

# Yi Guo

## List of Publications by Year in descending order

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121  
papers

2,272  
citations

394421

19  
h-index

315739

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129  
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129  
docs citations

129  
times ranked

1883  
citing authors

#	ARTICLE	IF	CITATIONS
1	Transductive Learning Models for Accurate Ambulatory Gait Analysis in Elderly Residents of Assisted Living Facilities. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 124-134.	4.9	13
2	Mobile Robot Assisted Gait Monitoring and Dynamic Margin of Stability Estimation. IEEE Transactions on Medical Robotics and Bionics, 2022, 4, 460-471.	3.2	4
3	Coupled Multiple Dynamic Movement Primitives Generalization for Deformable Object Manipulation. IEEE Robotics and Automation Letters, 2022, 7, 5381-5388.	5.1	5
4	New Ideas, Old Tricks [From the Editor's Desk]. IEEE Robotics and Automation Magazine, 2022, 29, 4-4.	2.0	0
5	Reinforcement Learning-Based Adaptive Biofeedback Engine for Overground Walking Speed Training. IEEE Robotics and Automation Letters, 2022, 7, 8487-8494.	5.1	4
6	Multi-Robot Guided Policy Search for Learning Decentralized Swarm Control. , 2021, 5, 743-748.		2
7	Going Strong [From the Editor's Desk]. IEEE Robotics and Automation Magazine, 2021, 28, 4-6.	2.0	0
8	Robot-Assisted Pedestrian Regulation Based on Deep Reinforcement Learning. IEEE Transactions on Cybernetics, 2020, 50, 1669-1682.	9.5	46
9	Pedestrian Flow Optimization to Reduce the Risk of Crowd Disasters Through Human-Robot Interaction. IEEE Transactions on Emerging Topics in Computational Intelligence, 2020, 4, 298-311.	4.9	7
10	Multi-robot formation control: a comparison between model-based and learning-based methods. Journal of Control and Decision, 2020, 7, 90-108.	1.6	12
11	Accurate Ambulatory Gait Analysis in Walking and Running Using Machine Learning Models. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 191-202.	4.9	71
12	Robot-Assisted and Wearable Sensor-Mediated Autonomous Gait Analysis, 2020, , .		6
13	Wearable Biofeedback System to Induce Desired Walking Speed in Overground Gait Training. Sensors, 2020, 20, 4002.	3.8	14
14	Corrections to "Accurate Ambulatory Gait Analysis in Walking and Running Using Machine Learning Models" IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 1046-1046.	4.9	1
15	Learning Human Navigation Behavior Using Measured Human Trajectories in Crowded Spaces. , 2020, , .		6
16	Dynamic Plume Tracking by Cooperative Robots. IEEE/ASME Transactions on Mechatronics, 2019, 24, 609-620.	5.8	32
17	Learning Decentralized Control Policies for Multi-Robot Formation. , 2019, , .		5
18	Leaderless cooperative control of robotic sensor networks for monitoring dynamic pollutant plumes. IET Control Theory and Applications, 2019, 13, 2670-2680.	2.1	3

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19	Distance-based Formation Control of a Three-Robot System. , 2019, , .		3
20	Optimization of Merging Pedestrian Flows Based on Adaptive Dynamic Programming. , 2019, , .		1
21	Learning Human-Robot Interaction for Robot-Assisted Pedestrian Flow Optimization. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2019, 49, 797-813.	9.3	30
22	Discrete-Time Consensus Filters for Average Tracking of Time-Varying Inputs on Directed Switching Graphs. Asian Journal of Control, 2018, 20, 919-934.	3.0	3
23	Ocean Plume Tracking with Unmanned Surface Vessels: Algorithms and Experiments. , 2018, , .		0
24	Learning How Pedestrians Navigate: A Deep Inverse Reinforcement Learning Approach. , 2018, , .		42
25	Robot-assisted pedestrian flow control of a controlled pedestrian corridor. International Journal of Advanced Robotic Systems, 2018, 15, 172988141881469.	2.1	6
26	Pedestrian-Robot Interaction Experiments in an Exit Corridor. , 2018, , .		11
27	Simulating Fine-Scale Marine Pollution Plumes for Autonomous Robotic Environmental Monitoring. Frontiers in Robotics and AI, 2018, 5, 52.	3.2	1
28	Robot-assisted smartphone localization for human indoor tracking. Robotics and Autonomous Systems, 2018, 106, 82-94.	5.1	12
29	A learning based approach for social force model parameter estimation. , 2017, , .		10
30	Robotic experiments to evaluate ocean plume characteristics and structure. , 2017, , .		1
31	Dynamic pollutant plume front tracking and monitoring by a single mobile robot. , 2017, , .		2
32	Human Mobility Modeling for Robot-Assisted Evacuation in Complex Indoor Environments. IEEE Transactions on Human-Machine Systems, 2016, 46, 694-707.	3.5	42
33	Robot-assisted pedestrian regulation in an exit corridor. , 2016, , .		13
34	Distributed-parameter Luenberger observer for semi-linear parabolic PDE systems with a mobile pointwise sensor. , 2016, , .		3
35	Probabilistic human mobility model in indoor environment. , 2016, , .		7
36	Robotic simulation of dynamic plume tracking by Unmanned Surface Vessels. , 2015, , .		17

