Rajeev Alur

List of Publications by Year
in descending order

62 papers	9,470 citations	257357 24 h-index	214721 47 g-index
63 all docs	63 docs citations	63 times ranked	3218 citing authors

#	ARTICLE	IF	CITATIONS
1	Example-guided synthesis of relational queries. , 2021, , .		8
2	Compositional and symbolic synthesis of reactive controllers for multi-agent systems. Information and Computation, 2018, 261, 616-633.	0.5	12
3	NetEgg: A Scenario-Based Programming Toolkit for SDN Policies. IEEE/ACM Transactions on Networking, 2018, 26, 2104-2117.	2.6	2
4	Real-Time Decision Policies With Predictable Performance. Proceedings of the IEEE, 2018, 106, 1593-1615.	16.4	10
5	Quantitative Regular Expressions for Monitoring Cardiac Arrhythmias. , 2018, , .		1
6	Accelerating search-based program synthesis using learned probabilistic models. ACM SIGPLAN Notices, 2018, 53, 436-449.	0.2	17
7	Automatic Synthesis of Distributed Protocols. ACM SIGACT News, 2017, 48, 55-90.	0.1	20
8	Scaling Enumerative Program Synthesis via Divide and Conquer. Lecture Notes in Computer Science, 2017, , 319-336.	1.0	74
9	Scenario-based programming for SDN policies. , 2015, , .		21
10	Automatic Completion of Distributed Protocols with Symmetry. Lecture Notes in Computer Science, 2015, , 395-412.	1.0	11
11	Closed-loop verification of medical devices with model abstraction and refinement. International Journal on Software Tools for Technology Transfer, 2014, 16, 191-213.	1.7	35
12	Synthesizing Finite-State Protocols from Scenarios and Requirements. Lecture Notes in Computer Science, 2014, , 75-91.	1.0	27
13	Syntax-guided synthesis. , 2013, , .		303
14	TRANSIT. , 2013, , .		78
15	2010 CAV award announcement. Formal Methods in System Design, 2012, 40, 117-120.	0.9	0
16	2011 CAV award announcement. Formal Methods in System Design, 2012, 41, 1-2.	0.9	1
17	Modeling and Verification of a Dual Chamber Implantable Pacemaker. Lecture Notes in Computer Science, 2012, , 188-203.	1.0	77
18	Compositional Modeling and Analysis of Multi-Hop Control Networks. IEEE Transactions on Automatic Control, 2011, 56, 2345-2357.	3.6	98

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19	Active Learning of Plans for Safety and Reachability Goals With Partial Observability. IEEE Transactions on Systems, Man, and Cybernetics, 2010, 40, 412-420.	5.5	4
20	Scalable scheduling algorithms for wireless networked control systems. , 2009, , .		19
21	Modeling and Analysis of Multi-hop Control Networks. , 2009, , .		38
22	Automatic symbolic compositional verification byÂlearning assumptions. Formal Methods in System Design, 2008, 32, 207-234.	0.9	29
23	Regular Specifications of Resource Requirements for Embedded Control Software. , 2008, , .		32
24	RTComposer. , 2008, , .		20
25	Dispatch sequences for embedded control models. Journal of Computer and System Sciences, 2007, 73, 156-170.	0.9	1
26	Automata Based Interfaces for Control and Scheduling. , 2007, , 601-613.		42
27	Compositional modeling and refinement for hierarchical hybrid systems. The Journal of Logic and Algebraic Programming, 2006, 68, 105-128.	1.4	14
28	Learning-Based Symbolic Assume-Guarantee Reasoning with Automatic Decomposition. Lecture Notes in Computer Science, 2006, , 170-185.	1.0	27
29	Symbolic computational techniques for solving games. International Journal on Software Tools for Technology Transfer, 2005, 7, 118-128.	1.7	24
30	Deciding Global Partial-Order Properties. Formal Methods in System Design, 2005, 26, 7-25.	0.9	3
31	Symbolic Compositional Verification by Learning Assumptions. Lecture Notes in Computer Science, 2005, , 548-562.	1.0	87
32	Synthesis of interface specifications for Java classes. , 2005, , .		173
33	Synthesis of interface specifications for Java classes. ACM SIGPLAN Notices, 2005, 40, 98-109.	0.2	72
34	Deterministic generators and games for Ltl fragments. ACM Transactions on Computational Logic, 2004, 5, 1-25.	0.7	82
35	Modular refinement of hierarchic reactive machines. ACM Transactions on Programming Languages and Systems, 2004, 26, 339-369.	1.7	6
36	Polyhedral Flows in Hybrid Automata. Formal Methods in System Design, 2004, 24, 261-280.	0.9	2

