

Joao Marques-Silva

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/5569636/joao-marques-silva-publications-by-year.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

148
papers

2,755
citations

25
h-index

47
g-index

153
ext. papers

3,096
ext. citations

1
avg, IF

5.54
L-index

#	Paper	IF	Citations
148	SAT-Based Rigorous Explanations for Decision Lists. <i>Lecture Notes in Computer Science</i> , 2021 , 251-269	0.9	3
147	Propositional proof systems based on maximum satisfiability. <i>Artificial Intelligence</i> , 2021 , 300, 103552	3.6	1
146	Assessing Progress in SAT Solvers Through the Lens of Incremental SAT. <i>Lecture Notes in Computer Science</i> , 2021 , 280-298	0.9	
145	From Contrastive to Abductive Explanations and Back Again. <i>Lecture Notes in Computer Science</i> , 2021 , 335-355	0.9	6
144	Reasoning About Strong Inconsistency in ASP. <i>Lecture Notes in Computer Science</i> , 2020 , 332-342	0.9	2
143	Towards Formal Fairness in Machine Learning. <i>Lecture Notes in Computer Science</i> , 2020 , 846-867	0.9	5
142	Optimum stable model search: algorithms and implementation. <i>Journal of Logic and Computation</i> , 2020 , 30, 863-897	0.4	12
141	Efficient Symmetry Breaking for SAT-Based Minimum DFA Inference. <i>Lecture Notes in Computer Science</i> , 2019 , 159-173	0.9	3
140	Formally Verifying the Solution to the Boolean Pythagorean Triples Problem. <i>Journal of Automated Reasoning</i> , 2019 , 63, 695-722	1	8
139	On Computing the Union of MUSes. <i>Lecture Notes in Computer Science</i> , 2019 , 211-221	0.9	5
138	DRMaxSAT with MaxHS: First Contact. <i>Lecture Notes in Computer Science</i> , 2019 , 239-249	0.9	2
137	Assessing Heuristic Machine Learning Explanations with Model Counting. <i>Lecture Notes in Computer Science</i> , 2019 , 267-278	0.9	11
136	Model-Based Diagnosis with Multiple Observations 2019 ,		3
135	Computing Shortest Resolution Proofs. <i>Lecture Notes in Computer Science</i> , 2019 , 539-551	0.9	1
134	Abduction-Based Explanations for Machine Learning Models. <i>Proceedings of the AAAI Conference on Artificial Intelligence</i> , 2019 , 33, 1511-1519	5	28
133	PySAT: A Python Toolkit for Prototyping with SAT Oracles. <i>Lecture Notes in Computer Science</i> , 2018 , 428-437	6.37	39
132	Computing with SAT Oracles: Past, Present and Future. <i>Lecture Notes in Computer Science</i> , 2018 , 264-276	0.9	1

131	A SAT-Based Approach to Learn Explainable Decision Sets. <i>Lecture Notes in Computer Science</i> , 2018 , 627-645	0.9	13
130	Learning Optimal Decision Trees with SAT 2018 ,		18
129	Propositional SAT Solving 2018 , 247-275		7
128	Efficient Certified Resolution Proof Checking. <i>Lecture Notes in Computer Science</i> , 2017 , 118-135	0.9	18
127	Improving MCS Enumeration via Caching. <i>Lecture Notes in Computer Science</i> , 2017 , 184-194	0.9	6
126	Minimal sets on propositional formulae. Problems and reductions. <i>Artificial Intelligence</i> , 2017 , 252, 22-50;6		13
125	Lean Kernels in Description Logics. <i>Lecture Notes in Computer Science</i> , 2017 , 518-533	0.9	7
124	On Tackling the Limits of Resolution in SAT Solving. <i>Lecture Notes in Computer Science</i> , 2017 , 164-183	0.9	10
123	Horn Maximum Satisfiability: Reductions, Algorithms and Applications. <i>Lecture Notes in Computer Science</i> , 2017 , 681-694	0.9	2
122	Fast, flexible MUS enumeration. <i>Constraints</i> , 2016 , 21, 223-250	0.3	55
121	Maximal falsifiability. <i>AI Communications</i> , 2016 , 29, 351-370	0.8	2
120	Efficient Reasoning for Inconsistent Horn Formulae. <i>Lecture Notes in Computer Science</i> , 2016 , 336-352	0.9	4
119	MCS Extraction with Sublinear Oracle Queries. <i>Lecture Notes in Computer Science</i> , 2016 , 342-360	0.9	10
118	Quantified maximum satisfiability. <i>Constraints</i> , 2016 , 21, 277-302	0.3	7
117	On the query complexity of selecting minimal sets for monotone predicates. <i>Artificial Intelligence</i> , 2016 , 233, 73-83	3.6	13
116	Solving QBF with counterexample guided refinement. <i>Artificial Intelligence</i> , 2016 , 234, 1-25	3.6	52
115	MaxSAT-based encodings for Group MaxSAT. <i>AI Communications</i> , 2015 , 28, 195-214	0.8	6
114	Algorithms for computing backbones of propositional formulae. <i>AI Communications</i> , 2015 , 28, 161-177	0.8	21

