Keijo Heljanko

List of Publications by Year
in descending order

86	1,449	430843	395678
papers	citations	18	33
		h-index	g-index

90	90	90	1041
all docs	docs citations	times ranked	citing authors

#	ARTICLE	IF	CITATIONS
1	Hadoop-BAM: directly manipulating next generation sequencing data in the cloud. Bioinformatics, 2012, 28, 876-877.	4.1	118
2	Linear Encodings of Bounded LTL Model Checking. Logical Methods in Computer Science, 2006, 2, .	0.4	116
3	Planning as satisfiability: parallel plans and algorithms for plan search. Artificial Intelligence, 2006, 170, 1031-1080.	5.8	110
4	SeqPig: simple and scalable scripting for large sequencing data sets in Hadoop. Bioinformatics, 2014, 30, 119-120.	4.1	85
5	Bounded LTL model checking with stable models. Theory and Practice of Logic Programming, 2003, 3, 519-550.	1.5	52
6	Model checking of safety-critical software in the nuclear engineering domain. Reliability Engineering and System Safety, 2012, 105, 104-113.	8.9	51
7	Simple Bounded LTL Model Checking. Lecture Notes in Computer Science, 2004, , 186-200.	1.3	49
8	Incremental and Complete Bounded Model Checking for Full PLTL. Lecture Notes in Computer Science, 2005, , 98-111.	1.3	47
9	CEFIoT: A fault-tolerant IoT architecture for edge and cloud. , 2018, , .		43
10	IoTEF: A Federated Edge-Cloud Architecture for Fault-Tolerant IoT Applications. Journal of Grid Computing, 2020, 18, 57-80.	3.9	36
11	Analyzing Context-Free Grammars Using an Incremental SAT Solver. Lecture Notes in Computer Science, 2008, , 410-422.	1.3	35
12	Bounded Reachability Checking with Process Semantics. Lecture Notes in Computer Science, 2001, , 218-232.	1.3	33
13	Testing LTL formula translation into Büchi automata. International Journal on Software Tools for Technology Transfer, 2002, 4, 57-70.	1.9	32
14	Simple Is Better: Efficient Bounded Model Checking for Past LTL. Lecture Notes in Computer Science, 2005, , 380-395.	1.3	30
15	BMC for Weak Memory Models: Relation Analysis for Compact SMT Encodings. Lecture Notes in Computer Science, 2019, , 355-365.	1.3	28
16	Implementing LTL model checking with net unfoldings. Lecture Notes in Computer Science, 2001, , 37-56.	1.3	25
17	Using Logic Programs with Stable Model Semantics to Solve Deadlock and Reachability Problems for 1-Safe Petri Nets. Fundamenta Informaticae, 1999, 37, 247-268.	0.4	24
18	Improving Dynamic Partial Order Reductions for Concolic Testing. , 2012, , .		23

