **2013**,		10
94	Gait generation and control for biped robots with underactuation degree one. *Automatica*, **2011**, 47, 1605-1616	5.7	10
93	Resolving Control to Facet Problems for Affine Hypersurface Systems on Simplices **2006**,		10
92	Fast Distributed Power Regulation Method via Networked Thermostatically Controlled Loads. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 5439-5444		9
91	Reach almost sure consensus with only group information. *Automatica*, **2015**, 52, 283-289	5.7	9
90	Single landmark based collaborative multi-agent localization with time-varying range measurements and information sharing. *Systems and Control Letters*, **2016**, 87, 56-63	2.4	9
89	An ADMM + consensus based distributed algorithm for dynamic economic power dispatch in smart grid **2015**,		8
88	A barycentric coordinate based approach to three-dimensional distributed localization for wireless sensor networks **2017**,		8
87	A new distributed localization method for sensor networks **2013**,		8
86	Rendezvous of Unicycles with Continuous and Time-invariant Local Feedback. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2011**, 44, 10044-10049		8
85	A hybrid control approach to cooperative target tracking with multiple mobile robots **2009**,		8
84	Formation control of directed multi-agent networks based on complex Laplacian **2012**,		8

83	Multi-Objective Optimal Charging Control of Plug-In Hybrid Electric Vehicles in Power Distribution Systems. *Energies*, **2019**, 12, 2563	3.1	7
82	A fully distributed approach to formation maneuvering control of multi-agent systems **2014**,		7
81	Getting Mobile Autonomous Robots to Rendezvous119-137		7
80	Feedback control for compass-like biped robot with underactuated ankles using transverse coordinate transformation. *Robotica*, **2015**, 33, 563-577	2.1	6
79	A new decentralized algorithm for optimal load shifting via electric vehicles **2017**,		6
78	Distributed circumnavigation by unicycles with cyclic repelling strategies **2013**,		6
77	Formation maneuvering with collision avoidance and connectivity maintenance **2015**,		5
76	A barycentric coordinate based approach to formation control of multi-agent systems under directed and switching topologies **2015**,		5
75	Variable Speed Running on Kneed Biped Robot with Underactuation Degree Two. *International Journal of Humanoid Robotics*, **2014**, 11, 1450015	1.2	5
74	Decentralized control of aggregated loads for demand response **2013**,		5
73	Distributed optimization for economic power dispatch with event-triggered communication. *Asian Journal of Control*, **2020**, 22, 2412-2421	1.7	5
72	Fast centralized integer resource allocation algorithm and its distributed extension over digraphs. *Neurocomputing*, **2017**, 270, 91-100	5.4	4
71	A distributed algorithm for efficiently solving linear equations **2015**,		4
70	Decentralized PWM-based charging control for plug-in electric vehicles **2015**,		4
69	Distributed algorithm for economic power dispatch including transmission losses **2015**,		4
68	Affine formation of multi-agent systems over directed graphs **2014**,		4
67	A geographically opportunistic routing protocol used in mobile wireless sensor networks **2012**,		4
66	Walking control for compass-like biped robot with underactuated ankle **2012**,		4

65	Distributed Transmit Beamforming with Autonomous and Self-Organizing Mobile Antennas **2010**,		4
64	Distributed transmit beamforming via feedback-based inter-cluster synchronization **2012**,		4
63	**2007**,		4
62	Local control strategies for groups of mobile autonomous agents		4
61	On the necessity of the invariance conditions for reach control on polytopes. *Systems and Control Letters*, **2016**, 90, 16-19	2.4	4
60	On Active Disturbance Rejection Control for Path Following of Automated Guided Vehicle with Uncertain Velocities **2019**,		4
59	Distributed dynamic event-triggered algorithm with minimum inter-event time for multi-agent convex optimisation. *International Journal of Systems Science*, **2021**, 52, 1440-1451	2.3	4
58	Stability and agility: biped running over varied and unknown terrain. *Frontiers of Information Technology and Electronic Engineering*, **2015**, 16, 283-292	2.2	3
57	Coordinate-free formation control of multi-agent systems using rooted graphs. *Systems and Control Letters*, **2018**, 119, 8-15	2.4	3
56	. *IEEE Transactions on Control of Network Systems*, **2015**, 2, 358-369	4	3
55	A linear approach to formation control under directed and switching topologies **2014**,		3
54	Time-scaling control and passive walking of bipeds with underactuation degree one **2010**,		3
53	Synthesis of output feedback control for motion planning based on LTL specifications **2009**,		3
52	Nonlinear Model Predictive Control of Single-Link Flexible-Joint Robot Using Recurrent Neural Network and Differential Evolution Optimization. *Electronics (Switzerland)*, **2021**, 10, 2426	2.6	3
51	Distributed Affine Formation Tracking Control of Multiple Fixed-Wing UAVs **2020**,		3
50	A game-theoretic approach to decentralized control of heterogeneous load population. *Electric Power Systems Research*, **2016**, 140, 552-559	3.5	3
49	Tight bound on parameter of surplus-based averaging algorithm over balanced digraphs. *International Journal of Control*, **2020**, 93, 1859-1866	1.5	3
48	Distributed Event-Triggered Approach for Multi-Agent Formation Based on Cooperative Localization with Mixed Measurements. *Electronics (Switzerland)*, **2021**, 10, 2265	2.6	3

