

Martin Näglenburg

List of Publications by Year in descending order

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108
papers

1,112
citations

516710

16
h-index

580821

25
g-index

121
all docs

121
docs citations

121
times ranked

593
citing authors

#	ARTICLE	IF	CITATIONS
1	Drawing and Labeling High-Quality Metro Maps by Mixed-Integer Programming. IEEE Transactions on Visualization and Computer Graphics, 2011, 17, 626-641.	4.4	114
2	Optimizing active ranges for consistent dynamic map labeling. Computational Geometry: Theory and Applications, 2010, 43, 312-328.	0.5	48
3	Morphing polylines: A step towards continuous generalization. Computers, Environment and Urban Systems, 2008, 32, 248-260.	7.1	40
4	Boundary Labeling with Octilinear Leaders. Algorithmica, 2010, 57, 436-461.	1.3	35
5	Lombardi Drawings of Graphs. Journal of Graph Algorithms and Applications, 2012, 16, 85-108.	0.4	34
6	Geographic Visualization. , 2007, , 257-294.		32
7	A Survey on Transit Map Layout “from Design, Machine, and Human Perspectives. Computer Graphics Forum, 2020, 39, 619-646.	3.0	27
8	Algorithms for Multi-Criteria Boundary Labeling. Journal of Graph Algorithms and Applications, 2009, 13, 289-317.	0.4	24
9	Photonic-integrated circuits with non-planar topologies realized by 3D-printed waveguide overpasses. Optics Express, 2019, 27, 17402.	3.4	23
10	Drawing Metro Maps Using Bézier Curves. Lecture Notes in Computer Science, 2013, , 463-474.	1.3	22
11	Crowdsourcing Versus the Laboratory: Towards Human-Centered Experiments Using the Crowd. Lecture Notes in Computer Science, 2017, , 6-26.	1.3	20
12	External Labeling Techniques: A Taxonomy and Survey. Computer Graphics Forum, 2019, 38, 833-860.	3.0	20
13	MetroSets: Visualizing Sets as Metro Maps. IEEE Transactions on Visualization and Computer Graphics, 2021, 27, 1257-1267.	4.4	20
14	Semantic Word Cloud Representations: Hardness and Approximation Algorithms. Lecture Notes in Computer Science, 2014, , 514-525.	1.3	20
15	An Improved Algorithm for the Metro-line Crossing Minimization Problem. Lecture Notes in Computer Science, 2010, , 381-392.	1.3	18
16	Drawing (Complete) Binary Tanglegrams. Algorithmica, 2012, 62, 309-332.	1.3	17
17	Lombardi Drawings of Graphs. Lecture Notes in Computer Science, 2011, , 195-207.	1.3	16
18	On the Usability of Lombardi Graph Drawings. Lecture Notes in Computer Science, 2013, , 451-462.	1.3	16

#	ARTICLE	IF	CITATIONS
19	Consistent Digital Rays. Discrete and Computational Geometry, 2009, 42, 359-378.	0.6	15
20	Parameterized Algorithms for Book Embedding Problems. Journal of Graph Algorithms and Applications, 2020, 24, 603-620.	0.4	15
21	Dynamic one-sided boundary labeling. , 2010, , .		14
22	Minimizing Intra-edge Crossings in Wiring Diagrams and Public Transportation Maps. , 2006, , 270-281.		13
23	Trajectory-Based Dynamic Map Labeling. Lecture Notes in Computer Science, 2013, , 413-423.	1.3	13
24	Drawing Trees with Perfect Angular Resolution and Polynomial Area. Discrete and Computational Geometry, 2013, 49, 157-182.	0.6	12
25	Circular-arc cartograms. , 2013, , .		12
26	Extending Convex Partial Drawings of Graphs. Algorithmica, 2016, 76, 47-67.	1.3	12
27	Drawing Large Graphs by Multilevel Maxent-Stress Optimization. IEEE Transactions on Visualization and Computer Graphics, 2018, 24, 1814-1827.	4.4	12
28	Guidelines for Experimental Algorithmics: A Case Study in Network Analysis. Algorithms, 2019, 12, 127.	2.1	12
29	Drawing (Complete) Binary Tanglegrams. Lecture Notes in Computer Science, 2009, , 324-335.	1.3	12
30	Progress on Partial Edge Drawings. Journal of Graph Algorithms and Applications, 2017, 21, 757-786.	0.4	12
31	Drawing Large Graphs by Multilevel Maxent-Stress Optimization. Lecture Notes in Computer Science, 2015, , 30-43.	1.3	11
32	Path Schematization for Route Sketches. Lecture Notes in Computer Science, 2010, , 285-296.	1.3	11
33	Adjacency-Preserving Spatial Treemaps. Lecture Notes in Computer Science, 2011, , 159-170.	1.3	11
34	Many-to-One Boundary Labeling with Backbones. Journal of Graph Algorithms and Applications, 2015, 19, 779-816.	0.4	11
35	Drawing Binary Tanglegrams: An Experimental Evaluation. , 2009, , 106-119.		10
36	Scalability Considerations for Multivariate Graph Visualization. Lecture Notes in Computer Science, 2014, , 207-235.	1.3	10