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19	Parallelisation of the Petri Net Unfolding Algorithm. Lecture Notes in Computer Science, 2002, , 371-385.	1.3	21
20	A symbolic model checking approach to verifying satellite onboard software. Science of Computer Programming, 2014, 82, 44-55.	1.9	19
21	Hardware model checking competition 2017. , 2017, , .		19
22	A New Unfolding Approach to LTL Model Checking. Lecture Notes in Computer Science, 2000, , 475-486.	1.3	19
23	Prod 3.2 An advanced tool for efficient reachability analysis. Lecture Notes in Computer Science, 1997, , 472-475.	1.3	19
24	Coping With Strong Fairness. Fundamenta Informaticae, 2000, 43, 175-193.	0.4	18
25	Using unfoldings in automated testing of multithreaded programs. , 2012, , .		18
26	Classifying Process Instances Using Recurrent Neural Networks. Lecture Notes in Business Information Processing, 2019, , 313-324.	1.0	17
27	ViraPipe: scalable parallel pipeline for viral metagenome analysis from next generation sequencing reads. Bioinformatics, 2018, 34, 928-935.	4.1	14
28	Reinforcement learning of adaptive online rescheduling timing and computing time allocation. Computers and Chemical Engineering, 2020, 141, 106994.	3.8	14
29	Bounded LTL Model Checking with Stable Models. Lecture Notes in Computer Science, 2001, , 200-212.	1.3	14
30	BMC via on-the-fly determinization. International Journal on Software Tools for Technology Transfer, 2005, 7, 89-101.	1.9	13
31	Synchronous counting and computational algorithm design. Journal of Computer and System Sciences, 2016, 82, 310-332.	1.2	13
32	Using Logic Programs with Stable Model Semantics to Solve Deadlock and Reachability Problems for 1-Safe Petri Nets. Lecture Notes in Computer Science, 1999, , 240-254.	1.3	13
33	Tarmo: A Framework for Parallelized Bounded Model Checking. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 14, 62-76.	0.8	13
34	Hardware Model Checking Competition 2014: An Analysis and Comparison of Model Checkers and Benchmarks. Journal of Satisfiability, Boolean Modeling and Computation, 2016, 9, 135-172.	1.2	12
35	Unfolding-Based Process Discovery. Lecture Notes in Computer Science, 2015, , 31-47.	1.3	12
36	The LIME Interface Specification Language and Runtime Monitoring Tool. Lecture Notes in Computer Science, 2009, , 93-100.	1.3	12

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37	Solving parity games by a reduction to SAT. Journal of Computer and System Sciences, 2012, 78, 430-440.	1.2	11
38	BMC with Memory Models as Modules. , 2018, , .		10
39	Portability Analysis for Weak Memory Models porthos: One Tool for all Models. Lecture Notes in Computer Science, 2017, , 299-320.	1.3	9
40	Exploiting step semantics for efficient bounded model checking of asynchronous systems. Science of Computer Programming, 2012, 77, 1095-1121.	1.9	8
41	Testing Multithreaded Programs with Contextual Unfoldings and Dynamic Symbolic Execution. , 2014, , .		8
42	Unfolding based automated testing of multithreaded programs. Automated Software Engineering, 2015, 22, 475-515.	2.9	8
43	Exploiting Event Log Event Attributes in RNN Based Prediction. Communications in Computer and Information Science, 2019, , 405-416.	0.5	8
44	Dartagnan: Bounded Model Checking for Weak Memory Models (Competition Contribution). Lecture Notes in Computer Science, 2020, , 378-382.	1.3	8
45	Symbolic Step Encodings for Object Based Communicating State Machines. Lecture Notes in Computer Science, 2008, , 96-112.	1.3	8
46	Parallel Encodings of Classical Planning as Satisfiability. Lecture Notes in Computer Science, 2004, , 307-319.	1.3	7
47	Minimizing Test Suites with Unfoldings of Multithreaded Programs. Transactions on Embedded Computing Systems, 2017, 16, 1-24.	2.9	7
48	Increasing Confidence in Liveness Model Checking Results with Proofs. Lecture Notes in Computer Science, 2013, , 32-43.	1.3	7
49	Structural Feature Selection for Event Logs. Lecture Notes in Business Information Processing, 2018, , 20-35.	1.0	7
50	Efficient Model Checking of PSL Safety Properties. , 2010, , .		6
51	Assessing Big Data SQL Frameworks for Analyzing Event Logs. , 2016, , .		6
52	Access Time Improvement Framework for Standardized IoT Gateways. , 2019, , .		6
53	Asynchronous Multi-core Incremental SAT Solving. Lecture Notes in Computer Science, 2013, , 139-153.	1.3	6
54	Specification coverage aided test selection. , 0, , .		5

