

Maxim Likhachev

List of Publications by Year in descending order

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Version: 2024-02-01

74
papers

3,429
citations

933447

10
h-index

888059

17
g-index

74
all docs

74
docs citations

74
times ranked

2753
citing authors

#	ARTICLE	IF	CITATIONS
1	Autonomous driving in urban environments: Boss and the Urban Challenge. Journal of Field Robotics, 2008, 25, 425-466.	6.0	1,242
2	Lifelong Planning A*—. Artificial Intelligence, 2004, 155, 93-146.	5.8	494
3	Planning Long Dynamically Feasible Maneuvers for Autonomous Vehicles. International Journal of Robotics Research, 2009, 28, 933-945.	8.5	423
4	Multi-Heuristic A*. International Journal of Robotics Research, 2016, 35, 224-243.	8.5	88
5	Search-based planning for manipulation with motion primitives. , 2010, , .		78
6	Anytime search-based footstep planning with suboptimality bounds. , 2012, , .		66
7	Navigation in three-dimensional cluttered environments for mobile manipulation. , 2012, , .		63
8	Single- and dual-arm motion planning with heuristic search. International Journal of Robotics Research, 2014, 33, 305-320.	8.5	63
9	Coordinated Path Planning for Fixed-Wing UAS Conducting Persistent Surveillance Missions. IEEE Transactions on Automation Science and Engineering, 2017, 14, 17-24.	5.2	62
10	Time-bounded lattice for efficient planning in dynamic environments. , 2009, , .		59
11	Path planning for non-circular micro aerial vehicles in constrained environments. , 2013, , .		57
12	E-Graphs: Bootstrapping Planning with Experience Graphs. , 0, , .		45
13	Planning for Manipulation with Adaptive Motion Primitives. , 2011, , .		43
14	Anytime Safe Interval Path Planning for dynamic environments. , 2012, , .		41
15	Multi-hypothesis motion planning for visual object tracking. , 2011, , .		32
16	Multi-agent path planning with multiple tasks and distance constraints. , 2010, , .		30
17	Multirepresentation, Multiheuristic A* search-based motion planning for a free-floating underwater vehicle-manipulator system in unknown environment. Journal of Field Robotics, 2020, 37, 925-950.	6.0	30
18	Motion planning for smooth pickup of moving objects. , 2014, , .		29

#	ARTICLE	IF	CITATIONS
19	Cart pushing with a mobile manipulation system: Towards navigation with moveable objects. , 2011, , .		28
20	Search-based planning for dual-arm manipulation with upright orientation constraints. , 2012, , .		27
21	Combining global and local planning with guarantees on completeness. , 2012, , .		26
22	Planning for opportunistic surveillance with multiple robots. , 2013, , .		26
23	Truncated incremental search. Artificial Intelligence, 2016, 234, 49-77.	5.8	25
24	Cooperative Perception and Localization for Cooperative Driving. , 2020, , .		24
25	Dynamic Multi-Heuristic A*. , 2015, , .		23
26	Learning to plan for constrained manipulation from demonstrations. Autonomous Robots, 2016, 40, 109-124.	4.8	20
27	Planning for multi-robot exploration with multiple objective utility functions. , 2011, , .		19
28	Multi-Heuristic A*. , 0, , .		16
29	Multi-Objective Path-Based D* Lite. IEEE Robotics and Automation Letters, 2022, 7, 3318-3325.	5.1	14
30	Using state dominance for path planning in dynamic environments with moving obstacles. , 2012, , .		12
31	A*-Connect: Bounded suboptimal bidirectional heuristic search. , 2016, , .		12
32	Multi-Objective Safe-Interval Path Planning With Dynamic Obstacles. IEEE Robotics and Automation Letters, 2022, 7, 8154-8161.	5.1	12
33	State lattice with controllers: Augmenting lattice-based path planning with controller-based motion primitives. , 2014, , .		11
34	Speeding up heuristic computation in planning with Experience Graphs. , 2015, , .		11
35	Planning for multi-agent teams with leader switching. , 2015, , .		11
36	A Single-Planner Approach to Multi-Modal Humanoid Mobility. , 2018, , .		11