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37	Formal specifications and analysis of the computer-assisted resuscitation algorithm (CARA) Infusion Pump Control System. International Journal on Software Tools for Technology Transfer, 2004, 5, 308-319.	1.7	29
38	Optimal Reachability for Weighted Timed Games. Lecture Notes in Computer Science, 2004, , 122-133.	1.0	34
39	Symbolic Computational Techniques for Solving Games. Electronic Notes in Theoretical Computer Science, 2003, 89, 578-592.	0.9	10
40	Generating embedded software from hierarchical hybrid models. ACM SIGPLAN Notices, 2003, 38, 171-182.	0.2	20
41	Alternating-time temporal logic. Journal of the ACM, 2002, 49, 672-713.	1.8	954
42	A Framework and Architecture for Multi-Robot Coordination. International Journal of Robotics Research, 2002, 21, 977-995.	5.8	102
43	Verifying Network Protocol Implementations by Symbolic Refinement Checking. Lecture Notes in Computer Science, 2001, , 169-181.	1.0	10
44	Compositional Refinement for Hierarchical Hybrid Systems. Lecture Notes in Computer Science, 2001, , 33-48.	1.0	35
45	Automated Refinement Checking for Asynchronous Processes. Lecture Notes in Computer Science, 2000, , 74-91.	1.0	6
46	Modular Specification of Hybrid Systems in Charon. Lecture Notes in Computer Science, 2000, , 6-19.	1.0	98
47	Modular refinement of hierarchic reactive machines. , 2000, , .		35
48	Exploiting Hierarchical Structure for Efficient Formal Verification. Lecture Notes in Computer Science, 2000, , 66-68.	1.0	0
49	Reactive Modules. Formal Methods in System Design, 1999, 15, 7-48.	0.9	366
50	Automating Modular Verification. Lecture Notes in Computer Science, 1999, , 82-97.	1.0	36
51	Communicating Hierarchical State Machines. Lecture Notes in Computer Science, 1999, , 169-178.	1.0	60
52	Model checking of hierarchical state machines. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 1998, 23, 175-188.	0.5	15
53	Finitary fairness. ACM Transactions on Programming Languages and Systems, 1998, 20, 1171-1194.	1.7	29
54	Time-Adaptive Algorithms for Synchronization. SIAM Journal on Computing, 1997, 26, 539-556.	0.8	18

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55	Computing Accumulated Delays in Real-time Systems. Formal Methods in System Design, 1997, 11, 137-155.	0.9	26
56	Real-time system = discrete system + clock variables. International Journal on Software Tools for Technology Transfer, 1997, 1, 86-109.	1.7	27
57	The benefits of relaxing punctuality. Journal of the ACM, 1996, 43, 116-146.	1.8	480
58	Contention-Free Complexity of Shared Memory Algorithms. Information and Computation, 1996, 126, 62-73.	0.5	14
59	Fast timing-based algorithms. Distributed Computing, 1996, 10, 1-10.	0.7	12
60	A really temporal logic. Journal of the ACM, 1994, 41, 181-203.	1.8	392
61	A theory of timed automata. Theoretical Computer Science, 1994, 126, 183-235.	0.5	5,188
62	Dispatch Sequences for Embedded Control Models. , 0, , .		4