Lydia E Kavraki

List of Publications by Year
in descending order

236 papers	14,183 citations	57758 44 h-index	30087 103 g-index
250 all docs	250 docs citations	250 times ranked	7910 citing authors

#	Article	IF	Citations
1	Probabilistic roadmaps for path planning in high-dimensional configuration spaces. IEEE Transactions on Automation Science and Engineering, 1996, 12, 566-580.	2.3	4,281
2	The Open Motion Planning Library. IEEE Robotics and Automation Magazine, 2012, 19, 72-82.	2.0	1,018
3	Path planning using lazy PRM. , 2000, , .		531
4	Practical robust localization over large-scale 802.11 wireless networks. , 2004, , .		430
5	Low-dimensional, free-energy landscapes of protein-folding reactions by nonlinear dimensionality reduction. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 9885-9890.	7.1	293
6	Analysis of probabilistic roadmaps for path planning. IEEE Transactions on Automation Science and Engineering, 1998, 14, 166-171.	2.3	283
7	A Random Sampling Scheme for Path Planning. International Journal of Robotics Research, 1997, 16, 759-774.	8.5	205
8	On the feasibility of using wireless ethernet for indoor localization. IEEE Transactions on Automation Science and Engineering, 2004, 20, 555-559.	2.3	186
9	An Accurate, Sensitive, and Scalable Method to Identify Functional Sites in Protein Structures. Journal of Molecular Biology, 2003, 326, 255-261.	4.2	174
10	Sampling-based motion planning with temporal goals. , 2010, , .		172
11	Path planning for deformable linear objects. IEEE Transactions on Robotics, 2006, 22, 625-636.	10.3	161
12	Robotics-Based Location Sensing Using Wireless Ethernet. Wireless Networks, 2005, 11, 189-204.	3.0	141
13	Randomized path planning for linkages with closed kinematic chains. IEEE Transactions on Automation Science and Engineering, 2001, 17, 951-958.	2.3	135
14	Conformational Flexibility Models for the Receptor in Structure Based Drug Design. Current Pharmaceutical Design, 2003, 9, 1635-1648.	1.9	125
15	Motion Planning With Dynamics by a Synergistic Combination of Layers of Planning. IEEE Transactions on Robotics, 2010, 26, 469-482.	10.3	125
16	Sampling-based roadmap of trees for parallel motion planning. IEEE Transactions on Robotics, 2005, 21, 597-608.	10.3	124
17	A Sampling-Based Tree Planner for Systems With Complex Dynamics. IEEE Transactions on Robotics, 2012, 28, 116-131.	10.3	118
18	From coarse-grain to all-atom: Toward multiscale analysis of protein landscapes. Proteins: Structure, Function and Bioinformatics, 2007, 68, 646-661.	2.6	111

#	Article	IF	Citations
19	Sampling-Based Methods for Motion Planning with Constraints. Annual Review of Control, Robotics, and Autonomous Systems, 2018, 1, 159-185.	11.8	106
20	DINC 2.0: A New Protein–Peptide Docking Webserver Using an Incremental Approach. Cancer Research, 2017, 77, e55-e57.	0.9	100
21	Computation of configuration-space obstacles using the fast Fourier transform. IEEE Transactions on Automation Science and Engineering, 1995, 11, 408-413.	2.3	96
22	Understanding the challenges of protein flexibility in drug design. Expert Opinion on Drug Discovery, 2015, 10, 1301-1313.	5.0	94
23	Motion Planning with Complex Goals. IEEE Robotics and Automation Magazine, 2011, 18, 55-64.	2.0	92
24	Understanding Protein Flexibility through Dimensionality Reduction. Journal of Computational Biology, 2003, 10, 617-634.	1.6	91
25	Robot Homing by Exploiting Panoramic Vision. Autonomous Robots, 2005, 19, 7-25.	4.8	89
26	Measure theoretic analysis of probabilistic path planning. IEEE Transactions on Automation Science and Engineering, 2004, 20, 229-242.	2.3	85
27	A two level fuzzy PRM for manipulation planning. , 2000, , .		81
28	Kinodynamic Motion Planning by Interior-Exterior Cell Exploration. Springer Tracts in Advanced Robotics, 2009, , 449-464.	0.4	80
29	An incremental constraint-based framework for task and motion planning. International Journal of Robotics Research, 2018, 37, 1134-1151.	8.5	79
30	Benchmarking Motion Planning Algorithms: An Extensible Infrastructure for Analysis and Visualization. IEEE Robotics and Automation Magazine, 2015, 22, 96-102.	2.0	77
31	Incremental Task and Motion Planning: A Constraint-Based Approach. , 0, , .		76
32	Decomposition-based motion planning: a framework for real-time motion planning in high-dimensional configuration spaces. , 0, , .		72
33	Modeling protein conformational ensembles: From missing loops to equilibrium fluctuations. Proteins: Structure, Function and Bioinformatics, 2006, 65, 164-179.	2.6	71
34	Prediction of enzyme function based on 3D templates of evolutionarily important amino acids. BMC Bioinformatics, 2008, 9, 17.	2.6	70
35	Greedy but Safe Replanning under Kinodynamic Constraints. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	67
36	Part orientation with one or two stable equilibria using programmable force fields. IEEE Transactions on Automation Science and Engineering, 2000, 16, 157-170.	2.3	65

