

# Daniela L Rus

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9583183/publications.pdf>

Version: 2024-02-01

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	Advanced soft robot modeling in ChainQueen. <i>Robotica</i> , 2023, 41, 74-104.	1.9	7
2	Scaling Up Soft Robotics: A Meter-Scale, Modular, and Reconfigurable Soft Robotic System. <i>Soft Robotics</i> , 2022, 9, 324-336.	8.0	23
3	Learning an Explainable Trajectory Generator Using the Automaton Generative Network (AGN). <i>IEEE Robotics and Automation Letters</i> , 2022, 7, 984-991.	5.1	3
4	Learning Policies by Learning Rules. <i>IEEE Robotics and Automation Letters</i> , 2022, 7, 1284-1291.	5.1	0
5	Estimating the state of epidemics spreading with graph neural networks. <i>Nonlinear Dynamics</i> , 2022, 109, 249-263.	5.2	9
6	Interpretable Autonomous Flight Via Compact Visualizable Neural Circuit Policies. <i>IEEE Robotics and Automation Letters</i> , 2022, 7, 3265-3272.	5.1	6
7	SUPR-GAN: SURgical PRediction GAN for Event Anticipation in Laparoscopic and Robotic Surgery. <i>IEEE Robotics and Automation Letters</i> , 2022, 7, 5741-5748.	5.1	9
8	Contact-Rich Soft-Rigid Robots Inspired by Push Puppets. , 2022, , .		3
9	Digital Fabrication of Pneumatic Actuators with Integrated Sensing by Machine Knitting. , 2022, , .		27
10	Toward understanding the communication in sperm whales. <i>IScience</i> , 2022, 25, 104393.	4.1	7
11	Identifying and Mitigating Potential Biases in Predicting Drug Approvals. <i>Drug Safety</i> , 2022, 45, 521-533.	3.2	2
12	BIMS-PU: Bi-Directional and Multi-Scale Point Cloud Upsampling. <i>IEEE Robotics and Automation Letters</i> , 2022, 7, 7447-7454.	5.1	3
13	A Wearable Smart Glove and Its Application of Pose and Gesture Detection to Sign Language Classification. <i>IEEE Robotics and Automation Letters</i> , 2022, 7, 10589-10596.	5.1	10
14	Latent Imagination Facilitates Zero-Shot Transfer in Autonomous Racing. , 2022, , .		15
15	Free-Space Ellipsoid Graphs for Multi-Agent Target Monitoring. , 2022, , .		1
16	Design of an Autonomous Latching System for Surface Vessels. , 2022, , .		1
17	VISTA 2.0: An Open, Data-driven Simulator for Multimodal Sensing and Policy Learning for Autonomous Vehicles. , 2022, , .		18
18	Learning Interactive Driving Policies via Data-driven Simulation. , 2022, , .		7

#	ARTICLE	IF	CITATIONS
19	Self-Reconfiguring Robotic Gantries Powered by Modular Magnetic Lead Screws. , 2022, , .		1
20	Simulation and Fabrication of Soft Robots with Embedded Skeletons. , 2022, , .		3
21	A Deep Concept Graph Network for Interaction-Aware Trajectory Prediction. , 2022, , .		5
22	Graph Grammar-Based Automatic Design for Heterogeneous Fleets of Underwater Robots. , 2022, , .		3
23	MapLite 2.0: Online HD Map Inference Using a Prior SD Map. IEEE Robotics and Automation Letters, 2022, 7, 8355-8362.	5.1	5
24	Automated operative phase identification in peroral endoscopic myotomy. Surgical Endoscopy and Other Interventional Techniques, 2021, 35, 4008-4015.	2.4	41
25	Social Trajectory Planning for Urban Autonomous Surface Vessels. IEEE Transactions on Robotics, 2021, 37, 452-465.	10.3	6
26	Covid-19 and Flattening the Curve: A Feedback Control Perspective. , 2021, 5, 1435-1440.		24
27	Sensing Soft Robot Shape Using IMUs: An Experimental Investigation. Springer Proceedings in Advanced Robotics, 2021, , 543-552.	1.3	15
28	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
29	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
30	Co-Learning of Task and Sensor Placement for Soft Robotics. IEEE Robotics and Automation Letters, 2021, 6, 1208-1215.	5.1	20
31	Detangling hair using feedback-driven robotic brushing. , 2021, , .		2
32	Soft IK with Stiffness Control. , 2021, , .		9
33	Covid-19 and Flattening the Curve: a Feedback Control Perspective. , 2021, , .		0
34	Evidential Deep Learning for Guided Molecular Property Prediction and Discovery. ACS Central Science, 2021, 7, 1356-1367.	11.3	73
35	Underwater Soft Robot Modeling and Control With Differentiable Simulation. IEEE Robotics and Automation Letters, 2021, 6, 4994-5001.	5.1	39
36	Stochastic Dynamic Games in Belief Space. IEEE Transactions on Robotics, 2021, 37, 2157-2172.	10.3	18

