

# 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	Multi-Objective Path-Based D* Lite. IEEE Robotics and Automation Letters, 2022, 7, 3318-3325.	5.1	14
2	MPLP: Massively Parallelized Lazy Planning. IEEE Robotics and Automation Letters, 2022, 7, 6067-6074.	5.1	2
3	AMRA*: Anytime Multi-Resolution Multi-Heuristic A* ., 2022, , .		2
4	Improved Soft Duplicate Detection in Search-Based Motion Planning. , 2022, , .		0
5	Synergistic Scheduling of Learning and Allocation of Tasks in Human-Robot Teams. , 2022, , .		1
6	Multi-Objective Safe-Interval Path Planning With Dynamic Obstacles. IEEE Robotics and Automation Letters, 2022, 7, 8154-8161.	5.1	12
7	Interleaving Graph Search and Trajectory Optimization for Aggressive Quadrotor Flight. IEEE Robotics and Automation Letters, 2021, 6, 5357-5364.	5.1	9
8	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
9	Manipulation Planning Among Movable Obstacles Using Physics-Based Adaptive Motion Primitives. , 2021, , .		3
10	Search-based Planning for Active Sensing in Goal-Directed Coverage Tasks. , 2021, , .		0
11	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
12	Search-based Path Planning for a High Dimensional Manipulator in Cluttered Environments Using Optimization-based Primitives. , 2021, , .		0
13	Search-based Planning with Learned Behaviors for Navigation among Pedestrians. , 2021, , .		0
14	Disruption-Limited Planning for Robot Navigation in Dynamic Environments. , 2021, , .		0
15	Effective footstep planning using homotopy-class guidance. Artificial Intelligence, 2020, 286, 103346.	5.8	5
16	Cooperative Perception and Localization for Cooperative Driving. , 2020, , .		24
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	Learning to Use Adaptive Motion Primitives in Search-Based Planning for Navigation. , 2020, , .		2

#	ARTICLE	IF	CITATIONS
19	Escaping Local Minima in Search-Based Planning using Soft Duplicate Detection. , 2019, , .		5
20	Bidirectional Heuristic Search for Motion Planning with an Extend Operator. , 2019, , .		2
21	FOCS: Planning by Fusion of Optimal Control & Search and its Application to Navigation. , 2018, , .		0
22	Motion Planning for an Underwater Mobile Manipulator by Exploiting Loose Coupling. , 2018, , .		4
23	A Single-Planner Approach to Multi-Modal Humanoid Mobility. , 2018, , .		11
24	Online, Interactive User Guidance for High-dimensional, Constrained Motion Planning. , 2018, , .		10
25	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
26	Parts assembly planning under uncertainty with simulation-aided physical reasoning. , 2017, , .		4
27	A*-Connect: Bounded suboptimal bidirectional heuristic search. , 2016, , .		12
28	Planning for a ground-air robotic system with collaborative localization. , 2016, , .		10
29	Planning for grasp selection of partially occluded objects. , 2016, , .		4
30	Truncated incremental search. Artificial Intelligence, 2016, 234, 49-77.	5.8	25
31	Learning to plan for constrained manipulation from demonstrations. Autonomous Robots, 2016, 40, 109-124.	4.8	20
32	Multi-Heuristic A*. International Journal of Robotics Research, 2016, 35, 224-243.	8.5	88
33	Coordinated path planning for fixed-wing UAS conducting persistent surveillance missions. , 2015, , .		2
34	A web-based infrastructure for recording user demonstrations of mobile manipulation tasks. , 2015, , .		9
35	Speeding up heuristic computation in planning with Experience Graphs. , 2015, , .		11
36	Path planning for a tethered robot using Multi-Heuristic A* with topology-based heuristics. , 2015, , .		5

#	ARTICLE	IF	CITATIONS
37	Dynamic Multi-Heuristic A*. , 2015, , .		23
38	Lazy validation of Experience Graphs. , 2015, , .		7
39	Planning for multi-agent teams with leader switching. , 2015, , .		11
40	The Fifth Annual Symposium on Combinatorial Search. AI Communications, 2014, 27, 327-328.	1.2	0
41	State lattice with controllers: Augmenting lattice-based path planning with controller-based motion primitives. , 2014, , .		11
42	Robotic handwriting: Multi-contact manipulation based on Reactional Internal Contact Hypothesis. , 2014, , .		6
43	Single- and dual-arm motion planning with heuristic search. International Journal of Robotics Research, 2014, 33, 305-320.	8.5	63
44	Motion planning for smooth pickup of moving objects. , 2014, , .		29
45	Coordinated commencement of pre-planned routes for fixed-wing UAS starting from arbitrary locations - a near real-time solution. , 2014, , .		3
46	Motion planning for robotic manipulators with independent wrist joints. , 2014, , .		8
47	Planning for opportunistic surveillance with multiple robots. , 2013, , .		26
48	Anytime incremental planning with E-Graphs. , 2013, , .		8
49	Path planning for non-circular micro aerial vehicles in constrained environments. , 2013, , .		57
50	Search-based planning for dual-arm manipulation with upright orientation constraints. , 2012, , .		27
51	Anytime Safe Interval Path Planning for dynamic environments. , 2012, , .		41
52	Combining global and local planning with guarantees on completeness. , 2012, , .		26
53	The Symposium on Combinatorial Search. AI Communications, 2012, 25, 209-210.	1.2	1
54	Anytime search-based footstep planning with suboptimality bounds. , 2012, , .		66

#	ARTICLE	IF	CITATIONS
55	Navigation in three-dimensional cluttered environments for mobile manipulation. , 2012, , .		63
56	Using state dominance for path planning in dynamic environments with moving obstacles. , 2012, , .		12
57	Planning for Manipulation with Adaptive Motion Primitives. , 2011, , .		43
58	Planning for landing site selection in the aerial supply delivery. , 2011, , .		4
59	Multi-hypothesis motion planning for visual object tracking. , 2011, , .		32
60	Planning for multi-robot exploration with multiple objective utility functions. , 2011, , .		19
61	Cart pushing with a mobile manipulation system: Towards navigation with moveable objects. , 2011, , .		28
62	Place recognition in 3D scans using a combination of bag of words and point feature based relative pose estimation. , 2011, , .		7
63	Search-based planning for manipulation with motion primitives. , 2010, , .		78
64	Multi-agent path planning with multiple tasks and distance constraints. , 2010, , .		30
65	Efficient cost computation in cost map planning for non-circular robots. , 2009, , .		9
66	Time-bounded lattice for efficient planning in dynamic environments. , 2009, , .		59
67	Planning Long Dynamically Feasible Maneuvers for Autonomous Vehicles. International Journal of Robotics Research, 2009, 28, 933-945.	8.5	423
68	Path Clearance. IEEE Robotics and Automation Magazine, 2009, 16, 62-72.	2.0	5
69	Autonomous driving in urban environments: Boss and the Urban Challenge. Journal of Field Robotics, 2008, 25, 425-466.	6.0	1,242
70	Information value-driven approach to path clearance with multiple scout robots. , 2008, , .		1
71	Goal directed navigation with uncertainty in adversary locations. , 2007, , .		8
72	Lifelong Planning Aâˆ— . Artificial Intelligence, 2004, 155, 93-146.	5.8	494

#	ARTICLE	IF	CITATIONS
73	E-Graphs: Bootstrapping Planning with Experience Graphs. , 0, , .		45
74	Multi-Heuristic A*. , 0, , .		16