Vijaya Ramachandran

List of Publications by Year
in descending order

61 papers	1,627 citations	394421 19 h-index	395702 33 g-index
62 all docs	62 docs citations	62 times ranked	610 citing authors

#	Article	IF	Citations
1	Parallel Algorithms for Shared-Memory Machines. , 1990, , 869-941.		279
2	An optimal minimum spanning tree algorithm. Journal of the ACM, 2002, 49, 16-34.	2.2	203
3	A Shortest Path Algorithm for Real-Weighted Undirected Graphs. SIAM Journal on Computing, 2005, 34, 1398-1431.	1.0	83
4	A Randomized Time-Work Optimal Parallel Algorithm for Finding a Minimum Spanning Forest. SIAM Journal on Computing, 2002, 31, 1879-1895.	1.0	70
5	Efficient Parallel Evaluation of Straight-Line Code and Arithmetic Circuits. SIAM Journal on Computing, 1988, 17, 687-695.	1.0	60
6	Cache-efficient dynamic programming algorithms for multicores. , 2008, , .		59
7	The Queue-Read Queue-Write PRAM Model: Accounting for Contention in Parallel Algorithms. SIAM Journal on Computing, 1998, 28, 733-769.	1.0	56
8	Finding a Smallest Augmentation to Biconnect a Graph. SIAM Journal on Computing, 1993, 22, 889-912.	1.0	52
9	Oblivious algorithms for multicores and network of processors. , 2010, , .		44
10	The diameter of sparse random graphs. Random Structures and Algorithms, 2007, 31, 482-516.	1.1	43
11	Finding a minimum feedback arc set in reducible flow graphs. Journal of Algorithms, 1988, 9, 299-313.	0.9	41
12	A new graph triconnectivity algorithm and its parallelization. Combinatorica, 1992, 12, 53-76.	1.2	40
13	Efficient Low-Contention Parallel Algorithms. Journal of Computer and System Sciences, 1996, 53, 417-442.	1.2	32
14	A randomized linear work EREW PRAM algorithm to find a minimum spanning forest. Lecture Notes in Computer Science, 1997, , 212-222.	1.3	32
15	The Cache-Oblivious Gaussian Elimination Paradigm: Theoretical Framework, Parallelization andÂExperimental Evaluation. Theory of Computing Systems, 2010, 47, 878-919.	1.1	31
16	Improved algorithms for graph four- connectivity. Journal of Computer and System Sciences, 1991, 42, 288-306.	1.2	30
17	Oblivious algorithms for multicores and networks of processors. Journal of Parallel and Distributed Computing, 2013, 73, 911-925.	4.1	30
18	Planarity testing in parallel. Journal of Computer and System Sciences, 1994, 49, 517-561.	1.2	29

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19	Betweenness Centrality â€" Incremental and Faster. Lecture Notes in Computer Science, 2014, , 577-588.	1.3	28
20	Finding triconnected components by local replacements. Lecture Notes in Computer Science, 1989, , 379-393.	1.3	25
21	Finding Triconnected Components by Local Replacement. SIAM Journal on Computing, 1993, 22, 587-616.	1.0	24
22	Cache-Oblivious Dynamic Programming for Bioinformatics. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2010, 7, 495-510.	3.0	24
23	Cache-oblivious dynamic programming. , 2006, , .		24
24	Efficient parallel triconnectivity in logarithmic time. Lecture Notes in Computer Science, 1988, , 33-42.	1.3	23
25	A Minimax Arc Theorem for Reducible Flow Graphs. SIAM Journal on Discrete Mathematics, 1990, 3, 554-560.	0.8	18
26	The cache-oblivious gaussian elimination paradigm. , 2007, , .		17
27	Emulations between QSM, BSP and LogP: a framework for general-purpose parallel algorithm design. Journal of Parallel and Distributed Computing, 2003, 63, 1175-1192.	4.1	14
28	An optimal EREW PRAM algorithm for minimum spanning tree verification. Information Processing Letters, 1997, 62, 153-159.	0.6	13
29	Randomized minimum spanning tree algorithms using exponentially fewer random bits. ACM Transactions on Algorithms, 2008, 4, 1-27.	1.0	12
30	Competitive Cache Replacement Strategies for Shared Cache Environments. , 2012, , .		12
31	Resource Oblivious Sorting on Multicores. ACM Transactions on Parallel Computing, 2017, 3, 1-31.	1.4	12
32	Efficient parallel evaluation of straight-line code and arithmetic circuits. Lecture Notes in Computer Science, 1986, , 236-245.	1.3	12
33	The complexity of minimum cut and maximum flow problems in an acyclic network. Networks, 1987, 17, 387-392.	2.7	11
34	Efficient parallel circuits and algorithms for division. Information Processing Letters, 1988, 29, 307-313.	0.6	10
35	Computing Minimal Spanning Subgraphs in Linear Time. SIAM Journal on Computing, 1995, 24, 1332-1358.	1.0	10
36	Computational bounds for fundamental problems on general-purpose parallel models. , 1998, , .		10