113	Expansion-based QBF solving versus Q-resolution. <i>Theoretical Computer Science</i> , 2015 , 577, 25-42	1.1	48
112	SAT-Based Formula Simplification. <i>Lecture Notes in Computer Science</i> , 2015 , 287-298	0.9	6
111	Efficient MUS Enumeration of Horn Formulae with Applications to Axiom Pinpointing. <i>Lecture Notes in Computer Science</i> , 2015 , 324-342	0.9	13
110	SAT-Based Horn Least Upper Bounds. <i>Lecture Notes in Computer Science</i> , 2015 , 423-433	0.9	
109	Smallest MUS Extraction with Minimal Hitting Set Dualization. <i>Lecture Notes in Computer Science</i> , 2015 , 173-182	0.9	23
108	Computing Maximal Autarkies with Few and Simple Oracle Queries. <i>Lecture Notes in Computer Science</i> , 2015 , 138-155	0.9	7
107	Efficient Axiom Pinpointing with EL2MCS. <i>Lecture Notes in Computer Science</i> , 2015 , 225-233	0.9	8
106	On Reducing Maximum Independent Set to Minimum Satisfiability. <i>Lecture Notes in Computer Science</i> , 2014 , 103-120	0.9	4
105	Towards efficient optimization in package management systems 2014 ,		13
104	Algorithms for computing minimal equivalent subformulas. <i>Artificial Intelligence</i> , 2014 , 216, 309-326	3.6	7
103	Efficient Relaxations of Over-constrained CSPs 2014 ,		5
102	MUS Extraction Using Clausal Proofs. <i>Lecture Notes in Computer Science</i> , 2014 , 48-57	0.9	10
101	On Computing Preferred MUSes and MCSes. <i>Lecture Notes in Computer Science</i> , 2014 , 58-74	0.9	4
100	Core-Guided MaxSAT with Soft Cardinality Constraints. <i>Lecture Notes in Computer Science</i> , 2014 , 564-573	0.9	28
99	Synthesizing Safe Bit-Precise Invariants. <i>Lecture Notes in Computer Science</i> , 2014 , 93-108	0.9	12
98	Iterative and core-guided MaxSAT solving: A survey and assessment. <i>Constraints</i> , 2013 , 18, 478-534	0.3	85
97	Quantified Maximum Satisfiability:. <i>Lecture Notes in Computer Science</i> , 2013 , 250-266	0.9	7
96	Maximal Falsifiability. <i>Lecture Notes in Computer Science</i> , 2013 , 439-456	0.9	5

