Alberto Griggio

List of Publications by Year
in descending order

57 papers	1,827 citations	535685 17 h-index	355658 38 g-index
59 all docs	59 docs citations	59 times ranked	955 citing authors

#	Article	IF	Citations
1	Proving the Existence of Fair Paths in Infinite-State Systems. Lecture Notes in Computer Science, 2021, , 104-126.	1.0	4
2	Implicit Semi-Algebraic Abstraction for Polynomial Dynamical Systems. Lecture Notes in Computer Science, 2021, , 529-551.	1.0	3
3	Counterexample-Guided Prophecy for Model Checking Modulo the Theory of Arrays. Lecture Notes in Computer Science, 2021, , 113-132.	1.0	4
4	Certifying proofs for SAT-based model checking. Formal Methods in System Design, 2021, 57, 178-210.	0.9	2
5	Efficient SMT-Based Analysis of Failure Propagation. Lecture Notes in Computer Science, 2021, , 209-230.	1.0	3
6	Optimization Modulo Non-linear Arithmetic via Incremental Linearization. Lecture Notes in Computer Science, 2021, , 213-231.	1.0	1
7	Universal Invariant Checking of Parametric Systems with Quantifier-free SMT Reasoning. Lecture Notes in Computer Science, 2021, , 131-147.	1.0	7
8	Automatic Discovery of Fair Paths in Infinite-State Transition Systems. Lecture Notes in Computer Science, 2021, , 32-47.	1.0	2
9	SMT-based satisfiability of first-order LTL with event freezing functions and metric operators. Information and Computation, 2020, 272, 104502.	0.5	8
10	A Model-Based Approach to the Design, Verification and Deployment of Railway Interlocking System. Lecture Notes in Computer Science, 2020, , 240-254.	1.0	11
11	Safe Decomposition of Startup Requirements: Verification and Synthesis. Lecture Notes in Computer Science, 2020, , 155-172.	1.0	0
12	Extending nuXmv with Timed Transition Systems and Timed Temporal Properties. Lecture Notes in Computer Science, 2019, , 376-386.	1.0	18
13	Certifying Proofs for LTL Model Checking. , 2018, , .		13
14	Symbolic execution with existential second-order constraints. , 2018, , .		25
15	Incremental linearization: A practical approach to satisfiability modulo nonlinear arithmetic and transcendental functions. , 2018, , .		2
16	Incremental Linearization for Satisfiability and Verification Modulo Nonlinear Arithmetic and Transcendental Functions. ACM Transactions on Computational Logic, 2018, 19, 1-52.	0.7	28
17	Experimenting on Solving Nonlinear Integer Arithmetic with Incremental Linearization. Lecture Notes in Computer Science, 2018, , 383-398.	1.0	9
18	Satisfiability checking and symbolic computation. ACM Communications in Computer Algebra, 2017, 50, 145-147.	0.2	2

#	Article	IF	Citations
19	Invariant Checking of NRA Transition Systems via Incremental Reduction to LRA with EUF. Lecture Notes in Computer Science, 2017, , 58-75.	1.0	17
20	Preface to special issue on satisfiability modulo theories. Formal Methods in System Design, 2017, 51, 431-432.	0.9	0
21	Satisfiability Modulo Transcendental Functions via Incremental Linearization. Lecture Notes in Computer Science, 2017, , 95-113.	1.0	8
22	Infinite-state invariant checking with IC3 and predicate abstraction. Formal Methods in System Design, 2016, 49, 190-218.	0.9	28
23	Infinite-State Liveness-to-Safety via Implicit Abstraction and Well-Founded Relations. Lecture Notes in Computer Science, 2016, , 271-291.	1.0	15
24	Comparing Different Variants of the ic3 Algorithm for Hardware Model Checking. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2016, 35, 1026-1039.	1.9	27
25	$$mathsf {SC}^mathsf{2} $$: Satisfiability Checking Meets Symbolic Computation. Lecture Notes in Computer Science, 2016, , 28-43.	1.0	17
26	The xSAP Safety Analysis Platform. Lecture Notes in Computer Science, 2016, , 533-539.	1.0	47
27	Verilog2SMV: A Tool for Word-level Verification. , 2016, , .		12
28	HyComp: An SMT-Based Model Checker for Hybrid Systems. Lecture Notes in Computer Science, 2015, , 52-67.	1.0	47
29	Efficient Anytime Techniques for Model-Based Safety Analysis. Lecture Notes in Computer Science, 2015, , 603-621.	1.0	19
30	Deciding floating-point logic with abstract conflict driven clause learning. Formal Methods in System Design, 2014, 45, 213-245.	0.9	39
31	The nuXmv Symbolic Model Checker. Lecture Notes in Computer Science, 2014, , 334-342.	1.0	268
32	Verifying LTL Properties of Hybrid Systems with K-Liveness. Lecture Notes in Computer Science, 2014, , 424-440.	1.0	18
33	IC3 Modulo Theories via Implicit Predicate Abstraction. Lecture Notes in Computer Science, 2014, , 46-61.	1.0	64
34	Parameter synthesis with IC3. , 2013, , .		38
35	An Abstract Interpretation of DPLL(T). Lecture Notes in Computer Science, 2013, , 455-475.	1.0	10
36	The MathSAT5 SMT Solver. Lecture Notes in Computer Science, 2013, , 93-107.	1.0	318

