Juan Cortes

List of Publications by Year in descending order

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73 papers	2,435 citations	257450 24 h-index	243625 44 g-index
78 all docs	78 docs citations	78 times ranked	2140 citing authors

#	Article	IF	Citations
1	MoMA-LoopSampler: a web server to exhaustively sample protein loop conformations. Bioinformatics, 2022, 38, 552-553.	4.1	4
2	Indirect Force Control of a Cable-Suspended Aerial Multi-Robot Manipulator. IEEE Robotics and Automation Letters, 2022, 7, 6726-6733.	5.1	8
3	Precise Cable-Suspended Pick-and-Place with an Aerial Multi-robot System. Journal of Intelligent and Robotic Systems: Theory and Applications, 2022, 105, .	3.4	8
4	Protein loops with multiple metaâ€stable conformations: A challenge for sampling and scoring methods. Proteins: Structure, Function and Bioinformatics, 2021, 89, 218-231.	2.6	5
5	Current approaches to flexible loop modeling. Current Research in Structural Biology, 2021, 3, 187-191.	2.2	19
6	Interdomain linkers tailor the stability of immunoglobulin repeats in polyproteins. Biochemical and Biophysical Research Communications, 2021, 550, 43-48.	2.1	2
7	A tripartite carbohydrate-binding module to functionalize cellulose nanocrystal. Biomaterials Science, 2021, 9, 7444-7455.	5.4	1
8	Sampling-Based Tree Planners (RRT, EST, and Variations). , 2021, , 1-9.		0
9	The diversity of molecular interactions involving intrinsically disordered proteins: A molecular modeling perspective. Computational and Structural Biotechnology Journal, 2021, 19, 3817-3828.	4.1	6
10	Molecular flexibility in computational protein design: an algorithmic perspective. Protein Engineering, Design and Selection, 2021, 34, .	2.1	8
11	A reinforcement-learning-based approach to enhance exhaustive protein loop sampling. Bioinformatics, 2020, 36, 1099-1106.	4.1	16
12	Cooperative Aerial Load Transportation via Sampled Communication. , 2020, 4, 277-282.		14
13	Predicting Secondary Structure Propensities in IDPs Using Simple Statistics from Three-Residue Fragments. Journal of Molecular Biology, 2020, 432, 5447-5459.	4.2	10
14	Full-Pose Manipulation Control of a Cable-Suspended Load With Multiple UAVs Under Uncertainties. IEEE Robotics and Automation Letters, 2020, 5, 2185-2191.	5.1	55
15	Evidence of the Reduced Abundance of Proline cis Conformation in Protein Poly Proline Tracts. Journal of the American Chemical Society, 2020, 142, 7976-7986.	13.7	18
16	Combining System Design and Path Planning. Springer Proceedings in Advanced Robotics, 2020, , 112-127.	1.3	0
17	Simultaneous system design and path planning: A sampling-based algorithm. International Journal of Robotics Research, 2019, 38, 375-387.	8.5	9
18	A case study of automated dual-arm manipulation in industrial applications. , 2019, , .		3

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19	A Truly-Redundant Aerial Manipulator System With Application to Push-and-Slide Inspection in Industrial Plants. IEEE Robotics and Automation Letters, 2019, 4, 1846-1851.	5.1	108
20	Carbohydrate Selfâ€Assembly at Surfaces: STM Imaging of Sucrose Conformation and Ordering on Cu(100). Angewandte Chemie - International Edition, 2019, 58, 8336-8340.	13.8	29
21	Carbohydrate Selfâ€Assembly at Surfaces: STM Imaging of Sucrose Conformation and Ordering on Cu(100). Angewandte Chemie, 2019, 131, 8424-8428.	2.0	12
22	Investigating the Formation of Structural Elements in Proteins Using Local Sequence-Dependent Information and a Heuristic Search Algorithm. Molecules, 2019, 24, 1150.	3.8	2
23	Carbohydrate Selfâ€Assembly at Surfaces: STM Imaging of Sucrose Conformation and Ordering on Cu(100). Angewandte Chemie, 2019, 131, 8686.	2.0	0
24	Polymorphism in carbohydrate self-assembly at surfaces: STM imaging and theoretical modelling of trehalose on Cu(100). RSC Advances, 2019, 9, 35813-35819.	3.6	15
25	Realistic Ensemble Models of Intrinsically Disordered Proteins Using a Structure-Encoding Coil Database. Structure, 2019, 27, 381-391.e2.	3.3	49
26	Variable Neighborhood Search with Cost Function Networks To Solve Large Computational Protein Design Problems. Journal of Chemical Information and Modeling, 2019, 59, 127-136.	5.4	9
27	Exhaustive Exploration of the Conformational Landscape of Small Cyclic Peptides Using a Robotics Approach. Journal of Chemical Information and Modeling, 2018, 58, 2355-2368.	5.4	13
28	Hybrid parallelization of a multi-tree path search algorithm: Application to highly-flexible biomolecules. Parallel Computing, 2018, 77, 84-100.	2.1	9
29	Segmenting Proteins into Tripeptides to Enhance Conformational Sampling with Monte Carlo Methods. Molecules, 2018, 23, 373.	3.8	11
30	Control-Aware Motion Planning for Task-Constrained Aerial Manipulation. IEEE Robotics and Automation Letters, 2018, 3, 2478-2484.	5.1	27
31	The AEROARMS Project: Aerial Robots with Advanced Manipulation Capabilities for Inspection and Maintenance. IEEE Robotics and Automation Magazine, 2018, 25, 12-23.	2.0	157
32	Conformational changes in antibody Fab fragments upon binding and their consequences on the performance of docking algorithms. Immunology Letters, 2018, 200, 5-15.	2.5	7
33	Small-angle scattering studies of intrinsically disordered proteins and their complexes. Current Opinion in Structural Biology, 2017, 42, 15-23.	5.7	76
34	Structural Characterization of Highly Flexible Proteins by Small-Angle Scattering. Advances in Experimental Medicine and Biology, 2017, 1009, 107-129.	1.6	29
35	Multi-robot path planning with maintenance of generalized connectivity. , 2017, , .		10
36	Foreword on special issue on robotics methods for structural and dynamic modeling of molecular systems. Robotica, 2016, 34, 1677-1678.	1.9	0

