

Nancy M Amato

List of Publications by Year in descending order

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Version: 2024-02-01

61
papers

1,259
citations

759233

12
h-index

713466

21
g-index

61
all docs

61
docs citations

61
times ranked

799
citing authors

#	ARTICLE	IF	CITATIONS
1	FIRM: Sampling-based feedback motion-planning under motion uncertainty and imperfect measurements. International Journal of Robotics Research, 2014, 33, 268-304.	8.5	168
2	Multithreaded Asynchronous Graph Traversal for In-Memory and Semi-External Memory. , 2010, , .		106
3	Using Motion Planning to Study Protein Folding Pathways. Journal of Computational Biology, 2002, 9, 149-168.	1.6	104
4	Using Motion Planning to Map Protein Folding Landscapes and Analyze Folding Kinetics of Known Native Structures. Journal of Computational Biology, 2003, 10, 239-255.	1.6	78
5	Faster Parallel Traversal of Scale Free Graphs at Extreme Scale with Vertex Delegates. , 2014, , .		55
6	A Machine Learning Approach for Feature-Sensitive Motion Planning. Springer Tracts in Advanced Robotics, 2005, , 361-376.	0.4	53
7	Simulating Protein Motions with Rigidity Analysis. Journal of Computational Biology, 2007, 14, 839-855.	1.6	52
8	Scaling Techniques for Massive Scale-Free Graphs in Distributed (External) Memory. , 2013, , .		47
9	Distributed reconfiguration of metamorphic robot chains. Distributed Computing, 2004, 17, 171.	0.8	43
10	Behavior-based evacuation planning. , 2010, , .		39
11	Enhancing Randomized Motion Planners: Exploring with Haptic Hints. Autonomous Robots, 2001, 10, 163-174.	4.8	35
12	FIRM: Feedback controller-based information-state roadmap - A framework for motion planning under uncertainty. , 2011, , .		35
13	UOBPRM: A uniformly distributed obstacle-based PRM. , 2012, , .		33
14	Toggle PRM: Simultaneous mapping of C-free and C-obstacle - A study in 2D -. , 2011, , .		26
15	A scalable distributed RRT for motion planning. , 2013, , .		23
16	Spark PRM: Using RRTs within PRMs to efficiently explore narrow passages. , 2014, , .		22
17	Multi-Robot Task and Motion Planning With Subtask Dependencies. IEEE Robotics and Automation Letters, 2020, 5, 3338-3345.	5.1	21
18	Robust online belief space planning in changing environments: Application to physical mobile robots. , 2014, , .		20

#	ARTICLE	IF	CITATIONS
19	Reciprocally-Rotating Velocity Obstacles. , 2014, , .		19
20	Dynamic Region-biased Rapidly-exploring Random Trees. Springer Proceedings in Advanced Robotics, 2020, , 640-655.	1.3	18
21	Lazy Toggle PRM: A single-query approach to motion planning. , 2013, , .		16
22	Adapting RRT growth for heterogeneous environments. , 2013, , .		16
23	Adaptive local learning in sampling based motion planning for protein folding. BMC Systems Biology, 2016, 10, 49.	3.0	16
24	Topology-Guided Roadmap Construction With Dynamic Region Sampling. IEEE Robotics and Automation Letters, 2020, 5, 6161-6168.	5.1	16
25	A scalable method for parallelizing sampling-based motion planning algorithms. , 2012, , .		15
26	A framework for planning motion in environments with moving obstacles. , 2007, , .		13
27	Improved roadmap connection via local learning for sampling based planners. , 2015, , .		13
28	Blind RRT: A probabilistically complete distributed RRT. , 2013, , .		12
29	Representation-Optimal Multi-Robot Motion Planning Using Conflict-Based Search. IEEE Robotics and Automation Letters, 2021, 6, 4608-4615.	5.1	12
30	On the probabilistic completeness of the sampling-based feedback motion planners in belief space. , 2012, , .		9
31	Adaptive neighbor connection for PRMs: A natural fit for heterogeneous environments and parallelism. , 2013, , .		9
32	Multi-agent push behaviors for large sets of passive objects. , 2016, , .		9
33	Parallel Hierarchical Composition Conflict-Based Search for Optimal Multi-Agent Pathfinding. IEEE Robotics and Automation Letters, 2021, 6, 7001-7008.	5.1	9
34	Parallel protein folding with STAPL. Concurrency Computation Practice and Experience, 2005, 17, 1643-1656.	2.2	8
35	An unsupervised adaptive strategy for constructing probabilistic roadmaps. , 2009, , .		8
36	On the theory of user-guided planning. , 2016, , .		8

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37	A General and Flexible Search Framework for Disassembly Planning. , 2018, , .		8
38	DETERMINING THE SEPARATION OF SIMPLE POLYGONS. International Journal of Computational Geometry and Applications, 1994, 04, 457-474.	0.5	7
39	A Region-Based Strategy for Collaborative Roadmap Construction. Springer Tracts in Advanced Robotics, 2015, , 125-141.	0.4	7
40	Toward realistic pursuit-evasion using a roadmap-based approach. , 2011, , .		6
41	Sampling-based nonholonomic motion planning in belief space via Dynamic Feedback Linearization-based FIRM. , 2012, , .		6
42	Affordance Wayfields for Task and Motion Planning. , 2018, , .		5
43	Interaction Templates for Multi-Robot Systems. IEEE Robotics and Automation Letters, 2019, 4, 2926-2933.	5.1	5
44	An Experimental Evaluation of the HP V-Class and SGI Origin 2000 Multiprocessors using Microbenchmarks and Scientific Applications. International Journal of Parallel Programming, 2005, 33, 307-350.	1.5	4
45	Analysis of the Evolution of C-Space Models built through Incremental Exploration. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	4
46	Optimizing aspects of pedestrian traffic in building designs. , 2013, , .		4
47	A sampling-based approach to probabilistic pursuit evasion. , 2012, , .		3
48	Using Load Balancing to Scalably Parallelize Sampling-Based Motion Planning Algorithms. , 2014, , .		3
49	Topological Nearest-Neighbor Filtering for Sampling-Based Planners. , 2018, , .		3
50	Toggle PRM: Simultaneous mapping of C-free and C-obstacle - a study in 2D -. , 2011, , .		3
51	Decoy Database Improvement for Protein Folding. Journal of Computational Biology, 2015, 22, 823-836.	1.6	2
52	Multi-robot caravanning. , 2013, , .		1
53	Motion planning using hierarchical aggregation of workspace obstacles. , 2016, , .		1
54	Asymptotically-Optimal Topological Nearest-Neighbor Filtering. IEEE Robotics and Automation Letters, 2020, 5, 6916-6923.	5.1	1

#	ARTICLE	IF	CITATIONS
55	Improving aggregate behavior in parking lots with appropriate local maneuvers. , 2013, , .		0
56	Graph-based stochastic control with constraints: A unified approach with perfect and imperfect measurements. , 2013, , .		0
57	The anatomy of a distributed motion planning roadmap. , 2014, , .		0
58	Adaptive local learning in sampling based motion planning for protein folding. , 2015, , .		0
59	Guest Editorial Special Section on the 2014 Workshop on the Algorithmic Foundations of Robotics. IEEE Transactions on Automation Science and Engineering, 2015, 12, 1297-1297.	5.2	0
60	Guest Editorial Special Section on the 11th Workshop on the Algorithmic Foundations of Robotics (WAFR 2014). IEEE Transactions on Automation Science and Engineering, 2016, 13, 414-414.	5.2	0
61	Finding critical changes in dynamic configuration spaces. , 2011, , .		0