#	ARTICLE	IF	CITATIONS
37	Aggregating Long-Term Context for Learning Laparoscopic and Robot-Assisted Surgical Workflows. , 2021, , .		10
38	Robust Place Recognition using an Imaging Lidar. , 2021, , .		26
39	Autonomous Navigation in Dynamic Environments with Multi-Modal Perception Uncertainties. , 2021, , .		2
40	Adaptive Nonlinear Model Predictive Control for Autonomous Surface Vessels With Largely Varying Payload. , 2021, , .		5
41	Deep Imitation Learning for Autonomous Navigation in Dynamic Pedestrian Environments. , 2021, , .		4
42	AUNet: Adaptive UpdateNet for Dynamic Pedestrian Tracking with Short-Term Occlusion. , 2021, , .		0
43	Multi-Scale Feature Aggregation by Cross-Scale Pixel-to-Region Relation Operation for Semantic Segmentation. IEEE Robotics and Automation Letters, 2021, 6, 5889-5896.	5.1	5
44	Group Multi-Object Tracking for Dynamic Risk Map and Safe Path Planning. , 2021, , .		1
45	Designing and Deploying a Mobile UVC Disinfection Robot. , 2021, , .		4
46	Multi-robot Task Assignment for Aerial Tracking with Viewpoint Constraints. , 2021, , .		2
47	Semi-Cooperative Control for Autonomous Emergency Vehicles. , 2021, , .		3
48	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
49	Control Oriented Modeling of Soft Robots: The Polynomial Curvature Case. IEEE Robotics and Automation Letters, 2020, 5, 290-298.	5.1	75
50	Multiplexed Manipulation: Versatile Multimodal Grasping via a Hybrid Soft Gripper. , 2020, , .		17
51	Weighted Buffered Voronoi Cells for Distributed Semi-Cooperative Behavior. , 2020, , .		22
52	Neural circuit policies enabling auditable autonomy. Nature Machine Intelligence, 2020, 2, 642-652.	16.0	98
53	Generating Visibility-Aware Trajectories for Cooperative and Proactive Motion Planning. , 2020, , .		5
54	Deep Context Maps: Agent Trajectory Prediction Using Location-Specific Latent Maps. IEEE Robotics and Automation Letters, 2020, 5, 5097-5104.	5.1	10

#	ARTICLE	IF	CITATIONS
55	Data-Driven Disturbance Observers for Estimating External Forces on Soft Robots. IEEE Robotics and Automation Letters, 2020, 5, 5717-5724.	5.1	42
56	A soft robotic device for patient immobilization in sitting and reclined positions for a compact proton therapy system. , 2020, , .		6
57	Deep Bayesian Nonparametric Learning of Rules and Plans from Demonstrations with a Learned Automaton Prior. Proceedings of the AAAI Conference on Artificial Intelligence, 2020, 34, 10026-10034.	4.9	4
58	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
59	A Simple, Inexpensive, Wearable Glove with Hybrid Resistive-Pressure Sensors for Computational Sensing, Proprioception, and Task Identification. Advanced Intelligent Systems, 2020, 2, 2070061.	6.1	11
60	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
61	Mechanically Programmable, Degradable & Ingestible Soft Actuators. , 2020, , .		10
62	Extensible High Force Manipulator For Complex Exploration. , 2020, , .		3
63	To grasp or not to grasp: an end-to-end deep-learning approach for predicting grasping failures in soft hands. , 2020, , .		7
64	Trajectory Optimization and Situational Analysis Framework for Autonomous Overtaking With Visibility Maximization. IEEE Transactions on Intelligent Vehicles, 2020, 5, 7-20.	12.7	19
65	Distributed Proprioception of 3D Configuration in Soft, Sensorized Robots via Deep Learning. IEEE Robotics and Automation Letters, 2020, 5, 3299-3306.	5.1	104
66	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
67	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
68	MapLite: Autonomous Intersection Navigation Without a Detailed Prior Map. IEEE Robotics and Automation Letters, 2020, 5, 556-563.	5.1	11
69	Autonomous Navigation in Inclement Weather Based on a Localizing Ground Penetrating Radar. IEEE Robotics and Automation Letters, 2020, 5, 3267-3274.	5.1	24
70	LIO-SAM: Tightly-coupled Lidar Inertial Odometry via Smoothing and Mapping. , 2020, , .		624
71	Keynote Lecture Robotics and AI: Promises and Challenges. , 2020, , .		0
72	Uncertainty Aware Texture Classification and Mapping Using Soft Tactile Sensors. , 2020, , .		4