#	ARTICLE	IF	CITATIONS
37	Planning for a ground-air robotic system with collaborative localization. , 2016, , .		10
38	Provably constant-time planning and replanning for real-time grasping objects off a conveyor belt. International Journal of Robotics Research, 2021, 40, 1370-1384.	8.5	10
39	Online, Interactive User Guidance for High-dimensional, Constrained Motion Planning. , 2018, , .		10
40	Efficient cost computation in cost map planning for non-circular robots. , 2009, , .		9
41	A web-based infrastructure for recording user demonstrations of mobile manipulation tasks. , 2015, , .		9
42	Interleaving Graph Search and Trajectory Optimization for Aggressive Quadrotor Flight. IEEE Robotics and Automation Letters, 2021, 6, 5357-5364.	5.1	9
43	Goal directed navigation with uncertainty in adversary locations. , 2007, , .		8
44	Anytime incremental planning with E-Graphs. , 2013, , .		8
45	Motion planning for robotic manipulators with independent wrist joints. , 2014, , .		8
46	Lazy validation of Experience Graphs. , 2015, , .		7
47	Place recognition in 3D scans using a combination of bag of words and point feature based relative pose estimation. , 2011, , .		7
48	Robotic handwriting: Multi-contact manipulation based on Reactional Internal Contact Hypothesis. , 2014, , .		6
49	Path Clearance. IEEE Robotics and Automation Magazine, 2009, 16, 62-72.	2.0	5
50	Path planning for a tethered robot using Multi-Heuristic A* with topology-based heuristics. , 2015, , .		5
51	Escaping Local Minima in Search-Based Planning using Soft Duplicate Detection. , 2019, , .		5
52	Effective footstep planning using homotopy-class guidance. Artificial Intelligence, 2020, 286, 103346.	5.8	5
53	Planning for landing site selection in the aerial supply delivery. , 2011, , .		4
54	Planning for grasp selection of partially occluded objects. , 2016, , .		4

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55	Parts assembly planning under uncertainty with simulation-aided physical reasoning. , 2017, , .		4
56	Motion Planning for an Underwater Mobile Manipulator by Exploiting Loose Coupling. , 2018, , .		4
57	Coordinated commencement of pre-planned routes for fixed-wing UAS starting from arbitrary locations - a near real-time solution. , 2014, , .		3
58	Manipulation Planning Among Movable Obstacles Using Physics-Based Adaptive Motion Primitives. , 2021, , .		3
59	Coordinated path planning for fixed-wing UAS conducting persistent surveillance missions. , 2015, , .		2
60	Bidirectional Heuristic Search for Motion Planning with an Extend Operator. , 2019, , .		2
61	Learning to Use Adaptive Motion Primitives in Search-Based Planning for Navigation. , 2020, , .		2
62	MPLP: Massively Parallelized Lazy Planning. IEEE Robotics and Automation Letters, 2022, 7, 6067-6074.	5.1	2
63	AMRA*: Anytime Multi-Resolution Multi-Heuristic A*. , 2022, , .		2
64	Information value-driven approach to path clearance with multiple scout robots. , 2008, , .		1
65	The Symposium on Combinatorial Search. AI Communications, 2012, 25, 209-210.	1.2	1
66	Synergistic Scheduling of Learning and Allocation of Tasks in Human-Robot Teams. , 2022, , .		1
67	The Fifth Annual Symposium on Combinatorial Search. AI Communications, 2014, 27, 327-328.	1.2	0
68	FOCS: Planning by Fusion of Optimal Control & Search and its Application to Navigation. , 2018, , .		0
69	Search-based Planning for Active Sensing in Goal-Directed Coverage Tasks. , 2021, , .		0
70	Optimal Planning Over Long and Infinite Horizons for Achieving Independent Partially-Observable Tasks That Evolve Over Time. IEEE Robotics and Automation Letters, 2021, 6, 5873-5880.	5.1	0
71	Search-based Path Planning for a High Dimensional Manipulator in Cluttered Environments Using Optimization-based Primitives. , 2021, , .		0
72	Search-based Planning with Learned Behaviors for Navigation among Pedestrians. , 2021, , .		0

#	ARTICLE	IF	CITATIONS
73	Disruption-Limited Planning for Robot Navigation in Dynamic Environments. , 2021, , .		0
74	Improved Soft Duplicate Detection in Search-Based Motion Planning. , 2022, , .		0