Stephen L Smith

List of Publications by Year
in descending order

92 papers	2,716 citations	361413 20 h-index	289244 40 g-index
92 all docs	92 docs citations	92 times ranked	1806 citing authors

#	Article	IF	Citations
1	LAMP: Learning a Motion Policy to Repeatedly Navigate in an Uncertain Environment. IEEE Transactions on Robotics, 2022, 38, 1638-1652.	10.3	3
2	Tunable Trajectory Planner Using G³ Curves. IEEE Transactions on Intelligent Vehicles, 2022, 7, 273-285.	12.7	7
3	Learning Submodular Objectives for Team Environmental Monitoring. IEEE Robotics and Automation Letters, 2022, 7, 960-967.	5.1	5
4	Scalable Operator Allocation for Multirobot Assistance: A Restless Bandit Approach. IEEE Transactions on Control of Network Systems, 2022, 9, 1397-1408.	3.7	9
5	Optimal Partitioning of Non-Convex Environments for Minimum Turn Coverage Planning. IEEE Robotics and Automation Letters, 2022, 7, 9731-9738.	5.1	3
6	Looking for Trouble: Informative Planning for Safe Trajectories with Occlusions. , 2022, , .		1
7	Rebalancing Self-Interested Drivers in Ride-Sharing Networks to Improve Customer Wait-Time. IEEE Transactions on Control of Network Systems, 2021, 8, 1637-1648.	3.7	4
8	The Effect of Robot Decision Making on Human Perception of a Robot in a Collaborative Task - A Remote Study. , 2021, , .		2
9	Universally Safe Swerve Maneuvers for Autonomous Driving. IEEE Open Journal of Intelligent Transportation Systems, 2021, 2, 482-494.	4.8	6
10	Learning User Preferences from Corrections on State Lattices. , 2020, , .		1
11	Aerial Coverage Planning for Areas Hidden from the View of a Moving Ground Vehicle. , 2020, , .		2
12	Improving user specifications for robot behavior through active preference learning: Framework and evaluation. International Journal of Robotics Research, 2020, 39, 651-667.	8.5	17
13	Active Preference Learning using Maximum Regret. , 2020, , .		12
14	Safe Swerve Maneuvers for Autonomous Driving. , 2020, , .		6
15	Active sensing for motion planning in uncertain environments via mutual information policies. International Journal of Robotics Research, 2019, 38, 146-161.	8.5	15
16	Learning Motion Planning Policies in Uncertain Environments through Repeated Task Executions. , 2019, , .		2
17	Coverage Control for Multiple Event Types with Heterogeneous Robots. , 2019, , .		16
18	Bayesian Active Learning for Collaborative Task Specification Using Equivalence Regions. IEEE Robotics and Automation Letters, 2019, 4, 1691-1698.	5.1	10

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19	An SMT-Based Approach to Motion Planning for Multiple Robots With Complex Constraints. IEEE Transactions on Robotics, 2019, 35, 669-684.	10.3	15
20	Computing a Minimal Set of t-Spanning Motion Primitives for Lattice Planners. , 2019, , .		5
21	Robotic Coverage for Continuous Mapping Ahead of a Moving Vehicle. , 2019, , .		2
22	Incremental Estimation of Usersâ€™ Expertise Level. , 2019, , .		3
23	Learning a Lattice Planner Control Set for Autonomous Vehicles. , 2019, , .		7
24	On Re-Balancing Self-Interested Agents in Ride-Sourcing Transportation Networks. , 2019, , .		6
25	Multi-Robot Routing for Persistent Monitoring with Latency Constraints. , 2019, , .		17
26	On Minimum Time Multi-Robot Planning with Guarantees on the Total Collected Reward. , 2019, , .		6
27	Multi-vehicle refill scheduling with queueing. Computers and Electronics in Agriculture, 2018, 144, 44-57.	7.7	11
28	Distributed Submodular Maximization With Limited Information. IEEE Transactions on Control of Network Systems, 2018, 5, 1635-1645.	3.7	33
29	A Patrolling Game for Adversaries with Limited Observation Time. , 2018, , .		5
30	Assessing User Specifications for Robot Task Planning. , 2018, , .		4
31	Learning User Preferences in Robot Motion Planning Through Interaction. , 2018, , .		15
32	Re-Deployment Algorithms for Multiple Service Robots to Optimize Task Response. , 2018, , .		5
33	A complete greedy algorithm for infinite-horizon sensor scheduling. Automatica, 2017, 81, 335-341.	5.0	16
34	GLNS: An effective large neighborhood search heuristic for the Generalized Traveling Salesman Problem. Computers and Operations Research, 2017, 87, 1-19.	4.0	90
35	Heterogeneous Task Allocation and Sequencing via Decentralized Large Neighborhood Search. Unmanned Systems, 2017, 05, 79-95.	3.6	22
36	Clustering in discrete path planning for approximating minimum length paths. , 2017, , .		1

