Roderick Bloem

List of Publications by Year
in descending order

96 papers	3,014 citations	257357 24 h-index	233338 45 g-index
99 all docs	99 docs citations	99 times ranked	993 citing authors

#	Article	IF	Citations
1	Adaptive Testing for Specification Coverage in CPS Models. IFAC-PapersOnLine, 2021, 54, 229-234.	0.5	5
2	Adaptive Shielding under Uncertainty. , 2021, , .		10
3	Two SAT solvers for solving quantified Boolean formulas with an arbitrary number of quantifier alternations. Formal Methods in System Design, 2021, 57, 157-177.	0.9	2
4	Vacuity in synthesis. Formal Methods in System Design, 2021, 57, 473-495.	0.9	1
5	Proving SIFA Protection of Masked Redundant Circuits. Lecture Notes in Computer Science, 2021, , 249-265.	1.0	2
6	Preface for the SYNT. Acta Informatica, 2020, 57, 1-1.	0.5	0
7	Shield Synthesis for Reinforcement Learning. Lecture Notes in Computer Science, 2020, , 290-306.	1.0	19
8	Placement of Runtime Checks to Counteract Fault Injections. Lecture Notes in Computer Science, 2020, , 241-258.	1.0	1
9	Synthesizing adaptive test strategies from temporal logic specifications. Formal Methods in System Design, 2019, 55, 103-135.	0.9	4
10	Small Faults Grow Up - Verification of Error Masking Robustness in Arithmetically Encoded Programs. Lecture Notes in Computer Science, 2019, , 183-204.	1.0	2
11	Run-Time Optimization for Learned Controllers Through Quantitative Games. Lecture Notes in Computer Science, 2019, , 630-649.	1.0	20
12	Synthesizing Reactive Systems Using Robustness and Recovery Specifications. , 2019, , .		4
13	Automata Learning for Symbolic Execution. , 2018, , .		8
14	Graph Games and Reactive Synthesis. , 2018, , 921-962.		37
15	Formal Verification of Masked Hardware Implementations in the Presence of Glitches. Lecture Notes in Computer Science, 2018, , 321-353.	1.0	44
16	Expansion-Based QBF Solving Without Recursion. , 2018, , .		8
17	Designing Reliable Cyber-Physical Systems. Lecture Notes in Electrical Engineering, 2018, , 15-38.	0.3	2
18	The first reactive synthesis competition (SYNTCOMP 2014). International Journal on Software Tools for Technology Transfer, 2017, 19, 367-390.	1.7	23

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19	Model-Based Testing IoT Communication via Active Automata Learning. , 2017, , .		68
20	Towards a Secure SCRUM Process for Agile Web Application Development. , 2017, , .		12
21	Bounded Synthesis for Streett, Rabin, and $$ext {CTL}^{*}$$. Lecture Notes in Computer Science, 2017, , 333-352.	1.0	2
22	Shield synthesis. Formal Methods in System Design, 2017, 51, 332-361.	0.9	35
23	Synthesizing Non-Vacuous Systems. Lecture Notes in Computer Science, 2017, , 55-72.	1.0	10
24	Designing reliable cyber-physical systems overview associated to the special session at FDL'16. , 2016, , .		1
25	Dependability for the Internet of Thingsâ€"from dependable networking in harsh environments to a holistic view on dependability. Elektrotechnik Und Informationstechnik, 2016, 133, 304-309.	0.7	17
26	Synthesis of Self-Stabilising and Byzantine-Resilient Distributed Systems. Lecture Notes in Computer Science, 2016, , 157-176.	1.0	11
27	Synthesizing adaptive test strategies from temporal logic specifications. , 2016, , .		3
28	Decidability in Parameterized Verification. ACM SIGACT News, 2016, 47, 53-64.	0.1	27
29	Synthesizing cooperative reactive mission plans. , 2015, , .		16
30	Decidability of Parameterized Verification. Synthesis Lectures on Distributed Computing Theory, 2015, 6, 1-170.	0.1	44
31	Case Study: Automatic Test Case Generation for a Secure Cache Implementation. Lecture Notes in Computer Science, 2015, , 58-75.	1.0	3
32	Cooperative Reactive Synthesis. Lecture Notes in Computer Science, 2015, , 394-410.	1.0	16
33	Assume-Guarantee Synthesis for Concurrent Reactive Programs with Partial Information. Lecture Notes in Computer Science, 2015, , 517-532.	1.0	13
34	Shield Synthesis:. Lecture Notes in Computer Science, 2015, , 533-548.	1.0	63
35	Synthesis of synchronization using uninterpreted functions. , 2014, , .		8
36	Synthesizing robust systems. Acta Informatica, 2014, 51, 193-220.	0.5	51