#	Article	IF	Citations
37	Sampling-based robot motion planning: Towards realistic applications. Computer Science Review, 2007, 1, 2-11.	15.3	63
38	Multiscale characterization of protein conformational ensembles. Proteins: Structure, Function and Bioinformatics, 2009, 76, 837-851.	2.6	63
39	Real-time perception-guided motion planning for a personal robot. , 2009, , .		63
40	Tracing conformational changes in proteins. BMC Structural Biology, 2010, 10, S1.	2.3	61
41	A New Method for Fast and Accurate Derivation of Molecular Conformations. Journal of Chemical Information and Computer Sciences, 2002, 42, 64-70.	2.8	59
42	Iterative Temporal Planning in Uncertain Environments With Partial Satisfaction Guarantees. IEEE Transactions on Robotics, 2016, 32, 583-599.	10.3	59
43	Structure-based Methods for Binding Mode and Binding Affinity Prediction for Peptide-MHC Complexes. Current Topics in Medicinal Chemistry, 2019, 18, 2239-2255.	2.1	59
44	On the complexity of assembly partitioning. Information Processing Letters, 1993, 48, 229-235.	0.6	58
45	Randomized query processing in robot path planning. , 1995, , .		58
46	Randomized Query Processing in Robot Path Planning. Journal of Computer and System Sciences, 1998, 57, 50-60.	1.2	57
47	Towards manipulation planning with temporal logic specifications. , 2015, , .		57
48	Application of nonlinear dimensionality reduction to characterize the conformational landscape of small peptides. Proteins: Structure, Function and Bioinformatics, 2010, 78, 223-235.	2.6	55
49	Finding metabolic pathways using atom tracking. Bioinformatics, 2010, 26, 1548-1555.	4.1	52
50	Exploring implicit spaces for constrained sampling-based planning. International Journal of Robotics Research, 2019, 38, 1151-1178.	8.5	52
51	Machine Learning-Guided Three-Dimensional Printing of Tissue Engineering Scaffolds. Tissue Engineering - Part A, 2020, 26, 1359-1368.	3.1	52
52	Two-Handed Assembly Sequencing. International Journal of Robotics Research, 1995, 14, 335-350.	8.5	51
53	Algorithmic issues in modeling motion. ACM Computing Surveys, 2002, 34, 550-572.	23.0	51
54	Using wireless Ethernet for localization. , 0, , .		51

