

# Mikkel Thorup

## List of Publications by Year in descending order

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65  
papers

2,640  
citations

279701

23  
h-index

214721

47  
g-index

65  
all docs

65  
docs citations

65  
times ranked

1113  
citing authors

#	ARTICLE	IF	CITATIONS
1	Approximate distance oracles. <i>Journal of the ACM</i> , 2005, 52, 1-24.	1.8	417
2	Undirected single-source shortest paths with positive integer weights in linear time. <i>Journal of the ACM</i> , 1999, 46, 362-394.	1.8	330
3	Increasing Internet Capacity Using Local Search. <i>Computational Optimization and Applications</i> , 2004, 29, 13-48.	0.9	175
4	All Structured Programs Have Small Tree Width and Good Register Allocation. <i>Information and Computation</i> , 1998, 142, 159-181.	0.5	131
5	On the agreement of many trees. <i>Information Processing Letters</i> , 1995, 55, 297-301.	0.4	105
6	Dominators in Linear Time. <i>SIAM Journal on Computing</i> , 1999, 28, 2117-2132.	0.8	105
7	Time-space trade-offs for predecessor search. , 2006, , .		101
8	On RAM Priority Queues. <i>SIAM Journal on Computing</i> , 2000, 30, 86-109.	0.8	82
9	An $O(n \log n)$ Algorithm for the Maximum Agreement Subtree Problem for Binary Trees. <i>SIAM Journal on Computing</i> , 2000, 30, 1385-1404.	0.8	76
10	Integer priority queues with decrease key in constant time and the single source shortest paths problem. <i>Journal of Computer and System Sciences</i> , 2004, 69, 330-353.	0.9	74
11	Rounding Algorithms for a Geometric Embedding of Minimum Multiway Cut. <i>Mathematics of Operations Research</i> , 2004, 29, 436-461.	0.8	74
12	On the Approximability of Numerical Taxonomy (Fitting Distances by Tree Metrics). <i>SIAM Journal on Computing</i> , 1998, 28, 1073-1085.	0.8	71
13	Oracles for Distances Avoiding a Failed Node or Link. <i>SIAM Journal on Computing</i> , 2008, 37, 1299-1318.	0.8	65
14	Dynamic ordered sets with exponential search trees. <i>Journal of the ACM</i> , 2007, 54, 13.	1.8	60
15	Floats, Integers, and Single Source Shortest Paths. <i>Journal of Algorithms</i> , 2000, 35, 189-201.	0.9	51
16	Fully-Dynamic Min-Cut*. <i>Combinatorica</i> , 2007, 27, 91-127.	0.6	47
17	Tabulation-Based 5-Independent Hashing with Applications to Linear Probing and Second Moment Estimation. <i>SIAM Journal on Computing</i> , 2012, 41, 293-331.	0.8	46
18	Randomized Sorting in $O(n \log \log n)$ Time and Linear Space Using Addition, Shift, and Bit-wise Boolean Operations. <i>Journal of Algorithms</i> , 2002, 42, 205-230.	0.9	42

#	ARTICLE	IF	CITATIONS
19	Speeding Up Dynamic Shortest-Path Algorithms. <i>INFORMS Journal on Computing</i> , 2008, 20, 191-204.	1.0	41
20	The Power of Simple Tabulation Hashing. <i>Journal of the ACM</i> , 2012, 59, 1-50.	1.8	39
21	OPTVersusLOADin Dynamic Storage Allocation. <i>SIAM Journal on Computing</i> , 2004, 33, 632-646.	0.8	37
22	Sparse Dynamic Programming for Evolutionary-Tree Comparison. <i>SIAM Journal on Computing</i> , 1997, 26, 210-230.	0.8	35
23	Changing base without losing space. , 2010, , .		33
24	Intra-domain traffic engineering with shortest path routing protocols. <i>Annals of Operations Research</i> , 2013, 204, 65-95.	2.6	28
25	The Minimum $k$ -way Cut of Bounded Size is Fixed-Parameter Tractable. , 2011, , .		27
26	Equivalence between priority queues and sorting. <i>Journal of the ACM</i> , 2007, 54, 28.	1.8	25
27	Decremental Dynamic Connectivity. <i>Journal of Algorithms</i> , 1999, 33, 229-243.	0.9	24
28	Shortcutting Planar Digraphs. <i>Combinatorics Probability and Computing</i> , 1995, 4, 287-315.	0.8	22
29	Sampling to provide or to bound: With applications to fully dynamic graph algorithms. <i>Random Structures and Algorithms</i> , 1997, 11, 369-379.	0.6	22
30	Parallel Shortcutting of Rooted Trees. <i>Journal of Algorithms</i> , 1997, 23, 139-159.	0.9	22
31	Bottom- $k$ and priority sampling, set similarity and subset sums with minimal independence. , 2013, , .		19
32	Efficient Stream Sampling for Variance-Optimal Estimation of Subset Sums. <i>SIAM Journal on Computing</i> , 2011, 40, 1402-1431.	0.8	18
33	Simple Tabulation, Fast Expanders, Double Tabulation, and High Independence. , 2013, , .		17
34	A New Infinity of Distance Oracles for Sparse Graphs. , 2012, , .		16
35	Optimal Pointer Algorithms for Finding Nearest Common Ancestors in Dynamic Trees. <i>Journal of Algorithms</i> , 2000, 35, 169-188.	0.9	14
36	Hashing for Statistics over $K$ -Partitions. , 2015, , .		13