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37	SAT-based methods for circuit synthesis. , 2014, , .		17
38	Automating Test-Suite Augmentation. , 2014, , .		9
39	Automatic Error Localization for Software Using Deductive Verification. Lecture Notes in Computer Science, 2014, , 92-98.	1.0	7
40	SAT-Based Synthesis Methods for Safety Specs. Lecture Notes in Computer Science, 2014, , 1-20.	1.0	58
41	Security concepts for a distributed architecture for activity logging and analysis. , 2014, , .		1
42	Parameterized Synthesis. Logical Methods in Computer Science, 2014, 10, .	0.4	21
43	Debugging formal specifications: a practical approach using model-based diagnosis and counterstrategies. International Journal on Software Tools for Technology Transfer, 2013, 15, 563-583.	1.7	36
44	Synthesizing multiple boolean functions using interpolation on a single proof. , 2013, , .		12
45	Towards Efficient Parameterized Synthesis. Lecture Notes in Computer Science, 2013, , 108-127.	1.0	18
46	Repair with On-The-Fly Program Analysis. Lecture Notes in Computer Science, 2013, , 56-71.	1.0	8
47	PARTY Parameterized Synthesis of Token Rings. Lecture Notes in Computer Science, 2013, , 928-933.	1.0	27
48	Finding and fixing faults. Journal of Computer and System Sciences, 2012, 78, 441-460.	0.9	30
49	Synthesis of Reactive(1) designs. Journal of Computer and System Sciences, 2012, 78, 911-938.	0.9	318
50	Parameterized Synthesis. Lecture Notes in Computer Science, 2012, , 362-376.	1.0	15
51	Generalized Reactivity(1) Synthesis without a Monolithic Strategy. Lecture Notes in Computer Science, 2012, , 20-34.	1.0	5
52	Test Case Generation from Mutants Using Model Checking Techniques. , 2011, , .		7
53	Controller synthesis for pipelined circuits using uninterpreted functions. , 2011, , .		4
54	Specification-centered robustness. , 2011, , .		3

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55	Debugging Unrealizable Specifications with Model-Based Diagnosis. Lecture Notes in Computer Science, 2011, , 29-45.	1.0	12
56	Fault localization using a model checker. Software Testing Verification and Reliability, 2010, 20, 149-173.	1.7	15
57	Robustness in the Presence of Liveness. Lecture Notes in Computer Science, 2010, , 410-424.	1.0	32
58	RATSY â€" A New Requirements Analysis Tool with Synthesis. Lecture Notes in Computer Science, 2010, , 425-429.	1.0	69
59	Debugging formal specifications using simple counterstrategies. , 2009, , .		43
60	Synthesizing robust systems. , 2009, , .		50
61	Better Quality in Synthesis through Quantitative Objectives. Lecture Notes in Computer Science, 2009, , 140-156.	1.0	146
62	Formal Analysis of a TPM-Based Secrets Distribution and Storage Scheme. , 2008, , .		0
63	Automatic Fault Localization for Property Checking. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2008, 27, 1138-1149.	1.9	71
64	Using unsatisfiable cores to debug multiple design errors. , 2008, , .		46
65	Open Implication. Lecture Notes in Computer Science, 2008, , 361-372.	1.0	12
66	SYMBOLIC IMPLEMENTATION OF ALTERNATING AUTOMATA. International Journal of Foundations of Computer Science, 2007, 18, 727-743.	0.8	10
67	Automatic Hardware Synthesis from Specifications: A Case Study. , 2007, , .		53
68	Specify, Compile, Run: Hardware from PSL. Electronic Notes in Theoretical Computer Science, 2007, 190, 3-16.	0.9	85
69	Automated Fault Localization for C Programs. Electronic Notes in Theoretical Computer Science, 2007, 174, 95-111.	0.9	48
70	Fault Localization and Correction with QBF. , 2007, , 355-368.		34
71	Anzu: A Tool for Property Synthesis. , 2007, , 258-262.		58
72	Optimizations for LTL Synthesis. , 2006, , .		111

