Stavros Tripakis

List of Publications by Year
in descending order

118 papers	3,161 citations	201385 27 h-index	214527 47 g-index
125 all docs	125 docs citations	125 times ranked	1230 citing authors

#	Article	IF	Citations
1	Kronos: A model-checking tool for real-time systems. Lecture Notes in Computer Science, 1998, , 546-550.	1.0	172
2	Fault Diagnosis for Timed Automata. Lecture Notes in Computer Science, 2002, , 205-221.	1.0	147
3	Conformance testing for real-time systems. Formal Methods in System Design, 2009, 34, 238-304.	0.9	136
4	Black-Box Conformance Testing for Real-Time Systems. Lecture Notes in Computer Science, 2004, , 109-126.	1.0	124
5	Translating discrete-time simulink to lustre. Transactions on Embedded Computing Systems, 2005, 4, 779-818.	2.1	116
6	Analysis of Timed Systems Using Time-Abstracting Bisimulations. Formal Methods in System Design, 2001, 18, 25-68.	0.9	103
7	Decentralized Control of Discrete-Event Systems With Bounded or Unbounded Delay Communication. IEEE Transactions on Automatic Control, 2004, 49, 1489-1501.	3.6	90
8	Cyber-physical system design contracts. , 2013, , .		82
9	Undecidable problems of decentralized observation and control onÂregular languages. Information Processing Letters, 2004, 90, 21-28.	0.4	77
10	Determinate composition of FMUs for co-simulation. , 2013, , .		71
11	Implementing Synchronous Models on Loosely Time Triggered Architectures. IEEE Transactions on Computers, 2008, 57, 1300-1314.	2.4	67
12	From simulink to SCADE/lustre to TTA. ACM SIGPLAN Notices, 2003, 38, 153-162.	0.2	65
13	From simulink to SCADE/lustre to TTA. , 2003, , .		61
14	Checking Timed BÃ¼chi Automata Emptiness Efficiently. Formal Methods in System Design, 2005, 26, 267-292.	0.9	56
15	Viewpoints, formalisms, languages, and tools for cyber-physical systems. , 2012, , .		53
16	Verifying Progress in Timed Systems. Lecture Notes in Computer Science, 1999, , 299-314.	1.0	51
17	A Theory of Synchronous Relational Interfaces. ACM Transactions on Programming Languages and Systems, 2011, 33, 1-41.	1.7	50
18	Supervisory control and reactive synthesis: a comparative introduction. Discrete Event Dynamic Systems: Theory and Applications, 2017, 27, 209-260.	0.6	48

#	ARTICLE	IF	CITATIONS
19	Hybrid co-simulation: it's about time. Software and Systems Modeling, 2019, 18, 1655-1679.	2.2	46
20	On-the-Fly Controller Synthesis for Discrete and Dense-Time Systems. Lecture Notes in Computer Science, 1999, , 233-252.	1.0	46
21	Compositionality in synchronous data flow. Transactions on Embedded Computing Systems, 2013, 12, 1-26.	2.1	39
22	Requirements for hybrid cosimulation standards. , 2015, , .		38
23	Predictive runtime verification of timed properties. Journal of Systems and Software, 2017, 132, 353-365.	3.3	38
24	Implementation of Timed Automata: An Issue of Semantics or Modeling?. Lecture Notes in Computer Science, 2005, , 273-288.	1.0	38
25	The earlier the better. , 2011, , .		37
26	Extending promela and spin for real time. Lecture Notes in Computer Science, 1996, , 329-348.	1.0	36
27	A characterization of integrated multi-view modeling in the context of embedded and cyber-physical systems. , 2013, , .		36
28	A modular formal semantics for Ptolemy. Mathematical Structures in Computer Science, 2013, 23, 834-881.	0.5	36
29	A memory-optimal buffering protocol for preservation of synchronous semantics under preemptive scheduling. , 2006, , .		35
30	Semantics-preserving multitask implementation of synchronous programs. Transactions on Embedded Computing Systems, 2008, 7, 1-40.	2.1	34
31	Compositionality in the Science of System Design. Proceedings of the IEEE, 2016, 104, 960-972.	16.4	34
32	Folk theorems on the determinization and minimization of timed automata. Information Processing Letters, 2006, 99, 222-226.	0.4	33
33	Modular code generation from synchronous block diagrams. , 2009, , .		32
34	Bridging the semantic gap between heterogeneous modeling formalisms and FMI. , 2015, , .		32
35	Checking timed Büchi automata emptiness on simulation graphs. ACM Transactions on Computational Logic, 2009, 10, 1-19.	0.7	31
36	Efficient Verification of Timed Automata Using Dense and Discrete Time Semantics. Lecture Notes in Computer Science, 1999, , 125-141.	1.0	28

