Jack Scott Snoeyink

List of Publications by Year
in descending order

104	9,103	236925	60623
papers	citations	25 h-index	81 g-index

110	110	110	14089
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	MolProbity: all-atom contacts and structure validation for proteins and nucleic acids. Nucleic Acids Research, 2007, 35, W375-W383.	14.5	3,443
2	MolProbity: More and better reference data for improved allâ€atom structure validation. Protein Science, 2018, 27, 293-315.	7.6	2,776
3	Computing contour trees in all dimensions. Computational Geometry: Theory and Applications, 2003, 24, 75-94.	0.5	345
4	Combined Covalent-Electrostatic Model of Hydrogen Bonding Improves Structure Prediction with Rosetta. Journal of Chemical Theory and Computation, 2015, 11, 609-622.	5.3	204
5	Scientific Benchmarks for Guiding Macromolecular Energy Function Improvement. Methods in Enzymology, 2013, 523, 109-143.	1.0	195
6	Computing minimum length paths of a given homotopy class. Computational Geometry: Theory and Applications, 1994, 4, 63-97.	0.5	148
7	Face fixer. , 2000, , .		85
8	APPROXIMATING POLYGONS AND SUBDIVISIONS WITH MINIMUM-LINK PATHS. International Journal of Computational Geometry and Applications, 1993, 03, 383-415.	0.5	82
9	Flexible isosurfaces: Simplifying and displaying scalar topology using the contour tree. Computational Geometry: Theory and Applications, 2010, 43, 42-58.	0.5	82
10	Streaming computation of Delaunay triangulations. ACM Transactions on Graphics, 2006, 25, 1049-1056.	7.2	81
11	Mining protein family specific residue packing patterns from protein structure graphs. , 2004, , .		80
12	Lossless compression of predicted floating-point geometry. CAD Computer Aided Design, 2005, 37, 869-877.	2.7	74
13	Comparing Graph Representations of Protein Structure for Mining Family-Specific Residue-Based Packing Motifs. Journal of Computational Biology, 2005, 12, 657-671.	1.6	67
14	Implicitly representing arrangements of lines or segments. Discrete and Computational Geometry, 1989, 4, 433-466.	0.6	51
15	Generating random polygons with given vertices. Computational Geometry: Theory and Applications, 1996, 6, 277-290.	0.5	51
16	Algorithmic issues in modeling motion. ACM Computing Surveys, 2002, 34, 550-572.	23.0	51
17	Artifacts caused by simplicial subdivision. IEEE Transactions on Visualization and Computer Graphics, 2006, 12, 231-242.	4.4	51
18	Time-varying Reeb graphs for continuous spaceâ€“time data. Computational Geometry: Theory and Applications, 2008, 41, 149-166.	0.5	48

#	Article	IF	Citations
19	Counting and cutting cycles of lines and rods in space. Computational Geometry: Theory and Applications, 1992, 1, 305-323.	0.5	47
20	Ununfoldable polyhedra with convex faces. Computational Geometry: Theory and Applications, 2003, 24, 51-62.	0.5	44
21	Computing a Face in an Arrangement of Line Segments and Related Problems. SIAM Journal on Computing, 1993, 22, 1286-1302.	1.0	43
22	Structure-based function inference using protein family-specific fingerprints. Protein Science, 2006, 15, 1537-1543.	7.6	39
23	ON THE TIME BOUND FOR CONVEX DECOMPOSITION OF SIMPLE POLYGONS. International Journal of Computational Geometry and Applications, 2002, 12, 181-192.	0.5	38
24	Two-Dimensional and Three-Dimensional Point Location in Rectangular Subdivisions. Journal of Algorithms, 1995, 18, 256-277.	0.9	34
25	Streaming computation of Delaunay triangulations. , 2006, , .		34
26	Generating Raster DEM from Mass Points Via TIN Streaming. Lecture Notes in Computer Science, 2006, , 186-198.	1.3	33
27	A lower bound for multicast key distribution. Computer Networks, 2005, 47, 429-441.	5.1	30
28	Delaunay triangulation of imprecise points in linear time after preprocessing. Computational Geometry: Theory and Applications, 2010, 43, 234-242.	0.5	29
29	An efficient algorithm for finding the CSG representation of a simple polygon. Algorithmica, 1993, 10, 1-23.	1.3	27
30	TENTATIVE PRUNE-AND-SEARCH FOR COMPUTING FIXED-POINTS WITH APPLICATIONS TO GEOMETRIC COMPUTATION. Fundamenta Informaticae, 1995, 22, 353-370.	0.4	26
31	Testing Homotopy for Paths in the Plane. Discrete and Computational Geometry, 2004, 31, 61-81.	0.6	26
32	RNABC: forward kinematics to reduce all-atom steric clashes in RNA backbone. Journal of Mathematical Biology, 2007, 56, 253-278.	1.9	24
33	Almost all Delaunay triangulations have stretch factor greater than <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mi>Ï€</mml:mi><mml:mo stretchy="false">/</mml:mo><mml:mn>2</mml:mn></mml:math>. Computational Geometry: Theory and Applications, 2011, 44, 121-127.	0.5	24
34	Efficient algorithms for line and curve segment intersection using restricted predicates. Computational Geometry: Theory and Applications, 2000, 16, 35-52.	0.5	23
35	Implementations of the LMT heuristic for minimum weight triangulation. , 1998, , .		22
36	Mesh collapse compression. , 1999, , .		22