#	ARTICLE	IF	CITATIONS
73	Roboat II: A Novel Autonomous Surface Vessel for Urban Environments. , 2020, , .		35
74	Distributed Motion Control for Multiple Connected Surface Vessels. , 2020, , .		5
75	Distributed multi-robot formation control in dynamic environments. Autonomous Robots, 2019, 43, 1079-1100.	4.8	85
76	Autonomous Latching System for Robotic Boats. , 2019, , .		24
77	Probabilistic Risk Metrics for Navigating Occluded Intersections. IEEE Robotics and Automation Letters, 2019, 4, 4322-4329.	5.1	23
78	A Vacuum-driven Origami "Magic-ball" Soft Gripper. , 2019, , .		130
79	Dynamic Risk Density for Autonomous Navigation in Cluttered Environments without Object Detection. , 2019, , .		16
80	Dynamically Closed-Loop Controlled Soft Robotic Arm using a Reduced Order Finite Element Model with State Observer. , 2019, , .		52
81	Actuators: Tension Pistons: Amplifying Piston Force Using Fluid-Induced Tension in Flexible Materials (Adv. Funct. Mater. 30/2019). Advanced Functional Materials, 2019, 29, 1970208.	14.9	0
82	Soft Robotic Fingers with Embedded Ionogel Sensors and Discrete Actuation Modes for Somatosensitive Manipulation. , 2019, , .		47
83	ChainQueen: A Real-Time Differentiable Physical Simulator for Soft Robotics. , 2019, , .		107
84	A Simple Electric Soft Robotic Gripper with High-Deformation Haptic Feedback. , 2019, , .		24
85	Central Pattern Generators Control of Momentum Driven Compliant Structures. , 2019, , .		0
86	Optimizing Vehicle Distributions and Fleet Sizes for Shared Mobility-on-Demand. , 2019, , .		9
87	Learning Risk Level Set Parameters from Data Sets for Safer Driving. , 2019, , .		10
88	Coordinated Control of a Reconfigurable Multi-Vessel Platform: Robust Control Approach. , 2019, , .		10
89	Dynamic Motion Control of Multi-Segment Soft Robots Using Piecewise Constant Curvature Matched with an Augmented Rigid Body Model. , 2019, , .		102
90	Tension Pistons: Amplifying Piston Force Using Fluid-Induced Tension in Flexible Materials. Advanced Functional Materials, 2019, 29, 1901419.	14.9	21