#	Article	IF	Citations
55	Interpreting T-Cell Cross-reactivity through Structure: Implications for TCR-Based Cancer Immunotherapy. Frontiers in Immunology, 2017, 8, 1210.	4.8	50
56	Quantitative comparison of adaptive sampling methods for protein dynamics. Journal of Chemical Physics, 2018, 149, 244119.	3.0	49
57	Anytime solution optimization for sampling-based motion planning. , 2013, , .		48
58	Iterative temporal motion planning for hybrid systems in partially unknown environments. , 2013, , .		46
59	Hybrid systems: from verification to falsification byÂcombining motion planning and discrete search. Formal Methods in System Design, 2009, 34, 157-182.	0.8	45
60	Learning Feasibility for Task and Motion Planning in Tabletop Environments. IEEE Robotics and Automation Letters, 2019, 4, 1255-1262.	5.1	45
61	DINC: A new AutoDock-based protocol for docking large ligands. BMC Structural Biology, 2013, 13, S11.	2.3	43
62	SMT-based synthesis of integrated task and motion plans from plan outlines. , 2014, , .		43
63	The MASH Pipeline for Protein Function Prediction and an Algorithm for the Geometric Refinement of 3D Motifs. Journal of Computational Biology, 2007, 14, 791-816.	1.6	42
64	Computational Models of Protein Kinematics and Dynamics: Beyond Simulation. Annual Review of Analytical Chemistry, 2012, 5, 273-291.	5.4	42
65	Online motion planning for unexplored underwater environments using autonomous underwater vehicles. Journal of Field Robotics, 2019, 36, 370-396.	6.0	42
66	Partitioning a planar assembly into two connected parts is NP-complete. Information Processing Letters, 1995, 55, 159-165.	0.6	41
67	Fast and reliable analysis of molecular motion using proximity relations and dimensionality reduction. Proteins: Structure, Function and Bioinformatics, 2007, 67, 897-907.	2.6	41
68	Modeling Structures and Motions of Loops in Protein Molecules. Entropy, 2012, 14, 252-290.	2.2	41
69	General Prediction of Peptide-MHC Binding Modes Using Incremental Docking: A Proof of Concept. Scientific Reports, 2018, 8, 4327.	3.3	41
70	Evaluation of algorithms for bearing-only SLAM. , 2006, , .		40
71	Safe distributed motion coordination for second-order systems with different planning cycles. International Journal of Robotics Research, 2012, 31, 129-150.	8.5	40
72	APE-Gen: A Fast Method for Generating Ensembles of Bound Peptide-MHC Conformations. Molecules, 2019, 24, 881.	3.8	40

#	Article	IF	Citations
73	Deformable volumes in path planning applications. , 2000, , .		39
74	Randomized Physics-Based Motion Planning for Grasping in Cluttered and Uncertain Environments. IEEE Robotics and Automation Letters, 2018, 3, 712-719.	5.1	39
75	Platform-Independent Benchmarks for Task and Motion Planning. IEEE Robotics and Automation Letters, 2018, 3, 3765-3772.	5.1	39
76	Computational Approaches to Drug Design. Algorithmica, 1999, 25, 347-371.	1.3	38
77	Computational challenges in systems biology. Computer Science Review, 2009, 3, 1-17.	15.3	38
78	Motion planning with hybrid dynamics and temporal goals. , 2010, , .		38
79	On the Characterization of Protein Native State Ensembles. Biophysical Journal, 2007, 92, 1503-1511.	0.5	36
80	Motion Planning. , 2008, , 109-131.		36
81	Electrostatic contributions drive the interaction between <i>Staphylococcus aureus</i> protein Efb—C and its complement target C3d. Protein Science, 2008, 17, 1894-1906.	7.6	34
82	Falsification of LTL Safety Properties in Hybrid Systems. Lecture Notes in Computer Science, 2009, , 368-382.	1.3	34
83	OOPS for Motion Planning: An Online, Open-source, Programming System. , 2007, , .		33
84	The LabelHash algorithm for substructure matching. BMC Bioinformatics, 2010, 11, 555.	2.6	33
85	Targeting the Src Homology 2 (SH2) Domain of Signal Transducer and Activator of Transcription 6 (STAT6) with Cell-Permeable, Phosphatase-Stable Phosphopeptide Mimics Potently Inhibits Tyr641 Phosphorylation and Transcriptional Activity. Journal of Medicinal Chemistry, 2015, 58, 8970-8984.	6.4	32
86	Fast Tree-Based Exploration of State Space for Robots with Dynamics. Springer Tracts in Advanced Robotics, 2005, , 297-312.	0.4	31
87	Falsification of LTL safety properties in hybrid systems. International Journal on Software Tools for Technology Transfer, 2013, 15, 305-320.	1.9	31
88	Motion Planning in the Presence of Drift, Underactuation and Discrete System Changes. , 0, , .		31
89	Recurrent use of evolutionary importance for functional annotation of proteins based on local structural similarity. Protein Science, 2006, 15, 1530-1536.	7.6	30
90	A randomized kinematics-based approach to pharmacophore-constrained conformational search and database screening. Journal of Computational Chemistry, 2000, 21, 731-747.	3.3	29

