Daniela L Rus

List of Publications by Year
in descending order

286 papers	22,422 citations	28274 55 h-index	19190 118 g-index
288 all docs	288 docs citations	288 times ranked	14869 citing authors

#	Article	IF	Citations
1	Design, fabrication and control of soft robots. Nature, 2015, 521, 467-475.	27.8	3,902
2	Modular Self-Reconfigurable Robot Systems [Grand Challenges of Robotics]. IEEE Robotics and Automation Magazine, 2007, 14, 43-52.	2.0	851
3	On-demand high-capacity ride-sharing via dynamic trip-vehicle assignment. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 462-467.	7.1	740
4	Autonomous Soft Robotic Fish Capable of Escape Maneuvers Using Fluidic Elastomer Actuators. Soft Robotics, 2014, 1, 75-87.	8.0	730
5	Artificial Intelligence in Surgery: Promises and Perils. Annals of Surgery, 2018, 268, 70-76.	4.2	626
6	LIO-SAM: Tightly-coupled Lidar Inertial Odometry via Smoothing and Mapping. , 2020, , .		624
7	A Recipe for Soft Fluidic Elastomer Robots. Soft Robotics, 2015, 2, 7-25.	8.0	538
8	Meshworm: A Peristaltic Soft Robot With Antagonistic Nickel Titanium Coil Actuators. IEEE/ASME Transactions on Mechatronics, 2013, 18, 1485-1497.	5.8	536
9	Planning and Decision-Making for Autonomous Vehicles. Annual Review of Control, Robotics, and Autonomous Systems, 2018, 1, 187-210.	11.8	529
10	Fluid-driven origami-inspired artificial muscles. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 13132-13137.	7.1	499
11	Exploration of underwater life with an acoustically controlled soft robotic fish. Science Robotics, 2018, 3, .	17.6	489
12	Perception, Planning, Control, and Coordination for Autonomous Vehicles. Machines, 2017, 5, 6.	2.2	397
13	Design, fabrication and control of origami robots. Nature Reviews Materials, 2018, 3, 101-112.	48.7	372
14	An Origami-Inspired Approach to Worm Robots. IEEE/ASME Transactions on Mechatronics, 2013, 18, 430-438.	5.8	289
15	Autonomous undulatory serpentine locomotion utilizing body dynamics of a fluidic soft robot. Bioinspiration and Biomimetics, 2013, 8, 026003.	2.9	285
16	Self-folding with shape memory composites. Soft Matter, 2013, 9, 7688.	2.7	236
17	Self-folding origami: shape memory composites activated by uniform heating. Smart Materials and Structures, 2014, 23, 094006.	3.5	236
18	Robotic load balancing for mobility-on-demand systems. International Journal of Robotics Research, 2012, 31, 839-854.	8.5	218

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19	Social behavior for autonomous vehicles. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 24972-24978.	7.1	212
20	Particle robotics based on statistical mechanics of loosely coupledÂcomponents. Nature, 2019, 567, 361-365.	27.8	210
21	Computer Vision Analysis of Intraoperative Video. Annals of Surgery, 2019, 270, 414-421.	4.2	193
22	Persistent Robotic Tasks: Monitoring and Sweeping in Changing Environments. IEEE Transactions on Robotics, 2012, 28, 410-426.	10.3	185
23	Distributed robotic sensor networks: An information-theoretic approach. International Journal of Robotics Research, 2012, 31, 1134-1154.	8.5	181
24	Multi-robot formation control and object transport in dynamic environments via constrained optimization. International Journal of Robotics Research, 2017, 36, 1000-1021.	8.5	178
25	Eyes in the Sky: Decentralized Control for the Deployment of Robotic Camera Networks. Proceedings of the IEEE, 2011, 99, 1541-1561.	21.3	172
26	An untethered miniature origami robot that self-folds, walks, swims, and degrades. , 2015, , .		162
27	M-blocks: Momentum-driven, magnetic modular robots. , 2013, , .		157
28	Persistent ocean monitoring with underwater gliders: Adapting sampling resolution. Journal of Field Robotics, 2011, 28, 714-741.	6.0	155
29	Model-based dynamic feedback control of a planar soft robot: trajectory tracking and interaction with the environment. International Journal of Robotics Research, 2020, 39, 490-513.	8.5	151
30	Autonomous Object Manipulation Using a Soft Planar Grasping Manipulator. Soft Robotics, 2015, 2, 155-164.	8.0	147
31	Robotic metamorphosis by origami exoskeletons. Science Robotics, 2017, 2, .	17.6	147
32	Voronoi coverage of non-convex environments with a group of networked robots. , 2010, , .		146
33	Hydraulic Autonomous Soft Robotic Fish for 3D Swimming. Springer Tracts in Advanced Robotics, 2016, , 405-420.	0.4	144
34	Baxter's Homunculus: Virtual Reality Spaces for Teleoperation in Manufacturing. IEEE Robotics and Automation Letters, 2018, 3, 179-186.	5.1	136
35	Optimal path planning for surveillance with temporal-logic constraints. International Journal of Robotics Research, 2011, 30, 1695-1708.	8.5	132
36	IkeaBot: An autonomous multi-robot coordinated furniture assembly system. , 2013, , .		132