#	Article	IF	Citations
37	The Safari interface for visualizing time-dependent volume data using iso-surfaces and contour spectra. Computational Geometry: Theory and Applications, 2003, 25, 97-116.	0.5	22
38	Counting and Reporting Red/Blue Segment Intersections. Graphical Models, 1994, 56, 304-310.	0.6	20
39	Spirale Reversi: Reverse decoding of the Edgebreaker encoding. Computational Geometry: Theory and Applications, 2001, 20, 39-52.	0.5	19
40	Counting and Enumerating Pointed Pseudotriangulations with the Greedy Flip Algorithm. SIAM Journal on Computing, 2006, 36, 721-739.	1.0	19
41	On arrangements of Jordan arcs with three intersections per pair. Discrete and Computational Geometry, 1989, 4, 523-539.	0.6	18
42	DISTANCE-BASED IDENTIFICATION OF STRUCTURE MOTIFS IN PROTEINS USING CONSTRAINED FREQUENT SUBGRAPH MINING. , 2006, , .		18
43	Coding polygon meshes as compressable ASCII. , 2002, , .		17
44	Tight degree bounds for pseudo-triangulations of points. Computational Geometry: Theory and Applications, 2003, 25, 3-12.	0.5	17
45	Representing Interpolant Topology for Contour Tree Computation. Mathematics and Visualization, 2009, , 59-73.	0.6	17
46	Objects that cannot be taken apart with two hands. Discrete and Computational Geometry, 1994, 12, 367-384.	0.6	16
47	Queries with segments in Voronoi diagrams. Computational Geometry: Theory and Applications, 2000, 16, 23-33.	0.5	16
48	The Size of Spanning Disks for Polygonal Curves. Discrete and Computational Geometry, 2002, 29, 1-17.	0.6	16
49	Lossless Compression of Floating-Point Geometry. Computer-Aided Design and Applications, 2004, 1, 495-501.	0.6	16
50	Reconstructing polygons from scanner data. Theoretical Computer Science, 2011, 412, 4161-4172.	0.9	16
51	An adaptive dynamic programming algorithm for the side chain placement problem. Pacific Symposium on Biocomputing Pacific Symposium on Biocomputing, 2005, , 16-27.	0.7	16
52	Cartographic line simplification and polygon CSG formulÃ¦ in O(n logâˆ— n) time. Computational Geometry: Theory and Applications, 1998, 11, 175-185.	0.5	15
53	Flooding Triangulated Terrain. , 2005, , 137-148.		15
54	Maintaining solvent accessible surface area under rotamer substitution for protein design. Journal of Computational Chemistry, 2007, 28, 1336-1341.	3.3	15

#	Article	IF	Citations
55	Identification of family-specific residue packing motifs and their use for structure-based protein function prediction: I. Method development. Journal of Computer-Aided Molecular Design, 2009, 23, 773-784.	2.9	15
56	Efficient algorithms for line and curve segment intersection using restricted predicates. , 1999, , .		13
57	Number of Crossing-Free Geometric Graphs vs. Triangulations. Electronic Notes in Discrete Mathematics, 2008, 31, 195-200.	0.4	13
58	Computing a (1+Îµ)-Approximate Geometric Minimum-Diameter Spanning Tree. Algorithmica, 2004, 38, 577-589.	1.3	12
59	Rotamer-Pair Energy Calculations Using a Trie Data Structure. Lecture Notes in Computer Science, 2005, , 389-400.	1.3	12
60	Almost-Delaunay simplices: Robust neighbor relations for imprecise 3D points using CGAL. Computational Geometry: Theory and Applications, 2007, 38, 4-15.	0.5	11
61	Defining and Computing Optimum RMSD for Gapped and Weighted Multiple-Structure Alignment. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2008, 5, 525-533.	3.0	11
62	On exclusion regions for optimal triangulations. Discrete Applied Mathematics, 2001, 109, 49-65.	0.9	10
63	Delineating Boundaries for Imprecise Regions. Algorithmica, 2008, 50, 386-414.	1.3	10
64	Distance-based identification of structure motifs in proteins using constrained frequent subgraph mining. Computational Systems Bioinformatics / Life Sciences Society Computational Systems Bioinformatics Conference, 2006, , 227-38.	0.4	10
65	Functional Neighbors: Inferring Relationships between Nonhomologous Protein Families Using Family-Specific Packing Motifs. IEEE Transactions on Information Technology in Biomedicine, 2010, 14, 1137-1143.	3.2	9
66	Cartographic line simplication and polygon CSG formulae in O(n log* n) time. Lecture Notes in Computer Science, 1997, , 93-103.	1.3	9
67	On-the-Fly Rotamer Pair Energy Evaluation in Protein Design. , 2008, , 343-354.		9
68	MULTIPLE STRUCTURE ALIGNMENT BY OPTIMAL RMSD IMPLIES THAT THE AVERAGE STRUCTURE IS A CONSENSUS. , 2006, , .		9
69	Removing Degeneracies by Perturbing the Problem or Perturbing the World. Reliable Computing, 2000, 6, 61-79.	0.8	8
70	Spanning Trees Crossing Few Barriers. Discrete and Computational Geometry, 2003, 30, 591-606.	0.6	8
71	Polygonal path simplification with angle constraints. Computational Geometry: Theory and Applications, 2005, 32, 173-187.	0.5	8
72	Quadratic and cubic b-splines by generalizing higher-order voronoi diagrams. , 2007, , .		8