#	ARTICLE	IF	CITATIONS
37	Disambiguating grammars by exclusion of sub-parse trees. Acta Informatica, 1996, 33, 511-522.	0.5	12
38	Maximum Overhang. American Mathematical Monthly, 2009, 116, 763-787.	0.2	11
39	From Independence to Expansion and Back Again. , 2015, , .		10
40	Algorithms and estimators for summarization of unaggregated data streams. Journal of Computer and System Sciences, 2014, 80, 1214-1244.	0.9	9
41	Adjacency Labeling Schemes and Induced-Universal Graphs. SIAM Journal on Discrete Mathematics, 2019, 33, 116-137.	0.4	9
42	On the $k$ -Independence Required by Linear Probing and Minwise Independence. ACM Transactions on Algorithms, 2016, 12, 1-27.	0.9	9
43	Dictionaries on $AC^0$ RAMs: Query Time $\Theta(\log n / \log \log n)$ is Necessary and Sufficient. BRICS Report Series, 1997, 4, .	0.2	9
44	Combinatorial power in multimedia processors. Computer Architecture News, 2003, 31, 5-11.	2.5	8
45	Untangling the balancing and searching of balanced binary search trees. Software - Practice and Experience, 2003, 33, 1273-1298.	2.5	7
46	Planar Reachability in Linear Space and Constant Time. , 2015, , .		7
47	Sampling to provide or to bound: With applications to fully dynamic graph algorithms. , 1997, 11, 369.		6
48	Approximately Minwise Independence with Twisted Tabulation. Lecture Notes in Computer Science, 2014, , 134-145.	1.0	6
49	Twisted Tabulation Hashing. , 2013, , .		5
50	Composable, scalable, and accurate weight summarization of unaggregated data sets. Proceedings of the VLDB Endowment, 2009, 2, 431-442.	2.1	4
51	Disambiguating grammars by exclusion of sub-parse trees. Acta Informatica, 1996, 33, 511-522.	0.5	3
52	Efficient Preprocessing of Simple Binary Pattern Forests. Journal of Algorithms, 1996, 20, 602-612.	0.9	3
53	Performance of estimated traffic matrices in traffic engineering. Performance Evaluation Review, 2003, 31, 326-327.	0.4	3
54	Disks in Curves of Bounded Convex Curvature. American Mathematical Monthly, 2020, 127, 579-593.	0.2	3

#	ARTICLE	IF	CITATIONS
55	Confidence intervals for priority sampling. Performance Evaluation Review, 2006, 34, 252-263.	0.4	3
56	Fast and powerful hashing using tabulation. Communications of the ACM, 2017, 60, 94-101.	3.3	3
57	RAM-Efficient External Memory Sorting. Algorithmica, 2015, 73, 623-636.	1.0	2
58	Mihai Pătrăuceanu. ACM SIGACT News, 2013, 44, 110-114.	0.1	1
59	Nearest neighbor classification using bottom-k sketches. , 2013, , .		1
60	Fast hashing with strong concentration bounds. , 2020, , .		1
61	How to Cut Corners and Get Bounded Convex Curvature. Discrete and Computational Geometry, 0, , .	0.4	1
62	Sample $(x) = (a^*x \leq t)$ is a Distinguisher with Probability $1/8$ . , 2015, , .		0
63	Sample $(x) = (a^*x \leq t)$ Is a Distinguisher with Probability $1/8$ . SIAM Journal on Computing, 2018, 47, 2510-2526.	0.8	0
64	Confirmation Sampling for Exact Nearest Neighbor Search. Lecture Notes in Computer Science, 2020, , 97-110.	1.0	0
65	Dijkstra's Single Source Shortest Path Algorithm. , 2022, , 21-26.		0