#	Article	IF	Citations
55	Complexity Results for Checking Distributed Implementability. , 0, , .		5
56	LCT: A Parallel Distributed Testing Tool for Multithreaded Java Programs. Electronic Notes in Theoretical Computer Science, 2013, 296, 253-259.	0.9	5
57	Model Checking with Finite Complete Prefixes Is PSPACE-Complete. Lecture Notes in Computer Science, 2000, , 108-122.	1.3	5
58	Parametrised Modal Interface Automata. Transactions on Embedded Computing Systems, 2015, 14, 1-25.	2.9	5
59	Concurrent Clause Strengthening. Lecture Notes in Computer Science, 2013, , 116-132.	1.3	5
60	Parametrised Compositional Verification with Multiple Process and Data Types. , 2013, , .		4
61	Synergistic and Intelligent Process Optimization: First Results and Open Challenges. Industrial & Engineering Chemistry Research, 2020, 59, 16684-16694.	3.7	4
62	Data-Driven Approach to Grade Change Scheduling Optimization in a Paper Machine. Industrial & Engineering Chemistry Research, 2020, 59, 8281-8294.	3.7	4
63	Experimental Comparison of Concolic and Random Testing for Java Card Applets. Lecture Notes in Computer Science, 2010, , 22-39.	1.3	4
64	BMC via On-the-Fly Determinization. Electronic Notes in Theoretical Computer Science, 2003, 89, 561-577.	0.9	3
65	Efficient model checking of PSL safety properties. IET Computers and Digital Techniques, 2011, 5, 479.	1.2	3
66	Unfolding Based Minimal Test Suites for Testing Multithreaded Programs. , 2015, , .		3
67	Verifying large modular systems using iterative abstraction refinement. Reliability Engineering and System Safety, 2015, 139, 120-130.	8.9	3
68	The FMCAD 2017 graduate student forum. , 2017, , .		3
69	Certifying Hardware Model Checking Results. Lecture Notes in Computer Science, 2019, , 498-502.	1.3	3
70	Exploiting Event Log Event Attributes in RNN Based Prediction. Lecture Notes in Business Information Processing, 2020, , 67-85.	1.0	3
71	When Do We (Not) Need Complex Assume-Guarantee Rules?. , 2015, , .		2
72	Progress in Certifying Hardware Model Checking Results. Lecture Notes in Computer Science, 2021, , 363-386.	1.3	2

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73	Dynamic Cut-Off Algorithm for Parameterised Refinement Checking. Lecture Notes in Computer Science, 2018, , 256-276.	1.3	2
74	Scalable Reference Genome Assembly from Compressed Pan-Genome Index with Spark. Lecture Notes in Computer Science, 2020, , 68-84.	1.3	2
75	Lightweight State Capturing for Automated Testing of Multithreaded Programs. Lecture Notes in Computer Science, 2014, , 187-203.	1.3	2
76	When Do We Not Need Complex Assume-Guarantee Rules?. Transactions on Embedded Computing Systems, 2017, 16, 1-25.	2.9	2
77	LCTD: Tests-Guided Proofs for C Programs on LLVM. Lecture Notes in Computer Science, 2016, , 927-929.	1.3	2
78	Surrogate€based optimization of a periodic rescheduling algorithm. AICHE Journal, 2022, 68, .	3.6	2
79	LCTD: Test-guided proofs for C programs on LLVM. Journal of Logical and Algebraic Methods in Programming, 2016, 85, 1292-1317.	0.5	1
80	Dynamic Process Intensification via Data-Driven Dynamic Optimization: Concept and Application to Ternary Distillation. Industrial & Engineering Chemistry Research, 2021, 60, 10265-10275.	3.7	1
81	Distributed hybrid-indexing of compressed pan-genomes for scalable and fast sequence alignment. PLoS ONE, 2021, 16, e0255260.	2.5	1
82	Testing Programs with Contextual Unfoldings. Transactions on Embedded Computing Systems, 2018, 17, 1-25.	2.9	1
83	Scripting for large-scale sequencing based on Hadoop. EMBnet Journal, 2013, 19, 84.	0.6	1
84	SparkBeagle. , 2020, , .		1
85	Message from the Programme Co-chairs. , 2012, , .		0
86	An optimal cut-off algorithm for parameterised refinement checking. Science of Computer Programming, 2020, 198, 102517.	1.9	0