Armando Tacchella

List of Publications by Year
in descending order

86 papers	2,155 citations	471371 17 h-index	243529 44 g-index
93 all docs	93 docs citations	93 times ranked	1280 citing authors

#	Article	IF	Citations
1	Chapter 32. SAT Techniques for Modal and Description Logics. Frontiers in Artificial Intelligence and Applications, 2021, , .	0.3	0
2	pyNeVer: A Framework for Learning andÂVerification of Neural Networks. Lecture Notes in Computer Science, 2021, , 357-363.	1.0	6
3	Formalizing the Execution Context of Behavior Trees for Runtime Verification of Deliberative Policies. , 2021, , .		4
4	Automated Requirements-Based Testing of Black-Box Reactive Systems. Lecture Notes in Computer Science, 2020, , 153-169.	1.0	1
5	Integrated Synthesis and Execution of Optimal Plans for Multi-Robot Systems in Logistics. Information Systems Frontiers, 2019, 21, 87-107.	4.1	15
6	Resilience of Cyber-Physical Systems: an Experimental Appraisal of Quantitative Measures. , 2019, , .		9
7	Property specification patterns at work: verification and inconsistency explanation. Innovations in Systems and Software Engineering, 2019, 15, 307-323.	1.6	8
8	Poster: Automatic Consistency Checking of Requirements with ReqV. , 2019, , .		5
9	Repairing Learned Controllers with Convex Optimization: A Case Study. Lecture Notes in Computer Science, 2019, , 364-373.	1.0	5
10	Improving Reliability of Myocontrol Using Formal Verification. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 564-571.	2.7	9
11	Conditional Behavior Trees: Definition, Executability, and Applications. , 2019, , .		11
12	Automating Elevator Design with Satisfiability Modulo Theories. , 2019, , .		3
13	Automata Based Test Generation with SpecPro. , 2019, , .		0
14	Verification and Repair of Neural Networks: A Progress Report on Convolutional Models. Lecture Notes in Computer Science, 2019, , 405-417.	1.0	3
15	SMT-based Planning for Robots in Smart Factories. Lecture Notes in Computer Science, 2019, , 674-686.	1.0	5
16	Engineering Controllers For Swarm Robotics Via Reachability Analysis In Hybrid Systems. , 2019, , .		1
17	Verification and repair of control policies for safe reinforcement learning. Applied Intelligence, 2018, 48, 886-908.	3.3	14
18	Task Planning with OMT: AnÂApplication to Production Logistics. Lecture Notes in Computer Science, 2018, , 316-325.	1.0	2

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19	Constrained Image Generation Using Binarized Neural Networks with Decision Procedures. Lecture Notes in Computer Science, 2018, , 438-449.	1.0	9
20	Consistency of Property Specification Patterns with Boolean and Constrained Numerical Signals. Lecture Notes in Computer Science, 2018, , 383-398.	1.0	8
21	Concrete vs. Symbolic Simulation To Assess Cyber-Resilience Of Control Systems. , 2018, , .		0
22	Learning middleware models for verification of distributed control programs. Robotics and Autonomous Systems, 2017, 92, 139-151.	3.0	4
23	On the Synthesis of Guaranteed-Quality Plans for Robot Fleets in Logistics Scenarios via Optimization Modulo Theories. , 2017, , .		8
24	Ontologies in System Engineering: A Field Report. Lecture Notes in Computer Science, 2017, , 502-506.	1.0	1
25	Computer Intensive Vs. Heuristic Methods In Automated Design Of Elevator Systems. , 2017, , .		3
26	More Adaptive Does not Imply Less Safe (with Formal Verification). Lecture Notes in Computer Science, 2017, , 237-240.	1.0	0
27	Learning for Verification in Embedded Systems: A Case Study. Lecture Notes in Computer Science, 2016, , 525-538.	1.0	1
28	Twelve Years of QBF Evaluations: QSAT Is PSPACE-Hard and It Shows. Fundamenta Informaticae, 2016, 149, 133-158.	0.3	8
29	Evaluating probabilistic model checking tools for verification of robot control policies. AI Communications, 2016, 29, 287-299.	0.8	7
30	Combining Static and Runtime Methods to Achieve Safe Standing-Up for Humanoid Robots. Lecture Notes in Computer Science, 2016, , 496-514.	1.0	4
31	Introducing Computer Engineering Curriculum to Upper Secondary Students: An Evaluation of Experiences Based on Educational Robotics. , 2016, , .		1
32	Learning in Physical Domains: Mating Safety Requirements and Costly Sampling. Lecture Notes in Computer Science, 2016, , 539-552.	1.0	5
33	A Multi-Formalism Framework To Generate Diagnostic Decision Support Systems. , 2016, , .		1
34	Automatic Test-Pattern Generation for Grey-Box Programs. , 2015, , .		0
35	A Greedy Approach for the Efficient Repair of Stochastic Models. Lecture Notes in Computer Science, 2015, , 295-309.	1.0	33
36	Testing a Learn-Verify-Repair Approach for Safe Human-Robot Interaction. Lecture Notes in Computer Science, 2015, , 260-273.	1.0	1

