# Santosh Nagarakatte

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/4812774/publications.pdf

Version: 2024-02-01

50

papers

1,751

citations

759233

12

h-index

794594

19

g-index

52

all docs

52

docs citations

52

times ranked

700

citing authors

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | SoftBound. , 2009, , . | | 311 |
| 2 | CETS. , 2010, , . | | 188 |
| 3 | A randomized scheduler with probabilistic guarantees of finding bugs. , 2010, , . | | 184 |
| 4 | Formalizing the LLVM intermediate representation for verified program transformations. , 2012, , . | | 103 |
| 5 | ApproxHadoop. , 2015, , . | | 97 |
| 6 | SoftBound. ACM SIGPLAN Notices, 2009, 44, 245-258. | 0.2 | 79 |
| 7 | Provably correct peephole optimizations with alive. , 2015, , . | | 79 |
| 8 | Formal verification of SSA-based optimizations for LLVM. , 2013, , . | | 49 |
| 9 | Multicore acceleration of priority-based schedulers for concurrency bug detection. , 2012, , . | | 48 |
| 10 | Watchdog. Computer Architecture News, 2012, 40, 189-200. | 2.5 | 47 |
| 11 | WatchdogLite. , 2014, , . | | 45 |
| 12 | Formalizing the LLVM intermediate representation for verified program transformations. ACM SIGPLAN Notices, 2012, 47, 427-440. | 0.2 | 43 |
| 13 | CETS. ACM SIGPLAN Notices, 2010, 45, 31-40. | 0.2 | 37 |
| 14 | ApproxHadoop. Computer Architecture News, 2015, 43, 383-397. | 2.5 | 34 |
| 15 | A randomized scheduler with probabilistic guarantees of finding bugs. ACM SIGPLAN Notices, 2010, 45, 167-178. | 0.2 | 30 |
| 16 | iCFP: Tolerating all-level cache misses in in-order processors. , 2009, , . | | 26 |
| 17 | A randomized scheduler with probabilistic guarantees of finding bugs. Computer Architecture News, 2010, 38, 167-178. | 2.5 | 24 |
| 18 | WatchdogLite. , 2014, , . | | 21 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Alive-FP: Automated Verification of Floating Point Based Peephole Optimizations in LLVM. Lecture Notes in Computer Science, 2016, , 317-337. | 1.3 | 18 |
| 20 | Provably correct peephole optimizations with alive. ACM SIGPLAN Notices, 2015, 50, 22-32. | 0.2 | 18 |
| 21 | Ironclad C++. ACM SIGPLAN Notices, 2013, 48, 287-304. | 0.2 | 17 |
| 22 | Ironclad C++. , 2013, , . | | 16 |
| 23 | Parallel data race detection for task parallel programs with locks. , 2016, , . | | 16 |
| 24 | iCFP: Tolerating All-Level Cache Misses in In-Order Processors. IEEE Micro, 2010, 30, 12-19. | 1.8 | 15 |
| 25 | Practical verification of peephole optimizations with Alive. Communications of the ACM, 2018, 61, 84-91. | 4.5 | 15 |
| 26 | Watchdog: Hardware for safe and secure manual memory management and full memory safety. , 2012, , . | | 13 |
| 27 | Hardware-Enforced Comprehensive Memory Safety. IEEE Micro, 2013, 33, 38-47. | 1.8 | 13 |
| 28 | Formal verification of SSA-based optimizations for LLVM. ACM SIGPLAN Notices, 2013, 48, 175-186. | 0.2 | 13 |
| 29 | ApproxHadoop. ACM SIGPLAN Notices, 2015, 50, 383-397. | 0.2 | 12 |
| 30 | Debugging and detecting numerical errors in computation with posits. , 2020, , . | | 12 |
| 31 | Testing Cross-Platform Mobile App Development Frameworks (T). , 2015, , . | | 11 |
| 32 | A fast causal profiler for task parallel programs. , 2017, , . | | 10 |
| 33 | An approach to generate correctly rounded math libraries for new floating point variants. , 2021, 5, 1-30. | | 9 |
| 34 | 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 |
| 35 | Automatic Equivalence Checking for Assembly Implementations of Cryptography Libraries. , 2019, , . | | 8 |
| 36 | High performance correctly rounded math libraries for 32-bit floating point representations. , 2021, , . | | 8 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Parallel shadow execution to accelerate the debugging of numerical errors. , 2021, , . | | 8 |
| 38 | Termination-checking for LLVM peephole optimizations. , 2016, , . | | 7 |
| 39 | Alive-Infer: data-driven precondition inference for peephole optimizations in LLVM. , 2017, , . | | 7 |
| 40 | Alive-Infer: data-driven precondition inference for peephole optimizations in LLVM. ACM SIGPLAN Notices, 2017, 52, 49-63. | 0.2 | 7 |
| 41 | Atomicity violation checker for task parallel programs. , 2016, , . | | 6 |
| 42 | Approximating trigonometric functions for posits using the CORDIC method. , 2020, , . | | 6 |
| 43 | Parallelism-centric what-if and differential analyses. , 2019, , . | | 5 |
| 44 | Multicore acceleration of priority-based schedulers for concurrency bug detection. ACM SIGPLAN Notices, 2012, 47, 543-554. | 0.2 | 5 |
| 45 | One polynomial approximation to produce correctly rounded results of an elementary function for multiple representations and rounding modes. , 2022, 6, 1-28. | | 5 |
| 46 | A Parallelism Profiler with What-If Analyses for OpenMP Programs. , 2018, , . | | 4 |
| 47 | Compiler Optimizations with Retrofitting Transformations. , 2017, , . | | 3 |
| 48 | On-the-fly Data Race Detection with the Enhanced OpenMP Series-Parallel Graph. Lecture Notes in Computer Science, 2020, , 149-164. | 1.3 | 3 |
| 49 | Sound, Precise, and Fast Abstract Interpretation with Tristate Numbers. , 2022, , . | | 3 |
| 50 | Progressive polynomial approximations for fast correctly rounded math libraries. , 2022, , . | | 3 |