#	Article	IF	Citations
91	Distributed Sampling-Based Roadmap of Trees for Large-Scale Motion Planning. , 2005, , .		29
92	The Task-Motion Kit: An Open Source, General-Purpose Task and Motion-Planning Framework. IEEE Robotics and Automation Magazine, 2018, 25, 61-70.	2.0	29
93	Coarse-Grained Conformational Sampling of Protein Structure Improves the Fit to Experimental Hydrogen-Exchange Data. Frontiers in Molecular Biosciences, 2017, 4, 13.	3.5	28
94	Hybrid Systems: From Verification to Falsification. , 2007, , 463-476.		28
95	Distributed computation of the knn graph for large high-dimensional point sets. Journal of Parallel and Distributed Computing, 2007, 67, 346-359.	4.1	27
96	A Random Sampling Scheme for Path Planning. , 1996, , 249-264.		26
97	Binding Modes of Peptidomimetics Designed to Inhibit STAT3. PLoS ONE, 2012, 7, e51603.	2.5	25
98	Extending the Applicability of POMDP Solutions to Robotic Tasks. IEEE Transactions on Robotics, 2015, 31, 948-961.	10.3	25
99	HLA-Arena: A Customizable Environment for the Structural Modeling and Analysis of Peptide-HLA Complexes for Cancer Immunotherapy. JCO Clinical Cancer Informatics, 2020, 4, 623-636.	2.1	23
100	Probabilistic Roadmaps of Trees for Parallel Computation of Multiple Query Roadmaps. Springer Tracts in Advanced Robotics, 2005, , 80-89.	0.4	22
101	Unfolding the fold of cyclic cysteineâ€rich peptides. Protein Science, 2008, 17, 482-493.	7.6	22
102	Safe and Distributed Kinodynamic Replanning for Vehicular Networks. Mobile Networks and Applications, 2009, 14, 292-308.	3.3	22
103	Using Local Experiences for Global Motion Planning. , 2019, , .		22
104	Using parallelized incremental meta-docking can solve the conformational sampling issue when docking large ligands to proteins. BMC Molecular and Cell Biology, 2019, 20, 42.	2.0	22
105	Markov state modeling reveals alternative unbinding pathways for peptideâ€"MHC complexes. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30610-30618.	7.1	22
106	A dimensionality reduction approach to modeling protein flexibility. , 2002, , .		21
107	A decentralized planner that guarantees the safety of communicating vehicles with complex dynamics that replan online. , 2007, , .		21
108	Reactive synthesis for finite tasks under resource constraints. , 2017, , .		21