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37	Distributed consensus filter on directed switching graphs. International Journal of Robust and Nonlinear Control, 2015, 25, 2019-2040.	3.7	38
38	Distributed Multi-Robot Evacuation Incorporating Human Behavior. Asian Journal of Control, 2015, 17, 34-44.	3.0	19
39	Distributed Consensus-Based Weight Design for Cooperative Spectrum Sensing. IEEE Transactions on Parallel and Distributed Systems, 2015, 26, 54-64.	5.6	49
40	Dynamic consensus estimation of weighted average on directed graphs. International Journal of Systems Science, 2015, 46, 1839-1853.	5.5	17
41	Simulating large-scale pedestrian movement using CA and event driven model: Methodology and case study. Physica A: Statistical Mechanics and Its Applications, 2015, 437, 304-321.	2.6	28
42	Robot-assisted human indoor localization using the Kinect sensor and smartphones. , 2014, , .		9
43	Distributed estimation and tracking for radio environment mapping. , 2014, , .		2
44	Discrete-time consensus filters on directed switching graphs. , 2014, , .		6
45	Backstepping-based synchronisation of uncertain networked Lagrangian systems. International Journal of Systems Science, 2014, 45, 145-158.	5.5	22
46	Nonlinear dynamics and synchronization of an array of single mode laser diodes in external cavity subject to current modulation. Optics Communications, 2014, 324, 301-310.	2.1	13
47	Accelerating 5G QoE via public-private spectrum sharing. , 2014, 52, 77-85.		87
48	Multi-robot cooperative control for monitoring and tracking dynamic plumes. , 2014, , .		55
49	Cooperative Distributed Source Seeking by Multiple Robots: Algorithms and Experiments. IEEE/ASME Transactions on Mechatronics, 2014, 19, 1810-1820.	5.8	132
50	A Case Study on a Capsule Robot in the Gastrointestinal Tract to Teach Robot Programming and Navigation. IEEE Transactions on Education, 2014, 57, 112-121.	2.4	22
51	Average consensus with weighting matrix design for quantized communication on directed switching graphs. International Journal of Adaptive Control and Signal Processing, 2013, 27, 519-540.	4.1	9
52	Cooperative Control Design for Nanorobots in Drug Delivery. , 2013, , 101-123.		4
53	Selected Topics in Micro/Nano-robotics for Biomedical Applications. , 2013, , .		2
54	Capsule Robot in Gastro-Intestinal Tract: A Case Study for Robot Programming and Navigation. , 2013, , 85-99.		0

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55	Distributed consensus filter on directed graphs with switching topologies. , 2013, , .		5
56	Synchronizing coupled semiconductor lasers under general coupling topologies. , 2013, , .		2
57	Distributed multi-robot evacuation incorporating human behavior. , 2013, , .		6
58	Oscillatory Tracking Control of a Class of Nonlinear Systems. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2012, 134, .	1.6	4
59	Distributed source seeking by cooperative robots: All-to-all and limited communications. , 2012, , .		40
60	Robust $H_{\infty}$ consensus on directed networks with quantized communication. , 2012, , .		0
61	Minimal persistence control on dynamic directed graphs for multi-robot formation. , 2012, , .		2
62	Neural-network based AUV path planning in estuary environments. , 2012, , .		9
63	Synchronization of Coupled Laser Arrays With All-to-All and Limited Coupling Topology. , 2012, , .		0
64	Collective motion of planar particles and coupled lasers. , 2011, , .		1
65	Analysis of controlled morse type Frenkel-Kontorova model. , 2011, , .		0
66	Adaptive backstepping-based synchronization of uncertain networked Lagrangian systems. , 2011, , .		3
67	Distributed Cooperative Spectrum Sensing Based on Weighted Average Consensus. , 2011, , .		14
68	Unified control for Pendubot at four equilibrium points. IET Control Theory and Applications, 2011, 5, 155.	2.1	9
69	Atomic-scale friction control by vibration using friction force microscope. Control Engineering Practice, 2011, 19, 1387-1397.	5.5	6
70	Adaptive output consensus tracking of uncertain multi-agent systems. , 2011, , .		15
71	Analysis and Control of Two-Layer Frenkel-Kontorova Model. Chinese Physics Letters, 2011, 28, 110204.	3.3	1
72	Multiagent flocking with formation in a constrained environment. Journal of Control Theory and Applications, 2010, 8, 151-159.	0.8	18