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73	An Algorithm for Strongly Connected Component Analysis in n log n Symbolic Steps. Formal Methods in System Design, 2006, 28, 37-56.	0.9	54
74	Compositional SCC Analysis for Language Emptiness. Formal Methods in System Design, 2006, 28, 5-36.	0.9	8
75	Repair of Boolean Programs with an Application to C. Lecture Notes in Computer Science, 2006, , 358-371.	1.0	52
76	Automatic Fault Localization for Property Checking. , 2006, , 50-64.		7
77	Program Repair as a Game. Lecture Notes in Computer Science, 2005, , 226-238.	1.0	153
78	Finding and Fixing Faults. Lecture Notes in Computer Science, 2005, , 35-49.	1.0	48
79	Analysis of Symbolic SCC Hull Algorithms. Lecture Notes in Computer Science, 2002, , 88-105.	1.0	17
80	Fair Simulation Minimization. Lecture Notes in Computer Science, 2002, , 610-623.	1.0	30
81	Divide and Compose: SCC Refinement for Language Emptiness. Lecture Notes in Computer Science, 2001, , 456-471.	1.0	9
82	A Comparison of Tree Transductions Defined by Monadic Second Order Logic and by Attribute Grammars. Journal of Computer and System Sciences, 2000, 61, 1-50.	0.9	55
83	Symbolic guided search for CTL model checking. , 2000, , .		44
84	A Comparative Study of Symbolic Algorithms for the Computation of Fair Cycles. Lecture Notes in Computer Science, 2000, , 162-179.	1.0	50
85	An Algorithm for Strongly Connected Component Analysis in n log n Symbolic Steps. Lecture Notes in Computer Science, 2000, , 56-73.	1.0	43
86	Efficient Decision Procedures for Model Checking of Linear Time Logic Properties. Lecture Notes in Computer Science, 1999, , 222-235.	1.0	52
87	How to Handle Assumptions in Synthesis. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 157, 34-50.	0.8	33
88	Parameterized Synthesis Case Study: AMBA AHB. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 157, 68-83.	0.8	12
89	The Second Reactive Synthesis Competition (SYNTCOMP 2015). Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 202, 27-57.	0.8	15
90	The Reactive Synthesis Competition: SYNTCOMP 2016 and Beyond. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 229, 133-148.	0.8	4

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91	The 3rd Reactive Synthesis Competition (SYNTCOMP 2016): Benchmarks, Participants & Results. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 229, 149-177.	0.8	9
92	The 4th Reactive Synthesis Competition (SYNTCOMP 2017): Benchmarks, Participants & Results. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 260, 116-143.	0.8	25
93	CTL* synthesis via LTL synthesis. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 260, 4-22.	0.8	5
94	Synthesizing Robust Systems with RATSY. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 84, 47-53.	0.8	10
95	SMT-Based CPS Parameter Synthesis. , 0, , .		1
96	Proving SIFA protection of masked redundant circuits. Innovations in Systems and Software Engineering, 0, , .	1.6	0