

Sriram Sankaranarayanan

List of Publications by Year in descending order

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62
papers

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40
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docs citations

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times ranked

957
citing authors

#	ARTICLE	IF	CITATIONS
1	Flow*: An Analyzer for Non-linear Hybrid Systems. Lecture Notes in Computer Science, 2013, , 258-263.	1.3	277
2	S-TaLiRo: A Tool for Temporal Logic Falsification for Hybrid Systems. Lecture Notes in Computer Science, 2011, , 254-257.	1.3	239
3	Linear Invariant Generation Using Non-linear Constraint Solving. Lecture Notes in Computer Science, 2003, , 420-432.	1.3	196
4	Output Range Analysis for Deep Feedforward Neural Networks. Lecture Notes in Computer Science, 2018, , 121-138.	1.3	149
5	Scalable Analysis of Linear Systems Using Mathematical Programming. Lecture Notes in Computer Science, 2005, , 25-41.	1.3	143
6	Taylor Model Flowpipe Construction for Non-linear Hybrid Systems. , 2012, , .		132
7	Monte-carlo techniques for falsification of temporal properties of non-linear hybrid systems. , 2010, , .		98
8	Reachability analysis for neural feedback systems using regressive polynomial rule inference. , 2019, , .		90
9	Constructing invariants for hybrid systems. Formal Methods in System Design, 2008, 32, 25-55.	0.8	70
10	Verification of automotive control applications using S-TaLiRo. , 2012, , .		68
11	Static Analysis in Disjunctive Numerical Domains. Lecture Notes in Computer Science, 2006, , 3-17.	1.3	65
12	Constraint-Based Linear-Relations Analysis. Lecture Notes in Computer Science, 2004, , 53-68.	1.3	63
13	Fast and Accurate Static Data-Race Detection for Concurrent Programs. , 2007, , 226-239.		47
14	Learning and Verification of Feedback Control Systems using Feedforward Neural Networks. IFAC-PapersOnLine, 2018, 51, 151-156.	0.9	41
15	Symbolic Model Checking of Hybrid Systems Using Template Polyhedra. , 2008, , 188-202.		40
16	Collecting Statistics Over Runtime Executions. Formal Methods in System Design, 2005, 27, 253-274.	0.8	32
17	Efficient Strongly Relational Polyhedral Analysis. Lecture Notes in Computer Science, 2005, , 111-125.	1.3	30
18	Static analysis for probabilistic programs. ACM SIGPLAN Notices, 2013, 48, 447-458.	0.2	29

#	ARTICLE	IF	CITATIONS
19	Sherlock - A tool for verification of neural network feedback systems. , 2019, , .		26
20	Learning control lyapunov functions from counterexamples and demonstrations. Autonomous Robots, 2019, 43, 275-307.	4.8	25
21	Linear relaxations of polynomial positivity for polynomial Lyapunov function synthesis. IMA Journal of Mathematical Control and Information, 2016, 33, 723-756.	1.7	24
22	Semantic Reduction of Thread Interleavings in Concurrent Programs. Lecture Notes in Computer Science, 2009, , 124-138.	1.3	24
23	Counter-Example Guided Synthesis of control Lyapunov functions for switched systems. , 2015, , .		23
24	On the minimal revision problem of specification automata. International Journal of Robotics Research, 2015, 34, 1515-1535.	8.5	23
25	Factory-Calibrated Continuous Glucose Monitoring: How and Why It Works, and the Dangers of Reuse Beyond Approved Duration of Wear. Diabetes Technology and Therapeutics, 2019, 21, 222-229.	4.4	23
26	On the revision problem of specification automata. , 2012, , .		21
27	Multi-Hour Blood Glucose Prediction in Type 1 Diabetes: A Patient-Specific Approach Using Shallow Neural Network Models. Diabetes Technology and Therapeutics, 2020, 22, 883-891.	4.4	21
28	Program Analysis Using Symbolic Ranges. Lecture Notes in Computer Science, 2007, , 366-383.	1.3	21
29	Model Predictive Real-Time Monitoring of Linear Systems. , 2017, , .		20
30	Robustness of Specifications and Its Applications to Falsification, Parameter Mining, and Runtime Monitoring with S-TaLiRo. Lecture Notes in Computer Science, 2019, , 27-47.	1.3	20
31	Robust controller synthesis of switched systems using counterexample guided framework. , 2016, , .		17
32	Predictive Runtime Monitoring for Linear Stochastic Systems and Applications to Geofence Enforcement for UAVs. Lecture Notes in Computer Science, 2019, , 349-367.	1.3	17
33	DC2: A framework for scalable, scope-bounded software verification. , 2011, , .		16
34	Validating Numerical Semidefinite Programming Solvers for Polynomial Invariants. Lecture Notes in Computer Science, 2016, , 424-446.	1.3	13
35	Robust Data-Driven Control of Artificial Pancreas Systems Using Neural Networks. Lecture Notes in Computer Science, 2018, , 183-202.	1.3	12
36	Learning Lyapunov (Potential) Functions from Counterexamples and Demonstrations. , 0, , .		12

