

# Vivek Sarkar

## List of Publications by Year in descending order

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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	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
2	An ownership policy and deadlock detector for promises. , 2021, , .		1
3	MAESTRO: A Data-Centric Approach to Understand Reuse, Performance, and Hardware Cost of DNN Mappings. IEEE Micro, 2020, 40, 20-29.	1.8	75
4	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
5	Chapel-on-X. , 2017, , .		3
6	A pluggable framework for composable HPC scheduling libraries. , 2017, , .		10
7	Race Detection in Two Dimensions. ACM Transactions on Parallel Computing, 2017, 4, 1-22.	1.4	0
8	Efficient Checkpointing of Multi-threaded Applications as a Tool for Debugging, Performance Tuning, and Resiliency. , 2016, , .		3
9	The Open Community Runtime: A runtime system for extreme scale computing. , 2016, , .		44
10	Static Cost Estimation for Data Layout Selection on GPUs. , 2016, , .		1
11	Declarative Tuning for Locality in Parallel Programs. , 2016, , .		6
12	A Distributed Selectors Runtime System for Java Applications. , 2016, , .		3
13	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
14	SCnC: Efficient Unification of Streaming with Dynamic Task Parallelism. International Journal of Parallel Programming, 2016, 44, 233-256.	1.5	0
15	Polyhedral Optimizations for a Data-Flow Graph Language. Lecture Notes in Computer Science, 2016, , 57-72.	1.3	8
16	Dynamic Determinacy Race Detection for Task Parallelism with Futures. Lecture Notes in Computer Science, 2016, , 368-385.	1.3	16
17	HJ-OpenCL. , 2015, , .		3
18	Parallelizing a discrete event simulation application using the Habanero-Java multicore library. , 2015, , .		0

#	ARTICLE	IF	CITATIONS
19	Polyhedral Optimizations of Explicitly Parallel Programs. , 2015, , .		20
20	Load Balancing Prioritized Tasks via Work-Stealing. Lecture Notes in Computer Science, 2015, , 222-234.	1.3	6
21	Habanero-Java library. , 2014, , .		71
22	DFGR an Intermediate Graph Representation for Macro-Dataflow Programs. , 2014, , .		9
23	HabaneroUPC++. , 2014, , .		26
24	Bounded memory scheduling of dynamic task graphs. , 2014, , .		13
25	Cooperative Scheduling of Parallel Tasks with General Synchronization Patterns. Lecture Notes in Computer Science, 2014, , 618-643.	1.3	14
26	The Flexible Preconditions Model for Macro-Dataflow Execution. , 2013, , .		1
27	Integrating Asynchronous Task Parallelism with MPI. , 2013, , .		63
28	HadoopCL: MapReduce on Distributed Heterogeneous Platforms through Seamless Integration of Hadoop and OpenCL. , 2013, , .		33
29	Dynamic Task Parallelism with a GPU Work-Stealing Runtime System. Lecture Notes in Computer Science, 2013, , 203-217.	1.3	14
30	Integrating task parallelism with actors. ACM SIGPLAN Notices, 2012, 47, 753-772.	0.2	10
31	Scalable and precise dynamic datarace detection for structured parallelism. , 2012, , .		76
32	A Practical Approach to DOACROSS Parallelization. Lecture Notes in Computer Science, 2012, , 219-231.	1.3	8
33	Folding of Tagged Single Assignment Values for Memory-Efficient Parallelism. Lecture Notes in Computer Science, 2012, , 601-613.	1.3	7
34	Mapping a data-flow programming model onto heterogeneous platforms. ACM SIGPLAN Notices, 2012, 47, 61-70.	0.2	11
35	Scalable and precise dynamic datarace detection for structured parallelism. ACM SIGPLAN Notices, 2012, 47, 531-542.	0.2	18
36	Customizable Domain-Specific Computing. IEEE Design and Test of Computers, 2011, 28, 6-15.	1.0	90

#	ARTICLE	IF	CITATIONS
37	DrHJ. , 2011, , .		5
38	Intermediate language extensions for parallelism. , 2011, , .		17
39	Data-Driven Tasks and Their Implementation. , 2011, , .		32
40	Habanero-Java. , 2011, , .		168
41	CnC-CUDA: Declarative Programming for GPUs. Lecture Notes in Computer Science, 2011, , 230-245.	1.3	12
42	Concurrent Collections. Scientific Programming, 2010, 18, 203-217.	0.7	100
43	SLAW: A scalable locality-aware adaptive work-stealing scheduler. , 2010, , .		49
44	Hierarchical phasers for scalable synchronization and reductions in dynamic parallelism. , 2010, , .		7
45	SLAW. , 2010, , .		69
46	Hierarchical Place Trees: A Portable Abstraction for Task Parallelism and Data Movement. Lecture Notes in Computer Science, 2010, , 172-187.	1.3	64
47	Efficient Data Race Detection for Async-Finish Parallelism. Lecture Notes in Computer Science, 2010, , 368-383.	1.3	25
48	Work-first and help-first scheduling policies for async-finish task parallelism. , 2009, , .		92
49	The habanero multicore software research project. , 2009, , .		52
50	Interprocedural Load Elimination for Dynamic Optimization of Parallel Programs. , 2009, , .		30
51	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
52	Phasers. , 2008, , .		86
53	X10. ACM SIGPLAN Notices, 2005, 40, 519-538.	0.2	311
54	X10. , 2005, , .		780

#	ARTICLE	IF	CITATIONS
55	High-Performance Scalable Java Virtual Machines. Lecture Notes in Computer Science, 2001, , 151-163.	1.3	3
56	The Jalapeño dynamic optimizing compiler for Java. , 1999, , .		185
57	Compilation techniques for parallel systems. Parallel Computing, 1999, 25, 1741-1783.	2.1	28
58	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
59	Space-time scheduling of instruction-level parallelism on a raw machine. ACM SIGPLAN Notices, 1998, 33, 46-57.	0.2	5
60	Analysis and optimization of explicit parallel programs using the parallel program graph representation. Lecture Notes in Computer Science, 1998, , 94-113.	1.3	11
61	Array SSA form and its use in parallelization. , 1998, , .		101
62	Space-time scheduling of instruction-level parallelism on a raw machine. Operating Systems Review (ACM), 1998, 32, 46-57.	1.9	8
63	A general framework for iteration-reordering loop transformations. , 1992, , .		38
64	Formalization of Phase Ordering. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 211, 13-24.	0.8	0