

Uri Zwick

List of Publications by Year in descending order

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87
papers

4,385
citations

218592

26
h-index

133188

59
g-index

87
all docs

87
docs citations

87
times ranked

1640
citing authors

#	ARTICLE	IF	CITATIONS
1	Color-coding. Journal of the ACM, 1995, 42, 844-856.	1.8	807
2	Approximate distance oracles. Journal of the ACM, 2005, 52, 1-24.	1.8	417
3	Reachability and Distance Queries via 2-Hop Labels. SIAM Journal on Computing, 2003, 32, 1338-1355.	0.8	343
4	Compact routing schemes. , 2001, , .		310
5	All pairs shortest paths using bridging sets and rectangular matrix multiplication. Journal of the ACM, 2002, 49, 289-317.	1.8	221
6	All-Pairs Almost Shortest Paths. SIAM Journal on Computing, 2000, 29, 1740-1759.	0.8	200
7	Fast sparse matrix multiplication. ACM Transactions on Algorithms, 2005, 1, 2-13.	0.9	173
8	Approximate distance oracles. , 2001, , .		133
9	Deterministic Constructions of Approximate Distance Oracles and Spanners. Lecture Notes in Computer Science, 2005, , 261-272.	1.0	101
10	Exact and Approximate Distances in Graphs " A Survey. Lecture Notes in Computer Science, 2001, , 33-48.	1.0	81
11	On Dynamic Shortest Paths Problems. Algorithmica, 2011, 61, 389-401.	1.0	73
12	A Deterministic Subexponential Algorithm for Solving Parity Games. SIAM Journal on Computing, 2008, 38, 1519-1532.	0.8	68
13	On Dynamic Shortest Paths Problems. Lecture Notes in Computer Science, 2004, , 580-591.	1.0	66
14	All-Pairs Small-Stretch Paths. Journal of Algorithms, 2001, 38, 335-353.	0.9	63
15	A fully dynamic reachability algorithm for directed graphs with an almost linear update time. , 2004, , .		62
16	Finding Even Cycles Even Faster. SIAM Journal on Discrete Mathematics, 1997, 10, 209-222.	0.4	57
17	Spanners and emulators with sublinear distance errors. , 2006, , .		57
18	Dynamic Approximate All-Pairs Shortest Paths in Undirected Graphs. SIAM Journal on Computing, 2012, 41, 670-683.	0.8	56

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19	Selecting the Median. SIAM Journal on Computing, 1999, 28, 1722-1758.	0.8	53
20	Color-coding. , 1994, , .		47
21	A unified framework for obtaining improved approximation algorithms for maximum graph bisection problems. Random Structures and Algorithms, 2002, 20, 382-402.	0.6	47
22	SOKOBAN and other motion planning problems. Computational Geometry: Theory and Applications, 1999, 13, 215-228.	0.3	46
23	Improved Dynamic Reachability Algorithms for Directed Graphs. SIAM Journal on Computing, 2008, 37, 1455-1471.	0.8	44
24	Listing Triangles. Lecture Notes in Computer Science, 2014, , 223-234.	1.0	44
25	An Optimal Randomised Logarithmic Time Connectivity Algorithm for the EREW PRAM. Journal of Computer and System Sciences, 1996, 53, 395-416.	0.9	42
26	Optimal Randomized EREW PRAM Algorithms for Finding Spanning Forests. Journal of Algorithms, 2001, 39, 1-46.	0.9	37
27	Shrinkage of de Morgan formulae under restriction. Random Structures and Algorithms, 1993, 4, 135-150.	0.6	35
28	Finding almost-satisfying assignments. , 1998, , .		35
29	Replacement Paths and k Simple Shortest Paths in Unweighted Directed Graphs. Lecture Notes in Computer Science, 2005, , 249-260.	1.0	33
30	Tighter Lower Bounds on the Exact Complexity of String Matching. SIAM Journal on Computing, 1995, 24, 30-45.	0.8	32
31	MAX CUT in cubic graphs. Journal of Algorithms, 2004, 53, 169-185.	0.9	31
32	Roundtrip spanners and roundtrip routing in directed graphs. ACM Transactions on Algorithms, 2008, 4, 1-17.	0.9	31
33	A Fully Dynamic Reachability Algorithm for Directed Graphs with an Almost Linear Update Time. SIAM Journal on Computing, 2016, 45, 712-733.	0.8	31
34	A $\Omega(n)$ Lower Bound on the Combinational Complexity of Certain Symmetric Boolean Functions over the Basis of Unate Dyadic Boolean Functions. SIAM Journal on Computing, 1991, 20, 499-505.	0.8	25
35	Median Selection Requires $\Omega((2+\epsilon)n)$ Comparisons. SIAM Journal on Discrete Mathematics, 2001, 14, 312-325.	0.4	25
36	Multicriteria Global Minimum Cuts. Algorithmica, 2006, 46, 15-26.	1.0	25