#	ARTICLE	IF	CITATIONS
91	Automated Recycling Separation Enabled by Soft Robotic Material Classification. , 2019, , .		28
92	Particle robotics based on statistical mechanics of loosely coupled components. Nature, 2019, 567, 361-365.	27.8	210
93	A review of collective robotic construction. Science Robotics, 2019, 4, .	17.6	116
94	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
95	JelloCube: A Continuously Jumping Robot With Soft Body. IEEE/ASME Transactions on Mechatronics, 2019, 24, 447-458.	5.8	24
96	Modular Volumetric Actuators Using Motorized Auxetics. , 2019, , .		5
97	Response Characterization for Auditing Cell Dynamics in Long Short-term Memory Networks. , 2019, , .		4
98	Online System Identification Algorithm without Persistent Excitation for Robotic Systems: Application to Reconfigurable Autonomous Vessels. , 2019, , .		5
99	Dynamic Control of Soft Robots with Internal Constraints in the Presence of Obstacles. , 2019, , .		13
100	Decentralized Control for 3D M-Blocks for Path Following, Line Formation, and Light Gradient Aggregation. , 2019, , .		9
101	Roboat: An Autonomous Surface Vehicle for Urban Waterways. , 2019, , .		53
102	Decentralized Pose Control of Modular Reconfigurable Robots Operating in Liquid Environments. , 2019, , .		2
103	Safe Path Planning with Gaussian Process Regulated Risk Map. , 2019, , .		11
104	Learning-based Nonlinear Model Predictive Control of Reconfigurable Autonomous Robotic Boats: Roboats. , 2019, , .		10
105	Decentralized Gathering of Stochastic, Oblivious Agents on a Grid: A Case Study with 3D M-Blocks. , 2019, , .		1
106	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
107	Trajectory Planning for the Shapeshifting of Autonomous Surface Vessels. , 2019, , .		6
108	Computer Vision Analysis of Intraoperative Video. Annals of Surgery, 2019, 270, 414-421.	4.2	193

#	ARTICLE	IF	CITATIONS
109	Cooperative Control of an Autonomous Floating Modular Structure Without Communication: Extended Abstract. , 2019, , .		4
110	GaitLock: Protect Virtual and Augmented Reality Headsets Using Gait. IEEE Transactions on Dependable and Secure Computing, 2019, 16, 484-497.	5.4	36
111	Robust proprioceptive grasping with a soft robot hand. Autonomous Robots, 2019, 43, 681-696.	4.8	120
112	Multi-robot grasp planning for sequential assembly operations. Autonomous Robots, 2019, 43, 649-664.	4.8	36
113	Spotlight on origami robots. Science Robotics, 2018, 3, .	17.6	38
114	Learning Object Grasping for Soft Robot Hands. IEEE Robotics and Automation Letters, 2018, 3, 2370-2377.	5.1	115
115	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
116	Planning and Decision-Making for Autonomous Vehicles. Annual Review of Control, Robotics, and Autonomous Systems, 2018, 1, 187-210.	11.8	529
117	Artificial Intelligence in Surgery: Promises and Perils. Annals of Surgery, 2018, 268, 70-76.	4.2	626
118	Information-Driven Adaptive Structured-Light Scanners. IEEE Transactions on Computational Imaging, 2018, 4, 341-354.	4.4	3
119	Exploration of underwater life with an acoustically controlled soft robotic fish. Science Robotics, 2018, 3, .	17.6	489
120	Baxter's Homunculus: Virtual Reality Spaces for Teleoperation in Manufacturing. IEEE Robotics and Automation Letters, 2018, 3, 179-186.	5.1	136
121	Variational Autoencoder for End-to-End Control of Autonomous Driving with Novelty Detection and Training De-biasing. , 2018, , .		45
122	Adaptive Sensor Selection for Monitoring Stochastic Processes. , 2018, , .		0
123	An End-to-End Approach to Self-Folding Origami Structures. IEEE Transactions on Robotics, 2018, 34, 1409-1424.	10.3	27
124	Learning Steering Bounds for Parallel Autonomous Systems. , 2018, , .		14
125	Programmable Medicine: Autonomous, Ingestible, Deployable Hydrogel Patch and Plug for Stomach Ulcer Therapy. , 2018, , .		12
126	Task-Specific Sensor Planning for Robotic Assembly Tasks. , 2018, , .		4