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37	Optimality and Robustness in Multi-Robot Path Planning with Temporal Logic Constraints. International Journal of Robotics Research, 2013, 32, 889-911.	8.5	131
38	A Vacuum-driven Origami â€œMagic-ballâ€•Soft Gripper. , 2019, , .		130
39	Dynamic control of soft robots interacting with the environment. , 2018, , .		129
40	Robot pebbles: One centimeter modules for programmable matter through self-disassembly. , 2010, , .		127
41	Optimal Control of Markov Decision Processes With Linear Temporal Logic Constraints. IEEE Transactions on Automatic Control, 2014, 59, 1244-1257.	5.7	125
42	Robust proprioceptive grasping with a soft robot hand. Autonomous Robots, 2019, 43, 681-696.	4.8	120
43	Real-Time Motion Planning for Aerial Videography With Dynamic Obstacle Avoidance and Viewpoint Optimization. IEEE Robotics and Automation Letters, 2017, 2, 1696-1703.	5.1	118
44	Handedness in shearing auxetics creates rigid and compliant structures. Science, 2018, 360, 632-635.	12.6	116
45	A review of collective robotic construction. Science Robotics, 2019, 4, .	17.6	116
46	Printable hydraulics: A method for fabricating robots by 3D co-printing solids and liquids. , 2016, , .		115
47	Learning Object Grasping for Soft Robot Hands. IEEE Robotics and Automation Letters, 2018, 3, 2370-2377.	5.1	115
48	Origami-Inspired Printed Robots. IEEE/ASME Transactions on Mechatronics, 2015, 20, 2214-2221.	5.8	112
49	On an Improved State Parametrization for Soft Robots With Piecewise Constant Curvature and Its Use in Model Based Control. IEEE Robotics and Automation Letters, 2020, 5, 1001-1008.	5.1	110
50	Ingestible, controllable, and degradable origami robot for patching stomach wounds. , 2016, , .		108
51	ChainQueen: A Real-Time Differentiable Physical Simulator for Soft Robotics. , 2019, , .		107
52	Towards printable robotics: Origami-inspired planar fabrication of three-dimensional mechanisms. , 2011, , .		106
53	Learning Robust Control Policies for End-to-End Autonomous Driving From Data-Driven Simulation. IEEE Robotics and Automation Letters, 2020, 5, 1143-1150.	5.1	106
54	Distributed Proprioception of 3D Configuration in Soft, Sensorized Robots via Deep Learning. IEEE Robotics and Automation Letters, 2020, 5, 3299-3306.	5.1	104

