James Worrell

List of Publications by Year
in descending order

102 papers	1,795 citations	279701 23 h-index	395590 33 g-index
107 all docs	107 docs citations	107 times ranked	640 citing authors

#	Article	IF	Citations
1	A behavioural pseudometric for probabilistic transition systems. Theoretical Computer Science, 2005, 331, 115-142.	0.5	98
2	Some Recent Results in Metric Temporal Logic. Lecture Notes in Computer Science, 2008, , 1-13.	1.0	83
3	On the decidability and complexity of Metric Temporal Logic over finite words. Logical Methods in Computer Science, 0, Volume 3, Issue 1, .	0.4	66
4	On the final sequence of a finitary set functor. Theoretical Computer Science, 2005, 338, 184-199.	0.5	59
5	Tractable Reasoning in a Fragment of Separation Logic. Lecture Notes in Computer Science, 2011, , 235-249.	1.0	54
6	On Metric Temporal Logic and Faulty Turing Machines. Lecture Notes in Computer Science, 2006, , 217-230.	1.0	49
7	Approximating and computing behavioural distances in probabilistic transition systems. Theoretical Computer Science, 2006, 360, 373-385.	0.5	48
8	Towards Quantitative Verification of Probabilistic Transition Systems. Lecture Notes in Computer Science, 2001, , 421-432.	1.0	47
9	LTL Model Checking of Interval Markov Chains. Lecture Notes in Computer Science, 2013, , 32-46.	1.0	46
10	Online Monitoring of Metric Temporal Logic. Lecture Notes in Computer Science, 2014, , 178-192.	1.0	45
11	On the structure of categories of coalgebras. Theoretical Computer Science, 2001, 260, 87-117.	0.5	43
12	An Algorithm for Quantitative Verification of Probabilistic Transition Systems. Lecture Notes in Computer Science, 2001, , 336-350.	1.0	41
13	Reachability in Succinct and Parametric One-Counter Automata. Lecture Notes in Computer Science, 2009, , 369-383.	1.0	40
14	Domain theory, testing and simulation for labelled Markov processes. Theoretical Computer Science, 2005, 333, 171-197.	0.5	38
15	Terminal sequences for accessible endofunctors. Electronic Notes in Theoretical Computer Science, 1999, 19, 24-38.	0.9	35
16	Axioms for Probability and Nondeterminism. Electronic Notes in Theoretical Computer Science, 2004, 96, 7-28.	0.9	34
17	Positivity Problems for Low-Order Linear Recurrence Sequences. , 2014, , .		33
18	Safety Metric Temporal Logic Is Fully Decidable. Lecture Notes in Computer Science, 2006, , 411-425.	1.0	32

#	ARTICLE	IF	CITATIONS
19	The Cost of Punctuality. , 2007, , .		31
20	On the Complexity of Computing Probabilistic Bisimilarity. Lecture Notes in Computer Science, 2012, , 437-451.	1.0	31
21	Decidability and Complexity Results for Timed Automata via Channel Machines. Lecture Notes in Computer Science, 2005, , 1089-1101.	1.0	30
22	Decision Problems for Linear Recurrence Sequences. Lecture Notes in Computer Science, 2012, , 21-28.	1.0	30
23	Reachability problems for Markov chains. Information Processing Letters, 2015, 115, 155-158.	0.4	28
24	Complexity of Two-Variable Logic on Finite Trees. Lecture Notes in Computer Science, 2013, , 74-88.	1.0	28
25	On linear recurrence sequences and loop termination. ACM SIGLOG News, 2015, 2, 4-13.	0.3	26
26	On Expressiveness and Complexity in Real-Time Model Checking. Lecture Notes in Computer Science, 2008, , 124-135.	1.0	24
27	Polynomial Invariants for Affine Programs. , 2018, , .		23
28	Time-Bounded Verification. Lecture Notes in Computer Science, 2009, , 496-510.	1.0	23
29	Recursively defined metric spaces without contraction. Theoretical Computer Science, 2007, 380, 143-163.	0.5	20
30	On Automated Verification of Probabilistic Programs. , 2008, , 173-187.		20
31	Linear Completeness Thresholds for Bounded Model Checking. Lecture Notes in Computer Science, 2011, , 557-572.	1.0	20
32	Universality and Language Inclusion for Open and Closed Timed Automata. Lecture Notes in Computer Science, 2003, , 375-388.	1.0	19
33	Model Checking Succinct and Parametric One-Counter Automata. Lecture Notes in Computer Science, 2010, , 575-586.	1.0	19
34	Ultimate Positivity is Decidable for Simple Linear Recurrence Sequences. Lecture Notes in Computer Science, 2014, , 330-341.	1.0	18
35	On the Complexity of Equivalence and Minimisation for Q-weighted Automata. Logical Methods in Computer Science, 0, Volume 9, Issue 1, .	0.4	18
36	Expressive Completeness for Metric Temporal Logic. , 2013, , .		17

