Uri Zwick

List of Publications by Year in descending order

87 papers	4,385 citations	218381 26 h-index	133063 59 g-index
87 all docs	87 docs citations	87 times ranked	1640 citing authors

#	Article	IF	Citations
1	Adjacency Labeling Schemes and Induced-Universal Graphs. SIAM Journal on Discrete Mathematics, 2019, 33, 116-137.	0.4	9
2	Random k-out Subgraph Leaves only O(n/k) Inter-Component Edges. , 2019, , .		1
3	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
4	A Forward-Backward Single-Source Shortest Paths Algorithm. SIAM Journal on Computing, 2015, 44, 698-739.	0.8	0
5	Adjacency Labeling Schemes and Induced-Universal Graphs. , 2015, , .		18
6	Hollow Heaps. Lecture Notes in Computer Science, 2015, , 689-700.	1.0	1
7	Dantzig's pivoting rule for shortest paths, deterministic MDPs, and minimum cost to time ratio cycles. , 2014, , .		1
8	Improved upper bounds for Random-Edge and Random-Jump on abstract cubes. , 2014, , .		3
9	Listing Triangles. Lecture Notes in Computer Science, 2014, , 223-234.	1.0	44
10	A Forward-Backward Single-Source Shortest Paths Algorithm. , 2013, , .		1
11	Soft Heaps Simplified. SIAM Journal on Computing, 2013, 42, 1660-1673.	0.8	0
12	All-pairs shortest paths in O (n 2) time with high probability. Journal of the ACM, 2013, 60, 1-25.	1.8	8
13	Replacement paths and *k* simple shortest paths in unweighted directed graphs. ACM Transactions on Algorithms, 2012, 8, 1-11.	0.9	18
14	Dynamic Approximate All-Pairs Shortest Paths in Undirected Graphs. SIAM Journal on Computing, 2012, 41, 670-683.	0.8	56
15	On the Approximability of Reachability-Preserving Network Orientations. Internet Mathematics, 2011, 7, 209-232.	0.7	8
16	All-Pairs Bottleneck Paths in Vertex Weighted Graphs. Algorithmica, 2011, 59, 621-633.	1.0	9
17	On Dynamic Shortest Paths Problems. Algorithmica, 2011, 61, 389-401.	1.0	73
18	Collapse. , 2011, , .		1

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19	Discounted deterministic Markov decision processes and discounted all-pairs shortest paths. ACM Transactions on Algorithms, 2010, 6, 1-25.	0.9	12
20	Efficient algorithms for the 2-gathering problem. ACM Transactions on Algorithms, 2010, 6, 1-20.	0.9	3
21	Maximum Overhang. American Mathematical Monthly, 2009, 116, 763-787.	0.2	11
22	Overhang. American Mathematical Monthly, 2009, 116, 19-44.	0.2	5
23	Overhang. American Mathematical Monthly, 2009, 116, 19-44.	0.2	4
24	A Deterministic Subexponential Algorithm for Solving Parity Games. SIAM Journal on Computing, 2008, 38, 1519-1532.	0.8	68
25	Improved Dynamic Reachability Algorithms for Directed Graphs. SIAM Journal on Computing, 2008, 37, 1455-1471.	0.8	44
26	Roundtrip spanners and roundtrip routing in directed graphs. ACM Transactions on Algorithms, 2008, 4, 1-17.	0.9	31
27	Color Coding. , 2008, , 158-160.		4
28	An Efficient Algorithm for the Nearly Equitable Edge Coloring Problem. Journal of Graph Algorithms and Applications, 2008, 12, 383-399.	0.4	3
29	Simple Stochastic Games, Mean Payoff Games, Parity Games. , 2008, , 29-29.		0
30	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
31	Multicriteria Global Minimum Cuts. Algorithmica, 2006, 46, 15-26.	1.0	25
32	Overhang. , 2006, , .		2
33	Spanners and emulators with sublinear distance errors. , 2006, , .		57
34	Approximating MIN 2-SAT and MIN 3-SAT. Theory of Computing Systems, 2005, 38, 329-345.	0.7	18
35	Approximate distance oracles. Journal of the ACM, 2005, 52, 1-24.	1.8	417
36	Fast sparse matrix multiplication. ACM Transactions on Algorithms, 2005, 1, 2-13.	0.9	173