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37	Is verification a requisite for safe adaptive robots?. , 2014, , .		2
38	On the Design of an Intelligent Sensor Network for Flash Flood Monitoring, Diagnosis and Management in Urban Areas Position Paper. Procedia Computer Science, 2014, 32, 941-946.	1.2	16
39	Reverse Engineering of Middleware for Verification of Robot Control Architectures. Lecture Notes in Computer Science, 2014, , 315-326.	1.0	2
40	Ensuring safety of policies learned by reinforcement: Reaching objects in the presence of obstacles with the iCub. , 2013, , .		14
41	Ontology-based data access: An application to intermodal logistics. Information Systems Frontiers, 2013, 15, 849-871.	4.1	13
42	Towards an Ontology-Based Framework to Generate Diagnostic Decision Support Systems. Lecture Notes in Computer Science, 2013, , 25-36.	1.0	2
43	Challenging SMT solvers to verify neural networks. AI Communications, 2012, 25, 117-135.	0.8	65
44	NeVer: a tool for artificial neural networks verification. Annals of Mathematics and Artificial Intelligence, 2011, 62, 403-425.	0.9	15
45	From Natural Language Definitions to Knowledge Bases Axioms. Lecture Notes in Computer Science, 2011, , 445-450.	1.0	1
46	Checking Safety of Neural Networks with SMT Solvers: A Comparative Evaluation. Lecture Notes in Computer Science, 2011, , 127-138.	1.0	2
47	An Empirical Study of QBF Encodings: from Treewidth Estimation to Useful Preprocessing. Fundamenta Informaticae, 2010, 102, 391-427.	0.3	2
48	AQMEâ€™10. Journal of Satisfiability, Boolean Modeling and Computation, 2010, 7, 65-70.	1.2	1
49	Safe and effective learning: A case study. , 2010, , .		7
50	The Seventh QBF Solvers Evaluation (QBFEVALâ€™10). Lecture Notes in Computer Science, 2010, , 237-250.	1.0	18
51	An Abstraction-Refinement Approach to Verification of Artificial Neural Networks. Lecture Notes in Computer Science, 2010, , 243-257.	1.0	148
52	Safe Learning with Real-Time Constraints: A Case Study. Lecture Notes in Computer Science, 2010, , 133-142.	1.0	0
53	Anomaly Detection in Noisy and Irregular Time Series: The â€œTurbodiesel Charging Pressureâ€•Case Study. Lecture Notes in Computer Science, 2010, , 123-132.	1.0	0
54	Evaluating and certifying QBFs: A comparison of state-of-the-art tools. AI Communications, 2009, 22, 191-210.	0.8	18