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55	Dynamic Motion Control of Multi-Segment Soft Robots Using Piecewise Constant Curvature Matched with an Augmented Rigid Body Model. , 2019, , .		102
56	Robot self-assembly by folding: A printed inchworm robot. , 2013, , .		100
57	Neural circuit policies enabling auditable autonomy. Nature Machine Intelligence, 2020, 2, 642-652.	16.0	98
58	Experiments with Underwater Robot Localization and Tracking. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	96
59	A modular approach to soft robots. , 2012, , .		96
60	3D M-Blocks: Self-reconfiguring robots capable of locomotion via pivoting in three dimensions. , 2015, , .		87
61	Whole arm planning for a soft and highly compliant 2D robotic manipulator. , 2014, , .		85
62	Distributed multi-robot formation control in dynamic environments. Autonomous Robots, 2019, 43, 1079-1100.	4.8	85
63	Autonomous Vehicle Navigation in Rural Environments Without Detailed Prior Maps. , 2018, , .		82
64	Control Oriented Modeling of Soft Robots: The Polynomial Curvature Case. IEEE Robotics and Automation Letters, 2020, 5, 290-298.	5.1	75
65	Evidential Deep Learning for Guided Molecular Property Prediction and Discovery. ACS Central Science, 2021, 7, 1356-1367.	11.3	73
66	Shady3D: A Robot that Climbs 3D Trusses. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	67
67	Safe Nonlinear Trajectory Generation for Parallel Autonomy With a Dynamic Vehicle Model. IEEE Transactions on Intelligent Transportation Systems, 2018, 19, 2994-3008.	8.0	67
68	An End-to-End Signal Strength Model for Underwater Optical Communications. IEEE Journal of Oceanic Engineering, 2013, 38, 743-757.	3.8	65
69	On mutual information-based control of range sensing robots for mapping applications. International Journal of Robotics Research, 2014, 33, 1375-1392.	8.5	65
70	Decentralized, Adaptive Control for Coverage with Networked Robots. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	62
71	BiDirectional optical communication with AquaOptical II. , 2010, , .		62
72	Optimal coverage for multiple hovering robots with downward facing cameras. , 2009, , .		61

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73	Soft Autonomous Materials—Using Active Elasticity and Embedded Distributed Computation. Springer Tracts in Advanced Robotics, 2014, , 227-240.	0.4	61
74	Design of early warning flood detection systems for developing countries. , 2007, , .		60
75	AMOUR V: A Hovering Energy Efficient Underwater Robot Capable of Dynamic Payloads. International Journal of Robotics Research, 2010, 29, 547-570.	8.5	60
76	Design, Modeling, and Nonlinear Model Predictive Tracking Control of a Novel Autonomous Surface Vehicle. , 2018, , .		56
77	Parallel autonomy in automated vehicles: Safe motion generation with minimal intervention. , 2017, , .		55
78	Roboat: An Autonomous Surface Vehicle for Urban Waterways. , 2019, , .		53
79	Dynamically Closed-Loop Controlled Soft Robotic Arm using a Reduced Order Finite Element Model with State Observer. , 2019, , .		52
80	Multi-robot monitoring in dynamic environments with guaranteed currency of observations. , 2010, , .		51
81	Pedestrian-inspired sampling-based multi-robot collision avoidance. , 2012, , .		50
82	Predictive routing for autonomous mobility-on-demand systems with ride-sharing. , 2017, , .		49
83	Correlated Orienteering Problem and its application to informative path planning for persistent monitoring tasks. , 2014, , .		48
84	Soft robot actuators using energy-efficient valves controlled by electropermanent magnets. , 2011, , .		47
85	Soft Robotic Fingers with Embedded Ionogel Sensors and Discrete Actuation Modes for Somatosensitive Manipulation. , 2019, , .		47
86	Decentralized path planning for coverage tasks using gradient descent adaptive control. International Journal of Robotics Research, 2014, 33, 401-425.	8.5	45
87	Recovering from failure by asking for help. Autonomous Robots, 2015, 39, 347-362.	4.8	45
88	Variational Autoencoder for End-to-End Control of Autonomous Driving with Novelty Detection and Training De-biasing. , 2018, , .		45
89	Minimum-violation scLTL motion planning for mobility-on-demand. , 2017, , .		44
90	MDP optimal control under temporal logic constraints. , 2011, , .		43