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37	Prediction and clarification of structures of (bio)molecules on surfaces. Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences, 2016, 71, 351-374.	0.7	14
38	Optimal Path Planning in Complex Cost Spaces With Sampling-Based Algorithms. IEEE Transactions on Automation Science and Engineering, 2016, 13, 415-424.	5.2	102
39	Enhancing sampling-based kinodynamic motion planning for quadrotors. , 2015, , .		7
40	Characterizing Energy Landscapes of Peptides Using a Combination of Stochastic Algorithms. IEEE Transactions on Nanobioscience, 2015, 14, 545-552.	3.3	23
41	The AAAI-13 Conference Workshops. AI Magazine, 2014, 34, 108-115.	1.6	0
42	Planning agile motions for quadrotors in constrained environments. , 2014, , .		14
43	Sampling-based methods for a full characterization of energy landscapes of small peptides. , 2014, , .		2
44	A multi-tree extension of the transition-based RRT: Application to ordering-and-pathfinding problems in continuous cost spaces. , 2014, , .		26
45	Parallelizing RRT on Large-Scale Distributed-Memory Architectures. IEEE Transactions on Robotics, 2013, 29, 571-579.	10.3	28
46	Modeling protein conformational transitions by a combination of coarse-grained normal mode analysis and robotics-inspired methods. BMC Structural Biology, 2013, 13, S2.	2.3	42
47	MoMA-LigPath: a web server to simulate proteinâ€“ligand unbinding. Nucleic Acids Research, 2013, 41, W297-W302.	14.5	41
48	Enhancing the transition-based RRT to deal with complex cost spaces. , 2013, , .		47
49	Costmap planning in high dimensional configuration spaces. , 2012, , .		10
50	Coarse-grained elastic networks, normal mode analysis and robotics-inspired methods for modeling protein conformational transitions. , 2012, , .		4
51	THUMB-LOOPS UP FOR CATALYSIS: A STRUCTURE/FUNCTION INVESTIGATION OF A FUNCTIONAL LOOP MOVEMENT IN A GH11 XYLANASE. Computational and Structural Biotechnology Journal, 2012, 1, e201207001.	4.1	25
52	Motion planning algorithms for molecular simulations: A survey. Computer Science Review, 2012, 6, 125-143.	15.3	74
53	Rigidâ€CLL: Avoiding constantâ€distance computations in cell linkedâ€lists algorithms. Journal of Computational Chemistry, 2012, 33, 294-300.	3.3	2
54	A Robotics Approach to Enhance Conformational Sampling of Proteins. , 2012, , .		5

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55	Encoding Molecular Motions in Voxel Maps. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2011, 8, 557-563.	3.0	13
56	A mixed molecular modelingâ€robotics approach to investigate lipase large molecular motions. Proteins: Structure, Function and Bioinformatics, 2011, 79, 2517-2529.	2.6	17
57	Enhancing systematic proteinâ€“protein docking methods using ray casting: Application to ATTRACT. Proteins: Structure, Function and Bioinformatics, 2011, 79, 3037-3049.	2.6	2
58	Randomized tree construction algorithm to explore energy landscapes. Journal of Computational Chemistry, 2011, 32, 3464-3474.	3.3	42
59	Planning human-aware motions using a sampling-based costmap planner. , 2011, , .		75
60	Parallelizing RRT on distributed-memory architectures. , 2011, , .		27
61	Relaxation of amorphous multichain polymer systems using inverse kinematics. Polymer, 2010, 51, 4008-4014.	3.8	7
62	Sampling-Based Path Planning on Configuration-Space Costmaps. IEEE Transactions on Robotics, 2010, 26, 635-646.	10.3	284
63	Simulating ligand-induced conformational changes in proteins using a mechanical disassembly method. Physical Chemistry Chemical Physics, 2010, 12, 8268.	2.8	32
64	Control of Lipase Enantioselectivity by Engineering the Substrate Binding Site and Access Channel. ChemBioChem, 2009, 10, 2760-2771.	2.6	46
65	Encoding molecular motions in voxel maps. , 2009, , .		3
66	A path planning approach to (dis)assembly sequencing. , 2009, , .		14
67	An NMAâ€guided path planning approach for computing largeâ€amplitude conformational changes in proteins. Proteins: Structure, Function and Bioinformatics, 2008, 70, 131-143.	2.6	70
68	A Structureâ€Controlled Investigation of Lipase Enantioselectivity by a Pathâ€Planning Approach. ChemBioChem, 2008, 9, 1308-1317.	2.6	35
69	Disassembly Path Planning for Complex Articulated Objects. IEEE Transactions on Robotics, 2008, 24, 475-481.	10.3	45
70	Transition-based RRT for path planning in continuous cost spaces. , 2008, , .		83
71	Molecular Disassembly With Rrt-Like Algorithms. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	25
72	Geometric algorithms for the conformational analysis of long protein loops. Journal of Computational Chemistry, 2004, 25, 956-967.	3.3	86

#	Article	IF	Citations
73	Motion Planning for 6-D Manipulation with Aerial Towed-cable Systems. , 0, , .		40