#	ARTICLE	IF	CITATIONS
37	Runtime Enforcement of Cyber-Physical Systems. Transactions on Embedded Computing Systems, 2017, 16, 1-25.	2.1	28
38	Kronos: A model-checking tool for real-time systems. Lecture Notes in Computer Science, 1998, , 298-302.	1.0	27
39	Synthesizing Finite-State Protocols from Scenarios and Requirements. Lecture Notes in Computer Science, 2014, , 75-91.	1.0	27
40	Verifying hierarchical Ptolemy II discrete-event models using Real-Time Maude. Science of Computer Programming, 2012, 77, 1235-1271.	1.5	26
41	Sensor Minimization Problems with Static or Dynamic Observers for Fault Diagnosis. , 2007, , .		24
42	Modular Code Generation from Triggered and Timed Block Diagrams. , 2008, , .		24
43	Modularity vs. reusability. , 2008, , .		24
44	Verifying Ptolemy II Discrete-Event Models Using Real-Time Maude. Lecture Notes in Computer Science, 2009, , 717-736.	1.0	24
45	Loosely time-triggered architectures based on communication-by-sampling. , 2007, , .		23
46	Scalable Semantic Annotation Using Lattice-Based Ontologies. Lecture Notes in Computer Science, 2009, , 393-407.	1.0	23
47	Automatic Synthesis of Distributed Protocols. ACM SIGACT News, 2017, 48, 55-90.	0.1	20
48	Learning Moore Machines from Input-Output Traces. Lecture Notes in Computer Science, 2016, , 291-309.	1.0	20
49	Basic Problems in Multi-View Modeling. Lecture Notes in Computer Science, 2014, , 217-232.	1.0	20
50	FIDE. , 2016, , .		20
51	Testing Conformance of Real-Time Applications by Automatic Generation of Observers. Electronic Notes in Theoretical Computer Science, 2005, 113, 23-43.	0.9	19
52	Runtime enforcement of reactive systems using synchronous enforcers. , 2017, , .		17
53	Exploring models of computation with ptolemy II. , 2010, , .		16
54	Predictive runtime enforcement. Formal Methods in System Design, 2017, 51, 154-199.	0.9	16

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55	On relational interfaces. , 2009, , .		16
56	Compositional Semantics and Analysis of Hierarchical Block Diagrams. Lecture Notes in Computer Science, 2016, , 38-56.	1.0	15
57	Real-Time Testing with Timed Automata Testers and Coverage Criteria. Lecture Notes in Computer Science, 2004, , 134-151.	1.0	14
58	Bridging the Gap between Supervisory Control and Reactive Synthesis: Case of Full Observation and Centralized Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 222-227.	0.4	14
59	Co-Simulation of Hybrid Systems with SpaceEx and Uppaal. , 2015, , .		14
60	Step revision in hybrid Co-simulation with FMI. , 2016, , .		13
61	State Identification Problems for Timed Automata. Lecture Notes in Computer Science, 2005, , 175-191.	1.0	12
62	Modular code generation from synchronous block diagrams. ACM SIGPLAN Notices, 2009, 44, 78-89.	0.2	12
63	Refinement calculus of reactive systems. , 2014, , .		12
64	Towards cyber-physical agnosticism by enhancing IEC 61499 with PTIDES model of computations. , 2015, , .		12
65	Library-based scalable refinement checking for contract-based design. , 2014, , .		11
66	Learning Moore machines from input–output traces. International Journal on Software Tools for Technology Transfer, 2021, 23, 1-29.	1.7	11
67	Automatic Completion of Distributed Protocols with Symmetry. Lecture Notes in Computer Science, 2015, , 395-412.	1.0	11
68	Timing Analysis and Code Generation of Vehicle Control Software using Taxys. Electronic Notes in Theoretical Computer Science, 2001, 55, 277-286.	0.9	10
69	Correct and non-defensive glue design using abstract models. , 2011, , .		10
70	Static dataflow with access patterns. , 2012, , .		10
71	Data-driven and model-based design. , 2018, , .		10
72	Are interface theories equivalent to contract theories?. , 2014, , .		9