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91	Trajectory clustering for motion prediction. , 2012, , .		42
92	Data–Driven Disturbance Observers for Estimating External Forces on Soft Robots. IEEE Robotics and Automation Letters, 2020, 5, 5717-5724.	5.1	42
93	Autonomous Depth Adjustment for Underwater Sensor Networks: Design and Applications. IEEE/ASME Transactions on Mechatronics, 2012, 17, 16-24.	5.8	41
94	Automated operative phase identification in peroral endoscopic myotomy. Surgical Endoscopy and Other Interventional Techniques, 2021, 35, 4008-4015.	2.4	41
95	A Simple, Inexpensive, Wearable Glove with Hybrid Resistive–Pressure Sensors for Computational Sensing, Proprioception, and Task Identification. Advanced Intelligent Systems, 2020, 2, 2000002.	6.1	40
96	Using optical communication for remote underwater robot operation. , 2010, , .		39
97	Multi-robot grasp planning for sequential assembly operations. , 2015, , .		39
98	Underwater Soft Robot Modeling and Control With Differentiable Simulation. IEEE Robotics and Automation Letters, 2021, 6, 4994-5001.	5.1	39
99	Building a distributed robot garden. , 2009, , .		38
100	Planning to fold multiple objects from a single self-folding sheet. Robotica, 2011, 29, 87-102.	1.9	38
101	Interactive robogami: An end-to-end system for design of robots with ground locomotion. International Journal of Robotics Research, 2017, 36, 1131-1147.	8.5	38
102	Spotlight on origami robots. Science Robotics, 2018, 3, .	17.6	38
103	Miche: Modular Shape Formation by Self-Dissasembly. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	37
104	Machine learning and coresets for automated real-time video segmentation of laparoscopic and robot-assisted surgery. , 2017, , .		36
105	GaitLock: Protect Virtual and Augmented Reality Headsets Using Gait. IEEE Transactions on Dependable and Secure Computing, 2019, 16, 484-497.	5.4	36
106	Multi-robot grasp planning for sequential assembly operations. Autonomous Robots, 2019, 43, 649-664.	4.8	36
107	Roboat II: A Novel Autonomous Surface Vessel for Urban Environments. , 2020, , .		35
108	An end-to-end approach to making self-folded 3D surface shapes by uniform heating. , 2014, , .		34

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109	A ladybug exploration strategy for distributed adaptive coverage control. , 2008, , .		33
110	A decentralized control policy for adaptive information gathering in hazardous environments. , 2012, , .		33
111	Foldable Joints for Foldable Robots. Journal of Mechanisms and Robotics, 2015, 7, .	2.2	33
112	Active Magnetic Anomaly Detection Using Multiple Micro Aerial Vehicles. IEEE Robotics and Automation Letters, 2016, 1, 153-160.	5.1	33
113	Dynamics and trajectory optimization for a soft spatial fluidic elastomer manipulator. , 2015, , .		32
114	An Underwater Sensor Network with Dual Communications, Sensing, and Mobility. , 2007, , .		31
115	Navigating Congested Environments with Risk Level Sets. , 2018, , .		30
116	Optimal path planning under temporal logic constraints. , 2010, , .		29
117	Self-folding shape memory laminates for automated fabrication. , 2013, , .		29
118	Multi-scale assembly with robot teams. International Journal of Robotics Research, 2015, 34, 1645-1659.	8.5	29
119	Functional co-optimization of articulated robots. , 2017, , .		29
120	Consensus learning for distributed coverage control. , 2008, , .		28
121	Optimizing communication in air-ground robot networks using decentralized control. , 2010, , .		28
122	An end-to-end system for designing mechanical structures for print-and-fold robots. , 2014, , .		28
123	Automated Recycling Separation Enabled by Soft Robotic Material Classification. , 2019, , .		28
124	Decentralized self-repair to maintain connectivity and coverage in networked multi-robot systems. , 2011, , .		27
125	Generating informative paths for persistent sensing in unknown environments. , 2012, , .		27
126	An End-to-End Approach to Self-Folding Origami Structures. IEEE Transactions on Robotics, 2018, 34, 1409-1424.	10.3	27

