Tomas Vojnar

List of Publications by Year
in descending order

123 papers	1,418 citations	361045 20 h-index	476904 29 g-index
132 all docs	132 docs citations	132 times ranked	483 citing authors

#	Article	IF	Citations
1	Utilizing parametric systems for detection of pipeline hazards. International Journal on Software Tools for Technology Transfer, 2022, 24, 1-28.	1.7	0
2	Tools and algorithms for the construction and analysis of systems: a special issue for TACAS 2019. International Journal on Software Tools for Technology Transfer, 2022, 24, 29-31.	1.7	0
3	SagTree: Towards efficient mutation in evolutionary circuit approximation. Swarm and Evolutionary Computation, 2022, 69, 100986.	4.5	1
4	Automatically Checking Semantic Equivalence between Versions of Large-Scale C Projects. , 2021, , .		4
5	Automata Terms in a Lazy WSkS Decision Procedure. Journal of Automated Reasoning, 2021, 65, 971-999.	1.1	0
6	Approximate reduction of finite automata for high-speed network intrusion detection. International Journal on Software Tools for Technology Transfer, 2020, 22, 523-539.	1.7	9
7	Adaptive verifiability-driven strategy for evolutionary approximation of arithmetic circuits. Applied Soft Computing Journal, 2020, 95, 106466.	4.1	3
8	Abstraction refinement and antichains for trace inclusion of infinite state systems. Formal Methods in System Design, 2020, 55, 137-170.	0.9	0
9	2LS: Heap Analysis and Memory Safety. Lecture Notes in Computer Science, 2020, , 368-372.	1.0	7
10	PredatorHP Revamped (Not Only) for Interval-Sized Memory Regions and Memory Reallocation (Competition Contribution). Lecture Notes in Computer Science, 2020, , 408-412.	1.0	6
11	Satisfiability Solving Meets Evolutionary Optimisation in Designing Approximate Circuits. Lecture Notes in Computer Science, 2020, , 481-491.	1.0	0
12	Approximating Complex Arithmetic Circuits with Guaranteed Worst-Case Relative Error. Lecture Notes in Computer Science, 2020, , 482-490.	1.0	0
13	Regex matching with counting-set automata. , 2020, 4, 1-30.		8
14	The AQUAS ECSEL Project Aggregated Quality Assurance for Systems: Co-Engineering Inside and Across the Product Life Cycle. Microprocessors and Microsystems, 2019, 69, 54-67.	1.8	14
15	Deep Packet Inspection in FPGAs via Approximate Nondeterministic Automata. , 2019, , .		13
16	Nested antichains for WS1S. Acta Informatica, 2019, 56, 205-228.	0.5	2
17	SL-COMP: Competition of Solvers for Separation Logic. Lecture Notes in Computer Science, 2019, , 116-132.	1.0	8
18	Automata Terms in a Lazy WSkS Decision Procedure. Lecture Notes in Computer Science, 2019, , 300-318.	1.0	2

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19	J-ReCoVer: Java Reducer Commutativity Verifier. Lecture Notes in Computer Science, 2019, , 357-366.	1.0	0
20	Succinct Determinisation of Counting Automata via Sphere Construction. Lecture Notes in Computer Science, 2019, , 468-489.	1.0	5
21	Discovering Concurrency Errors. Lecture Notes in Computer Science, 2018, , 34-60.	1.0	8
22	From Shapes to Amortized Complexity. Lecture Notes in Computer Science, 2018, , 205-225.	1.0	7
23	Advances in the ANaConDA framework for dynamic analysis and testing of concurrent C/C++ programs. , 2018, , .		7
24	The AQUAS ECSEL Project. , 2018, , .		0
25	ADAC: Automated Design of Approximate Circuits. Lecture Notes in Computer Science, 2018, , 612-620.	1.0	4
26	String constraints with concatenation and transducers solved efficiently. , 2018, 2, 1-32.		41
27	Approximate Reduction of Finite Automata for High-Speed Network Intrusion Detection. Lecture Notes in Computer Science, 2018, , 155-175.	1.0	7
28	2LS: Memory Safety and Non-termination. Lecture Notes in Computer Science, 2018, , 417-421.	1.0	7
29	Simulation Algorithms for Symbolic Automata. Lecture Notes in Computer Science, 2018, , 109-125.	1.0	2
30	Prediction of Coverage of Expensive Concurrency Metrics Using Cheaper Metrics. Lecture Notes in Computer Science, 2018, , 99-108.	1.0	0
31	Template-Based Verification of Heap-Manipulating Programs. , 2018, , .		5
32	Verifying Concurrent Programs Using Contracts. , 2017, , .		5
33	Boosted decision trees for behaviour mining of concurrent programmes. Concurrency Computation Practice and Experience, 2017, 29, e4268.	1.4	4
34	Approximating complex arithmetic circuits with formal error guarantees: 32-bit multipliers accomplished. , 2017, , .		26
35	Compositional entailment checking for a fragment of separation logic. Formal Methods in System Design, 2017, 51, 575-607.	0.9	5
36	Counterexample Validation and Interpolation-Based Refinement for Forest Automata. Lecture Notes in Computer Science, 2017, , 288-309.	1.0	5

