

Goran Frehse

List of Publications by Year in Descending Order

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

44
papers

1,181
citations

16
h-index

34
g-index

49
ext. papers

1,367
ext. citations

1.6
avg, IF

4.87
L-index

#	Paper	IF	Citations
44	Set Propagation Techniques for Reachability Analysis. <i>Annual Review of Control, Robotics, and Autonomous Systems</i> , 2021 , 4, 369-395	11.8	22
43	Falsification of hybrid systems with symbolic reachability analysis and trajectory splicing. <i>Nonlinear Analysis: Hybrid Systems</i> , 2021 , 42, 101093	4.5	
42	Reachability Analysis of Linear Hybrid Systems via Block Decomposition. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2020 , 39, 4018-4029	2.5	3
41	JuliaReach 2019 ,		18
40	Falsification of hybrid systems using symbolic reachability and trajectory splicing 2019 ,		3
39	Formal Feature Interpretation of Hybrid Systems. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2018 , 37, 2474-2484	2.5	3
38	Space-Time Interpolants. <i>Lecture Notes in Computer Science</i> , 2018 , 468-486	0.9	3
37	Reach Set Approximation through Decomposition with Low-dimensional Sets and High-dimensional Matrices 2018 ,		20
36	Verification of Hybrid Systems 2018 , 1047-1110		18
35	The 20th ACM International Conference on Hybrid Systems: Computation and Control [Conference Reports]. <i>IEEE Control Systems</i> , 2017 , 37, 98-99	2.9	5
34	Constructing verification models of nonlinear Simulink systems via syntactic hybridization 2017 ,		1
33	Counterexample-Guided Refinement of Template Polyhedra. <i>Lecture Notes in Computer Science</i> , 2017 , 589-606	0.9	10
32	Guided search for hybrid systems based on coarse-grained space abstractions. <i>International Journal on Software Tools for Technology Transfer</i> , 2016 , 18, 449-467	1.3	10
31	From Simulation Models to Hybrid Automata Using Urgency and Relaxation 2016 ,		6
30	SL2SX Translator 2016 ,		25
29	Formal feature analysis of hybrid automata 2016 ,		2
28	Combining zonotopes and support functions for efficient reachability analysis of linear systems 2016 ,		17

27	Current Challenges in the Verification of Hybrid Systems. <i>Lecture Notes in Computer Science</i> , 2015 , 8-24	0.9	18
26	Eliminating spurious transitions in reachability with support functions 2015 ,		13
25	Reachability of hybrid systems in space-time 2015 ,		2
24	A Benchmark Suite for Hybrid Systems Reachability Analysis. <i>Lecture Notes in Computer Science</i> , 2015 , 408-414	0.9	18
23	An Introduction to Hybrid Automata, Numerical Simulation and Reachability Analysis 2015 , 50-81		2
22	Formal Analysis of Timing Effects on Closed-Loop Properties of Control Software 2014 ,		36
21	Non-convex Invariants and Urgency Conditions on Linear Hybrid Automata. <i>Lecture Notes in Computer Science</i> , 2014 , 176-190	0.9	5
20	Assume-Guarantee Abstraction Refinement Meets Hybrid Systems. <i>Lecture Notes in Computer Science</i> , 2014 , 116-131	0.9	21
19	Flowpipe approximation and clustering in space-time 2013 ,		34
18	Modular, hierarchical models of control systems in SpaceEx 2013 ,		4
17	Abstraction-Based Guided Search for Hybrid Systems. <i>Lecture Notes in Computer Science</i> , 2013 , 117-134	0.9	6
16	Flowpipe-Guard Intersection for Reachability Computations with Support Functions*. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 94-101		6
15	A Box-Based Distance between Regions for Guiding the Reachability Analysis of SpaceEx. <i>Lecture Notes in Computer Science</i> , 2012 , 479-494	0.9	10
14	SpaceEx: Scalable Verification of Hybrid Systems. <i>Lecture Notes in Computer Science</i> , 2011 , 379-395	0.9	368
13	Efficient Bounded Reachability Computation for Rectangular Automata. <i>Lecture Notes in Computer Science</i> , 2011 , 139-152	0.9	3
12	Monitoring Dynamical Signals While Testing Timed Aspects of a System. <i>Lecture Notes in Computer Science</i> , 2011 , 115-130	0.9	1
11	Design Principles for an Extendable Verification Tool for Hybrid Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2009 , 42, 244-249		3
10	PHAVer: algorithmic verification of hybrid systems past HyTech. <i>International Journal on Software Tools for Technology Transfer</i> , 2008 , 10, 263-279	1.3	136

9	A Counterexample-Guided Approach to Parameter Synthesis for Linear Hybrid Automata. <i>Lecture Notes in Computer Science</i> , 2008 , 187-200	0.9	40
8	Reachability Analysis of a Switched Buffer Network 2007 , 698-701		2
7	Recent progress in continuous and hybrid reachability analysis 2006 ,		47
6	Time Domain Verification of Oscillator Circuit Properties. <i>Electronic Notes in Theoretical Computer Science</i> , 2006 , 153, 9-22	0.7	15
5	Recent Progress in Continuous Hybrid Reachability Analysis 2006 ,		8
4	On Timed Simulation Relations for Hybrid Systems and Compositionality. <i>Lecture Notes in Computer Science</i> , 2006 , 200-214	0.9	6
3	PHAVer: Algorithmic Verification of Hybrid Systems Past HyTech. <i>Lecture Notes in Computer Science</i> , 2005 , 258-273	0.9	207
2	MODULAR ANALYSIS OF DISCRETE CONTROLLERS FOR DISTRIBUTED HYBRID SYSTEMS. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2002 , 35, 469-474		2
1	Tools for the Analysis of Hybrid Models 227-251		1