#	ARTICLE	IF	CITATIONS
127	Navigating Congested Environments with Risk Level Sets. , 2018, , .		30
128	Design, Modeling, and Nonlinear Model Predictive Tracking Control of a Novel Autonomous Surface Vehicle. , 2018, , .		56
129	Autonomous Vehicle Navigation in Rural Environments Without Detailed Prior Maps. , 2018, , .		82
130	Dynamic control of soft robots interacting with the environment. , 2018, , .		129
131	Handedness in shearing auxetics creates rigid and compliant structures. Science, 2018, 360, 632-635.	12.6	116
132	Design, fabrication and control of origami robots. Nature Reviews Materials, 2018, 3, 101-112.	48.7	372
133	Compliant electric actuators based on handed shearing auxetics. , 2018, , .		19
134	Teleoperated Micromanipulation System Manufactured by Cut-and-Fold Techniques. IEEE Transactions on Robotics, 2017, 33, 456-467.	10.3	8
135	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
136	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
137	Robotic metamorphosis by origami exoskeletons. Science Robotics, 2017, 2, .	17.6	147
138	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
139	Self-folded soft robotic structures with controllable joints. , 2017, , .		6
140	Machine learning and coresets for automated real-time video segmentation of laparoscopic and robot-assisted surgery. , 2017, , .		36
141	Parallel autonomy in automated vehicles: Safe motion generation with minimal intervention. , 2017, , .		55
142	Autonomous locomotion of a miniature, untethered origami robot using hall effect sensor-based magnetic localization. , 2017, , .		24
143	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
144	Minimum-violation sLTL motion planning for mobility-on-demand. , 2017, , .		44

#	ARTICLE	IF	CITATIONS
145	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
146	Functional co-optimization of articulated robots. , 2017, , .		29
147	Distributed target tracking in cluttered environments with guaranteed collision avoidance. , 2017, , .		26
148	Predictive routing for autonomous mobility-on-demand systems with ride-sharing. , 2017, , .		49
149	Hybrid control and learning with coresets for autonomous vehicles. , 2017, , .		1
150	Perception, Planning, Control, and Coordination for Autonomous Vehicles. Machines, 2017, 5, 6.	2.2	397
151	Ingestible, controllable, and degradable origami robot for patching stomach wounds. , 2016, , .		108
152	Printable hydraulics: A method for fabricating robots by 3D co-printing solids and liquids. , 2016, , .		115
153	Probabilistic visual verification for robotic assembly manipulation. , 2016, , .		3
154	Printable programmable viscoelastic materials for robots. , 2016, , .		7
155	Cyclic hydraulic actuation for soft robotic devices. , 2016, , .		16
156	A Scripted Printable Quadrotor: Rapid Design and Fabrication of a Folded MAV. Springer Tracts in Advanced Robotics, 2016, , 203-219.	0.4	7
157	Active Magnetic Anomaly Detection Using Multiple Micro Aerial Vehicles. IEEE Robotics and Automation Letters, 2016, 1, 153-160.	5.1	33
158	Hydraulic Autonomous Soft Robotic Fish for 3D Swimming. Springer Tracts in Advanced Robotics, 2016, , 405-420.	0.4	144
159	Multi-robot grasp planning for sequential assembly operations. , 2015, , .		39
160	Foldable Joints for Foldable Robots. Journal of Mechanisms and Robotics, 2015, 7, .	2.2	33
161	A Compact Acoustic Communication Module for Remote Control Underwater. , 2015, , .		3
162	Design, fabrication and control of soft robots. Nature, 2015, 521, 467-475.	27.8	3,902

#	ARTICLE	IF	CITATIONS
163	Dynamics and trajectory optimization for a soft spatial fluidic elastomer manipulator. , 2015, , .		32
164	Autonomous Object Manipulation Using a Soft Planar Grasping Manipulator. Soft Robotics, 2015, 2, 155-164.	8.0	147
165	A Recipe for Soft Fluidic Elastomer Robots. Soft Robotics, 2015, 2, 7-25.	8.0	538
166	Coresets for visual summarization with applications to loop closure. , 2015, , .		17
167	Dynamic Patrolling Policy for Optimizing Urban Mobility Networks. , 2015, , .		3
168	Folding Angle Regulation by Curved Crease Design for Self-Assembling Origami Propellers. Journal of Mechanisms and Robotics, 2015, 7, .	2.2	17
169	Multi-scale assembly with robot teams. International Journal of Robotics Research, 2015, 34, 1645-1659.	8.5	29
170	Decentralised dynamic games for large population stochastic multi-agent systems. IET Control Theory and Applications, 2015, 9, 503-510.	2.1	13
171	An untethered miniature origami robot that self-folds, walks, swims, and degrades. , 2015, , .		162
172	Recovering from failure by asking for help. Autonomous Robots, 2015, 39, 347-362.	4.8	45
173	3D M-Blocks: Self-reconfiguring robots capable of locomotion via pivoting in three dimensions. , 2015, , .		87
174	Origami-Inspired Printed Robots. IEEE/ASME Transactions on Mechatronics, 2015, 20, 2214-2221.	5.8	112
175	Self-folding origami: shape memory composites activated by uniform heating. Smart Materials and Structures, 2014, 23, 094006.	3.5	236
176	Visual precis generation using coresets. , 2014, , .		16
177	Whole arm planning for a soft and highly compliant 2D robotic manipulator. , 2014, , .		85
178	Congestion-Aware Multi-Agent Path Planning: Distributed Algorithm and Applications. Computer Journal, 2014, 57, 825-839.	2.4	10
179	Correlated Orienteering Problem and its application to informative path planning for persistent monitoring tasks. , 2014, , .		48
180	Electromagnetically driven elastic actuator. , 2014, , .		11