#	Article	IF	Citations
37	Interpolation-Based Verification of Floating-Point Programs with Abstract CDCL. Lecture Notes in Computer Science, 2013, , 412-432.	1.0	15
38	A Modular Approach to MaxSAT Modulo Theories. Lecture Notes in Computer Science, 2013, , 150-165.	1.0	19
39	A Practical Approach to Satisfiability Modulo Linear Integer Arithmetic. Journal of Satisfiability, Boolean Modeling and Computation, 2012, 8, 1-27.	1.2	12
40	Optimizing Monitoring Requirements in Self-adaptive Systems. Lecture Notes in Business Information Processing, 2012, , 362-377.	0.8	7
41	Software Model Checking via IC3. Lecture Notes in Computer Science, 2012, , 277-293.	1.0	95
42	Stochastic Local Search for SMT: Combining Theory Solvers with WalkSAT. Lecture Notes in Computer Science, 2011, , 163-178.	1.0	8
43	Efficient Interpolant Generation in Satisfiability Modulo Linear Integer Arithmetic. Lecture Notes in Computer Science, 2011, , 143-157.	1.0	9
44	Kratos â€“ A Software Model Checker for SystemC. Lecture Notes in Computer Science, 2011, , 310-316.	1.0	44
45	Efficient generation of craig interpolants in satisfiability modulo theories. ACM Transactions on Computational Logic, 2010, 12, 1-54.	0.7	45
46	Satisfiability Modulo the Theory of Costs: Foundations and Applications. Lecture Notes in Computer Science, 2010, , 99-113.	1.0	51
47	Delayed theory combination vs. Nelson-Oppen for satisfiability modulo theories: a comparative analysis. Annals of Mathematics and Artificial Intelligence, 2009, 55, 63-99.	0.9	12
48	Software model checking via large-block encoding. , 2009, , .		96
49	Interpolant Generation for UTVPI. Lecture Notes in Computer Science, 2009, , 167-182.	1.0	12
50	The MathSATÂ4 SMT Solver. Lecture Notes in Computer Science, 2008, , 299-303.	1.0	127
51	Efficient Interpolant Generation in Satisfiability Modulo Theories. , 2008, , 397-412.		45
52	A Simple and Flexible Way of Computing Small Unsatisfiable Cores in SAT Modulo Theories. , 2007, , 334-339.		25
53	A Lazy and Layered SMT($mathcal{BV}$) Solver for Hard Industrial Verification Problems. , 2007, , 547-560.		34
54	To Ackermann-ize or Not to Ackermann-ize? On Efficiently Handling Uninterpreted Function Symbols in $mathit{SMT}(mathcal{EUF} cup mathcal{T})$. Lecture Notes in Computer Science, 2006, , 557-571.	1.0	12

#	Article	IF	Citations
55	Delayed Theory Combination vs. Nelson-Oppen for Satisfiability Modulo Theories: A Comparative Analysis. Lecture Notes in Computer Science, 2006, , 527-541.	1.0	10
56	Efficient Interpolant Generation in Satisfiability Modulo Linear Integer Arithmetic. Logical Methods in Computer Science, 0, Volume 8, Issue 3, .	0.4	6
57	ARCH-COMP19 Category Report: Hybrid Systems with Piecewise Constant Dynamics. , 0, , .		1