Santosh Nagarakatte

List of Publications by Year
in descending order

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Version: 2024-02-01

50	1,751	759233 12	794594 19
papers	citations	h-index	g-index

52	52	52	700
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	One polynomial approximation to produce correctly rounded results of an elementary function for multiple representations and rounding modes. , 2022, 6, 1-28.		5
2	Sound, Precise, and Fast Abstract Interpretation with Tristate Numbers. , 2022, , .		3
3	An Accelerator for Sparse Convolutional Neural Networks Leveraging Systolic General Matrix-matrix Multiplication. Transactions on Architecture and Code Optimization, 2022, 19, 1-26.	2.0	9
4	Progressive polynomial approximations for fast correctly rounded math libraries. , 2022, , .		3
5	High performance correctly rounded math libraries for 32-bit floating point representations. , 2021, , .		8
6	Parallel shadow execution to accelerate the debugging of numerical errors. , 2021, , .		8
7	An approach to generate correctly rounded math libraries for new floating point variants. , 2021, 5, 1-30.		9
8	Debugging and detecting numerical errors in computation with posits. , 2020, , .		12
9	Approximating trigonometric functions for posits using the CORDIC method. , 2020, , .		6
10	On-the-fly Data Race Detection with the Enhanced OpenMP Series-Parallel Graph. Lecture Notes in Computer Science, 2020, , 149-164.	1.3	3
11	Parallelism-centric what-if and differential analyses. , 2019, , .		5
12	Automatic Equivalence Checking for Assembly Implementations of Cryptography Libraries. , 2019, , .		8
13	Practical verification of peephole optimizations with Alive. Communications of the ACM, 2018, 61, 84-91.	4.5	15
14	A Parallelism Profiler with What-If Analyses for OpenMP Programs. , 2018, , .		4
15	A fast causal profiler for task parallel programs. , 2017, , .		10
16	Compiler Optimizations with Retrofitting Transformations. , 2017, , .		3
17	Alive-Infer: data-driven precondition inference for peephole optimizations in LLVM. , 2017, , .		7
18	Alive-Infer: data-driven precondition inference for peephole optimizations in LLVM. ACM SIGPLAN Notices, 2017, 52, 49-63.	0.2	7

#	Article	IF	Citations
19	Termination-checking for LLVM peephole optimizations. , 2016, , .		7
20	Parallel data race detection for task parallel programs with locks. , 2016, , .		16
21	Alive-FP: Automated Verification of Floating Point Based Peephole Optimizations in LLVM. Lecture Notes in Computer Science, 2016, , 317-337.	1.3	18
22	Atomicity violation checker for task parallel programs. , 2016, , .		6
23	Testing Cross-Platform Mobile App Development Frameworks (T). , 2015, , .		11
24	ApproxHadoop. , 2015, , .		97
25	ApproxHadoop. Computer Architecture News, 2015, 43, 383-397.	2.5	34
26	Provably correct peephole optimizations with alive. , 2015, , .		79
27	ApproxHadoop. ACM SIGPLAN Notices, 2015, 50, 383-397.	0.2	12
28	Provably correct peephole optimizations with alive. ACM SIGPLAN Notices, 2015, 50, 22-32.	0.2	18
29	WatchdogLite. , 2014, , .		45
30	WatchdogLite. , 2014, , .		21
31	Ironclad C++. , 2013, , .		16
32	Hardware-Enforced Comprehensive Memory Safety. IEEE Micro, 2013, 33, 38-47.	1.8	13
33	Formal verification of SSA-based optimizations for LLVM. , 2013, , .		49
34	Formal verification of SSA-based optimizations for LLVM. ACM SIGPLAN Notices, 2013, 48, 175-186.	0.2	13
35	Ironclad C++. ACM SIGPLAN Notices, 2013, 48, 287-304.	0.2	17
36	Formalizing the LLVM intermediate representation for verified program transformations. , 2012, , .		103

#	Article	IF	Citations
37	Multicore acceleration of priority-based schedulers for concurrency bug detection. , 2012, , .		48
38	Watchdog: Hardware for safe and secure manual memory management and full memory safety. , 2012, , .		13
39	Formalizing the LLVM intermediate representation for verified program transformations. ACM SIGPLAN Notices, 2012, 47, 427-440.	0.2	43
40	Watchdog. Computer Architecture News, 2012, 40, 189-200.	2.5	47
41	Multicore acceleration of priority-based schedulers for concurrency bug detection. ACM SIGPLAN Notices, 2012, 47, 543-554.	0.2	5
42	A randomized scheduler with probabilistic guarantees of finding bugs. Computer Architecture News, 2010, 38, 167-178.	2.5	24
43	CETS. ACM SIGPLAN Notices, 2010, 45, 31-40.	0.2	37
44	A randomized scheduler with probabilistic guarantees of finding bugs. ACM SIGPLAN Notices, 2010, 45, 167-178.	0.2	30
45	A randomized scheduler with probabilistic guarantees of finding bugs. , 2010, , .		184
46	iCFP: Tolerating All-Level Cache Misses in In-Order Processors. IEEE Micro, 2010, 30, 12-19.	1.8	15
47	CETS. , 2010, , .		188
48	SoftBound. , 2009, , .		311
49	SoftBound. ACM SIGPLAN Notices, 2009, 44, 245-258.	0.2	79
50	iCFP: Tolerating all-level cache misses in in-order processors. , 2009, , .		26