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37	On termination and invariance for faulty channel machines. Formal Aspects of Computing, 2012, 24, 595-607.	1.4	16
38	On the Positivity Problem for Simple Linear Recurrence Sequences,. Lecture Notes in Computer Science, 2014, , 318-329.	1.0	16
39	Coinduction for recursive data types: partial orders, metric spaces and Î©-categories.. Electronic Notes in Theoretical Computer Science, 2000, 33, 337-356.	0.9	15
40	The orbit problem in higher dimensions. , 2013, , .		15
41	Markov Chains and Unambiguous BÃ¼chi Automata. Lecture Notes in Computer Science, 2016, , 23-42.	1.0	15
42	On the Complexity of the Orbit Problem. Journal of the ACM, 2016, 63, 1-18.	1.8	15
43	Model Checking Real-Time Systems. , 2018, , 1001-1046.		15
44	Towards a Theory of Time-Bounded Verification. Lecture Notes in Computer Science, 2010, , 22-37.	1.0	14
45	On Reachability for Hybrid Automata over Bounded Time. Lecture Notes in Computer Science, 2011, , 416-427.	1.0	14
46	Recent Developments in FDR. Lecture Notes in Computer Science, 2012, , 699-704.	1.0	14
47	Approximating a Behavioural Pseudometric without Discount for Probabilistic Systems. Logical Methods in Computer Science, 2008, 4, .	0.4	14
48	On the decidability of reachability in linear time-invariant systems. , 2019, , .		13
49	On the Complexity of Linear Arithmetic with Divisibility. , 2015, , .		12
50	Toposes of Coalgebras and Hidden Algebras. Electronic Notes in Theoretical Computer Science, 1998, 11, 212-230.	0.9	11
51	Timed CSP = Closed Timed Automata1. Electronic Notes in Theoretical Computer Science, 2002, 68, 142-159.	0.9	11
52	Approximating a Behavioural Pseudometric Without Discount for Probabilistic Systems. Lecture Notes in Computer Science, 2007, , 123-137.	1.0	11
53	APEX: An Analyzer for Open Probabilistic Programs. Lecture Notes in Computer Science, 2012, , 693-698.	1.0	11
54	Whatâ€™s decidable about linear loops?. , 2022, 6, 1-25.		11

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55	An Accessible Approach to Behavioural Pseudometrics. Lecture Notes in Computer Science, 2005, , 1018-1030.	1.0	10
56	Time-Bounded Reachability for Monotonic Hybrid Automata: Complexity and Fixed Points. Lecture Notes in Computer Science, 2013, , 55-70.	1.0	10
57	Timed Temporal Logics. Lecture Notes in Computer Science, 2017, , 211-230.	1.0	8
58	Revisiting reachability in timed automata. , 2017, , .		8
59	Polynomial automata: Zeroness and applications. , 2017, , .		7
60	A Static Analysis Framework for Livelock Freedom in CSP. Logical Methods in Computer Science, 2013, 9, .	0.4	7
61	Static Livelock Analysis in CSP. Lecture Notes in Computer Science, 2011, , 389-403.	1.0	7
62	The Complexity of Computing a Bisimilarity Pseudometric on Probabilistic Automata. Lecture Notes in Computer Science, 2014, , 191-213.	1.0	7
63	Language equivalence of probabilistic pushdown automata. Information and Computation, 2014, 237, 1-11.	0.5	6
64	On Recurrent Reachability for Continuous Linear Dynamical Systems. , 2016, , .		6
65	Testing Labelled Markov Processes. Lecture Notes in Computer Science, 2002, , 537-548.	1.0	6
66	On the Monniaux Problem in Abstract Interpretation. Lecture Notes in Computer Science, 2019, , 162-180.	1.0	6
67	Branching-Time Model Checking of Parametric One-Counter Automata. Lecture Notes in Computer Science, 2012, , 406-420.	1.0	6
68	On the Complexity of the Equivalence Problem for Probabilistic Automata. Lecture Notes in Computer Science, 2012, , 467-481.	1.0	6
69	Alternating Timed Automata over Bounded Time. , 2010, , .		5
70	Three tokens in Herman's algorithm. Formal Aspects of Computing, 2012, 24, 671-678.	1.4	5
71	Algorithmic probabilistic game semantics. Formal Methods in System Design, 2013, 43, 285-312.	0.9	4
72	Complexity of Two-Variable Logic on Finite Trees. ACM Transactions on Computational Logic, 2016, 17, 1-38.	0.7	4