#	Article	IF	Citations
73	Identification of family-specific residue packing motifs and their use for structure-based protein function prediction: II. Case studies and applications. Journal of Computer-Aided Molecular Design, 2009, 23, 785-797.	2.9	8
74	Easy triangle strips for TIN terrain models. International Journal of Geographical Information Science, 2001, 15, 379-386.	4.8	7
75	Computing common tangents without a separating line. Lecture Notes in Computer Science, 1995, , 183-193.	1.3	7
76	Isocontour based Visualization of Time-varying Scalar Fields. Mathematics and Visualization, 2009, , 41-68.	0.6	7
77	Compressing the Property Mapping of Polygon Meshes. Graphical Models, 2002, 64, 114-127.	2.4	6
78	Delaunay triangulations of imprecise pointsin linear time after preprocessing. , 2008, , .		6
79	MINIMUM-LINK C-ORIENTED PATHS: SINGLE-SOURCE QUERIES. International Journal of Computational Geometry and Applications, 1994, 04, 39-51.	0.5	5
80	On the bit complexity of minimum link paths: Superquadratic algorithms for problem solvable in linear time. Computational Geometry: Theory and Applications, 1999, 12, 33-44.	0.5	5
81	Interlocked open and closed linkages with few joints. Computational Geometry: Theory and Applications, 2003, 26, 37-45.	0.5	5
82	VisTRE: A Visualization Tool to Evaluate Errors in Terrain Representation. , 2006, , .		5
83	Modestly faster histogram computations on GPUs. , 2012, , .		5
84	THE REFLEX-FREE HULL. International Journal of Computational Geometry and Applications, 2004, 14, 453-474.	0.5	4
85	Implementing time-varying contour trees. , 2005, , .		4
86	Maximum independent set for intervals by divide and conquer with pruning. Networks, 2007, 49, 158-159.	2.7	4
87	FARAWAY POINT: A SENTINEL POINT FOR DELAUNAY COMPUTATION. International Journal of Computational Geometry and Applications, 2008, 18, 343-355.	0.5	4
88	Reducing the memory required to find a geodesic shortest path on a large mesh. , 2009, , .		4
89	Reconstructing Polygons from Scanner Data. Lecture Notes in Computer Science, 2009, , 862-871.	1.3	4
90	The problem of managing a strategic reserve. Mathematical Modelling, 1985, 6, 549-560.	0.2	3

#	Article	IF	Citations
91	Computation of Non-dominated Points Using Compact Voronoi Diagrams. Lecture Notes in Computer Science, 2010, , 82-93.	1.3	3
92	Efficient Algorithms for Maximum Regression Depth. Discrete and Computational Geometry, 2008, 39, 656-677.	0.6	2
93	Computing planar Voronoi diagrams in double precision. , 2010, , .		2
94	Computing the Nearest Neighbor Transform Exactly with Only Double Precision. , 2012, , .		2
95	Computing the Implicit Voronoi Diagram in Triple Precision. Lecture Notes in Computer Science, 2009, , 495-506.	1.3	2
96	Point location in zones of k-flats in arrangements. Computational Geometry: Theory and Applications, 1996, 6, 131-143.	0.5	1
97	Sphere-based Computation of Delaunay Diagrams on Points from 4d Grids. , 2006, , .		0
98	Capturing crossings: Convex hulls of segment and plane intersections. Information Processing Letters, 2008, 107, 194-197.	0.6	0
99	Functional Neighbors: Inferring Relationships between Non-Homologous Protein Families Using Family-Specific Packing Motifs. , 2008, , .		0
100	Bio-geometry. , 2008, , .		0
101	Faster placement of hydrogens in protein structures by dynamic programming. Journal of Experimental Algorithmics, 2008, 12, 1-16.	1.0	0
102	On the energy of bifurcated hydrogen bonds for protein structure prediction. , 2011, , .		0
103	Fitting spheres to electron density. , 2011, , .		0
104	Optimal Algorithms to Embed Trees in a Point Set. , 2002, , 29-43.		0