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127	Digital Fabrication of Pneumatic Actuators with Integrated Sensing by Machine Knitting. , 2022, , .		27
128	Ad-hoc wireless network coverage with networked robots that cannot localize. , 2009, , .		26
129	Optimal multi-robot path planning with temporal logic constraints. , 2011, , .		26
130	Distributed target tracking in cluttered environments with guaranteed collision avoidance. , 2017, , .		26
131	Robust Place Recognition using an Imaging Lidar. , 2021, , .		26
132	Designing and programming self-folding sheets. Robotics and Autonomous Systems, 2014, 62, 976-1001.	5.1	25
133	Vehicle Trajectory Prediction Using Generative Adversarial Network With Temporal Logic Syntax Tree Features. IEEE Robotics and Automation Letters, 2021, 6, 3459-3466.	5.1	25
134	Autonomous locomotion of a miniature, untethered origami robot using hall effect sensor-based magnetic localization. , 2017, , .		24
135	Autonomous Latching System for Robotic Boats. , 2019, , .		24
136	A Simple Electric Soft Robotic Gripper with High-Deformation Haptic Feedback. , 2019, , .		24
137	JelloCube: A Continuously Jumping Robot With Soft Body. IEEE/ASME Transactions on Mechatronics, 2019, 24, 447-458.	5.8	24
138	Autonomous Navigation in Inclement Weather Based on a Localizing Ground Penetrating Radar. IEEE Robotics and Automation Letters, 2020, 5, 3267-3274.	5.1	24
139	Covid-19 and Flattening the Curve: A Feedback Control Perspective. , 2021, 5, 1435-1440.		24
140	Probabilistic Risk Metrics for Navigating Occluded Intersections. IEEE Robotics and Automation Letters, 2019, 4, 4322-4329.	5.1	23
141	Scaling Up Soft Robotics: A Meter-Scale, Modular, and Reconfigurable Soft Robotic System. Soft Robotics, 2022, 9, 324-336.	8.0	23
142	ChangiNOW: A mobile application for efficient taxi allocation at airports. , 2013, , .		22
143	Weighted Buffered Voronoi Cells for Distributed Semi-Cooperative Behavior. , 2020, , .		22
144	Tension Pistons: Amplifying Piston Force Using Fluid‑Induced Tension in Flexible Materials. Advanced Functional Materials, 2019, 29, 1901419.	14.9	21

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145	Plug-and-play supervisory control using muscle and brain signals for real-time gesture and error detection. Autonomous Robots, 2020, 44, 1303-1322.	4.8	21
146	Complete SE<sup>3</sup> underwater robot control with arbitrary thruster configurations. , 2010, , .		20
147	Co-Learning of Task and Sensor Placement for Soft Robotics. IEEE Robotics and Automation Letters, 2021, 6, 1208-1215.	5.1	20
148	Towards a Self-contained Soft Robotic Fish: On-Board Pressure Generation and Embedded Electro-permanent Magnet Valves. Springer Tracts in Advanced Robotics, 2013, , 41-54.	0.4	20
149	How was your day? Online visual workspace summaries using incremental clustering in topic space. , 2012, , .		19
150	Compliant electric actuators based on handed shearing auxetics. , 2018, , .		19
151	Trajectory Optimization and Situational Analysis Framework for Autonomous Overtaking With Visibility Maximization. IEEE Transactions on Intelligent Vehicles, 2020, 5, 7-20.	12.7	19
152	Experiments in decentralized robot construction with tool delivery and assembly robots. , 2010, , .		18
153	Collision avoidance for persistent monitoring in multi-robot systems with intersecting trajectories. , 2011, , .		18
154	Self-pop-up cylindrical structure by global heating. , 2013, , .		18
155	A Recipe for Electrically-Driven Soft Robots via 3D Printed Handed Shearing Auxetics. IEEE Robotics and Automation Letters, 2021, 6, 795-802.	5.1	18
156	Stochastic Dynamic Games in Belief Space. IEEE Transactions on Robotics, 2021, 37, 2157-2172.	10.3	18
157	Coordinating Construction of Truss Structures Using Distributed Equal-Mass Partitioning. Springer Tracts in Advanced Robotics, 2011, , 607-623.	0.4	18
158	VISTA 2.0: An Open, Data-driven Simulator for Multimodal Sensing and Policy Learning for Autonomous Vehicles. , 2022, , .		18
159	Distributed Coverage Control on Surfaces in 3D Space. , 2010, , .		17
160	Persistent ocean monitoring with underwater gliders: Towards accurate reconstruction of dynamic ocean processes. , 2011, , .		17
161	On mutual information-based control of range sensing robots for mapping applications. , 2013, , .		17
162	Coresets for visual summarization with applications to loop closure. , 2015, , .		17