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73	Graph rigidity control of mobile robot networks. , 2010, , .		2
74	Robust Consensus Output Tracking of Multi-Agent Systems With Directed Communications. , 2010, , .		1
75	Robust consensus for uncertain multi-agent systems on directed communication topologies. , 2010, , .		21
76	Directed motion of an atomic scale engine and stability analysis. , 2010, , .		0
77	Stability of an AFM-based sliding system. , 2009, , .		2
78	Synchronization on a segment without localization: algorithm and applications. , 2009, , .		5
79	Bio-inspired locomotion for a modular snake robot. , 2009, , .		1
80	Stability of coupled oscillators using Frenkel-Kontorova model. , 2009, , .		0
81	Control of frictional dynamics of a one-dimensional particle array. Automatica, 2008, 44, 2560-2569.	5.0	21
82	Nanotribology and nanoscale friction. IEEE Control Systems, 2008, 28, 92-100.	0.8	13
83	A decentralized control for mobile sensor network effective coverage. , 2008, , .		5
84	Optimal trajectory generation for nonholonomic robots in dynamic environments. , 2008, , .		7
85	Consensus on scale-free network. , 2008, , .		14
86	Single particle dynamics and control in a sliding nanocluster system. , 2007, , .		1
87	Bio-inspired motion planning algorithms for autonomous robots facilitating greater plasticity for security applications. Proceedings of SPIE, 2007, , .	0.8	0
88	Global Trajectory Generation for Nonholonomic Robots in Dynamic Environments. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	18
89	Formation Control of Nonholonomic Mobile Robots Using Graph Theoretical Methods. , 2007, , 369-386.		8
90	Collaborative Robots for Infrastructure Security Applications. Studies in Computational Intelligence, 2007, , 185-200.	0.9	9

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91	A novel LTCC miniaturized dualband balun. IEEE Microwave and Wireless Components Letters, 2006, 16, 143-145.	3.2	29
92	Feedback Control of Frictional Dynamics. , 2006, , .		1
93	Decentralized Coordination Control for Formation Stability of Autonomous Robotic Systems. , 2006, , .		0
94	Distributed Robot-assisted Node Localization in Active Sensor Networks. , 2006, , .		1
95	Disturbance Attenuation of Uncertain Nonholonomic Systems in Chained Forms. , 2006, , .		0
96	Nonlinear Enhancement of Weak Signals Using Optimization Theory. , 2006, , .		7
97	Lyapunov stability and precise control of the frictional dynamics of a one-dimensional particle array. Physical Review B, 2006, 73, .	3.2	18
98	Experimental testbed and distributed algorithm for cooperative driving in VII simulation. , 2006, , .		0
99	Formation control of nonholonomic mobile robots. , 2006, , .		23
100	Cooperative Driving based on Inter-vehicle Communications: Experimental Platform and Algorithm. , 2006, , .		13
101	A power system control scheme based on security visualisation in parameter space. International Journal of Electrical Power and Energy Systems, 2005, 27, 488-495.	5.5	9
102	New trajectory generation methods for nonholonomic mobile robots. , 2005, , .		8
103	Global time-varying stabilization of underactuated surface vessel. IEEE Transactions on Automatic Control, 2005, 50, 859-864.	5.7	133
104	Dynamic tracking control of uncertain nonholonomic mobile robots. , 2005, , .		7
105	Decentralized disturbance attenuation for large-scale nonlinear systems with delayed state interconnections. , 2004, , .		4
106	A reduced-order analytical solution to mobile robot trajectory generation in the presence of moving obstacles. , 2004, , .		0
107	H $\infty$ control for a class of structured time-delay systems. Systems and Control Letters, 2002, 45, 35-47.	2.3	12
108	Distributed Heterogeneous Sensing for Outdoor Multi-Robot Localization, Mapping, and Path Planning. , 2002, , 21-30.		12

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109	Global transient stability and voltage regulation for power systems. IEEE Transactions on Power Systems, 2001, 16, 678-688.	6.5	194
110	Nonlinear decentralized control of large-scale power systems. Automatica, 2000, 36, 1275-1289.	5.0	282
111	Decentralized robust disturbance attenuation for a class of large-scale nonlinear systems. Systems and Control Letters, 1999, 37, 71-85.	2.3	74
112	Robust decentralized excitation control of multimachine power systems. , 1999, , .		4
113	Stabilization and Tracking via Output Feedback for the Nonlinear Benchmark System. Automatica, 1998, 34, 907-915.	5.0	24
114	Decentralized Robust Disturbance Attenuation for Large-Scale Nonlinear Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 847-852.	0.4	2
115	Global nonlinear control of the ball and beam system. , 0, , .		16
116	A distributed and optimal motion planning approach for multiple mobile robots. , 0, , .		95
117	Performance-based rough terrain navigation for nonholonomic mobile robots. , 0, , .		16
118	Coverage control for a mobile robot patrolling a dynamic and uncertain environment. , 0, , .		32
119	Nonlinear tracking control of underactuated surface vessel. , 0, , .		10
120	Stabilization and tracking control of friction dynamics of a one-dimensional nanoarray. , 0, , .		4
121	Complete coverage control for nonholonomic mobile robots in dynamic environments. , 0, , .		20