#	Article	IF	Citations
73	Towards Compositional Feedback in Non-Deterministic and Non-Input-Receptive Systems. , 2016, , .		9
74	Communication by sampling in time-sensitive distributed systems. , 2006, , .		7
75	Synthesis Of Optimal-Cost Dynamic Observers for Fault Diagnosis of Discrete-Event Systems. , 2007, , .		7
76	The Refinement Calculus of Reactive Systems Toolset. International Journal on Software Tools for Technology Transfer, 2020, 22, 689-708.	1.7	7
77	Description and Schedulability Analysis of the Software Architecture of an Automated Vehicle Control System. Lecture Notes in Computer Science, 2002, , 123-137.	1.0	7
78	Predictive runtime enforcement. , 2016, , .		7
79	Fault diagnosis with dynamic observers. , 2008, , .		6
80	Modularity vs. Reusability: Code Generation from Synchronous Block Diagrams. , 2008, , .		6
81	Game theoretic secure localization in wireless sensor networks. , 2014, , .		6
82	Automated Module Composition. Lecture Notes in Computer Science, 2003, , 347-362.	1.0	6
83	Compositional Runtime Enforcement. Lecture Notes in Computer Science, 2016, , 82-99.	1.0	6
84	Type Inference of Simulink Hierarchical Block Diagrams in Isabelle. Lecture Notes in Computer Science, 2017, , 194-209.	1.0	6
85	Basic problems in multi-view modeling. Software and Systems Modeling, 2019, 18, 1577-1611.	2.2	5
86	Translating data flow to synchronous block diagrams. , 2008, , .		4
87	Optimized implementation of synchronous models on industrial LTTA systems. Journal of Systems Architecture, 2014, 60, 315-328.	2.5	4
88	Tokens vs. Signals: On Conformance between Formal Models of Dataflow and Hardware. Journal of Signal Processing Systems, 2016, 85, 23-43.	1.4	4
89	Modeling for Verification. , 2018, , 75-105.		4
90	Constrained synthesis from component libraries. Science of Computer Programming, 2019, 171, 21-41.	1.5	4

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91	Resource-Aware Verification Using Randomized Exploration of Large State Spaces. Lecture Notes in Computer Science, 2008, , 214-231.	1.0	4
92	A Combined On-Line/Off-Line Framework for Black-Box Fault Diagnosis. Lecture Notes in Computer Science, 2009, , 152-167.	1.0	4
93	On the Verification of Timed Discrete-Event Models. Lecture Notes in Computer Science, 2013, , 213-227.	1.0	4
94	Deep Random Search for Efficient Model Checking of Timed Automata. Lecture Notes in Computer Science, 2008, , 111-124.	1.0	4
95	State identification problems for input/output transition systems. , 2008, , .		3
96	Specification decomposition for synthesis from libraries of LTL Assume/Guarantee contracts. , 2018, , .		3
97	Modular Code Generation from Synchronous Block Diagrams: Interfaces, Abstraction, Compositionality. Lecture Notes in Computer Science, 2018, , 449-477.	1.0	3
98	Automatic generation of path conditions for concurrent timed systems. Theoretical Computer Science, 2008, 404, 275-292.	0.5	2
99	When Do We (Not) Need Complex Assume-Guarantee Rules?. , 2015, , .		2
100	Compositional Model-Based System Design and Other Foundations for Mastering Change. Lecture Notes in Computer Science, 2016, , 113-129.	1.0	2
101	Generating Path Conditions for Timed Systems. Lecture Notes in Computer Science, 2005, , 5-19.	1.0	2
102	Mechanically Proving Determinacy of Hierarchical Block Diagram Translations. Lecture Notes in Computer Science, 2019, , 577-600.	1.0	2
103	Constrained Synthesis from Component Libraries. Lecture Notes in Computer Science, 2017, , 92-110.	1.0	2
104	When Do We Not Need Complex Assume-Guarantee Rules?. Transactions on Embedded Computing Systems, 2017, 16, 1-25.	2.1	2
105	Library-based scalable refinement checking for contract-based design. , 2014, , .		2
106	Error-Completion in Interface Theories. Lecture Notes in Computer Science, 2013, , 358-375.	1.0	2
107	Decentralized Observation of Discrete-Event Systems: At Least One Can Tell. , 2021, , 1-1.		2
108	Automated Composition of Module Chains. Electronic Notes in Theoretical Computer Science, 2002, 65, 81-90.	0.9	1

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109	On tokens and signals: Bridging the semantic gap between dataflow models and hardware implementations. , 2014, , .		1
110	Efficient distribution of Triggered Synchronous Block Diagrams on asynchronous platforms. , 2015, , .		1
111	Multi-view consistency for infinitary regular languages. , 2016, , .		1
112	Feedback in Synchronous Relational Interfaces. Lecture Notes in Computer Science, 2014, , 249-266.	1.0	1
113	Fault Diagnosis of Timed Systems. , 0, , 107-138.		1
114	The refinement calculus of reactive systems. Information and Computation, 2022, 285, 104819.	0.5	1
115	Automatic Generation of Observers for the Dala Robot with TTG. AIP Conference Proceedings, 2008, , .	0.3	0
116	The Science of Software and System Design. IFAC-PapersOnLine, 2018, 51, 505-507.	0.5	0
117	Checking multi-view consistency of discrete systems with respect to periodic sampling abstractions. Science of Computer Programming, 2018, 167, 1-24.	1.5	0
118	Implémentabilité des automates temporisés. Journal Europeen Des Systemes Automatises, 2005, 39, 395-406.	0.3	0