47	Bearing-only distributed localization: A unified barycentric approach. *Automatica*, **2021**, 133, 109834	5.7	3
46	Range based target localization using a single mobile robot or multiple cooperative mobile robots **2013**,		2
45	Bearing angle based cooperative source localization **2014**,		2
44	A new distributed state estimation technique for power networks **2013**,		2
43	Localizability and Distributed Localization of Sensor Networks using Relative Position Measurements. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2013**, 46, 1-6		2
42	A hybrid control approach to multi-robot coordinated path following **2009**,		2
41	A distributed reconfiguration strategy for target enveloping with hexagonal metamorphic modules **2011**,		2
40	Characterization of backward reachable set and positive invariant set in polytopes **2009**,		2
39	ON THE STATE AGREEMENT PROBLEM FOR MULTIPLE NONLINEAR DYNAMICAL SYSTEMS. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2005**, 38, 82-87		2
38	Distributed dynamic event-triggered algorithm with positive minimum inter-event time for convex optimisation problem. *International Journal of Control*, **2020**, 1-8	1.5	2
37	Formation control of heterogeneous agents over directed graphs **2016**,		2
36	A single-mobile-anchor based distributed localization scheme for sensor networks **2016**,		2
35	A Distributed Algorithm with Event-Triggered Communication for Resource Allocation Problem **2019**,		2
34	. *IEEE Transactions on Automatic Control*, **2021**, 1-1	5.9	2
33	A sustainable running criterion for biped balance control. *Transactions of the Institute of Measurement and Control*, **2016**, 38, 62-72	1.8	1
32	Optimal Charging and Discharging Control of Plug-in Hybrid Electric Vehicles in a System-level Power Distribution Network. *Journal of Physics: Conference Series*, **2019**, 1304, 012012	0.3	1
31	Cooperative localization of a cascading quadrilateral network **2014**,		1
30	Energy Based Set Point Modulation for Obstacle Avoidance In Haptic Teleoperation of Aerial Robots. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 11030-11035		1

29	A linear control approach to distributed multi-agent formations in d-dimensional space **2013**,		1
28	Distributed Kalman filter for relative sensing networks **2015**,		1
27	Scheduling parallel Kalman filters with quantized deadlines. *Systems and Control Letters*, **2015**, 86, 9-15	2.4	1
26	A fully distributed approach to resource allocation problem under directed and switching topologies **2015**,		1
25	A Switching Control Strategy for Energy Efficient Walking on Uneven Surfaces. *International Journal of Humanoid Robotics*, **2015**, 12, 1550015	1.2	1
24	High efficient walking of compass-like biped robots with foot rotation **2014**,		1
23	Complex Laplacian and pattern formation in multi-agent systems **2012**,		1
22	Local multi-robot coordination and experiments **2012**,		1
21	Reachability and stabilization of discrete-time affine systems with disturbances. *Automatica*, **2011**, 47, 2720-2727	5.7	1
20	Piecewise output feedback control for affine systems with disturbances based on linear temporal logic specifications. *Journal of Control Theory and Applications*, **2011**, 9, 289-294		1
19	Stable running on a kneed biped robot with only hip-joint actuation **2012**,		1
18	Feasibility for formation stabilization of multiple unicycles **2004**,		1
17	Theory and Algorithms in Distributed Localization for Multi-Vehicle Networks Using Graph Laplacian Techniques **2019**, 319-333		1
16	Distributed algorithm for a finite time horizon resource allocation over a directed network. *IET Control Theory and Applications*, **2020**, 14, 1170-1182	2.5	1
15	Balance control of planar biped robots using virtual holonomic constraints. *Robotica*, **2016**, 34, 1227-1242	2.1	1
14	A new framework of electrical cyber physical systems **2016**,		1
13	Global stabilization of rigid formations via sliding mode control **2016**,		1
12	Assessing electric cyber-physical system using integrated co-simulation platform **2016**,		1

11	Random grouping based resilient beamforming. *Automatica*, **2021**, 123, 109309	5.7	1
10	Distributed fixed-time resource allocation algorithm for the general linear multi-agent systems. *IEEE Transactions on Circuits and Systems II: Express Briefs*, **2022**, 1-1	3.5	1
9	An exponentially convergent distributed algorithm for resource allocation problem. *Asian Journal of Control*, **2021**, 23, 1072-1082	1.7	0
8	Target-Value-Competition-Based Multi-agent Deep Reinforcement Learning Algorithm for Distributed Nonconvex Economic Dispatch. *IEEE Transactions on Power Systems*, **2022**, 1-1	7	0
7	Formation Merging Control in 3D under Directed and Switching Topologies. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 10036-10041		
6	Controllability analysis of second-ordermulti-agent systemswith directed andweighted interconnection. *Frontiers of Information Technology and Electronic Engineering*, **2015**, 16, 838-847	2.2	
5	Curve shortening-inspired self-reconfiguration of heterogenous hexagonal-shaped modules toward a straight chain. *Robotica*, **2014**, 32, 723-741	2.1	
4	Reachability of Affine Systems on Polytopes. *Zidonghua Xuebao/Acta Automatica Sinica*, **2010**, 35, 1528-1533		
3	Reprint of A distributed algorithm for efficiently solving linear equations and its applications (Special Issue JCW) *Systems and Control Letters*, **2016**, 95, 46-52	2.4	
2	Distributed optimization algorithm for economic dispatch: A bisectional approach **2020**, 177-202		
1	Reach almost sure consensus via L-norm group information. *European Journal of Control*, **2021**, 59, 207-215	2.5	