#	Article	IF	Citations
109	Prediction of drug metabolites using neural machine translation. Chemical Science, 2020, 11, 12777-12788.	7.4	21
110	Improving conformational searches by geometric screening. Bioinformatics, 2005, 21, 624-630.	4.1	20
111	A review of parameters and heuristics for guiding metabolic pathfinding. Journal of Cheminformatics, 2017, 9, 51.	6.1	20
112	Molecular docking: a problem with thousands of degrees of freedom. , 0, , .		19
113	Resolution Independent Density Estimation for motion planning in high-dimensional spaces. , 2013, , .		19
114	A heuristic approach to finding diverse short paths. , 2015, , .		19
115	Motion Planning. Springer Handbooks, 2016, , 139-162.	0.6	19
116	Large-Scale Structure-Based Prediction of Stable Peptide Binding to Class I HLAs Using Random Forests. Frontiers in Immunology, 2020, 11, 1583.	4.8	19
117	Quantitative Analysis of Nearest-Neighbors Search in High-Dimensional Sampling-Based Motion Planning. Springer Tracts in Advanced Robotics, 2008, , 3-18.	0.4	19
118	Path Planning for Variable Resolution Minimal-Energy Curves of Constant Length. , 2005, , .		18
119	Efficient Symbolic Reactive Synthesis for Finite-Horizon Tasks. , 2019, , .		18
120	Increasing Robot Autonomy via Motion Planning and an Augmented Reality Interface. IEEE Robotics and Automation Letters, 2020, 5, 1017-1023.	5.1	18
121	RAPID: Randomized pharmacophore identification for drug design. Computational Geometry: Theory and Applications, 1998, 10, 263-272.	0.5	17
122	Sampling Conformation Space to Model Equilibrium Fluctuations in Proteins. Algorithmica, 2007, 48, 303-327.	1.3	17
123	On the implementation of single-query sampling-based motion planners. , 2010, , .		17
124	Mobile manipulation: Encoding motion planning options using task motion multigraphs. , 2011, , .		17
125	Online Multilayered Motion Planning with Dynamic Constraints for Autonomous Underwater Vehicles. , 2019, , .		17
126	Improving the organization and interactivity of metabolic pathfinding with precomputed pathways. BMC Bioinformatics, 2020, 21, 13.	2.6	17

#	Article	IF	Citations
127	Path Planning for Manipulation Using Experience-Driven Random Trees. IEEE Robotics and Automation Letters, 2021, 6, 3295-3302.	5.1	17
128	ALGORITHMS FOR STRUCTURAL COMPARISON AND STATISTICAL ANALYSIS OF 3D PROTEIN MOTIFS. , 2004, , .		17
129	MotionBenchMaker: A Tool to Generate and Benchmark Motion Planning Datasets. IEEE Robotics and Automation Letters, 2022, 7, 882-889.	5.1	17
130	Geometric manipulation of flexible ligands. Lecture Notes in Computer Science, 1996, , 67-78.	1.3	16
131	Spacecraft Rendezvous and Docking with Real-Time, Randomized Optimization. , 2003, , .		16
132	On the performance of random linear projections for sampling-based motion planning. , 2009, , .		16
133	Analysis of substructural variation in families of enzymatic proteins with applications to protein function prediction. BMC Bioinformatics, 2010, 11, 242.	2.6	15
134	A geometric approach to designing a programmable force field with a unique stable equilibrium for parts in the plane. , 0, , .		14
135	CAVITY SCALING: AUTOMATED REFINEMENT OF CAVITY-AWARE MOTIFS IN PROTEIN FUNCTION PREDICTION. Journal of Bioinformatics and Computational Biology, 2007, 05, 353-382.	0.8	14
136	Combinatorial Clustering of Residue Position Subsets Predicts Inhibitor Affinity across the Human Kinome. PLoS Computational Biology, 2013, 9, e1003087.	3.2	14
137	Planning feasible and safe paths online for autonomous underwater vehicles in unknown environments. , 2016, , .		14
138	Informing Multi-Modal Planning with Synergistic Discrete Leads. , 2020, , .		14
139	Machine learning models in the prediction of drug metabolism: challenges and future perspectives. Expert Opinion on Drug Metabolism and Toxicology, 2021, 17, 1245-1247.	3.3	14
140	Roadmap Methods for Protein Folding. , 2008, 413, 219-239.		13
141	An Algorithm for Efficient Identification of Branched Metabolic Pathways. Journal of Computational Biology, 2011, 18, 1575-1597.	1.6	13
142	Automated Abstraction of Manipulation Domains for Cost-Based Reactive Synthesis. IEEE Robotics and Automation Letters, 2019, 4, 285-292.	5.1	13
143	Capturing the Connectivity of High-Dimensional Geometric Spaces by Parallelizable Random Sampling Techniques. Combinatorial Optimization, 1999, , 159-182.	0.7	13
144	LTLf Synthesis on Probabilistic Systems. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 326, 166-181.	0.8	13

