

# Vivek Sarkar

## List of Publications by Year in descending order

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Version: 2024-02-01

64  
papers

3,011  
citations

687363

13  
h-index

501196

28  
g-index

65  
all docs

65  
docs citations

65  
times ranked

1169  
citing authors

#	ARTICLE	IF	CITATIONS
1	X10. , 2005, , .		780
2	X10. ACM SIGPLAN Notices, 2005, 40, 519-538.	0.2	311
3	The Jalapeño dynamic optimizing compiler for Java. , 1999, , .		185
4	Habanero-Java. , 2011, , .		168
5	Array SSA form and its use in parallelization. , 1998, , .		101
6	Concurrent Collections. Scientific Programming, 2010, 18, 203-217.	0.7	100
7	Work-first and help-first scheduling policies for async-finish task parallelism. , 2009, , .		92
8	Customizable Domain-Specific Computing. IEEE Design and Test of Computers, 2011, 28, 6-15.	1.0	90
9	Phasers. , 2008, , .		86
10	Scalable and precise dynamic datarace detection for structured parallelism. , 2012, , .		76
11	MAESTRO: A Data-Centric Approach to Understand Reuse, Performance, and Hardware Cost of DNN Mappings. IEEE Micro, 2020, 40, 20-29.	1.8	75
12	Habanero-Java library. , 2014, , .		71
13	SLAW. , 2010, , .		69
14	Hierarchical Place Trees: A Portable Abstraction for Task Parallelism and Data Movement. Lecture Notes in Computer Science, 2010, , 172-187.	1.3	64
15	Integrating Asynchronous Task Parallelism with MPI. , 2013, , .		63
16	The habanero multicore software research project. , 2009, , .		52
17	SLAW: A scalable locality-aware adaptive work-stealing scheduler. , 2010, , .		49
18	The Open Community Runtime: A runtime system for extreme scale computing. , 2016, , .		44

#	ARTICLE	IF	CITATIONS
19	A general framework for iteration-reordering loop transformations. , 1992, , .		38
20	HadoopCL: MapReduce on Distributed Heterogeneous Platforms through Seamless Integration of Hadoop and OpenCL. , 2013, , .		33
21	Data-Driven Tasks and Their Implementation. , 2011, , .		32
22	Interprocedural Load Elimination for Dynamic Optimization of Parallel Programs. , 2009, , .		30
23	Pedagogy and tools for teaching parallel computing at the sophomore undergraduate level. Journal of Parallel and Distributed Computing, 2017, 105, 18-30.	4.1	29
24	Compilation techniques for parallel systems. Parallel Computing, 1999, 25, 1741-1783.	2.1	28
25	HabaneroUPC++. , 2014, , .		26
26	Efficient Data Race Detection for Async-Finish Parallelism. Lecture Notes in Computer Science, 2010, , 368-383.	1.3	25
27	Polyhedral Optimizations of Explicitly Parallel Programs. , 2015, , .		20
28	Scalable and precise dynamic datarace detection for structured parallelism. ACM SIGPLAN Notices, 2012, 47, 531-542.	0.2	18
29	Intermediate language extensions for parallelism. , 2011, , .		17
30	Dynamic Determinacy Race Detection for Task Parallelism with Futures. Lecture Notes in Computer Science, 2016, , 368-385.	1.3	16
31	Efficient and precise modeling of exceptions for the analysis of Java programs. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 1999, 24, 21-31.	0.7	14
32	Dynamic Task Parallelism with a GPU Work-Stealing Runtime System. Lecture Notes in Computer Science, 2013, , 203-217.	1.3	14
33	Cooperative Scheduling of Parallel Tasks with General Synchronization Patterns. Lecture Notes in Computer Science, 2014, , 618-643.	1.3	14
34	Bounded memory scheduling of dynamic task graphs. , 2014, , .		13
35	CnC-CUDA: Declarative Programming for GPUs. Lecture Notes in Computer Science, 2011, , 230-245.	1.3	12
36	Analysis and optimization of explicit parallel programs using the parallel program graph representation. Lecture Notes in Computer Science, 1998, , 94-113.	1.3	11

#	ARTICLE	IF	CITATIONS
37	HadoopCL2: Motivating the Design of a Distributed, Heterogeneous Programming System With Machine-Learning Applications. IEEE Transactions on Parallel and Distributed Systems, 2016, 27, 762-775.	5.6	11
38	Mapping a data-flow programming model onto heterogeneous platforms. ACM SIGPLAN Notices, 2012, 47, 61-70.	0.2	11
39	Integrating task parallelism with actors. ACM SIGPLAN Notices, 2012, 47, 753-772.	0.2	10
40	A pluggable framework for composable HPC scheduling libraries. , 2017, , .		10
41	DFGR an Intermediate Graph Representation for Macro-Dataflow Programs. , 2014, , .		9
42	Marvel: A Data-Centric Approach for Mapping Deep Learning Operators on Spatial Accelerators. Transactions on Architecture and Code Optimization, 2022, 19, 1-26.	2.0	9
43	Space-time scheduling of instruction-level parallelism on a raw machine. Operating Systems Review (ACM), 1998, 32, 46-57.	1.9	8
44	Polyhedral Optimizations for a Data-Flow Graph Language. Lecture Notes in Computer Science, 2016, , 57-72.	1.3	8
45	A Practical Approach to DOACROSS Parallelization. Lecture Notes in Computer Science, 2012, , 219-231.	1.3	8
46	Hierarchical phasers for scalable synchronization and reductions in dynamic parallelism. , 2010, , .		7
47	Folding of Tagged Single Assignment Values for Memory-Efficient Parallelism. Lecture Notes in Computer Science, 2012, , 601-613.	1.3	7
48	Load Balancing Prioritized Tasks via Work-Stealing. Lecture Notes in Computer Science, 2015, , 222-234.	1.3	6
49	Declarative Tuning for Locality in Parallel Programs. , 2016, , .		6
50	Space-time scheduling of instruction-level parallelism on a raw machine. ACM SIGPLAN Notices, 1998, 33, 46-57.	0.2	5
51	DrHJ. , 2011, , .		5
52	Array optimizations for parallel implementations of high productivity languages. Parallel and Distributed Processing Symposium (IPDPS), Proceedings of the International Conference on, 2008, , .	1.0	4
53	HJ-OpenCL. , 2015, , .		3
54	Efficient Checkpointing of Multi-threaded Applications as a Tool for Debugging, Performance Tuning, and Resiliency. , 2016, , .		3

#	ARTICLE	IF	CITATIONS
55	A Distributed Selectors Runtime System for Java Applications. , 2016, , .		3
56	Chapel-on-X. , 2017, , .		3
57	High-Performance Scalable Java Virtual Machines. Lecture Notes in Computer Science, 2001, , 151-163.	1.3	3
58	The Flexible Preconditions Model for Macro-Dataflow Execution. , 2013, , .		1
59	Static Cost Estimation for Data Layout Selection on GPUs. , 2016, , .		1
60	An ownership policy and deadlock detector for promises. , 2021, , .		1
61	Parallelizing a discrete event simulation application using the Habanero-Java multicore library. , 2015, , .		0
62	SCnC: Efficient Unification of Streaming with Dynamic Task Parallelism. International Journal of Parallel Programming, 2016, 44, 233-256.	1.5	0
63	Formalization of Phase Ordering. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 211, 13-24.	0.8	0
64	Race Detection in Two Dimensions. ACM Transactions on Parallel Computing, 2017, 4, 1-22.	1.4	0