#	ARTICLE	IF	CITATIONS
181	An end-to-end system for designing mechanical structures for print-and-fold robots. , 2014, , .		28
182	Persistent monitoring of events with stochastic arrivals at multiple stations. , 2014, , .		7
183	An end-to-end approach to making self-folded 3D surface shapes by uniform heating. , 2014, , .		34
184	Decentralized path planning for coverage tasks using gradient descent adaptive control. International Journal of Robotics Research, 2014, 33, 401-425.	8.5	45
185	Distributed coverage with mobile robots on a graph: locational optimization and equal-mass partitioning. Robotica, 2014, 32, 257-277.	1.9	16
186	On mutual information-based control of range sensing robots for mapping applications. International Journal of Robotics Research, 2014, 33, 1375-1392.	8.5	65
187	Adaptive Coordinating Construction of Truss Structures Using Distributed Equal-Mass Partitioning. IEEE Transactions on Robotics, 2014, 30, 188-202.	10.3	11
188	Optimal Control of Markov Decision Processes With Linear Temporal Logic Constraints. IEEE Transactions on Automatic Control, 2014, 59, 1244-1257.	5.7	125
189	Self-folding printable elastic electric devices: Resistor, capacitor, and inductor. , 2014, , .		15
190	Autonomous Soft Robotic Fish Capable of Escape Maneuvers Using Fluidic Elastomer Actuators. Soft Robotics, 2014, 1, 75-87.	8.0	730
191	Designing and programming self-folding sheets. Robotics and Autonomous Systems, 2014, 62, 976-1001.	5.1	25
192	Soft Autonomous Materialsâ€™ Using Active Elasticity and Embedded Distributed Computation. Springer Tracts in Advanced Robotics, 2014, , 227-240.	0.4	61
193	Meshworm: A Peristaltic Soft Robot With Antagonistic Nickel Titanium Coil Actuators. IEEE/ASME Transactions on Mechatronics, 2013, 18, 1485-1497.	5.8	536
194	An Origami-Inspired Approach to Worm Robots. IEEE/ASME Transactions on Mechatronics, 2013, 18, 430-438.	5.8	289
195	IkeaBot: An autonomous multi-robot coordinated furniture assembly system. , 2013, , .		132
196	Robot self-assembly by folding: A printed inchworm robot. , 2013, , .		100
197	The probe allocation problem. , 2013, , .		1
198	Self-folding with shape memory composites. Soft Matter, 2013, 9, 7688.	2.7	236