#	Article	IF	Citations
145	SIMS: A Hybrid Method for Rapid Conformational Analysis. PLoS ONE, 2013, 8, e68826.	2.5	12
146	A Randomized Approach to Robot Path Planning Based on Lazy Evaluation. Combinatorial Optimization, 2001, , 221-253.	0.7	12
147	CAVITY-AWARE MOTIFS REDUCE FALSE POSITIVES IN PROTEIN FUNCTION PREDICTION. , 2006, , .		12
148	Algorithms for structural comparison and statistical analysis of 3D protein motifs. Pacific Symposium on Biocomputing Pacific Symposium on Biocomputing, 2005, , 334-45.	0.7	12
149	Asymptotically Optimal Stochastic Motion Planning with Temporal Goals. Springer Tracts in Advanced Robotics, 2015, , 335-352.	0.4	11
150	Robonaut 2 and you: Specifying and executing complex operations. , 2017, , .		11
151	MATCHING OF STRUCTURAL MOTIFS USING HASHING ON RESIDUE LABELS AND GEOMETRIC FILTERING FOR PROTEIN FUNCTION PREDICTION. , 2008, , .		11
152	Kinodynamic motion planning with hardware demonstrations. , 2008, , .		10
153	Automated model approximation for robotic navigation with POMDPs. , 2013, , .		10
154	High-dimensional Winding-Augmented Motion Planning with 2D topological task projections and persistent homology. , 2016, , .		10
155	A scalable motion planner for high-dimensional kinematic systems. International Journal of Robotics Research, 2020, 39, 361-388.	8.5	10
156	Motion Planning for Knot Untangling. Springer Tracts in Advanced Robotics, 2004, , 7-23.	0.4	10
157	Learning Sampling Distributions Using Local 3D Workspace Decompositions for Motion Planning in High Dimensions. , 2021, , .		10
158	Geometric Sieving: Automated Distributed Optimization of 3D Motifs for Protein Function Prediction. Lecture Notes in Computer Science, 2006, , 500-515.	1.3	10
159	A General Task and Motion Planning Framework For Multiple Manipulators. , 2021, , .		10
160	Large-Scale Structure-Based Screening of Potential T Cell Cross-Reactivities Involving Peptide-Targets From BCG Vaccine and SARS-CoV-2. Frontiers in Immunology, 2021, 12, 812176.	4.8	10
161	A statistical model to correct systematic bias introduced by algorithmic thresholds in protein structural comparison algorithms. , 2008, , .		9
162	Impact of workspace decompositions on discrete search leading continuous exploration (DSLX) motion planning. , 2008, , .		9

#	Article	IF	Citations
163	Reconfiguration for Modular Robots Using Kinodynamic Motion Planning. , 2008, , .		9
164	Machine Learning Guided Atom Mapping of Metabolic Reactions. Journal of Chemical Information and Modeling, 2019, 59, 1121-1135.	5.4	9
165	Structural Modeling and Molecular Dynamics of the Immune Checkpoint Molecule HLA-G. Frontiers in Immunology, 2020, 11, 575076.	4.8	9
166	Replanning: A powerful planning strategy for hard kinodynamic problems. , 2008, , .		8
167	A sampling-based strategy planner for nondeterministic hybrid systems. , 2014, , .		8
168	Exploiting Panoramic Vision for Bearing-Only Robot Homing. , 2006, , 229-251.		8
169	DINC-COVID: A webserver for ensemble docking with flexible SARS-CoV-2 proteins. Computers in Biology and Medicine, 2021, 139, 104943.	7.0	8
170	On the advantages of task motion multigraphs for efficient mobile manipulation. , 2011, , .		6
171	Accounting for uncertainty in simultaneous task and motion planning using task motion multigraphs. , 2012, , .		6
172	Improving protein conformational sampling by using guiding projections. , 2015, , .		6
173	Native state of complement protein C3d analysed via hydrogen exchange and conformational sampling. International Journal of Computational Biology and Drug Design, 2018, 11, 90.	0.3	6
174	Computational analysis of complement inhibitor compstatin using molecular dynamics. Journal of Molecular Modeling, 2020, 26, 231.	1.8	6
175	A Robotics-Inspired Screening Algorithm for Molecular Caging Prediction. Journal of Chemical Information and Modeling, 2020, 60, 1302-1316.	5.4	6
176	Sampling-Based Motion Planning for Uncertain High-Dimensional Systems via Adaptive Control. Springer Proceedings in Advanced Robotics, 2021, , 159-175.	1.3	6
177	Capturing the connectivity of high-dimensional geometric spaces by parallelizable random sampling techniques. Lecture Notes in Computer Science, 1998, , 330-340.	1.3	6
178	Graph representation learning for structural proteomics. Emerging Topics in Life Sciences, 2021, 5, 789-802.	2.6	6
179	3pHLA-score improves structure-based peptide-HLA binding affinity prediction. Scientific Reports, 2022, 12, .	3.3	6
180	A Motion Planner for a Hybrid Robotic System with Kinodynamic Constraints. , 2007, , .		5