#	ARTICLE	IF	CITATIONS
37	Evaluation of Labeling Strategies for Rotating Maps. Journal of Experimental Algorithmics, 2016, 21, 1-21.	1.0	10
38	Algorithms for Multi-criteria One-Sided Boundary Labeling. , 2007, , 243-254.		10
39	Boundary-labeling algorithms for panorama images. , 2011, , .		9
40	On d -regular schematization of embedded paths. Computational Geometry: Theory and Applications, 2014, 47, 381-406.	0.5	9
41	On Minimizing Crossings in Storyline Visualizations. Lecture Notes in Computer Science, 2015, , 192-198.	1.3	9
42	Temporal map labeling. , 2016, , .		9
43	Metabopolis: scalable network layout for biological pathway diagrams in urban map style. BMC Bioinformatics, 2019, 20, 187.	2.6	8
44	Minimum Tree Supports for Hypergraphs and Low-Concurrency Euler Diagrams. Lecture Notes in Computer Science, 2014, , 265-276.	1.3	8
45	Progress on Partial Edge Drawings. Lecture Notes in Computer Science, 2013, , 67-78.	1.3	8
46	Multi-Level Area Balancing of Clustered Graphs. IEEE Transactions on Visualization and Computer Graphics, 2022, 28, 2682-2696.	4.4	7
47	Experimental Evaluation of Book Drawing Algorithms. Lecture Notes in Computer Science, 2018, , 224-238.	1.3	7
48	Multirow Boundary-Labeling Algorithms for Panorama Images. ACM Transactions on Spatial Algorithms and Systems, 2015, 1, 1-30.	1.4	6
49	Exploring Semi-Automatic Map Labeling. , 2019, , .		6
50	On the Readability of Boundary Labeling. Lecture Notes in Computer Science, 2015, , 515-527.	1.3	6
51	Short Plane Supports for Spatial Hypergraphs. Journal of Graph Algorithms and Applications, 2019, 23, 463-498.	0.4	6
52	Recognizing Weighted Disk Contact Graphs. Lecture Notes in Computer Science, 2015, , 433-446.	1.3	6
53	Mixed Linear Layouts: Complexity, Heuristics, and Experiments. Lecture Notes in Computer Science, 2019, , 460-467.	1.3	6
54	Towards Data-Driven Multilinear Metro Maps. Lecture Notes in Computer Science, 2020, , 153-161.	1.3	6

#	ARTICLE	IF	CITATIONS
55	Euclidean Greedy Drawings of Trees. Discrete and Computational Geometry, 2017, 58, 543-579.	0.6	5
56	Edge-Path Bundling: A Less Ambiguous Edge Bundling Approach. IEEE Transactions on Visualization and Computer Graphics, 2021, PP, 1-1.	4.4	5
57	Mixed Map Labeling. Lecture Notes in Computer Science, 2015, , 339-351.	1.3	5
58	Euclidean Greedy Drawings of Trees. Lecture Notes in Computer Science, 2013, , 767-778.	1.3	5
59	Parameterized Algorithms for Book Embedding Problems. Lecture Notes in Computer Science, 2019, , 365-378.	1.3	5
60	Parameterized Algorithms for Queue Layouts. Lecture Notes in Computer Science, 2020, , 40-54.	1.3	5
61	Boundary Labeling with Octilinear Leaders. Lecture Notes in Computer Science, 2008, , 234-245.	1.3	5
62	Algorithms for computing the maximum weight region decomposable into elementary shapes. Computer Vision and Image Understanding, 2012, 116, 803-814.	4.7	4
63	Radial contour labeling with straight leaders. , 2017, , .		4
64	On the readability of leaders in boundary labeling. Information Visualization, 2019, 18, 110-132.	1.9	4
65	A Unified Model and Algorithms for Temporal Map Labeling. Algorithmica, 2020, 82, 2709-2736.	1.3	4
66	Drawing Planar Graphs with a Prescribed Inner Face. Lecture Notes in Computer Science, 2013, , 316-327.	1.3	4
67	Combinatorial Properties of Triangle-Free Rectangle Arrangements and the Squarability Problem. Lecture Notes in Computer Science, 2015, , 231-244.	1.3	4
68	Edge-weighted contact representations of planar graphs. Journal of Graph Algorithms and Applications, 2013, 17, 441-473.	0.4	4
69	On Self-Approaching and Increasing-Chord Drawings of 3-Connected Planar Graphs. Lecture Notes in Computer Science, 2014, , 476-487.	1.3	4
70	Crossing Layout in Non-planar Graph Drawings. , 2020, , 187-209.		4
71	Consistent digital rays. , 2008, , .		3
72	Partitioning Graph Drawings and Triangulated Simple Polygons into Greedily Routable Regions. International Journal of Computational Geometry and Applications, 2017, 27, 121-158.	0.5	3