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163	Folding Angle Regulation by Curved Crease Design for Self-Assembling Origami Propellers. Journal of Mechanisms and Robotics, 2015, 7, .	2.2	17
164	Multiplexed Manipulation: Versatile Multimodal Grasping via a Hybrid Soft Gripper. , 2020, , .		17
165	Dataâ€driven identification of group dynamics for motion prediction and control. Journal of Field Robotics, 2008, 25, 305-324.	6.0	16
166	Improving the performance of multi-robot systems by task switching. , 2013, , .		16
167	Visual precis generation using coresets. , 2014, , .		16
168	Distributed coverage with mobile robots on a graph: locational optimization and equal-mass partitioning. Robotica, 2014, 32, 257-277.	1.9	16
169	Cyclic hydraulic actuation for soft robotic devices. , 2016, , .		16
170	Dynamic Risk Density for Autonomous Navigation in Cluttered Environments without Object Detection. , 2019, , .		16
171	A scalable information theoretic approach to distributed robot coordination. , 2011, , .		15
172	Self-folding printable elastic electric devices: Resistor, capacitor, and inductor. , 2014, , .		15
173	Sensing Soft Robot Shape Using IMUs: An Experimental Investigation. Springer Proceedings in Advanced Robotics, 2021, , 543-552.	1.3	15
174	Learning to Plan with Logical Automata. , 0, , .		15
175	Collision avoidance for persistent monitoring in multi-robot systems with intersecting trajectories. , 2011, , .		15
176	Latent Imagination Facilitates Zero-Shot Transfer in Autonomous Racing. , 2022, , .		15
177	Indoor robot gardening: design and implementation. Intelligent Service Robotics, 2010, 3, 219-232.	2.6	14
178	Making self-disassembling objects with multiple components in the Robot Pebbles system. , 2011, , .		14
179	Time scales and stability in networked multi-robot systems. , 2011, , .		14
180	Semantic categorization of outdoor scenes with uncertainty estimates using multi-class gaussian process classification. , 2012, , .		14

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181	Congestion-aware Traffic Routing System using sensor data. , 2012, , .		14
182	Learning Steering Bounds for Parallel Autonomous Systems. , 2018, , .		14
183	Decentralised dynamic games for large population stochastic multiâ€agent systems. IET Control Theory and Applications, 2015, 9, 503-510.	2.1	13
184	Dynamic Control of Soft Robots with Internal Constraints in the Presence of Obstacles. , 2019, , .		13
185	Autonomous, Localization-Free Underwater Data Muling Using Acoustic and Optical Communication. Springer Tracts in Advanced Robotics, 2013, , 841-857.	0.4	13
186	Communication coverage for independently moving robots. , 2012, , .		12
187	Programmable Medicine: Autonomous, Ingestible, Deployable Hydrogel Patch and Plug for Stomach Ulcer Therapy. , 2018, , .		12
188	Exact Task Execution in Highly Under-Actuated Soft Limbs: An Operational Space Based Approach. IEEE Robotics and Automation Letters, 2019, 4, 2508-2515.	5.1	12
189	Stochastic motion planning with path constraints and application to optimal agent, resource, and route planning. , 2012, , .		11
190	Electromagnetically driven elastic actuator. , 2014, , .		11
191	Adaptive Coordinating Construction of Truss Structures Using Distributed Equal-Mass Partitioning. IEEE Transactions on Robotics, 2014, 30, 188-202.	10.3	11
192	Safe Path Planning with Gaussian Process Regulated Risk Map. , 2019, , .		11
193	A Simple, Inexpensive, Wearable Glove with Hybrid Resistiveâ€Pressure Sensors for Computational Sensing, Proprioception, and Task Identification. Advanced Intelligent Systems, 2020, 2, 2070061.	6.1	11
194	MapLite: Autonomous Intersection Navigation Without a Detailed Prior Map. IEEE Robotics and Automation Letters, 2020, 5, 556-563.	5.1	11
195	Distributed coverage control for mobile sensors with location-dependent sensing models. , 2009, , .		10
196	Congestion-Aware Multi-Agent Path Planning: Distributed Algorithm and Applications. Computer Journal, 2014, 57, 825-839.	2.4	10
197	Learning Risk Level Set Parameters from Data Sets for Safer Driving. , 2019, , .		10
198	Coordinated Control of a Reconfigurable Multi-Vessel Platform: Robust Control Approach. , 2019, , .		10