95	Core minimization in SAT-based abstraction 2013 ,		6
94	A Two-Variable Model for SAT-Based ATPG. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2013 , 32, 1943-1956	2.5	9
93	Model-Guided Approaches for MaxSAT Solving 2013 ,		5
92	Formula Preprocessing in MUS Extraction. <i>Lecture Notes in Computer Science</i> , 2013 , 108-123	0.9	10
91	On Propositional QBF Expansions and Q-Resolution. <i>Lecture Notes in Computer Science</i> , 2013 , 67-82	0.9	14
90	MaxSAT-Based MCS Enumeration. <i>Lecture Notes in Computer Science</i> , 2013 , 86-101	0.9	16
89	Minimal Sets over Monotone Predicates in Boolean Formulae. <i>Lecture Notes in Computer Science</i> , 2013 , 592-607	0.9	31
88	On QBF Proofs and Preprocessing. <i>Lecture Notes in Computer Science</i> , 2013 , 473-489	0.9	15
87	SAT-Based Preprocessing for MaxSAT. <i>Lecture Notes in Computer Science</i> , 2013 , 96-111	0.9	11
86	Solving QBF with Free Variables. <i>Lecture Notes in Computer Science</i> , 2013 , 415-431	0.9	2
85	Parallel MUS Extraction. <i>Lecture Notes in Computer Science</i> , 2013 , 133-149	0.9	2
84	SMT-Based Bounded Model Checking for Embedded ANSI-C Software. <i>IEEE Transactions on Software Engineering</i> , 2012 , 38, 957-974	3.5	88
83	Improvements to Core-Guided Binary Search for MaxSAT. <i>Lecture Notes in Computer Science</i> , 2012 , 284-297		22
82	HYBRID INCREMENTAL ALGORITHMS FOR BOOLEAN SATISFIABILITY. <i>International Journal on Artificial Intelligence Tools</i> , 2012 , 21, 1250025	0.9	1
81	Towards efficient MUS extraction. <i>AI Communications</i> , 2012 , 25, 97-116	0.8	56
80	TG-Pro: A SAT-based ATPG System. <i>Journal of Satisfiability, Boolean Modeling and Computation</i> , 2012 , 8, 83-88	1.2	4
79	Iterative SAT Solving for Minimum Satisfiability 2012 ,		8
78	Knowledge Compilation with Empowerment. <i>Lecture Notes in Computer Science</i> , 2012 , 612-624	0.9	12

77	Efficient and Accurate Haplotype Inference by Combining Parsimony and Pedigree Information. <i>Lecture Notes in Computer Science, 2012, 38-56</i>	0.9	6
76	An Empirical Study of Encodings for Group MaxSAT. <i>Lecture Notes in Computer Science, 2012, 85-96</i>	0.9	3
75	Solving QBF with Counterexample Guided Refinement. <i>Lecture Notes in Computer Science, 2012, 114-128</i>	0.9	63
74	On Efficient Computation of Variable MUSes. <i>Lecture Notes in Computer Science, 2012, 298-311</i>	0.9	3
73	On Computing Minimal Equivalent Subformulas. <i>Lecture Notes in Computer Science, 2012, 158-174</i>	0.9	9
72	Lower Bounds and Upper Bounds for MaxSAT. <i>Lecture Notes in Computer Science, 2012, 402-407</i>	0.9	3
71	Improvements to Satisfiability-Based Boolean Function Bi-Decomposition. <i>International Federation for Information Processing, 2012, 52-72</i>		2
70	Restoring CSP Satisfiability with MaxSAT. <i>Fundamenta Informaticae, 2011, 107, 249-266</i>	1	1
69	Boolean lexicographic optimization: algorithms & applications. <i>Annals of Mathematics and Artificial Intelligence, 2011, 62, 317-343</i>	0.8	39
68	Haplotype inference with pseudo-Boolean optimization. <i>Annals of Operations Research, 2011, 184, 137-152</i>	0.9	7
67	Improvements to satisfiability-based boolean function bi-decomposition 2011,		2
66	On Validating Boolean Optimizers 2011,		2
65	Minimally Unsatisfiable Boolean Circuits. <i>Lecture Notes in Computer Science, 2011, 145-158</i>	0.9	4
64	On Improving MUS Extraction Algorithms. <i>Lecture Notes in Computer Science, 2011, 159-173</i>	0.9	30
63	Abstraction-Based Algorithm for 2QBF. <i>Lecture Notes in Computer Science, 2011, 230-244</i>	0.9	29
62	Empirical Study of the Anatomy of Modern Sat Solvers. <i>Lecture Notes in Computer Science, 2011, 343-356</i>	0.9	26
61	On Deciding MUS Membership with QBF. <i>Lecture Notes in Computer Science, 2011, 414-428</i>	0.9	6
60	cmMUS: A Tool for Circumscription-Based MUS Membership Testing. <i>Lecture Notes in Computer Science, 2011, 266-271</i>	0.9	3

