Gethin J Norman

List of Publications by Year
in descending order

97 papers	6,432 citations	109311 35 h-index	79691 73 g-index
103 all docs	103 docs citations	103 times ranked	2149 citing authors

#	Article	IF	Citations
1	Probabilistic Model Checking and Autonomy. Annual Review of Control, Robotics, and Autonomous Systems, 2022, 5, 385-410.	11.8	10
2	Balancing Turn-Based Games With Chained Strategy Generation. IEEE Transactions on Games, 2021, 13, 113-122.	1.4	4
3	Automatic verification of concurrent stochastic systems. Formal Methods in System Design, 2021, 58, 188-250.	0.8	11
4	Collaborative models for autonomous systems controller synthesis. Formal Aspects of Computing, 2020, 32, 157-186.	1.8	6
5	PRISM-games 3.0: Stochastic Game Verification with Concurrency, Equilibria and Time. Lecture Notes in Computer Science, 2020, , 475-487.	1.3	34
6	Multi-player Equilibria Verification for Concurrent Stochastic Games. Lecture Notes in Computer Science, 2020, , 74-95.	1.3	7
7	Equilibria-Based Probabilistic Model Checking for Concurrent Stochastic Games. Lecture Notes in Computer Science, 2019, , 298-315.	1.3	13
8	Verification and Control of Turn-Based Probabilistic Real-Time Games. Lecture Notes in Computer Science, 2019, , 379-396.	1.3	8
9	Strategy Synthesis for Autonomous Agents Using PRISM. Lecture Notes in Computer Science, 2018, , 220-236.	1.3	9
10	Enhancing theoretical understanding of a practical biology course using active and self-directed learning strategies. Journal of Biological Education, 2018, 52, 184-195.	1.5	9
11	Probabilistic Model Checking: Advances and Applications. , 2018, , 73-121.		27
12	Automated Verification of Concurrent Stochastic Games. Lecture Notes in Computer Science, 2018, , 223-239.	1.3	11
13	Symbolic optimal expected time reachability computation and controller synthesis for probabilistic timed automata. Theoretical Computer Science, 2017, 669, 1-21.	0.9	6
14	Verification and control of partially observable probabilistic systems. Real-Time Systems, 2017, 53, 354-402.	1.3	42
15	Expected reachability-time games. Theoretical Computer Science, 2016, 631, 139-160.	0.9	7
16	Autonomous Agent Behaviour Modelled in PRISM – A Case Study. Lecture Notes in Computer Science, 2016, , 104-110.	1.3	12
17	Mathematical Modelling of Trust Issues in Federated Identity Management. IFIP Advances in Information and Communication Technology, 2015, , 13-29.	0.7	5
18	Verification and Control of Partially Observable Probabilistic Real-Time Systems. Lecture Notes in Computer Science, 2015, , 240-255.	1.3	7

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19	Symbolic Minimum Expected Time Controller Synthesis for Probabilistic Timed Automata. Lecture Notes in Computer Science, 2015, , 140-155.	1.3	4
20	Mathematical Modelling of Identity, Identity Management and Other Related Topics. , 2014, , .		9
21	Quantitative Aspects of Programming Languages and Systems (2011â€"12). Theoretical Computer Science, 2014, 538, 1.	0.9	0
22	Probabilistic Model Checking of Labelled Markov Processes via Finite Approximate Bisimulations. Lecture Notes in Computer Science, 2014, , 40-58.	1.3	15
23	Analysis of stochastic matching markets. International Journal of Game Theory, 2013, 42, 1021-1040.	0.5	18
24	Model checking for probabilistic timed automata. Formal Methods in System Design, 2013, 43, 164-190.	0.8	87
25	Compositional probabilistic verification through multi-objective model checking. Information and Computation, 2013, 232, 38-65.	0.7	30
26	The PRISM Benchmark Suite. , 2012, , .		79
27	Probabilistic verification of Hermanâ€™s self-stabilisation algorithm. Formal Aspects of Computing, 2012, 24, 661-670.	1.8	36
28	Editorial: Quantitative Aspects of Programming Languages. Theoretical Computer Science, 2012, 413, 1.	0.9	0
29	Game-based Abstraction and Controller Synthesis for Probabilistic Hybrid Systems. , 2011, , .		19
30	PRISM 4.0: Verification of Probabilistic Real-Time Systems. Lecture Notes in Computer Science, 2011, , 585-591.	1.3	1,371
31	Quantitative Multi-objective Verification for Probabilistic Systems. Lecture Notes in Computer Science, 2011, , 112-127.	1.3	67
32	Automated Verification Techniques for Probabilistic Systems. Lecture Notes in Computer Science, 2011, , 53-113.	1.3	176
33	A game-based abstraction-refinement framework forÂMarkov decision processes. Formal Methods in System Design, 2010, 36, 246-280.	0.8	75
34	Advances and challenges of probabilistic model checking. , 2010, , .		40
35	A Framework for Verification of Software with Time and Probabilities. Lecture Notes in Computer Science, 2010, , 25-45.	1.3	10
36	Expected Reachability-Time Games. Lecture Notes in Computer Science, 2010, , 122-136.	1.3	6