#	ARTICLE	IF	CITATIONS
199	An End-to-End Signal Strength Model for Underwater Optical Communications. IEEE Journal of Oceanic Engineering, 2013, 38, 743-757.	3.8	65
200	M-blocks: Momentum-driven, magnetic modular robots. , 2013, , .		157
201	Optimality and Robustness in Multi-Robot Path Planning with Temporal Logic Constraints. International Journal of Robotics Research, 2013, 32, 889-911.	8.5	131
202	On mutual information-based control of range sensing robots for mapping applications. , 2013, , .		17
203	Pose and paste &#x2014; An intuitive interface for remote navigation of a multi-robot system. , 2013, , .		4
204	Single assembly robot in search of human partner: Versatile grounded language generation. , 2013, , .		2
205	Self-folding shape memory laminates for automated fabrication. , 2013, , .		29
206	Improving the performance of multi-robot systems by task switching. , 2013, , .		16
207	On the completeness of ensembles of motion planners for decentralized planning. , 2013, , .		2
208	Self-pop-up cylindrical structure by global heating. , 2013, , .		18
209	Autonomous undulatory serpentine locomotion utilizing body dynamics of a fluidic soft robot. Bioinspiration and Biomimetics, 2013, 8, 026003.	2.9	285
210	ChangiNOW: A mobile application for efficient taxi allocation at airports. , 2013, , .		22
211	Edge-Compositions of 3D Surfaces. Journal of Mechanical Design, Transactions of the ASME, 2013, 135, , .	2.9	9
212	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
213	Autonomous, Localization-Free Underwater Data Muling Using Acoustic and Optical Communication. Springer Tracts in Advanced Robotics, 2013, , 841-857.	0.4	13
214	A decentralized control policy for adaptive information gathering in hazardous environments. , 2012, , .		33
215	Pedestrian-inspired sampling-based multi-robot collision avoidance. , 2012, , .		50
216	Semantic categorization of outdoor scenes with uncertainty estimates using multi-class gaussian process classification. , 2012, , .		14

#	ARTICLE	IF	CITATIONS
217	Generating informative paths for persistent sensing in unknown environments. , 2012, , .		27
218	Communication coverage for independently moving robots. , 2012, , .		12
219	Trajectory clustering for motion prediction. , 2012, , .		42
220	Controlling the locomotion of a separated inner robot from an outer robot using electropermanent magnets. , 2012, , .		6
221	How was your day? Online visual workspace summaries using incremental clustering in topic space. , 2012, , .		19
222	Stochastic motion planning with path constraints and application to optimal agent, resource, and route planning. , 2012, , .		11
223	Robotic load balancing for mobility-on-demand systems. International Journal of Robotics Research, 2012, 31, 839-854.	8.5	218
224	Programming and controlling self-folding robots. , 2012, , .		8
225	Persistent Robotic Tasks: Monitoring and Sweeping in Changing Environments. IEEE Transactions on Robotics, 2012, 28, 410-426.	10.3	185
226	Stochastic distributed multi-agent planning and applications to traffic. , 2012, , .		9
227	A modular approach to soft robots. , 2012, , .		96
228	Congestion-aware Traffic Routing System using sensor data. , 2012, , .		14
229	Non-parametric inference and coordination for distributed robotics. , 2012, , .		5
230	Distributed robotic sensor networks: An information-theoretic approach. International Journal of Robotics Research, 2012, 31, 1134-1154.	8.5	181
231	Autonomous Depth Adjustment for Underwater Sensor Networks: Design and Applications. IEEE/ASME Transactions on Mechatronics, 2012, 17, 16-24.	5.8	41
232	Persistent ocean monitoring with underwater gliders: Towards accurate reconstruction of dynamic ocean processes. , 2011, , .		17
233	Making self-disassembling objects with multiple components in the Robot Pebbles system. , 2011, , .		14
234	Decentralized self-repair to maintain connectivity and coverage in networked multi-robot systems. , 2011, , .		27

#	ARTICLE	IF	CITATIONS
235	Towards printable robotics: Origami-inspired planar fabrication of three-dimensional mechanisms. , 2011, , .		106
236	Eyes in the Sky: Decentralized Control for the Deployment of Robotic Camera Networks. Proceedings of the IEEE, 2011, 99, 1541-1561.	21.3	172
237	Persistent ocean monitoring with underwater gliders: Adapting sampling resolution. Journal of Field Robotics, 2011, 28, 714-741.	6.0	155
238	Time scales and stability in networked multi-robot systems. , 2011, , .		14
239	Constraint-aware coordinated construction of generic structures. , 2011, , .		9
240	Soft robot actuators using energy-efficient valves controlled by electropermanent magnets. , 2011, , .		47
241	A scalable information theoretic approach to distributed robot coordination. , 2011, , .		15
242	Collision avoidance for persistent monitoring in multi-robot systems with intersecting trajectories. , 2011, , .		18
243	Optimal path planning for surveillance with temporal-logic constraints. International Journal of Robotics Research, 2011, 30, 1695-1708.	8.5	132
244	Planning to fold multiple objects from a single self-folding sheet. Robotica, 2011, 29, 87-102.	1.9	38
245	MDP optimal control under temporal logic constraints. , 2011, , .		43
246	Optimal multi-robot path planning with temporal logic constraints. , 2011, , .		26
247	Coordinating Construction of Truss Structures Using Distributed Equal-Mass Partitioning. Springer Tracts in Advanced Robotics, 2011, , 607-623.	0.4	18
248	Collision avoidance for persistent monitoring in multi-robot systems with intersecting trajectories. , 2011, , .		15
249	A scalable information theoretic approach to distributed robot coordination. , 2011, , .		0
250	Constraint-aware coordinated construction of generic structures. , 2011, , .		0
251	Indoor robot gardening: design and implementation. Intelligent Service Robotics, 2010, 3, 219-232.	2.6	14
252	Eye-In-Hand Visual Servoing Curriculum for Young Students [Education. IEEE Robotics and Automation Magazine, 2010, 17, 116-117.	2.0	3

