

Lucas Cordeiro

List of Publications by Year in descending order

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Version: 2024-02-01

92
papers

1,119
citations

567144

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98
all docs

98
docs citations

98
times ranked

498
citing authors

#	ARTICLE	IF	CITATIONS
1	SMT-Based Bounded Model Checking for Embedded ANSI-C Software. IEEE Transactions on Software Engineering, 2012, 38, 957-974.	4.3	120
2	Verifying multi-threaded software using smt-based context-bounded model checking. , 2011, , .		93
3	SMT-Based Bounded Model Checking for Embedded ANSI-C Software. , 2009, , .		69
4	Handling loops in bounded model checking of C programs via k-induction. International Journal on Software Tools for Technology Transfer, 2017, 19, 97-114.	1.7	51
5	ESBMC 5.0: an industrial-strength C model checker. , 2018, , .		46
6	JBMC: A Bounded Model Checking Tool for Verifying Java Bytecode. Lecture Notes in Computer Science, 2018, , 183-190.	1.0	42
7	ESBMC v6.0: Verifying C Programs Using k-Induction and Invariant Inference. Lecture Notes in Computer Science, 2019, , 209-213.	1.0	31
8	Semiformal Verification of Embedded Software in Medical Devices Considering Stringent Hardware Constraints. , 2009, , .		29
9	Context-Bounded Model Checking with ESBMC 1.17. Lecture Notes in Computer Science, 2012, , 534-537.	1.0	28
10	ESBMC 1.22. Lecture Notes in Computer Science, 2014, , 405-407.	1.0	26
11	SMT-Based Bounded Model Checking of C++ Programs. , 2013, , .		19
12	Verification of fixed-point digital controllers using direct and delta forms realizations. Design Automation for Embedded Systems, 2016, 20, 95-126.	0.7	19
13	Automated Formal Synthesis of Digital Controllers for State-Space Physical Plants. Lecture Notes in Computer Science, 2017, , 462-482.	1.0	19
14	Formal Non-Fragile Stability Verification of Digital Control Systems with Uncertainty. IEEE Transactions on Computers, 2017, 66, 545-552.	2.4	19
15	DepthK: A k-Induction Verifier Based on Invariant Inference for C Programs. Lecture Notes in Computer Science, 2017, , 360-364.	1.0	19
16	Model Checking Embedded C Software Using k-Induction and Invariants. , 2015, , .		18
17	Model checking LTL properties over ANSI-C programs with bounded traces. Software and Systems Modeling, 2015, 14, 65-81.	2.2	18
18	Applying SMT-based verification to hardware/software partitioning in embedded systems. Design Automation for Embedded Systems, 2016, 20, 1-19.	0.7	18

#	ARTICLE	IF	CITATIONS
19	Handling Unbounded Loops with ESBMC 1.20. Lecture Notes in Computer Science, 2013, , 619-622.	1.0	18
20	SMT-based bounded model checking for multi-threaded software in embedded systems. , 2010, , .		17
21	Automated formal verification of stand-alone solar photovoltaic systems. Solar Energy, 2019, 193, 684-691.	2.9	17
22	JBMC: Bounded Model Checking for Java Bytecode. Lecture Notes in Computer Science, 2019, , 219-223.	1.0	14
23	Survey on automated symbolic verification and its application for synthesising cyber-physical systems. IET Cyber-Physical Systems: Theory and Applications, 2020, 5, 1-24.	1.9	14
24	Agile Development Methodology for Embedded Systems: A Platform-Based Design Approach. , 2007, , .		13
25	Bounded model checking of C++ programs based on the Qt cross-platform framework. Software Testing Verification and Reliability, 2017, 27, e1632.	1.7	13
26	SMT-based context-bounded model checking for CUDA programs. Concurrency Computation Practice and Experience, 2017, 29, e3934.	1.4	13
27	Bounded model checking for fixed-point digital filters. Journal of the Brazilian Computer Society, 2016, 22, .	0.8	12
28	ESBMC-GPU A context-bounded model checking tool to verify CUDA programs. Science of Computer Programming, 2018, 152, 63-69.	1.5	12
29	Sim3Tanks: A Benchmark Model Simulator for Process Control and Monitoring. IEEE Access, 2018, 6, 62234-62254.	2.6	12
30	Verifying CUDA programs using SMT-based context-bounded model checking. , 2016, , .		12
31	DSVerifier-Aided Verification Applied to Attitude Control Software in Unmanned Aerial Vehicles. IEEE Transactions on Reliability, 2018, 67, 1420-1441.	3.5	11
32	Model checking C++ programs. Software Testing Verification and Reliability, 2022, 32, e1793.	1.7	11
33	Context-Bounded Model Checking of LTL Properties for ANSI-C Software. Lecture Notes in Computer Science, 2011, , 302-317.	1.0	10
34	FuSeBMC: An Energy-Efficient Test Generator for Finding Security Vulnerabilities in C Programs. Lecture Notes in Computer Science, 2021, , 85-105.	1.0	10
35	Sound and Automated Synthesis of Digital Stabilizing Controllers for Continuous Plants. , 2017, , .		10
36	Verification and refutation of C programs based on k-induction and invariant inference. International Journal on Software Tools for Technology Transfer, 2021, 23, 115-135.	1.7	9

