Jia Pan

List of Publications by Year
in descending order

58 papers	2,336 citations	430874 18 h-index	289244 40 g-index
58 all docs	58 docs citations	58 times ranked	1845 citing authors

#	Article	IF	Citations
1	Motion planning with sequential convex optimization and convex collision checking. International Journal of Robotics Research, 2014, 33, 1251-1270.	8.5	532
2	Towards Optimally Decentralized Multi-Robot Collision Avoidance via Deep Reinforcement Learning. , 2018, , .		278
3	Soft magnetic skin for super-resolution tactile sensing with force self-decoupling. Science Robotics, 2021, 6, .	17.6	205
4	Distributed multi-robot collision avoidance via deep reinforcement learning for navigation in complex scenarios. International Journal of Robotics Research, 2020, 39, 856-892.	8.5	159
5	Deep-Learned Collision Avoidance Policy for Distributed Multiagent Navigation. IEEE Robotics and Automation Letters, 2017, 2, 656-663.	5.1	112
6	Highly anisotropic and flexible piezoceramic kirigami for preventing joint disorders. Science Advances, 2021, 7, .	10.3	88
7	A Two-Stage Reinforcement Learning Approach for Multi-UAV Collision Avoidance Under Imperfect Sensing. IEEE Robotics and Automation Letters, 2020, 5, 3098-3105.	5.1	66
8	Three-Dimensional Deformable Object Manipulation Using Fast Online Gaussian Process Regression. IEEE Robotics and Automation Letters, 2018, 3, 979-986.	5.1	54
9	3-D Deformable Object Manipulation Using Deep Neural Networks. IEEE Robotics and Automation Letters, 2019, 4, 4255-4261.	5.1	52
10	An Underwater Robotic Manipulator with Soft Bladders and Compact Depth-Independent Actuation. Soft Robotics, 2020, 7, 535-549.	8.0	43
11	Challenges and Outlook in Robotic Manipulation of Deformable Objects. IEEE Robotics and Automation Magazine, 2022, 29, 67-77.	2.0	43
12	Plant Phenotyping by Deep-Learning-Based Planner for Multi-Robots. IEEE Robotics and Automation Letters, 2019, 4, 3113-3120.	5.1	42
13	Fast probabilistic collision checking for sampling-based motion planning using locality-sensitive hashing. International Journal of Robotics Research, 2016, 35, 1477-1496.	8.5	40
14	Reinforcement Learned Distributed Multi-Robot Navigation With Reciprocal Velocity Obstacle Shaped Rewards. IEEE Robotics and Automation Letters, 2022, 7, 5896-5903.	5.1	36
15	Getting Robots Unfrozen and Unlost in Dense Pedestrian Crowds. IEEE Robotics and Automation Letters, 2019, 4, 1178-1185.	5.1	35
16	Robotics in ecommerce logistics. HKIE Transactions, 2015, 22, 68-77.	0.1	33
17	Keyfilter-Aware Real-Time UAV Object Tracking. , 2020, , .		30
18	Optimization-Based Framework for Excavation Trajectory Generation. IEEE Robotics and Automation Letters, 2021, 6, 1479-1486.	5.1	29

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19	Cloth Manipulation Using Random-Forest-Based Imitation Learning. IEEE Robotics and Automation Letters, 2019, 4, 2086-2093.	5.1	26
20	Manipulating Highly Deformable Materials Using a Visual Feedback Dictionary. , 2018, , .		23
21	VR-ORCA: Variable Responsibility Optimal Reciprocal Collision Avoidance. IEEE Robotics and Automation Letters, 2021, 6, 4520-4527.	5.1	23
22	Visualizing the Invisible: Occluded Vehicle Segmentation and Recovery. , 2019, , .		21
23	Survey of optimal motion planning. IET Cyber-Systems and Robotics, 2019, 1, 13-19.	1.8	20
24	A Smart Robotic Walker With Intelligent Close-Proximity Interaction Capabilities for Elderly Mobility Safety. Frontiers in Neurorobotics, 2020, 14, 575889.	2.8	20
25	Real-Time UAV Path Planning for Autonomous Urban Scene Reconstruction. , 2020, , .		20
26	Proxemic group behaviors using reciprocal multi-agent navigation. , 2016, , .		19
27	Surface Texture Recognition by Deep Learningâ€Enhanced Tactile Sensing. Advanced Intelligent Systems, 2022, 4, 2100076.	6.1	19
28	Deep Reinforcement Learning for Robot Collision Avoidance With Self-State-Attention and Sensor Fusion. IEEE Robotics and Automation Letters, 2022, 7, 6886-6893.	5.1	19
29	Fast Localization and Segmentation of Tissue Abnormalities by Autonomous Robotic Palpation. IEEE Robotics and Automation Letters, 2021, 6, 1707-1714.	5.1	18
30	Safe Navigation With Human Instructions in Complex Scenes. IEEE Robotics and Automation Letters, 2019, 4, 753-760.	5.1	17
31	Learning-Based Optoelectronically Innervated Tactile Finger for Rigid-Soft Interactive Grasping. IEEE Robotics and Automation Letters, 2021, 6, 3817-3824.	5.1	16
32	Planning Curvature and Torsion Constrained Ribbons in 3D With Application to Intracavitary Brachytherapy. IEEE Transactions on Automation Science and Engineering, 2015, 12, 1332-1345.	5.2	15
33	Intuitive Control of Humanoid Soft-Robotic Hand BCL-13. , 2018, , .		15
34	Learning Selective Communication for Multi-Agent Path Finding. IEEE Robotics and Automation Letters, 2022, 7, 1455-1462.	5.1	15
35	Rope caging and grasping. , 2016, , .		14
36	Collaborative Human-Robot Motion Generation Using LSTM-RNN. , 2018, , .		13