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37	Optimal Carry Save Networks. , 1992, , 174-201.		25
38	Approximation Algorithms for MAX 4-SAT and Rounding Procedures for Semidefinite Programs. Journal of Algorithms, 2001, 40, 184-211.	0.9	24
39	Coloring k -colorable graphs using relatively small palettes. Journal of Algorithms, 2002, 45, 72-90.	0.9	21
40	A Slightly Improved Sub-cubic Algorithm for the All Pairs Shortest Paths Problem with Real Edge Lengths. Lecture Notes in Computer Science, 2004, , 921-932.	1.0	20
41	Approximating MIN 2-SAT and MIN 3-SAT. Theory of Computing Systems, 2005, 38, 329-345.	0.7	18
42	Replacement paths and k -simple shortest paths in unweighted directed graphs. ACM Transactions on Algorithms, 2012, 8, 1-11.	0.9	18
43	Adjacency Labeling Schemes and Induced-Universal Graphs. , 2015, , .		18
44	Growth Functions and Automatic Groups. Experimental Mathematics, 1996, 5, 297-315.	0.5	17
45	Fast Sparse Matrix Multiplication. Lecture Notes in Computer Science, 2004, , 604-615.	1.0	16
46	Finding and counting given length cycles. Lecture Notes in Computer Science, 1994, , 354-364.	1.0	15
47	Finding the n -th largest element. Combinatorica, 1996, 16, 41-58.	0.6	14
48	Spatial Codes and the Hardness of String Folding Problems. Journal of Computational Biology, 1999, 6, 13-36.	0.8	14
49	A Slightly Improved Sub-Cubic Algorithm for the All Pairs Shortest Paths Problem with Real Edge Lengths. Algorithmica, 2006, 46, 181-192.	1.0	13
50	Discounted deterministic Markov decision processes and discounted all-pairs shortest paths. ACM Transactions on Algorithms, 2010, 6, 1-25.	0.9	12
51	Amplification by Read-Once Formulas. SIAM Journal on Computing, 1997, 26, 15-38.	0.8	11
52	All pairs lightest shortest paths. , 1999, , .		11
53	Maximum Overhang. American Mathematical Monthly, 2009, 116, 763-787.	0.2	11
54	Finding even cycles even faster. Lecture Notes in Computer Science, 1994, , 532-543.	1.0	11

#	ARTICLE	IF	CITATIONS
55	Connection caching. , 1999, , .		10
56	On Lower Bounds for Selecting the Median. SIAM Journal on Discrete Mathematics, 2001, 14, 299-311.	0.4	10
57	Constructing Worst Case Instances for Semidefinite Programming Based Approximation Algorithms. SIAM Journal on Discrete Mathematics, 2001, 15, 58-72.	0.4	10
58	Shallow circuits and concise formulae for multiple addition and multiplication. Computational Complexity, 1993, 3, 262-291.	0.2	9
59	All-Pairs Bottleneck Paths in Vertex Weighted Graphs. Algorithmica, 2011, 59, 621-633.	1.0	9
60	Adjacency Labeling Schemes and Induced-Universal Graphs. SIAM Journal on Discrete Mathematics, 2019, 33, 116-137.	0.4	9
61	The memory game. Theoretical Computer Science, 1993, 110, 169-196.	0.5	8
62	Cell Identification Codes for Tracking Mobile Users. Wireless Networks, 2002, 8, 73-84.	2.0	8
63	On the Approximability of Reachability-Preserving Network Orientations. Internet Mathematics, 2011, 7, 209-232.	0.7	8
64	All-pairs shortest paths in $O(n^2)$ time with high probability. Journal of the ACM, 2013, 60, 1-25.	1.8	8
65	An extension of Khrapchenko's theorem. Information Processing Letters, 1991, 37, 215-217.	0.4	6
66	How Do Read-Once Formulae Shrink?. Combinatorics Probability and Computing, 1994, 3, 455-469.	0.8	5
67	Connection caching: model and algorithms. Journal of Computer and System Sciences, 2003, 67, 92-126.	0.9	5
68	Overhang. American Mathematical Monthly, 2009, 116, 19-44.	0.2	5
69	Approximation Algorithms for MAX 4-SAT and Rounding Procedures for Semidefinite Programs. Lecture Notes in Computer Science, 1999, , 202-217.	1.0	5
70	Overhang. American Mathematical Monthly, 2009, 116, 19-44.	0.2	4
71	Color Coding. , 2008, , 158-160.		4
72	Shallow multiplication circuits and wise financial investments. , 1992, , .		3

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73	Efficient algorithms for the 2-gathering problem. ACM Transactions on Algorithms, 2010, 6, 1-20.	0.9	3
74	Improved upper bounds for Random-Edge and Random-Jump on abstract cubes. , 2014, , .		3
75	An Efficient Algorithm for the Nearly Equitable Edge Coloring Problem. Journal of Graph Algorithms and Applications, 2008, 12, 383-399.	0.4	3
76	On the number of ANDs versus the number of ORs in monotone Boolean circuits. Information Processing Letters, 1996, 59, 29-30.	0.4	2
77	Overhang. , 2006, , .		2
78	A Forward-Backward Single-Source Shortest Paths Algorithm. , 2013, , .		1
79	Dantzig's pivoting rule for shortest paths, deterministic MDPs, and minimum cost to time ratio cycles. , 2014, , .		1
80	Random k-out Subgraph Leaves only $O(n/k)$ Inter-Component Edges. , 2019, , .		1
81	Collapse. , 2011, , .		1
82	Multicriteria Global Minimum Cuts. Lecture Notes in Computer Science, 2004, , 65-76.	1.0	1
83	Hollow Heaps. Lecture Notes in Computer Science, 2015, , 689-700.	1.0	1
84	Soft Heaps Simplified. SIAM Journal on Computing, 2013, 42, 1660-1673.	0.8	0
85	A Forward-Backward Single-Source Shortest Paths Algorithm. SIAM Journal on Computing, 2015, 44, 698-739.	0.8	0
86	Competitive Analysis of the LRFU Paging Algorithm. Lecture Notes in Computer Science, 2001, , 148-154.	1.0	0
87	Simple Stochastic Games, Mean Payoff Games, Parity Games. , 2008, , 29-29.		0