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37	A model-based approach to synthesizing insulin infusion pump usage parameters for diabetic patients. , 2012, , .		11
38	Scalable and scope-bounded software verification in Varvel. Automated Software Engineering, 2015, 22, 517-559.	2.9	10
39	Validating numerical semidefinite programming solvers for polynomial invariants. Formal Methods in System Design, 2018, 53, 286-312.	0.8	10
40	Formal Techniques for Verification and Testing of Cyber-Physical Systems. , 2019, , 69-105.		10
41	A Bit Too Precise? Bounded Verification of Quantized Digital Filters. Lecture Notes in Computer Science, 2012, , 33-47.	1.3	10
42	Static analysis for concurrent programs with applications to data race detection. International Journal on Software Tools for Technology Transfer, 2013, 15, 321-336.	1.9	9
43	Change-of-bases abstractions for non-linear hybrid systems. Nonlinear Analysis: Hybrid Systems, 2016, 19, 107-133.	3.5	9
44	A bit too precise? Verification of quantized digital filters. International Journal on Software Tools for Technology Transfer, 2014, 16, 175-190.	1.9	8
45	Symbolic modular deadlock analysis. Automated Software Engineering, 2011, 18, 325-362.	2.9	7
46	Experience Report: Application of Falsification Methods on the UxAS System. Lecture Notes in Computer Science, 2018, , 452-459.	1.3	7
47	Object Model Construction for Inheritance in C++ and Its Applications to Program Analysis. Lecture Notes in Computer Science, 2012, , 144-164.	1.3	7
48	Reachability Analysis for Cyber-Physical Systems: Are We There Yet?. Lecture Notes in Computer Science, 2022, , 109-130.	1.3	7
49	Path-Following through Control Funnel Functions. , 2018, , .		5
50	Unbounded-Time Safety Verification of Stochastic Differential Dynamics. Lecture Notes in Computer Science, 2020, , 327-348.	1.3	5
51	Template polyhedra and bilinear optimization. Formal Methods in System Design, 2019, 54, 27-63.	0.8	4
52	Efficient Detection and Quantification of Timing Leaks with Neural Networks. Lecture Notes in Computer Science, 2019, , 329-348.	1.3	3
53	Static Analysis of ReLU Neural Networks with Tropical Polyhedra. Lecture Notes in Computer Science, 2021, , 166-190.	1.3	3
54	Reachability Analysis Using Message Passing over Tree Decompositions. Lecture Notes in Computer Science, 2020, , 604-628.	1.3	3

#	ARTICLE	IF	CITATIONS
55	Lyapunov Function Synthesis - Infeasibility and Farkasâ€™ Lemma * *This work is supported by the Danish Council for Independent Research under grant number DFF - 4005-00452 in the project CodeMe.. IFAC-PapersOnLine, 2017, 50, 1667-1672.	0.9	2
56	Conformance verification for neural network models of glucose-insulin dynamics. , 2020, , .		2
57	Quantitative estimation of side-channel leaks with neural networks. International Journal on Software Tools for Technology Transfer, 2021, 23, 641.	1.9	1
58	Reaching Out Towards Fully Verified Autonomous Systems. Lecture Notes in Computer Science, 2019, , 22-32.	1.3	1
59	Foreword: Special issue on numerical software verification. Formal Methods in System Design, 2009, 35, 227-228.	0.8	0
60	Simulation-guided parameter synthesis for chance-constrained optimization of control systems. , 2015, , .		0
61	Guest Editorial: Special issue on formal modeling and analysis of timed systems. Real-Time Systems, 2017, 53, 289-290.	1.3	0
62	Distributed Online Convex Programming for Collision Avoidance in Multi-agent Autonomous Vehicle Systems. , 2019, , .		0