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37	Context-Aware Spatio-Recurrent Curvilinear Structure Segmentation. , 2019, , .		12
38	Rigid-Soft Interactive Learning for Robust Grasping. IEEE Robotics and Automation Letters, 2020, 5, 1720-1727.	5.1	12
39	Compact Reachability Map for Excavator Motion Planning. , 2019, , .		11
40	An Efficient Centralized Planner for Multiple Automated Guided Vehicles at the Crossroad of Polynomial Curves. IEEE Robotics and Automation Letters, 2022, 7, 398-405.	5.1	10
41	An Efficient and Responsive Robot Motion Controller for Safe Human-Robot Collaboration. IEEE Robotics and Automation Letters, 2021, 6, 6068-6075.	5.1	9
42	A Hierarchical Approach for Mobile Robot Exploration in Pedestrian Crowd. IEEE Robotics and Automation Letters, 2022, 7, 175-182.	5.1	8
43	Living Object Grasping Using Two-Stage Graph Reinforcement Learning. IEEE Robotics and Automation Letters, 2021, 6, 1950-1957.	5.1	7
44	Collecting a Flock With Multiple Sub-Groups by Using Multi-Robot System. IEEE Robotics and Automation Letters, 2022, 7, 6974-6981.	5.1	7
45	Human-Robot Collaboration using Variable Admittance Control and Human Intention Prediction. , 2020, , .		6
46	Robust shape estimation for 3D deformable object manipulation. Communications in Information and Systems, 2018, 18, 107-124.	0.5	6
47	Tactile Super-Resolution Model for Soft Magnetic Skin. IEEE Robotics and Automation Letters, 2022, 7, 2589-2596.	5.1	6
48	Efficient multi-agent global navigation using interpolating bridges. , 2017, , .		5
49	An empirical comparison among the effect of different supports in sequential robotic manipulation. , 2016, , .		4
50	Design of Anthropomorphic Fingers With Biomimetic Actuation Mechanism. IEEE Robotics and Automation Letters, 2019, 4, 3465-3472.	5.1	4
51	Configuration Space Decomposition for Learning-based Collision Checking in High-DOF Robots. , 2020, , .		4
52	Learn to Predict How Humans Manipulate Large-Sized Objects From Interactive Motions. IEEE Robotics and Automation Letters, 2022, 7, 4702-4709.	5.1	4
53	Failure Handling of Robotic Pick and Place Tasks With Multimodal Cues Under Partial Object Occlusion. Frontiers in Neurorobotics, 2021, 15, 570507.	2.8	3
54	AUV Motion Planning in Uncertain Flow Fields Using Bayes Adaptive MDPs. IEEE Robotics and Automation Letters, 2022, 7, 5575-5582.	5.1	3

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55	A General Robotic Framework for Automated Cloth Assembly. , 2019, , .		2
56	Efficient SE(3) Reachability Map Generation via Interplanar Integration of Intra-planar Convolutions. , 2021, , .		2
57	Unified GPU-Parallelizable Robot Forward Dynamics Computation Using Band Sparsity. IEEE Robotics and Automation Letters, 2018, 3, 203-209.	5.1	1
58	Coorp: Satisfying Low-Latency and High-Throughput Requirements of Wireless Network for Coordinated Robotic Learning. IEEE Internet of Things Journal, 2023, 10, 1946-1960.	8.7	0