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37	SPEN: A Solver for Separation Logic. Lecture Notes in Computer Science, 2017, , 302-309.	1.0	5
38	Effect Summaries for Thread-Modular Analysis. Lecture Notes in Computer Science, 2017, , 169-191.	1.0	7
39	Lazy Automata Techniques for WS1S. Lecture Notes in Computer Science, 2017, , 407-425.	1.0	6
40	Forester: From Heap Shapes to Automata Predicates. Lecture Notes in Computer Science, 2017, , 365-369.	1.0	5
41	Predator Shape Analysis Tool Suite. Lecture Notes in Computer Science, 2016, , 202-209.	1.0	8
42	Verification of heap manipulating programs with ordered data by extended forest automata. Acta Informatica, 2016, 53, 357-385.	0.5	6
43	Mathematical and Engineering Methods in Computer Science. Lecture Notes in Computer Science, 2016, , .	1.0	0
44	From Low-Level Pointers to High-Level Containers. Lecture Notes in Computer Science, 2016, , 431-452.	1.0	1
45	Abstraction Refinement and Antichains for Trace Inclusion of Infinite State Systems. Lecture Notes in Computer Science, 2016, , 71-89.	1.0	4
46	Optimized PredatorHP and the SV-COMP Heap and Memory Safety Benchmark. Lecture Notes in Computer Science, 2016, , 942-945.	1.0	5
47	Run Forester, Run Backwards!. Lecture Notes in Computer Science, 2016, , 923-926.	1.0	3
48	Advances in noise–based testing of concurrent software. Software Testing Verification and Reliability, 2015, 25, 272-309.	1.7	9
49	Dynamic Validation of Contracts in Concurrent Code. Lecture Notes in Computer Science, 2015, , 555-564.	1.0	3
50	Forester: Shape Analysis Using Tree Automata. Lecture Notes in Computer Science, 2015, , 432-435.	1.0	3
51	Nested Antichains for WS1S. Lecture Notes in Computer Science, 2015, , 658-674.	1.0	7
52	Microprocessor Hazard Analysis Via Formal Verification of Parameterized Systems. Lecture Notes in Computer Science, 2015, , 605-614.	1.0	1
53	Using Formal Verification of Parameterized Systems in RAW Hazard Analysis in Microprocessors. , 2014, , .		4
54	Mediating for reduction (on minimizing alternating BÃ¼chi automata). Theoretical Computer Science, 2014, 552, 26-43.	0.5	3