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73	Complete Semialgebraic Invariant Synthesis for the Kannan-Lipton Orbit Problem. Theory of Computing Systems, 2019, 63, 1027-1048.	0.7	4
74	On the Existential Theories of BÃ¼chi Arithmetic and Linear p-adic Fields. , 2019, , .		4
75	Effective definability of the reachability relation in timed automata. Information Processing Letters, 2020, 153, 105871.	0.4	4
76	First-Order Orbit Queries. Theory of Computing Systems, 2021, 65, 638-661.	0.7	4
77	Porous Invariants. Lecture Notes in Computer Science, 2021, , 172-194.	1.0	4
78	On the Polytope Escape Problem for Continuous Linear Dynamical Systems. , 2017, , .		4
79	Revisiting the Equivalence Problem for Finite Multitape Automata. Lecture Notes in Computer Science, 2013, , 422-433.	1.0	4
80	Relating Reachability Problems in Timed and Counter Automata. Fundamenta Informaticae, 2016, 143, 317-338.	0.3	3
81	Zeno, Hercules, and the Hydra. ACM Transactions on Computational Logic, 2016, 17, 1-27.	0.7	3
82	When are emptiness and containment decidable for probabilistic automata?. Journal of Computer and System Sciences, 2021, 119, 78-96.	0.9	3
83	Two Variable vs. Linear Temporal Logic in Model Checking and Games. Logical Methods in Computer Science, 2013, 9, .	0.4	3
84	Two Variable vs. Linear Temporal Logic in Model Checking and Games. Lecture Notes in Computer Science, 2011, , 497-511.	1.0	3
85	Minimisation of Multiplicity Tree Automata. Lecture Notes in Computer Science, 2015, , 297-311.	1.0	3
86	A Note on Coalgebras and Presheaves. Electronic Notes in Theoretical Computer Science, 2002, 65, 358-364.	0.9	2
87	On the Magnitude of Completeness Thresholds in Bounded Model Checking. , 2012, , .		2
88	Verification of Two-Variable Logic Revisited. , 2012, , .		2
89	Measuring the Probabilistic Powerdomain. Lecture Notes in Computer Science, 2002, , 463-475.	1.0	2
90	Complexity of Equivalence and Learning for Multiplicity Tree Automata. Lecture Notes in Computer Science, 2014, , 414-425.	1.0	2

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91	O-Minimal Invariants for Discrete-Time Dynamical Systems. ACM Transactions on Computational Logic, 2022, 23, 1-20.	0.7	2
92	Measuring the probabilistic powerdomain. Theoretical Computer Science, 2004, 312, 99-119.	0.5	1
93	Labelled Markov Processes as Generalised Stochastic Relations. Electronic Notes in Theoretical Computer Science, 2007, 172, 459-478.	0.9	1
94	Real-Time Model Checking: Algorithms and Complexity. , 2008, , .		1
95	Addendum to â€œRecursively defined metric spaces without contractionâ€•[Theoret. Comput. Sci. 380 (1/2) (2007) 143â€"163]. Theoretical Computer Science, 2013, 492, 117-122.	0.5	1
96	Solvability of Matrix-Exponential Equations. , 2016, , .		1
97	Universal Skolem Sets. , 2021, , .		1
98	Zeno, Hercules and the Hydra: Downward Rational Termination Is Ackermannian. Lecture Notes in Computer Science, 2013, , 643-654.	1.0	1
99	On the Decidability of Membership in Matrix-exponential Semigroups. Journal of the ACM, 2019, 66, 1-24.	1.8	1
100	A note on coalgebras and presheaves. Mathematical Structures in Computer Science, 2005, 15, 475-483.	0.5	0
101	The Zero Problem for Exponential Polynomials. , 2017, , .		0
102	Three Variables Suffice for Real-Time Logic. Lecture Notes in Computer Science, 2015, , 361-374.	1.0	0