#	Article	IF	Citations
181	Multiâ€scale characterization of the energy landscape of proteins with application to the C3D/Efbâ€C complex. Proteins: Structure, Function and Bioinformatics, 2010, 78, 1004-1014.	2.6	5
182	The LabelHash Server and Tools for substructure-based functional annotation. Bioinformatics, 2011, 27, 2161-2162.	4.1	5
183	Fast stochastic motion planning with optimality guarantees using local policy reconfiguration. , 2014, , .		5
184	Kinematically constrained workspace control via linear optimization. , 2015, , .		5
185	Lazy Evaluation of Goal Specifications Guided by Motion Planning. , 2019, , .		5
186	Online Partial Conditional Plan Synthesis for POMDPs With Safe-Reachability Objectives: Methods and Experiments. IEEE Transactions on Automation Science and Engineering, 2021, 18, 932-945.	5.2	5
187	Fast intersection checking for parametric deformable models. , 2005, , .		4
188	Multi-objective sensor-based replanning for a car-like robot. , 2012, , .		4
189	Structure-guided selection of specificity determining positions in the human Kinome. BMC Genomics, 2016, 17, 431.	2.8	4
190	Maintaining and Enhancing Diversity of Sampled Protein Conformations in Robotics-Inspired Methods. Journal of Computational Biology, 2018, 25, 3-20.	1.6	4
191	Finite-Horizon Synthesis for Probabilistic Manipulation Domains. , 2021, , .		4
192	General Prediction of Peptide-MHC Binding Modes Using Incremental Docking. , 2018, , .		4
193	Using Experience to Improve Constrained Planning on Foliations for Multi-Modal Problems. , 2021, , .		4
194	Part orientation with a force field: orienting multiple shapes using a single field. , 0, , .		3
195	On modeling peptidomimetics in complex with the SH2 domain of Stat3. , 2011, 2011, 3229-32.		3
196	Low-dimensional projections for SyCLoP. , 2012, , .		3
197	Defining Low-Dimensional Projections to Guide Protein Conformational Sampling. Journal of Computational Biology, 2017, 24, 79-89.	1.6	3
198	A Distributed Protocol for Safe Real-Time Planning of Communicating Vehicles with Second-Order Dynamics. , 2007, , .		3

