P Sadayappan

List of Publications by Year
in descending order

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40	2,536	516710	610901
papers	citations	16 h-index	24 g-index

42	42	42	1616
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A practical automatic polyhedral parallelizer and locality optimizer. , 2008, , .		494
2	NWChem: Past, present, and future. Journal of Chemical Physics, 2020, 152, 184102.	3.0	425
3	A practical automatic polyhedral parallelizer and locality optimizer. ACM SIGPLAN Notices, 2008, 43, 101-113.	0.2	207
4	Tiling multidimensional iteration spaces for multicomputers. Journal of Parallel and Distributed Computing, 1992, 16, 108-120.	4.1	138
5	Synthesis of High-Performance Parallel Programs for a Class of ab Initio Quantum Chemistry Models. Proceedings of the IEEE, 2005, 93, 276-292.	21.3	134
6	Compile-time techniques for data distribution in distributed memory machines. IEEE Transactions on Parallel and Distributed Systems, 1991, 2, 472-482.	5.6	130
7	Automatic code generation for many-body electronic structure methods: the tensor contraction engineâ€¡â€¡. Molecular Physics, 2006, 104, 211-228.	1.7	104
8	Iterative algorithms for solution of large sparse systems of linear equations on hypercubes. IEEE Transactions on Computers, 1988, 37, 1554-1568.	3.4	101
9	Automatic Transformations for Communication-Minimized Parallelization and Locality Optimization in the Polyhedral Model. , 2008, , 132-146.		89
10	Loop transformations. , 2011, , .		72
11	Compiling Array Expressions for Efficient Execution on Distributed-Memory Machines. Journal of Parallel and Distributed Computing, 1996, 32, 155-172.	4.1	69
12	Cluster partitioning approaches to mapping parallel programs onto a hypercube. Parallel Computing, 1990, 13, 1-16.	2.1	62
13	On Optimizing a Class of Multi-Dimensional Loops with Reduction for Parallel Execution. Parallel Processing Letters, 1997, 07, 157-168.	0.6	62
14	Combined Iterative and Model-driven Optimization in an Automatic Parallelization Framework. , 2010, , .		44
15	Predictive Modeling in a Polyhedral Optimization Space. International Journal of Parallel Programming, 2013, 41, 704-750.	1.5	40
16	Space-time trade-off optimization for a class of electronic structure calculations. , 2002, , .		37
17	Loop transformations. ACM SIGPLAN Notices, 2011, 46, 549-562.	0.2	32
18	Loop optimization for a class of memory-constrained computations. , 2001, , .		25

#	Article	IF	Citations
19	Performance Optimization of Tensor Contraction Expressions for Many-Body Methods in Quantum Chemistry. Journal of Physical Chemistry A, 2009, 113, 12715-12723.	2.5	24
20	Predictive modeling in a polyhedral optimization space. , 2011, , .		23
21	Towards Automatic Synthesis of High-Performance Codes for Electronic Structure Calculations: Data Locality Optimization. Lecture Notes in Computer Science, 2001, , 237-248.	1.3	22
22	A Code Generator for High-Performance Tensor Contractions on GPUs. , 2019, , .		21
23	Efficient Index Set Generation for Compiling HPF Array Statements on Distributed-Memory Machines. Journal of Parallel and Distributed Computing, 1996, 38, 237-247.	4.1	20
24	Dynamic selection of tile sizes. , 2011, , .		20
25	Compiler-assisted dynamic scheduling for effective parallelization of loop nests on multicore processors. ACM SIGPLAN Notices, 2009, 44, 219-228.	0.2	19
26	Communication-free hyperplane partitioning of nested loops. , 1991, , 186-200.		17
27	A framework for load balancing of tensor contraction expressions via dynamic task partitioning. , 2013, , .		15
28	A High-Level Approach to Synthesis of High-Performance Codes for Quantum Chemistry. , 2002, , .		13
29	Automated derivation of parametric data movement lower bounds for affine programs. , 2020, , .		13
30	Compiler/Runtime Framework for Dynamic Dataflow Parallelization of Tiled Programs. Transactions on Architecture and Code Optimization, 2015, 11, 1-30.	2.0	11
31	A Domain-Specific Compiler for a Parallel Multiresolution Adaptive Numerical Simulation Environment. , 2016, , .		8
32	Effective Utilization of Tensor Symmetry in Operation Optimization of Tensor Contraction Expressions. Procedia Computer Science, 2012, 9, 412-421.	2.0	7
33	Automatic parallelization of a class of irregular loops for distributed memory systems. ACM Transactions on Parallel Computing, 2014, 1, 1-37.	1.4	7
34	Space-time trade-off optimization for a class of electronic structure calculations. ACM SIGPLAN Notices, 2002, 37, 177-186.	0.2	5
35	Adaptive parallel tiled code generation and accelerated auto-tuning. International Journal of High Performance Computing Applications, 2013, 27, 412-425.	3.7	4
36	Scalable Heterogeneous Execution of a Coupled-Cluster Model with Perturbative Triples. , 2020, , .		3

#	Article	IF	Citations
37	A Parallel Approach To Solving a 3-D Finite Element Problem on a Distributed Memory MIMD Machine. , 0, , .		2
38	Partitioning graphs on message-passing machines by pairwise mincut. Information Sciences, 1998, 111, 223-237.	6.9	2
39	A clustered reduced communication element by element preconditioned conjugate gradient algorithm for finite element computations. , 0, , .		1
40	Parallel ALPID-3D: A 3-D Metal Forming Program for Parallel Computers. , 0, , .		0