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55	Deciding Entailments in Inductive Separation Logic with Tree Automata. Lecture Notes in Computer Science, 2014, , 201-218.	1.0	38
56	Compositional Entailment Checking for a Fragment of Separation Logic. Lecture Notes in Computer Science, 2014, , 314-333.	1.0	20
57	On Monitoring C/C++ Transactional Memory Programs. Lecture Notes in Computer Science, 2014, , 73-87.	1.0	0
58	Predator: A Shape Analyzer Based on Symbolic Memory Graphs. Lecture Notes in Computer Science, 2014, , 412-414.	1.0	2
59	Automated formal analysis and verification: an overview. International Journal of General Systems, 2013, 42, 335-365.	1.2	7
60	MONOTONIC ABSTRACTION FOR PROGRAMS WITH MULTIPLY-LINKED STRUCTURES. International Journal of Foundations of Computer Science, 2013, 24, 187-210.	0.8	5
61	Verification of Heap Manipulating Programs with Ordered Data by Extended Forest Automata. Lecture Notes in Computer Science, 2013, , 224-239.	1.0	11
62	ANaConDA: A Framework for Analysing Multi-threaded C/C++ Programs on the Binary Level. Lecture Notes in Computer Science, 2013, , 35-41.	1.0	7
63	Predator: A Tool for Verification of Low-Level List Manipulation. Lecture Notes in Computer Science, 2013, , 627-629.	1.0	7
64	Byte-Precise Verification of Low-Level List Manipulation. Lecture Notes in Computer Science, 2013, , 215-237.	1.0	24
65	Fully Automated Shape Analysis Based on Forest Automata. Lecture Notes in Computer Science, 2013, , 740-755.	1.0	21
66	An Abstraction of Multi-port Memories with Arbitrary Addressable Units. Lecture Notes in Computer Science, 2013, , 460-468.	1.0	1
67	Noise-based testing and analysis of multi-threaded C/C++ programs on the binary level. , 2012, , .		6
68	Automatic Formal Correspondence Checking of ISA and RTL Microprocessor Description. , 2012, , .		6
69	Forest automata for verification of heap manipulation. Formal Methods in System Design, 2012, 41, 83-106.	0.9	17
70	Abstract regular (tree) model checking. International Journal on Software Tools for Technology Transfer, 2012, 14, 167-191.	1.7	27
71	Noise Injection Heuristics for Concurrency Testing. Lecture Notes in Computer Science, 2012, , 123-135.	1.0	6
72	A Uniform Classification of Common Concurrency Errors. Lecture Notes in Computer Science, 2012, , 519-526.	1.0	4

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73	VATA: A Library for Efficient Manipulation of Non-deterministic Tree Automata. Lecture Notes in Computer Science, 2012, , 79-94.	1.0	26
74	Coverage Metrics for Saturation-Based and Search-Based Testing of Concurrent Software. Lecture Notes in Computer Science, 2012, , 177-192.	1.0	14
75	DA-BMC: A Tool Chain Combining Dynamic Analysis and Bounded Model Checking. Lecture Notes in Computer Science, 2012, , 375-380.	1.0	2
76	Testing of Concurrent Programs Using Genetic Algorithms. Lecture Notes in Computer Science, 2012, , 152-167.	1.0	9
77	Predator: A Verification Tool for Programs with Dynamic Linked Data Structures. Lecture Notes in Computer Science, 2012, , 545-548.	1.0	4
78	Programs with lists are counter automata. Formal Methods in System Design, 2011, 38, 158-192.	0.9	20
79	Predator: A Practical Tool for Checking Manipulation of Dynamic Data Structures Using Separation Logic. Lecture Notes in Computer Science, 2011, , 372-378.	1.0	32
80	Forest Automata for Verification of Heap Manipulation. Lecture Notes in Computer Science, 2011, , 424-440.	1.0	20
81	Advanced Ramsey-Based BÃ¼chi Automata Inclusion Testing. Lecture Notes in Computer Science, 2011, , 187-202.	1.0	26
82	Efficient Inclusion Checking on Explicit and Semi-symbolic Tree Automata. Lecture Notes in Computer Science, 2011, , 243-258.	1.0	4
83	Monotonic Abstraction for Programs with Multiply-Linked Structures. Lecture Notes in Computer Science, 2011, , 125-138.	1.0	0
84	Efficient Algorithms for Handling Nondeterministic Automata. Lecture Notes in Computer Science, 2011, , 73-73.	1.0	0
85	Automata-based verification of programs with tree updates. Acta Informatica, 2010, 47, 1-31.	0.5	11
86	A platform for search-based testing of concurrent software. , 2010, , .		24
87	When Simulation Meets Antichains. Lecture Notes in Computer Science, 2010, , 158-174.	1.0	63
88	Simulation Subsumption in Ramsey-Based BÃ¼chi Automata Universality and Inclusion Testing. Lecture Notes in Computer Science, 2010, , 132-147.	1.0	28
89	COMPOSED BISIMULATION FOR TREE AUTOMATA. International Journal of Foundations of Computer Science, 2009, 20, 685-700.	0.8	4
90	A Uniform (Bi-)Simulation-Based Framework for Reducing Tree Automata. Electronic Notes in Theoretical Computer Science, 2009, 251, 27-48.	0.9	8