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37	Fine-grained complexity for sparse graphs. , 2018, , .		10
38	Transitive compaction in parallel via branchings. Journal of Algorithms, 1991, 12, 110-125.	0.9	9
39	Multiplication, division, and shift instructions in parallel random access machines. Theoretical Computer Science, 1992, 100, 1-44.	0.9	9
40	Optimal VLSI graph embeddings in variable aspect ratio rectangles. Algorithmica, 1988, 3, 487-510.	1.3	8
41	Linear Programming with Two Variables Per Inequality in Poly-Log Time. SIAM Journal on Computing, 1990, 19, 1000-1010.	1.0	8
42	An Efficient Parallel Algorithm for the General Planar Monotone Circuit Value Problem. SIAM Journal on Computing, 1996, 25, 312-339.	1.0	8
43	QSM: A general purpose shared-memory model for parallel computation. Lecture Notes in Computer Science, 1997, , 1-5.	1.3	8
44	A General-Purpose Shared-Memory Model for Parallel Computation. The IMA Volumes in Mathematics and Its Applications, 1999, , 1-17.	0.5	8
45	Parallel Algorithms for Reducible Flow Graphs. Journal of Algorithms, 1997, 23, 1-31.	0.9	7
46	Data Oblivious Algorithms for Multicores. , 2021, , .		5
47	Revisiting the Cache Miss Analysis of Multithreaded Algorithms. Lecture Notes in Computer Science, 2012, , 172-183.	1.3	5
48	A Randomized Linear-Work EREW PRAM Algorithm to Find a Minimum Spanning Forest. Algorithmica, 2003, 35, 257-268.	1.3	4
49	Bounding Cache Miss Costs of Multithreaded Computations Under General Schedulers. , 2017, , .		4
50	An efficient parallel algorithm for the layered planar monotone circuit value problem. Lecture Notes in Computer Science, 1993, , 321-332.	1.3	4
51	Fast Parallel Algorithms for Reducible Flow Graphs. , 1988, , 117-138.		3
52	On driving many long wires in a VLSI layout. Journal of the ACM, 1986, 33, 687-701.	2.2	2
53	Finding the closed partition of a planar graph. Algorithmica, 1994, 11, 443-468.	1.3	2
54	Cache-Oblivious Buffer Heap and Cache-Efficient Computation of Shortest Paths in Graphs. ACM Transactions on Algorithms, 2018, 14, 1-33.	1.0	2

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55	An Efficient Parallel Algorithm for the Layered Planar Monotone Circuit Value Problem. Algorithmica, 1997, 18, 384-404.	1.3	1
56	Cache-Oblivious Computation: Algorithms and Experimental Evaluation. , 2007, , .		1
57	Parallel Algorithm Design with Coarse-Grained Synchronization. Lecture Notes in Computer Science, 2001, , 619-627.	1.3	1
58	Improved Distance Oracles for Avoiding Link-Failure. Lecture Notes in Computer Science, 2002, , 523-534.	1.3	1
59	Randomized Minimum Spanning Tree. , 2008, , 732-734.		0
60	Randomized Minimum Spanning Tree. , 2015, , 1-5.		0
61	Randomized Minimum Spanning Tree. , 2016, , 1747-1750.		0