#	ARTICLE	IF	CITATIONS
37	ESBMC 6.1: automated test case generation using bounded model checking. International Journal on Software Tools for Technology Transfer, 2021, 23, 857-861.	1.7	8
38	Continuous Verification of Large Embedded Software Using SMT-Based Bounded Model Checking. , 2010, , .		7
39	Verification of Delta Form Realization in Fixed-Point Digital Controllers Using Bounded Model Checking. , 2014, , .		7
40	SMT-based bounded model checking of fixed-point digital controllers. , 2014, , .		7
41	Applying symbolic bounded model checking to the 2012 RERS greybox challenge. International Journal on Software Tools for Technology Transfer, 2014, 16, 519-529.	1.7	7
42	Hunting Memory Bugs in C Programs with Map2Check. Lecture Notes in Computer Science, 2016, , 934-937.	1.0	7
43	FuSeBMC: A White-Box Fuzzer for Finding Security Vulnerabilities in C Programs (Competition) Tj ETQq1 1 0.784314rgBT /Oyerlock 10	1.0	7
44	TXM. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2007, 32, 4.	0.5	6
45	Fault Localization in Multi-threaded C Programs Using Bounded Model Checking. , 2015, , .		6
46	A method to localize faults in concurrent C programs. Journal of Systems and Software, 2017, 132, 336-352.	3.3	6
47	Verifying digital systems with MATLAB. , 2017, , .		6
48	Verifying fragility in digital systems with uncertainties using DSVerifier v2.0. Journal of Systems and Software, 2019, 153, 22-43.	3.3	6
49	Map2Check: Using Symbolic Execution and Fuzzing. Lecture Notes in Computer Science, 2020, , 403-407.	1.0	6
50	FuSeBMC v4: Smart Seed Generation for Hybrid Fuzzing. Lecture Notes in Computer Science, 2022, , 336-340.	1.0	6
51	Planning and Evaluation of UAV Mission Planner for Intralogistics Problems. , 2017, , .		5
52	A Platform-Based Software Design Methodology for Embedded Control Systems: An Agile Toolkit. , 2008, , .		4
53	Mandos: A User Interaction Method in Embedded Applications for Mobile Telephony. , 2008, , .		4
54	ESBMC \$\$^{QtOM}\$\$ Qt O M : A Bounded Model Checking Tool to Verify Qt Applications. Lecture Notes in Computer Science, 2016, , 97-103.	1.0	4

