

# Shiyu Zhao

## List of Publications by Year in descending order

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47  
papers

1,866  
citations

471509

17  
h-index

580821

25  
g-index

47  
all docs

47  
docs citations

47  
times ranked

809  
citing authors

#	ARTICLE	IF	CITATIONS
1	Bearing Rigidity and Almost Global Bearing-Only Formation Stabilization. IEEE Transactions on Automatic Control, 2016, 61, 1255-1268.	5.7	297
2	Affine Formation Maneuver Control of Multiagent Systems. IEEE Transactions on Automatic Control, 2018, 63, 4140-4155.	5.7	189
3	Translational and Scaling Formation Maneuver Control via a Bearing-Based Approach. IEEE Transactions on Control of Network Systems, 2017, 4, 429-438.	3.7	171
4	Localizability and distributed protocols for bearing-based network localization in arbitrary dimensions. Automatica, 2016, 69, 334-341.	5.0	133
5	Bearing-Only Formation Tracking Control of Multiagent Systems. IEEE Transactions on Automatic Control, 2019, 64, 4541-4554.	5.7	112
6	Bearing Rigidity Theory and Its Applications for Control and Estimation of Network Systems: Life Beyond Distance Rigidity. IEEE Control Systems, 2019, 39, 66-83.	0.8	97
7	Optimal sensor placement for target localisation and tracking in 2D and 3D. International Journal of Control, 2013, 86, 1687-1704.	1.9	86
8	A General Approach to Coordination Control of Mobile Agents With Motion Constraints. IEEE Transactions on Automatic Control, 2018, 63, 1509-1516.	5.7	80
9	Distributed control of angle-constrained cyclic formations using bearing-only measurements. Systems and Control Letters, 2014, 63, 12-24.	2.3	66
10	A Robust Real-Time Vision System for Autonomous Cargo Transfer by an Unmanned Helicopter. IEEE Transactions on Industrial Electronics, 2015, 62, 1210-1219.	7.9	57
11	Affine formation maneuver control of high-order multi-agent systems over directed networks. Automatica, 2020, 118, 109004.	5.0	46
12	Bearing-Based Formation Control of A Group of Agents with Leader-First Follower Structure. IEEE Transactions on Automatic Control, 2018, , 1-1.	5.7	42
13	Air-to-Air Visual Detection of Micro-UAVs: An Experimental Evaluation of Deep Learning. IEEE Robotics and Automation Letters, 2021, 6, 1020-1027.	5.1	39
14	Finite-time stabilisation of cyclic formations using bearing-only measurements. International Journal of Control, 2014, 87, 715-727.	1.9	33
15	Globally Convergent Distributed Network Localization Using Locally Measured Bearings. IEEE Transactions on Control of Network Systems, 2020, 7, 245-253.	3.7	32
16	A proportional-integral controller for distance-based formation tracking. , 2015, , .		30
17	Bearing-based distributed control and estimation of multi-agent systems. , 2015, , .		29
18	Vision-aided Estimation of Attitude, Velocity, and Inertial Measurement Bias for UAV Stabilization. Journal of Intelligent and Robotic Systems: Theory and Applications, 2016, 81, 531-549.	3.4	28

#	ARTICLE	IF	CITATIONS
19	Bearing-based formation stabilization with directed interaction topologies. , 2015, , .		27
20	Bearing-based formation maneuvering. , 2015, , .		26
21	Vision-based formation for UAVs. , 2014, , .		22
22	Bearing-Only Formation Control With Prespecified Convergence Time. IEEE Transactions on Cybernetics, 2022, 52, 620-629.	9.5	22
23	Guidance, navigation and control of an unmanned helicopter for automatic cargo transportation. , 2014, , .		16
24	Defend the practicality of single-integrator models in multi-robot coordination control. , 2017, , .		15
25	Laman graphs are generically bearing rigid in arbitrary dimensions. , 2017, , .		15
26	Development of an Unmanned Helicopter for Vertical Replenishment. Unmanned Systems, 2015, 03, 63-87.	3.6	14
27	Fragility and Controllability Tradeoff in Complex Networks. , 2018, , .		13
28	Affine Formation Maneuver Control of Linear Multi-Agent Systems with Undirected Interaction Graphs. , 2018, , .		12
29	Affine Formation Maneuver Control of Multi-Agent Systems with Directed Interaction Graphs. , 2018, , .		11
30	Fragility Limits Performance in Complex Networks. Scientific Reports, 2020, 10, 1774.	3.3	11
31	Optimal deployment of mobile sensors for target tracking in 2D and 3D spaces. IEEE/CAA Journal of Automatica Sinica, 2014, 1, 24-30.	13.1	10
32	Infinitesimal Weak Rigidity and Stability Analysis on Three-Agent Formations. , 2018, , .		10
33	Optimal placement of bearing-only sensors for target localization. , 2012, , .		9
34	Distributed control of angle-constrained circular formations using bearing-only measurements. , 2013, , .		8
35	A Comparative Study of Velocity Obstacle Approaches for Multi-Agent Systems. , 2018, , .		8
36	Distributed Affine Formation Tracking Control of Multiple Fixed-Wing UAVs. , 2020, , .		8

#	ARTICLE	IF	CITATIONS
37	Vision based Target Tracking/ Following and Estimation of Target Motion. , 2013, , .		6
38	Controllability Degree of Directed Line Networks: Nodal Energy and Asymptotic Bounds. , 2018, , .		6
39	A Revisit to Gradient-Descent Bearing-Only Formation Control. , 2018, , .		5
40	Finite-time stabilization of circular formations using bearing-only measurements. , 2013, , .		4
41	An event-triggering-based approach for three-dimensional local-level frame formation control of leader-follower UAVs. , 2017, , .		4
42	Controllability analysis and controller design for variable pitch propeller quadcopters with one propeller failure. Advanced Control for Applications, 2020, 2, e29.	1.7	4
43	Robust Localization of Occluded Targets in Aerial Manipulation Via Range-Only Mapping. IEEE Robotics and Automation Letters, 2022, 7, 2921-2928.	5.1	4
44	Detection, Localization, and Tracking of Multiple MAVs With Panoramic Stereo Camera Networks. IEEE Transactions on Automation Science and Engineering, 2023, 20, 1226-1243.	5.2	4
45	Control of centrally-powered variable pitch propeller quadcopters subject to propeller faults. Aerospace Science and Technology, 2022, 120, 107245.	4.8	3
46	A robust vision system for a UAV transporting cargoes between moving platforms. , 2014, , .		1
47	Aerobatic Tic-Toc Control of Planar Quadcopters via Reinforcement Learning. IEEE Robotics and Automation Letters, 2022, 7, 2140-2147.	5.1	1