59	Haplotype Inference Using Propositional Satisfiability 2011 , 127-147		1
58	Combinatorial Optimization Solutions for the Maximum Quartet Consistency Problem. <i>Fundamenta Informaticae</i> , 2010 , 102, 363-389	1	4
57	Haplotype inference by Pure Parsimony: a survey. <i>Journal of Computational Biology</i> , 2010 , 17, 969-92	1.7	9
56	Automated Design Debugging With Maximum Satisfiability. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2010 , 29, 1804-1817	2.5	54
55	Continuous Verification of Large Embedded Software Using SMT-Based Bounded Model Checking 2010 ,		6
54	Minimal Unsatisfiability: Models, Algorithms and Applications (Invited Paper) 2010 ,		28
53	How to Complete an Interactive Configuration Process?. <i>Lecture Notes in Computer Science</i> , 2010 , 528-539	0.9	7
52	Industrial-Strength Certified SAT Solving through Verified SAT Proof Checking. <i>Lecture Notes in Computer Science</i> , 2010 , 260-274	0.9	18
51	Counterexample Guided Abstraction Refinement Algorithm for Propositional Circumscription. <i>Lecture Notes in Computer Science</i> , 2010 , 195-207	0.9	6
50	Semiformal Verification of Embedded Software in Medical Devices Considering Stringent Hardware Constraints 2009 ,		25
49	A branch and bound algorithm for extracting smallest minimal unsatisfiable subformulas. <i>Constraints</i> , 2009 , 14, 415-442	0.3	28
48	TG-PRO: A new model for SAT-based ATPG 2009 ,		6
47	SMT-Based Bounded Model Checking for Embedded ANSI-C Software 2009 ,		44
46	Spatial and temporal design debug using partial MaxSAT 2009 ,		13
45	Algorithms for Weighted Boolean Optimization. <i>Lecture Notes in Computer Science</i> , 2009 , 495-508	0.9	64
44	A Lazy Unbounded Model Checker for Event-B. <i>Lecture Notes in Computer Science</i> , 2009 , 485-503	0.9	6
43	Practical applications of Boolean Satisfiability 2008 ,		47
42	Towards More Effective Unsatisfiability-Based Maximum Satisfiability Algorithms 2008 , 225-230		18

41	Algorithms for Maximum Satisfiability using Unsatisfiable Cores 2008 ,		17
40	Algorithms for maximum satisfiability using unsatisfiable cores 2008 ,		31
39	HAPLOTYPE INFERENCE WITH BOOLEAN SATISFIABILITY. <i>International Journal on Artificial Intelligence Tools</i> , 2008 , 17, 355-387	0.9	15
38	Haplotype Inference with Boolean Constraint Solving: An Overview 2008 ,		2
37	Boosting Haplotype Inference with Local Search. <i>Constraints</i> , 2008 , 13, 155-179	0.3	11
36	Model checking with Boolean Satisfiability. <i>Journal of Algorithms</i> , 2008 , 63, 3-16		2
35	Efficient Haplotype Inference with Combined CP and OR Techniques 2008 , 308-312		6
34	Improvements to Hybrid Incremental SAT Algorithms 2008 , 168-181		4
33	Symmetry Breaking for Maximum Satisfiability. <i>Lecture Notes in Computer Science</i> , 2008 , 1-15	0.9	3
32	Random backtracking in backtrack search algorithms for satisfiability. <i>Discrete Applied Mathematics</i> , 2007 , 155, 1604-1612	1	4
31	Interpolant Learning and Reuse in SAT-Based Model Checking. <i>Electronic Notes in Theoretical Computer Science</i> , 2007 , 174, 31-43	0.7	13
30	Towards Equivalence Checking Between TLM and RTL Models 2007 ,		22
29	Efficient and Tight Upper Bounds for Haplotype Inference by Pure Parsimony Using Delayed Haplotype Selection 2007 , 621-632		3
28	Breaking Symmetries in SAT Matrix Models 2007 , 22-27		2
27	Efficient Haplotype Inference with Pseudo-boolean Optimization. <i>Lecture Notes in Computer Science</i> , 2007 , 125-139	0.9	17
26	Towards Robust CNF Encodings of Cardinality Constraints 2007 , 483-497		24
25	Categorisation of Clauses in Conjunctive Normal Forms: Minimally Unsatisfiable Sub-clause-sets and the Lean Kernel. <i>Lecture Notes in Computer Science</i> , 2006 , 22-35	0.9	22
24	SAT in Bioinformatics: Making the Case with Haplotype Inference. <i>Lecture Notes in Computer Science</i> , 2006 , 136-141	0.9	30