#	ARTICLE	IF	CITATIONS
253	AMOUR V: A Hovering Energy Efficient Underwater Robot Capable of Dynamic Payloads. International Journal of Robotics Research, 2010, 29, 547-570.	8.5	60
254	Optimizing communication in air-ground robot networks using decentralized control. , 2010, , .		28
255	Making shapes from modules by magnification. , 2010, , .		1
256	Optimal path planning under temporal logic constraints. , 2010, , .		29
257	BiDirectional optical communication with AquaOptical II. , 2010, , .		62
258	Distributed Coverage Control on Surfaces in 3D Space. , 2010, , .		17
259	Multi-robot monitoring in dynamic environments with guaranteed currency of observations. , 2010, , .		51
260	Using optical communication for remote underwater robot operation. , 2010, , .		39
261	Experiments in decentralized robot construction with tool delivery and assembly robots. , 2010, , .		18
262	Adaptation to robot failures and shape change in decentralized construction. , 2010, , .		4
263	Complete SE<sup>3</sup> underwater robot control with arbitrary thruster configurations. , 2010, , .		20
264	Robot pebbles: One centimeter modules for programmable matter through self-disassembly. , 2010, , .		127
265	Voronoi coverage of non-convex environments with a group of networked robots. , 2010, , .		146
266	Distributed coverage control for mobile sensors with location-dependent sensing models. , 2009, , .		10
267	Planning the reconfiguration of grounded truss structures with truss climbing robots that carry truss elements. , 2009, , .		6
268	Ad-hoc wireless network coverage with networked robots that cannot localize. , 2009, , .		26
269	Building a distributed robot garden. , 2009, , .		38
270	Optimal coverage for multiple hovering robots with downward facing cameras. , 2009, , .		61



#	ARTICLE	IF	CITATIONS
271	Saving Energy with Buoyancy and Balance Control for Underwater Robots with Dynamic Payloads. Springer Tracts in Advanced Robotics, 2009, , 429-438.	0.4	9
272	Data-driven identification of group dynamics for motion prediction and control. Journal of Field Robotics, 2008, 25, 305-324.	6.0	16
273	Consensus learning for distributed coverage control. , 2008, , .		28
274	Self assembly of modular manipulators with active and passive modules. , 2008, , .		8
275	Optimal distributed planning for self assembly of modular manipulators. , 2008, , .		2
276	An Optical External Localization System and Applications to Indoor Tracking. , 2008, , .		2
277	A ladybug exploration strategy for distributed adaptive coverage control. , 2008, , .		33
278	Experiments with Underwater Robot Localization and Tracking. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	96
279	Design of early warning flood detection systems for developing countries. , 2007, , .		60
280	Miche: Modular Shape Formation by Self-Dissassembly. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	37
281	Shady3D: A Robot that Climbs 3D Trusses. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	67
282	Optimal distributed planning of multi-robot placement on a 3D truss. , 2007, , .		8
283	Decentralized, Adaptive Control for Coverage with Networked Robots. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	62
284	An Underwater Sensor Network with Dual Communications, Sensing, and Mobility. , 2007, , .		31
285	Modular Self-Reconfigurable Robot Systems [Grand Challenges of Robotics]. IEEE Robotics and Automation Magazine, 2007, 14, 43-52.	2.0	851
286	Learning to Plan with Logical Automata. , 0, , .		15