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199	Learning-based Nonlinear Model Predictive Control of Reconfigurable Autonomous Robotic Boats: Roboats. , 2019, , .		10
200	Deep Context Maps: Agent Trajectory Prediction Using Location-Specific Latent Maps. IEEE Robotics and Automation Letters, 2020, 5, 5097-5104.	5.1	10
201	Mechanically Programmable, Degradable & Ingestible Soft Actuators. , 2020, , .		10
202	Aggregating Long-Term Context for Learning Laparoscopic and Robot-Assisted Surgical Workflows. , 2021, , .		10
203	A Wearable Smart Glove and Its Application of Pose and Gesture Detection to Sign Language Classification. IEEE Robotics and Automation Letters, 2022, 7, 10589-10596.	5.1	10
204	Constraint-aware coordinated construction of generic structures. , 2011, , .		9
205	Stochastic distributed multi-agent planning and applications to traffic. , 2012, , .		9
206	Edge-Compositions of 3D Surfaces. Journal of Mechanical Design, Transactions of the ASME, 2013, 135, .	2.9	9
207	Optimizing Vehicle Distributions and Fleet Sizes for Shared Mobility-on-Demand. , 2019, , .		9
208	Decentralized Control for 3D M-Blocks for Path Following, Line Formation, and Light Gradient Aggregation. , 2019, , .		9
209	Soft IK with Stiffness Control. , 2021, , .		9
210	Saving Energy with Buoyancy and Balance Control for Underwater Robots with Dynamic Payloads. Springer Tracts in Advanced Robotics, 2009, , 429-438.	0.4	9
211	Estimating the state of epidemics spreading with graph neural networks. Nonlinear Dynamics, 2022, 109, 249-263.	5.2	9
212	SUPR-GAN: SUrgical PRediction GAN for Event Anticipation in Laparoscopic and Robotic Surgery. IEEE Robotics and Automation Letters, 2022, 7, 5741-5748.	5.1	9
213	Optimal distributed planning of multi-robot placement on a 3D truss. , 2007, , .		8
214	Self assembly of modular manipulators with active and passive modules. , 2008, , .		8
215	Programming and controlling self-folding robots. , 2012, , .		8
216	Teleoperated Micromanipulation System Manufactured by Cut-and-Fold Techniques. IEEE Transactions on Robotics, 2017, 33, 456-467.	10.3	8

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217	Persistent monitoring of events with stochastic arrivals at multiple stations. , 2014, , .		7
218	Printable programmable viscoelastic materials for robots. , 2016, , .		7
219	A Scripted Printable Quadrotor: Rapid Design and Fabrication of a Folded MAV. Springer Tracts in Advanced Robotics, 2016, , 203-219.	0.4	7
220	To grasp or not to grasp: an end-to-end deep-learning approach for predicting grasping failures in soft hands. , 2020, , .		7
221	Advanced soft robot modeling in ChainQueen. Robotica, 2023, 41, 74-104.	1.9	7
222	Toward understanding the communication in sperm whales. IScience, 2022, 25, 104393.	4.1	7
223	Learning Interactive Driving Policies via Data-driven Simulation. , 2022, , .		7
224	Planning the reconfiguration of grounded truss structures with truss climbing robots that carry truss elements. , 2009, , .		6
225	Controlling the locomotion of a separated inner robot from an outer robot using electropermanent magnets. , 2012, , .		6
226	Self-folded soft robotic structures with controllable joints. , 2017, , .		6
227	Trajectory Planning for the Shapeshifting of Autonomous Surface Vessels. , 2019, , .		6
228	A soft robotic device for patient immobilization in sitting and reclined positions for a compact proton therapy system. , 2020, , .		6
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