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73	Mixed Labeling: Integrating Internal and External Labels. IEEE Transactions on Visualization and Computer Graphics, 2022, 28, 1848-1861.	4.4	3
74	ClusterSets: Optimizing Planar Clusters in Categorical Point Data. Computer Graphics Forum, 2021, 40, 471-481.	3.0	3
75	Many-to-One Boundary Labeling with Backbones. Lecture Notes in Computer Science, 2013, , 244-255.	1.3	3
76	On d-Regular Schematization of Embedded Paths. Lecture Notes in Computer Science, 2011, , 260-271.	1.3	3
77	Optimal 3D Angular Resolution for Low-Degree Graphs. Lecture Notes in Computer Science, 2011, , 208-219.	1.3	3
78	Planar Lombardi Drawings of Outerpaths. Lecture Notes in Computer Science, 2013, , 561-562.	1.3	3
79	Orthogonal and Smooth Orthogonal Layouts of 1-Planar Graphs with Low Edge Complexity. Lecture Notes in Computer Science, 2018, , 509-523.	1.3	3
80	On Strict (Outer-)Confluent Graphs. Lecture Notes in Computer Science, 2019, , 147-161.	1.3	3
81	Maximizing Ink in Partial Edge Drawings of k-plane Graphs. Lecture Notes in Computer Science, 2019, , 323-336.	1.3	3
82	Computing Stable Demers Cartograms. Lecture Notes in Computer Science, 2019, , 46-60.	1.3	3
83	On the Upward Book Thickness Problem: Combinatorial and Complexity Results. Lecture Notes in Computer Science, 2021, , 242-256.	1.3	3
84	Optimizing active ranges for consistent dynamic map labeling. , 2008, , .		2
85	Placing Labels in Road Maps: Algorithms and Complexity. Algorithmica, 2020, 82, 1881-1908.	1.3	2
86	On the Readability of Abstract Set Visualizations. IEEE Transactions on Visualization and Computer Graphics, 2021, 27, 2821-2832.	4.4	2
87	The Turing Test for Graph Drawing Algorithms. Lecture Notes in Computer Science, 2020, , 466-481.	1.3	2
88	An Algorithmic Framework for Labeling Road Maps. Lecture Notes in Computer Science, 2016, , 308-322.	1.3	2
89	Simultaneous Embeddability of Two Partitions. Lecture Notes in Computer Science, 2014, , 64-75.	1.3	2
90	Optimal 3D Angular Resolution for Low-Degree Graphs. Journal of Graph Algorithms and Applications, 2013, 17, 173-200.	0.4	2

#	ARTICLE	IF	CITATIONS
91	Lombardi Drawings of Knots and Links. Lecture Notes in Computer Science, 2018, , 113-126.	1.3	2
92	Planar Drawings of Fixed-Mobile Bigraphs. Lecture Notes in Computer Science, 2018, , 426-439.	1.3	2
93	Worbel. , 2021, , .		2
94	Unit Disk Representations of Embedded Trees, Outerplanar and Multi-legged Graphs. Lecture Notes in Computer Science, 2021, , 304-317.	1.3	2
95	Layered Area-Proportional Rectangle Contact Representations. Lecture Notes in Computer Science, 2021, , 318-326.	1.3	2
96	Labeling nonograms: Boundary labeling for curve arrangements. Computational Geometry: Theory and Applications, 2021, 98, 101791.	0.5	1
97	Geometric Planar Networks on Bichromatic Points. Lecture Notes in Computer Science, 2020, , 79-91.	1.3	1
98	Graph Visualization. , 2018, , 1-9.		0
99	Planar drawings of fixed-mobile bigraphs. Theoretical Computer Science, 2019, 795, 408-419.	0.9	0
100	External Labeling: Fundamental Concepts and Algorithmic Techniques. Synthesis Lectures on Visualization, 2021, 8, 1-130.	0.1	0
101	Balanced Independent and Dominating Sets on Colored Interval Graphs. Lecture Notes in Computer Science, 2021, , 89-103.	1.3	0
102	Automatic Generation of Route Sketches. Lecture Notes in Computer Science, 2011, , 391-392.	1.3	0
103	Partitioning Graph Drawings and Triangulated Simple Polygons into Greedily Routable Regions. Lecture Notes in Computer Science, 2015, , 637-649.	1.3	0
104	Software Visualization via Hierarchic Micro/Macro Layouts. , 2016, , .		0
105	Mixed Map Labeling. Journal of Spatial Information Science, 2016, , .	1.2	0
106	Guest editors' foreword. Journal of Graph Algorithms and Applications, 2017, 21, 787-789.	0.4	0
107	Multicriteria Optimization for Dynamic Demers Cartograms. IEEE Transactions on Visualization and Computer Graphics, 2022, PP, 1-1.	4.4	0
108	An Algorithmic Study of Fully Dynamic Independent Sets for Map Labeling. Journal of Experimental Algorithmics, 2022, 27, 1-36.	1.0	0