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37	On distributed submodular maximization with limited information. , 2016, , .		7
38	On minimizing turns in robot coverage path planning. , 2016, , .		29
39	Stochastic patrolling in adversarial settings. , 2016, , .		10
40	On efficient computation of shortest Dubins paths through three consecutive points. , 2016, , .		10
41	Multi-robot task planning and sequencing using the SAT-TSP language. , 2015, , .		9
42	Multirobot Rendezvous Planning for Recharging in Persistent Tasks. IEEE Transactions on Robotics, 2015, 31, 128-142.	10.3	114
43	Informative path planning as a maximum traveling salesman problem with submodular rewards. Discrete Applied Mathematics, 2015, 186, 112-127.	0.9	13
44	Planning Paths for Package Delivery in Heterogeneous Multirobot Teams. IEEE Transactions on Automation Science and Engineering, 2015, 12, 1298-1308.	5.2	204
45	Submodularity and greedy algorithms in sensor scheduling for linear dynamical systems. Automatica, 2015, 61, 282-288.	5.0	99
46	Optimal Path Planning in Cooperative Heterogeneous Multi-robot Delivery Systems. Springer Tracts in Advanced Robotics, 2015, , 407-423.	0.4	13
47	A language for robot path planning in discrete environments: The TSP with Boolean satisfiability constraints. , 2014, , .		9
48	On the submodularity of sensor scheduling for estimation of linear dynamical systems. , 2014, , .		8
49	Cardinality constrained robust optimization applied to a class of interval observers. , 2014, , .		5
50	Robot monitoring for the detection and confirmation of stochastic events. , 2014, , .		1
51	On Dynamic Vehicle Routing With Time Constraints. IEEE Transactions on Robotics, 2014, 30, 1524-1532.	10.3	21
52	A complete algorithm for the infinite horizon sensor scheduling problem. , 2014, , .		2
53	Optimal Control of Markov Decision Processes With Linear Temporal Logic Constraints. IEEE Transactions on Automatic Control, 2014, 59, 1244-1257.	5.7	125
54	Persistent monitoring in discrete environments: Minimizing the maximum weighted latency between observations. International Journal of Robotics Research, 2014, 33, 138-154.	8.5	73