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55	A self-adaptive multi-engine solver for quantified Boolean formulas. Constraints, 2009, 14, 80-116.	0.4	67
56	An Ontology-Based Condition Analyzer for Fault Classification on Railway Vehicles. Lecture Notes in Computer Science, 2009, , 449-458.	1.0	3
57	Hard QBF Encodings Made Easy: Dream or Reality?. Lecture Notes in Computer Science, 2009, , 31-41.	1.0	0
58	Learning to Integrate Deduction and Search in Reasoning about Quantified Boolean Formulas. Lecture Notes in Computer Science, 2009, , 350-365.	1.0	4
59	Guest Editors Conclusion. Journal of Satisfiability, Boolean Modeling and Computation, 2008, 4, 279-280.	1.2	0
60	Treewidth: A Useful Marker of Empirical Hardness in Quantified Boolean Logic Encodings. Lecture Notes in Computer Science, 2008, , 528-542.	1.0	10
61	Quantifier Structure in Search-Based Procedures for QBFs. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2007, 26, 497-507.	1.9	11
62	Ranking and Reputation Systems in the QBF Competition. Lecture Notes in Computer Science, 2007, , 97-108.	1.0	2
63	A Multi-engine Solver for Quantified Boolean Formulas. , 2007, , 574-589.		34
64	Report of the Third QBF Solvers Evaluation1. Journal of Satisfiability, Boolean Modeling and Computation, 2006, 2, 145-164.	1.2	20
65	The QBFEVAL Web Portal. Lecture Notes in Computer Science, 2006, , 494-497.	1.0	8
66	The Second QBF Solvers Comparative Evaluation. Lecture Notes in Computer Science, 2005, , 376-392.	1.0	11
67	QBF Reasoning on Real-World Instances. Lecture Notes in Computer Science, 2005, , 105-121.	1.0	9
68	SAT-Based Decision Procedures for Automated Reasoning: A Unifying Perspective. Lecture Notes in Computer Science, 2005, , 46-58.	1.0	4
69	QuBE++: An Efficient QBF Solver. Lecture Notes in Computer Science, 2004, , 201-213.	1.0	24
70	Watched Data Structures for QBF Solvers. Lecture Notes in Computer Science, 2004, , 25-36.	1.0	19
71	Challenges in the QBF Arena: the SATâ€™03 Evaluation of QBF Solvers. Lecture Notes in Computer Science, 2004, , 468-485.	1.0	23
72	Monotone Literals and Learning in QBF Reasoning. Lecture Notes in Computer Science, 2004, , 260-273.	1.0	10

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73	Backjumping for Quantified Boolean Logic satisfiability. Artificial Intelligence, 2003, 145, 99-120.	3.9	39
74	SAT-based planning in complex domains: Concurrency, constraints and nondeterminism. Artificial Intelligence, 2003, 147, 85-117.	3.9	52
75	SAT-Based Decision Procedures for Classical Modal Logics. Journal of Automated Reasoning, 2002, 28, 143-171.	1.1	36
76	Dependent and Independent Variables in Propositional Satisfiability. Lecture Notes in Computer Science, 2002, , 296-307.	1.0	19
77	Integrating BDD-Based and SAT-Based Symbolic Model Checking. Lecture Notes in Computer Science, 2002, , 49-56.	1.0	15
78	A Subset-Matching Size-Bounded Cache for Testing Satisfiability in Modal Logics. Annals of Mathematics and Artificial Intelligence, 2001, 33, 39-67.	0.9	3
79	Towards an Efficient Library for SAT: a Manifesto. Electronic Notes in Discrete Mathematics, 2001, 9, 290-310.	0.4	2
80	Benefits of Bounded Model Checking at an Industrial Setting. Lecture Notes in Computer Science, 2001, , 436-453.	1.0	99
81	QuBE: A System for Deciding Quantified Boolean Formulas Satisfiability. Lecture Notes in Computer Science, 2001, , 364-369.	1.0	76
82	An Analysis of Backjumping and Trivial Truth in Quantified Boolean Formulas Satisfiability. Lecture Notes in Computer Science, 2001, , 111-122.	1.0	5
83	The SAT-Based Approach for Classical Modal Logics. Lecture Notes in Computer Science, 2000, , 95-106.	1.0	5
84	SAT vs. Translation Based decision procedures for modal logics: a comparative evaluation. Journal of Applied Non-Classical Logics, 2000, 10, 145-172.	0.4	18
85	A Subset-Matching Size-Bounded Cache for Satisfiability in Modal Logics. Lecture Notes in Computer Science, 2000, , 237-251.	1.0	4
86	System Description: *sat: A Platform for the Development of Modal Decision Procedures. Lecture Notes in Computer Science, 2000, , 291-296.	1.0	2