#	Article	IF	Citations
199	Robust Optimization-based Motion Planning for high-DOF Robots under Sensing Uncertainty. , 2021, , .		3
200	A Sampling-based Motion Planning Framework for Complex Motor Actions. , 2021, , .		3
201	HyperPlan: A Framework for Motion Planning Algorithm Selection and Parameter Optimization. , 2021, , .		3
202	Adaptive Experience Sampling for Motion Planning Using the Generator-Critic Framework. IEEE Robotics and Automation Letters, 2022, 7, 9437-9444.	5.1	3
203	Improving the Prediction of Kinase Binding Affinity Using Homology Models. , 2013, , .		2
204	Unix Philosophy and the Real World: Control Software for Humanoid Robots. Frontiers in Robotics and AI, 2016, 3, .	3.2	2
205	Big Data on Robotics. Big Data, 2016, 4, 195-196.	3.4	2
206	Revealing Unknown Protein Structures Using Computational Conformational Sampling Guided by Experimental Hydrogen-Exchange Data. International Journal of Molecular Sciences, 2018, 19, 3406.	4.1	2
207	Composite motifs integrating multiple protein structures increase sensitivity for function prediction. Computational Systems Bioinformatics / Life Sciences Society Computational Systems Bioinformatics Conference, 2007, 6, 343-55.	0.4	2
208	Tracing conformational changes in proteins. , 2009, , .		1
209	Auto dock-based incremental docking protocol to improve docking of large ligands. , 2012, , .		1
210	Software for project-based learning of robot motion planning. Computer Science Education, 2013, 23, 332-348.	3.7	1
211	Active Planning, Sensing, and Recognition Using a Resource-Constrained Discriminant POMDP. , 2014, , .		1
212	Special Issue on the 2014 Robotics Science & Systems Conference. International Journal of Robotics Research, 2016, 35, 3-4.	8.5	1
213	Call for Papers: Special Issue on Big Data in Robotics. Big Data, 2016, 4, 1-2.	3.4	1
214	Point-Based Policy Synthesis for POMDPs With Boolean and Quantitative Objectives. IEEE Robotics and Automation Letters, 2019, 4, 1860-1867.	5.1	1
215	A General Algorithm for Time-Optimal Trajectory Generation Subject to Minimum and Maximum Constraints. Springer Proceedings in Advanced Robotics, 2020, , 368-383.	1.3	1
216	Augmenting Control Policies with Motion Planning for Robust and Safe Multi-robot Navigation. , 2020, , .		1

#	Article	IF	Citations
217	Matching of structural motifs using hashing on residue labels and geometric filtering for protein function prediction. Computational Systems Bioinformatics / Life Sciences Society Computational Systems Bioinformatics Conference, 2008, 7, 157-68.	0.4	1
218	Learning to Retrieve Relevant Experiences for Motion Planning. , 2022, , .		1
219	Failure is an option: Task and Motion Planning with Failing Executions. , 2022, , .		1
220	Human-Guided Motion Planning in Partially Observable Environments. , 2022, , .		1
221	SARS-Arena: Sequence and Structure-Guided Selection of Conserved Peptides from SARS-related Coronaviruses for Novel Vaccine Development. Frontiers in Immunology, 0, 13, .	4.8	1
222	Search techniques for rational drug design. , 0, , .		0
223	Nonlinear Dimensionality Reduction using Approximate Nearest Neighbors. , 2007, , .		0
224	Novel insights into target specificities and molecular mechanisms for two potent complement evasion proteins from Staphylococcus aureus. Molecular Immunology, 2008, 45, 4114-4115.	2.2	0
225	Bipolarity of the Saccharomyces Cerevisiae Genome. , 2008, , .		0
226	Teaching motion planning concepts to undergraduate students. , 2011, , .		0
227	Message from the Conference Co-chairs. , 2011, , .		0
228	Multi-robot target verification with reachability constraints. , 2012, , .		0
229	On the conformational flexibility of C3b: A molecular insight into activation and transformation of a major complement effector. Immunobiology, 2012, 217, 1192.	1.9	0
230	Structure-guided selection of Specificity Determining Positions in the human kinome. , 2015, , .		0
231	Editorial: special issue on the 2014 â€œRobotics: Science & Systemsâ€•conference. Autonomous Robots, 2015, 39, 219-220.	4.8	0
232	Call for Papers: Special Issue on Big Data in Robotics. Big Data, 2016, 4, 69-70.	3.4	0
233	Guest Editorial: Special Issue on the 2016 Workshop on the Algorithmic Foundations of Robotics (WAFR). International Journal of Robotics Research, 2019, 38, 93-94.	8.5	0
234	Native state of complement protein C3d analysed via hydrogen exchange and conformational sampling. International Journal of Computational Biology and Drug Design, 2018, 11, 90.	0.3	0

#	Article	IF	Citations
235	Online Partial Conditional Plan Synthesis for POMDPs with Safe-Reachability Objectives. Springer Proceedings in Advanced Robotics, 2020, , 127-143.	1.3	0
236	On the advantages of task motion multigraphs for efficient mobile manipulation. , 2011, , .		0