#	ARTICLE	IF	CITATIONS
55	DSSynth: An automated digital controller synthesis tool for physical plants. , 2017, , .		4
56	Map2Check Using LLVM and KLEE. Lecture Notes in Computer Science, 2018, , 437-441.	1.0	4
57	Automated formal synthesis of provably safe digital controllers for continuous plants. Acta Informatica, 2020, 57, 223-244.	0.5	4
58	Wit4Java: A Violation-Witness Validator for Java Verifiers (Competition Contribution). Lecture Notes in Computer Science, 2022, , 484-489.	1.0	4
59	Gift young engineers: An extra-curricular initiative for updating computer and electrical engineering courses. , 2011, , .		3
60	Counterexample guided inductive optimization based on satisfiability modulo theories. Science of Computer Programming, 2018, 165, 3-23.	1.5	3
61	Incremental Bounded Model Checking of Artificial Neural Networks in CUDA. , 2019, , .		3
62	Encoding Floating-Point Numbers Using the SMT Theory in ESBMC: An Empirical Evaluation over the SV-COMP Benchmarks. Lecture Notes in Computer Science, 2017, , 91-106.	1.0	3
63	Verifying Embedded C Software with Timing Constraints Using an Untimed Bounded Model Checker. , 2011, , .		2
64	BMCLua: Verification of Lua programs in digital TV interactive applications. , 2014, , .		2
65	Applying Multi-core Model Checking to Hardware-Software Partitioning in Embedded Systems. , 2015, , .		2
66	Complementary training programme for electrical and computer engineering students through an industrial-academic collaboration. , 2016, , .		2
67	SMT-Based Context-Bounded Model Checking for Embedded Systems. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2016, 41, 1-6.	0.5	2
68	A Power Control and Anticolision Mechanism for RFID Systems. IEEE Latin America Transactions, 2017, 15, 1933-1940.	1.2	2
69	An Efficient Floating-Point Bit-Blasting API for Verifying C Programs. Lecture Notes in Computer Science, 2020, , 178-195.	1.0	2
70	OptCE: A Counterexample-Guided Inductive Optimization Solver. Lecture Notes in Computer Science, 2017, , 125-141.	1.0	2
71	ESBMC-Solidity: An SMT-Based Model Checker for Solidity Smart Contracts. , 2022, , .		2
72	ESBMC-CHERI: towards verification of C programs for CHERI platforms with ESBMC. , 2022, , .		2

#	ARTICLE	IF	CITATIONS
73	Towards a model-driven engineering approach for developing embedded hard real-time software. , 2008, , .		1
74	A car racing based strategy for the Dynamic Voltage and Frequency Scaling technique. , 2012, , .		1
75	BMCLua. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2017, 42, 1-10.	0.5	1
76	Multi-core model checking and maximum satisfiability applied to hardware-software partitioning. International Journal of Embedded Systems, 2017, 9, 570.	0.2	1
77	DSValidator. , 2018, , .		1
78	Towards counterexample-guided k-induction for fast bug detection. , 2018, , .		1
79	Formal Non-fragile Verification of Step Response Requirements for Digital State-Feedback Control Systems. Journal of Control, Automation and Electrical Systems, 2020, 31, 557-573.	1.2	1
80	Model Checking Embedded C Software Using k-Induction and Invariants. Embedded Systems, 2017, , 159-182.	0.6	1
81	Hardware Update through Digital TV Signals. Electronics (Switzerland), 2021, 10, 3072.	1.8	1
82	ezRealtime: A Domain-Specific Modeling Tool for Embedded Hard Real-Time Software Synthesis. , 2008, , .		0
83	Dynamic and automated product derivation for consumer electronics software applications. IEEE Transactions on Consumer Electronics, 2013, 59, 883-891.	3.0	0
84	A secondary screen architecture to accurately capture viewers' interactions in an iTV environment. , 2014, , .		0
85	Hardware reconfiguration based on broadcasted digital TV signal. , 2015, , .		0
86	Counterexample guided inductive optimization applied to mobile robots path planning. , 2017, , .		0
87	Bounded model checking of C++ programs based on the Qt cross-platform framework (journal-first) Tj ETQq1 1 0.784314 rgBT /Overlock		0
88	A randomized, multicenter clinical trial to determine the efficacy and safety of pegfilgrastim (GEMA) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 patients with breast cancer.. Journal of Clinical Oncology, 2019, 37, 3113-3113.	0.8	0
89	Synthesis of Solar Photovoltaic Systems: Optimal Sizing Comparison. Lecture Notes in Computer Science, 2020, , 87-105.	1.0	0
90	Assisted Counterexample-Guided Inductive Optimization for Robot Path Planning. , 2021, , .		0

#	ARTICLE	IF	CITATIONS
91	Summary of Model Checking C++ Programs. , 2022, , .		0
92	ESBMC-Jimple: verifying Kotlin programs via jimple intermediate representation. , 2022, , .		0