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37	Assume-Guarantee Verification for Probabilistic Systems. Lecture Notes in Computer Science, 2010, , 23-37.	1.3	75
38	Probabilistic Mobile Ambients. Theoretical Computer Science, 2009, 410, 1272-1303.	0.9	22
39	PRISM. Performance Evaluation Review, 2009, 36, 40-45.	0.6	194
40	Model Checking Probabilistic and Stochastic Extensions of the Ï€-Calculus. IEEE Transactions on Software Engineering, 2009, 35, 209-223.	5.6	18
41	Quantitative Verification Techniques forÂBiological Processes. Natural Computing Series, 2009, , 391-409.	2.2	8
42	Bisimulation for Demonic Schedulers. Lecture Notes in Computer Science, 2009, , 318-332.	1.3	11
43	Concavely-Priced Probabilistic Timed Automata. Lecture Notes in Computer Science, 2009, , 415-430.	1.3	13
44	Stochastic Games for Verification of Probabilistic Timed Automata. Lecture Notes in Computer Science, 2009, , 212-227.	1.3	40
45	Probabilistic model checking of complex biological pathways. Theoretical Computer Science, 2008, 391, 239-257.	0.9	136
46	Game-Based Probabilistic Predicate Abstraction in PRISM. Electronic Notes in Theoretical Computer Science, 2008, 220, 5-21.	0.9	19
47	Symbolic Magnifying Lens Abstraction in Markov Decision Processes. , 2008, , .		4
48	Abstraction Refinement for Probabilistic Software. Lecture Notes in Computer Science, 2008, , 182-197.	1.3	38
49	Using probabilistic model checking in systems biology. Performance Evaluation Review, 2008, 35, 14-21.	0.6	75
50	Analysis of a gossip protocol in PRISM. Performance Evaluation Review, 2008, 36, 17-22.	0.6	41
51	Model checking the probabilistic pi-calculus. , 2007, , .		9
52	Signature-based Symbolic Algorithm for Optimal Markov Chain Lumping. , 2007, , .		19
53	Stochastic Model Checking. , 2007, , 220-270.		352
54	Controller dependability analysis by probabilistic model checking. Control Engineering Practice, 2007, 15, 1427-1434.	5.5	47

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55	Symbolic model checking for probabilistic timed automata. Information and Computation, 2007, 205, 1027-1077.	0.7	111
56	Game-based Abstraction for Markov Decision Processes. , 2006, , .		23
57	Analysis of probabilistic contract signing1. Journal of Computer Security, 2006, 14, 561-589.	0.8	40
58	Model checking expected time and expected reward formulae with random time bounds. Computers and Mathematics With Applications, 2006, 51, 305-316.	2.7	24
59	Performance analysis of probabilistic timed automata using digital clocks. Formal Methods in System Design, 2006, 29, 33-78.	0.8	138
60	Numerical vs. statistical probabilistic model checking. International Journal on Software Tools for Technology Transfer, 2006, 8, 216-228.	1.9	148
61	A formal analysis of bluetooth device discovery. International Journal on Software Tools for Technology Transfer, 2006, 8, 621-632.	1.9	79
62	Quantitative Analysis With the Probabilistic Model Checker PRISM. Electronic Notes in Theoretical Computer Science, 2006, 153, 5-31.	0.9	76
63	Simulation and Verification for Computational Modelling of Signalling Pathways. , 2006, , .		14
64	Symmetry Reduction for Probabilistic Model Checking. Lecture Notes in Computer Science, 2006, , 234-248.	1.3	82
65	On Reduction Criteria for Probabilistic Reward Models. Lecture Notes in Computer Science, 2006, , 309-320.	1.3	5
66	Using probabilistic model checking for dynamic power management. Formal Aspects of Computing, 2005, 17, 160-176.	1.8	50
67	Evaluating the reliability of NAND multiplexing with PRISM. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2005, 24, 1629-1637.	2.7	68
68	Stochastic Transition Systems for Continuous State Spaces and Non-determinism. Lecture Notes in Computer Science, 2005, , 125-139.	1.3	26
69	Probabilistic model checking in practice. Performance Evaluation Review, 2005, 32, 16-21.	0.6	49
70	Numerical vs. Statistical Probabilistic Model Checking: An Empirical Study. Lecture Notes in Computer Science, 2004, , 46-60.	1.3	32
71	PRISM 2.0: a tool for probabilistic model checking. , 2004, , .		77
72	Automatic verification of the IEEE 1394 root contention protocol with KRONOS and PRISM. International Journal on Software Tools for Technology Transfer, 2004, 5, 221-236.	1.9	27