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37	Replacement Paths and k Simple Shortest Paths in Unweighted Directed Graphs. Lecture Notes in Computer Science, 2005, , 249-260.	1.0	33
38	Deterministic Constructions of Approximate Distance Oracles and Spanners. Lecture Notes in Computer Science, 2005, , 261-272.	1.0	101
39	Fast Sparse Matrix Multiplication. Lecture Notes in Computer Science, 2004, , 604-615.	1.0	16
40	A fully dynamic reachability algorithm for directed graphs with an almost linear update time. , 2004, , .		62
41	MAX CUT in cubic graphs. Journal of Algorithms, 2004, 53, 169-185.	0.9	31
42	On Dynamic Shortest Paths Problems. Lecture Notes in Computer Science, 2004, , 580-591.	1.0	66
43	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
44	Multicriteria Global Minimum Cuts. Lecture Notes in Computer Science, 2004, , 65-76.	1.0	1
45	Connection caching: model and algorithms. Journal of Computer and System Sciences, 2003, 67, 92-126.	0.9	5
46	Reachability and Distance Queries via 2-Hop Labels. SIAM Journal on Computing, 2003, 32, 1338-1355.	0.8	343
47	All pairs shortest paths using bridging sets and rectangular matrix multiplication. Journal of the ACM, 2002, 49, 289-317.	1.8	221
48	A unified framework for obtaining improved approximation algorithms for maximum graph bisection problems. Random Structures and Algorithms, 2002, 20, 382-402.	0.6	47
49	Coloring -colorable graphs using relatively small palettes. Journal of Algorithms, 2002, 45, 72-90.	0.9	21
50	Cell Identification Codes for Tracking Mobile Users. Wireless Networks, 2002, 8, 73-84.	2.0	8
51	On Lower Bounds for Selecting the Median. SIAM Journal on Discrete Mathematics, 2001, 14, 299-311.	0.4	10
52	Median Selection Requires $(2+epsilon)n$ Comparisons. SIAM Journal on Discrete Mathematics, 2001, 14, 312-325.	0.4	25
53	All-Pairs Small-Stretch Paths. Journal of Algorithms, 2001, 38, 335-353.	0.9	63
54	Optimal Randomized EREW PRAM Algorithms for Finding Spanning Forests. Journal of Algorithms, 2001, 39, 1-46.	0.9	37

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55	Approximation Algorithms for MAX 4-SAT and Rounding Procedures for Semidefinite Programs. Journal of Algorithms, 2001, 40, 184-211.	0.9	24
56	Approximate distance oracles. , 2001, , .		133
57	Compact routing schemes. , 2001, , .		310
58	Constructing Worst Case Instances for Semidefinite Programming Based Approximation Algorithms. SIAM Journal on Discrete Mathematics, 2001, 15, 58-72.	0.4	10
59	Exact and Approximate Distances in Graphs â€" A Survey. Lecture Notes in Computer Science, 2001, , 33-48.	1.0	81
60	Competitive Analysis of the LRFU Paging Algorithm. Lecture Notes in Computer Science, 2001, , 148-154.	1.0	0
61	All-Pairs Almost Shortest Paths. SIAM Journal on Computing, 2000, 29, 1740-1759.	0.8	200
62	Connection caching. , 1999, , .		10
63	All pairs lightest shortest paths. , 1999, , .		11
64	Spatial Codes and the Hardness of String Folding Problems. Journal of Computational Biology, 1999, 6, 13-36.	0.8	14
65	SOKOBAN and other motion planning problems. Computational Geometry: Theory and Applications, 1999, 13, 215-228.	0.3	46
66	Selecting the Median. SIAM Journal on Computing, 1999, 28, 1722-1758.	0.8	53
67	Approximation Algorithms for MAX 4-SAT and Rounding Procedures for Semidefinite Programs. Lecture Notes in Computer Science, 1999, , 202-217.	1.0	5
68	Finding almost-satisfying assignments. , 1998, , .		35
69	Finding Even Cycles Even Faster. SIAM Journal on Discrete Mathematics, 1997, 10, 209-222.	0.4	57
70	Amplification by Read-Once Formulas. SIAM Journal on Computing, 1997, 26, 15-38.	0.8	11
71	On the number of ANDs versus the number of ORs in monotone Boolean circuits. Information Processing Letters, 1996, 59, 29-30.	0.4	2
72	Finding the ?n-th largest element. Combinatorica, 1996, 16, 41-58.	0.6	14

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73	An Optimal Randomised Logarithmic Time Connectivity Algorithm for the EREW PRAM. Journal of Computer and System Sciences, 1996, 53, 395-416.	0.9	42
74	Growth Functions and Automatic Groups. Experimental Mathematics, 1996, 5, 297-315.	0.5	17
75	Color-coding. Journal of the ACM, 1995, 42, 844-856.	1.8	807
76	Tighter Lower Bounds on the Exact Complexity of String Matching. SIAM Journal on Computing, 1995, 24, 30-45.	0.8	32
77	Finding and counting given length cycles. Lecture Notes in Computer Science, 1994, , 354-364.	1.0	15
78	Color-coding. , 1994, , .		47
79	How Do Read-Once Formulae Shrink?. Combinatorics Probability and Computing, 1994, 3, 455-469.	0.8	5
80	Finding even cycles even faster. Lecture Notes in Computer Science, 1994, , 532-543.	1.0	11
81	The memory game. Theoretical Computer Science, 1993, 110, 169-196.	0.5	8
82	Shrinkage of de Morgan formulae under restriction. Random Structures and Algorithms, 1993, 4, 135-150.	0.6	35
83	Shallow circuits and concise formulae for multiple addition and multiplication. Computational Complexity, 1993, 3, 262-291.	0.2	9
84	Shallow multiplication circuits and wise financial investments. , 1992, , .		3
85	Optimal Carry Save Networks. , 1992, , 174-201.		25
86	A $4n$ 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
87	An extension of Khrapchenko's theorem. Information Processing Letters, 1991, 37, 215-217.	0.4	6