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55	Optimal Multi-Robot Path Planning with LTL Constraints: Guaranteeing Correctness through Synchronization. Springer Tracts in Advanced Robotics, 2014, , 337-351.	0.4	19
56	Optimality and Robustness in Multi-Robot Path Planning with Temporal Logic Constraints. International Journal of Robotics Research, 2013, 32, 889-911.	8.5	131
57	The maximum traveling salesman problem with submodular rewards. , 2013, , .		2
58	Distributed dominating sets on grids. , 2013, , .		7
59	A graph-based approach to multi-robot rendezvous for recharging in persistent tasks. , 2013, , .		51
60	A nonlinear switched observer with projected state estimates for diesel engine emissions reduction. , 2013, , .		2
61	Min-Max Latency Walks: Approximation Algorithms for Monitoring Vertex-Weighted Graphs. Springer Tracts in Advanced Robotics, 2013, , 139-155.	0.4	3
62	Robotic load balancing for mobility-on-demand systems. International Journal of Robotics Research, 2012, 31, 839-854.	8.5	218
63	Robust multi-robot optimal path planning with temporal logic constraints. , 2012, , .		38
64	Persistent Robotic Tasks: Monitoring and Sweeping in Changing Environments. IEEE Transactions on Robotics, 2012, 28, 410-426.	10.3	185
65	Persistent ocean monitoring with underwater gliders: Towards accurate reconstruction of dynamic ocean processes. , 2011, , .		17
66	LTL Control in Uncertain Environments with Probabilistic Satisfaction Guarantees*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 3515-3520.	0.4	19
67	On vehicle placement to intercept moving targets. Automatica, 2011, 47, 2067-2074.	5.0	15
68	Persistent ocean monitoring with underwater gliders: Adapting sampling resolution. Journal of Field Robotics, 2011, 28, 714-741.	6.0	155
69	Collision avoidance for persistent monitoring in multi-robot systems with intersecting trajectories. , 2011, , .		18
70	Optimal path planning for surveillance with temporal-logic constraints. International Journal of Robotics Research, 2011, 30, 1695-1708.	8.5	132
71	MDP optimal control under temporal logic constraints. , 2011, , .		43
72	Optimal multi-robot path planning with temporal logic constraints. , 2011, , .		26

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73	Persistent monitoring of changing environments using a robot with limited range sensing. , 2011, , .		41
74	Collision avoidance for persistent monitoring in multi-robot systems with intersecting trajectories. , 2011, , .		15
75	Optimal path planning under temporal logic constraints. , 2010, , .		29
76	Vehicle placement to intercept moving targets. , 2010, , .		2
77	Multi-robot monitoring in dynamic environments with guaranteed currency of observations. , 2010, , .		51
78	Dynamic Vehicle Routing with Priority Classes of Stochastic Demands. SIAM Journal on Control and Optimization, 2010, 48, 3224-3245.	2.1	45
79	Dynamic Vehicle Routing for Translating Demands: Stability Analysis and Receding-Horizon Policies. IEEE Transactions on Automatic Control, 2010, 55, 2554-2569.	5.7	28
80	Dynamic vehicle routing with moving demands - Part I: Low speed demands and high arrival rates. , 2009, , .		5
81	A dynamic boundary guarding problem with translating targets. , 2009, , .		14
82	The dynamic team forming problem: Throughput and delay for unbiased policies. Systems and Control Letters, 2009, 58, 709-715.	2.3	12
83	Dynamic vehicle routing with moving demands - Part II: High speed demands or low arrival rates. , 2009, , .		4
84	Dynamic multi-vehicle routing with multiple classes of demands. , 2009, , .		5
85	Monotonic Target Assignment for Robotic Networks. IEEE Transactions on Automatic Control, 2009, 54, 2042-2057.	5.7	58
86	Dynamic vehicle routing with heterogeneous demands. , 2008, , .		10
87	Dynamic multi-agent team forming: Asymptotic results on throughput versus delay. , 2008, , .		0
88	Target assignment for robotic networks: Asymptotic performance under limited communication. Proceedings of the American Control Conference, 2007, , .	0.0	26
89	Target assignment for robotic networks: Worst-case and stochastic performance in dense environments. , 2007, , .		6
90	Curve Shortening and the Rendezvous Problem for Mobile Autonomous Robots. IEEE Transactions on Automatic Control, 2007, 52, 1154-1159.	5.7	46

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91	A Geometric Assignment Problem for Robotic Networks. , 2007, , 271-284.		3
92	A hierarchical cyclic pursuit scheme for vehicle networks. Automatica, 2005, 41, 1045-1053.	5.0	99