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73	Probabilistic symbolic model checking with PRISM: a hybrid approach. International Journal on Software Tools for Technology Transfer, 2004, 6, 128-142.	1.9	244
74	Analysing Randomized Distributed Algorithms. Lecture Notes in Computer Science, 2004, , 384-418.	1.3	21
75	Controller Dependability Analysis by Probabilistic Model Checking. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 177-182.	0.4	3
76	Symbolic Model Checking for Probabilistic Timed Automata. Lecture Notes in Computer Science, 2004, , 293-308.	1.3	30
77	Performance Analysis of Probabilistic Timed Automata Using Digital Clocks. Lecture Notes in Computer Science, 2004, , 105-120.	1.3	16
78	Probabilistic Model Checking of Deadline Properties in the IEEE 1394 FireWire Root Contention Protocol. Formal Aspects of Computing, 2003, 14, 295-318.	1.8	66
79	On the use of MTBDDs for performability analysis and verification of stochastic systems. The Journal of Logic and Algebraic Programming, 2003, 56, 23-67.	1.4	59
80	Analysis of Probabilistic Contract Signing. Lecture Notes in Computer Science, 2003, , 81-96.	1.3	12
81	Probabilistic Symbolic Model Checking with PRISM: A Hybrid Approach. Lecture Notes in Computer Science, 2002, , 52-66.	1.3	74
82	PRISM: Probabilistic Symbolic Model Checker. Lecture Notes in Computer Science, 2002, , 200-204.	1.3	343
83	Automatic Verification of the IEEE-1394 Root Contention Protocol with KRONOS and PRISMâ‹† â‹†Supported in part by the EPSRC grant GR/N22960.. Electronic Notes in Theoretical Computer Science, 2002, 66, 104-119.	0.9	4
84	A Symbolic Out-of-Core Solution Method for Markov Models. Electronic Notes in Theoretical Computer Science, 2002, 68, 589-604.	0.9	22
85	Automatic verification of real-time systems with discrete probability distributions. Theoretical Computer Science, 2002, 282, 101-150.	0.9	254
86	Verifying Randomized Byzantine Agreement_. Lecture Notes in Computer Science, 2002, , 194-209.	1.3	17
87	Model Checking CSL until Formulae with Random Time Bounds. Lecture Notes in Computer Science, 2002, , 152-168.	1.3	7
88	Probabilistic Model Checking of the IEEE 802.11 Wireless Local Area Network Protocol. Lecture Notes in Computer Science, 2002, , 169-187.	1.3	73
89	Automated Verification of a Randomized Distributed Consensus Protocol Using Cadence SMV and PRISM?. Lecture Notes in Computer Science, 2001, , 194-206.	1.3	36
90	Symbolic Computation of Maximal Probabilisti Reachability. Lecture Notes in Computer Science, 2001, , 169-183.	1.3	13

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91	Faster and Symbolic CTMC Model Checking. Lecture Notes in Computer Science, 2001, , 23-38.	1.3	37
92	Verifying Quantitative Properties of Continuous Probabilistic Timed Automata. Lecture Notes in Computer Science, 2000, , 123-137.	1.3	51
93	Symbolic Model Checking of Probabilistic Processes Using MTBDDs and the Kronecker Representation. Lecture Notes in Computer Science, 2000, , 395-410.	1.3	64
94	A Testing Equivalence for Reactive Probabilistic Processes. Electronic Notes in Theoretical Computer Science, 1998, 16, 114-132.	0.9	25
95	A Fully Abstract Metric-Space Denotational Semantics for Reactive Probabilistic Processes. Electronic Notes in Theoretical Computer Science, 1998, 13, 182.	0.9	8
96	Probabilistic metric semantics for a simple language with recursion. Lecture Notes in Computer Science, 1996, , 419-430.	1.3	14
97	Formal analysis and validation of continuous-time Markov chain based system level power management strategies. , 0, , .		16