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91	Automatic Verification of Integer Array Programs. Lecture Notes in Computer Science, 2009, , 157-172.	1.0	28
92	A Concurrency Testing Tool and Its Plug-Ins for Dynamic Analysis andÂRuntime Healing. Lecture Notes in Computer Science, 2009, , 101-114.	1.0	9
93	Self-healing Assurance Based on Bounded Model Checking. Lecture Notes in Computer Science, 2009, , 295-303.	1.0	2
94	Verification of parametric concurrent systems withÂprioritised FIFO resource management. Formal Methods in System Design, 2008, 32, 129-172.	0.9	23
95	Composed Bisimulation for Tree Automata. Lecture Notes in Computer Science, 2008, , 212-222.	1.0	6
96	Antichain-Based Universality and Inclusion Testing over Nondeterministic Finite Tree Automata. Lecture Notes in Computer Science, 2008, , 57-67.	1.0	30
97	What Else Is Decidable about Integer Arrays?. Lecture Notes in Computer Science, 2008, , 474-489.	1.0	33
98	Computing Simulations over Tree Automata. , 2008, , 93-108.		22
99	A Logic of Singly Indexed Arrays. Lecture Notes in Computer Science, 2008, , 558-573.	1.0	14
100	AtomRace. , 2008, , .		18
101	Healing data races on-the-fly. , 2007, , .		43
102	On Some Directions in Security-Oriented Research. , 2007, , .		8
103	Block Model Application for Decision Support Systems. , 2007, , .		0
104	Generalised multi-pattern-based verification of programs with linear linked structures. Formal Aspects of Computing, 2007, 19, 363-374.	1.4	2
105	Proving Termination of Tree Manipulating Programs. , 2007, , 145-161.		6
106	Verifying Parametrised Hardware Designs Via Counter Automata. , 2007, , 51-68.		9
107	Pattern-Based Verification for Trees. , 2007, , 488-496.		0
108	Pattern-Based Verification of Programs with Extended Linear Linked Data Structures. Electronic Notes in Theoretical Computer Science, 2006, 145, 113-130.	0.9	4

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109	Abstract Regular Tree Model Checking. Electronic Notes in Theoretical Computer Science, 2006, 149, 37-48.	0.9	25
110	Automata-Based Verification of Programs with Tree Updates. Lecture Notes in Computer Science, 2006, , 350-364.	1.0	10
111	Programs with Lists Are Counter Automata. Lecture Notes in Computer Science, 2006, , 517-531.	1.0	64
112	Abstract Regular Tree Model Checking of Complex Dynamic Data Structures. Lecture Notes in Computer Science, 2006, , 52-70.	1.0	53
113	Regular Model Checking Using Inference of Regular Languages. Electronic Notes in Theoretical Computer Science, 2005, 138, 21-36.	0.9	30
114	Verifying Programs with Dynamic 1-Selector-Linked Structures in Regular Model Checking. Lecture Notes in Computer Science, 2005, , 13-29.	1.0	41
115	Parallel State Space Generation and Exploration onÂShared-Memory Architectures. Lecture Notes in Computer Science, 2005, , 275-280.	1.0	0
116	Abstract Regular Model Checking. Lecture Notes in Computer Science, 2004, , 372-386.	1.0	84
117	Partial-Order Reduction in Model Checking Object-Oriented Petri Nets. Lecture Notes in Computer Science, 2003, , 265-278.	1.0	2
118	Verification of Parametric Concurrent Systems with Prioritized FIFO Resource Management. Lecture Notes in Computer Science, 2003, , 174-190.	1.0	2
119	Modelling, prototyping, and verifying concurrent and distributed applications using object€oriented Petri nets. Kybernetes, 2002, 31, 1289-1299.	1.2	2
120	Analysis and Verification Queries over Object-Oriented Petri Nets. Lecture Notes in Computer Science, 2001, , 369-384.	1.0	0
121	Towards Verifying Distributed Systems Using Object-Oriented Petri Nets. Lecture Notes in Computer Science, 2000, , 90-104.	1.0	0
122	HADES: Microprocessor Hazard Analysis via Formal Verification of Parameterized Systems. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 233, 87-93.	0.8	3
123	Tool Demonstration of the FLATA Counter Automata Toolset. , 0, , .		0