23	Counting Models in Integer Domains. <i>Lecture Notes in Computer Science</i> , 2006 , 410-423	0.9	6
22	Good learning and implicit model enumeration 2005 ,		5
21	On Applying Cutting Planes in DLL-Based Algorithms for Pseudo-Boolean Optimization. <i>Lecture Notes in Computer Science</i> , 2005 , 451-458	0.9	2
20	Efficient data structures for backtrack search SAT solvers. <i>Annals of Mathematics and Artificial Intelligence</i> , 2005 , 43, 137-152	0.8	
19	Efficient data structures for backtrack search SAT solvers. <i>Annals of Mathematics and Artificial Intelligence</i> , 2005 , 43, 137-152	0.8	7
18	Heuristic-Based Backtracking Relaxation for Propositional Satisfiability. <i>Journal of Automated Reasoning</i> , 2005 , 35, 3-24	1	2
17	Satisfiability-based algorithms for pseudo-Boolean optimization using Gomory cuts and search restarts 2005 ,		2
16	A Branch-and-Bound Algorithm for Extracting Smallest Minimal Unsatisfiable Formulas. <i>Lecture Notes in Computer Science</i> , 2005 , 467-474	0.9	25
15	Improvements to the Implementation of Interpolant-Based Model Checking. <i>Lecture Notes in Computer Science</i> , 2005 , 367-370	0.9	12
14	An Overview of Backtrack Search Satisfiability Algorithms. <i>Annals of Mathematics and Artificial Intelligence</i> , 2003 , 37, 307-326	0.8	10
13	Solving satisfiability in combinational circuits. <i>IEEE Design and Test of Computers</i> , 2003 , 20, 16-21		6
12	The Effect of Nogood Recording in DPLL-CBJ SAT Algorithms. <i>Lecture Notes in Computer Science</i> , 2003 , 144-158	0.9	5
11	Satisfiability models and algorithms for circuit delay computation. <i>ACM Transactions on Design Automation of Electronic Systems</i> , 2002 , 7, 137-158	1.5	19
10	Search pruning techniques in SAT-based branch-and-bound algorithms for the binate covering problem. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2002 , 21, 505-516	2.5	20
9	Stochastic Systematic Search Algorithms for Satisfiability. <i>Electronic Notes in Discrete Mathematics</i> , 2001 , 9, 190-204	0.3	12
8	Towards Provably Complete Stochastic Search Algorithms for Satisfiability. <i>Lecture Notes in Computer Science</i> , 2001 , 363-370	0.9	3
7	Using Randomization and Learning to Solve Hard Real-World Instances of Satisfiability. <i>Lecture Notes in Computer Science</i> , 2000 , 489-494	0.9	26
6	Algebraic Simplification Techniques for Propositional Satisfiability. <i>Lecture Notes in Computer Science</i> , 2000 , 537-542	0.9	12

- 5 GRASP: a search algorithm for propositional satisfiability. *IEEE Transactions on Computers*, **1999**, 48, 506-521 698
- 4 Ravel-XL: a hardware accelerator for assigned-delay compiled-code logic gate simulation. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, **1996**, 4, 113-129 2.6 2
- 3 Integration of lower bound estimates in pseudo-Boolean optimization 2
- 2 Effective lower bounding techniques for pseudo-Boolean optimization [EDA applications] 13
- 1 Solving Linux Upgradeability Problems Using Boolean Optimization. *Electronic Proceedings in Theoretical Computer Science, EPTCS,29*, 11-22 21