

# Marta Kwiatkowska

## List of Publications by Year in Descending Order

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**Version:** 2024-04-29

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

141  
papers

5,500  
citations

36  
h-index

71  
g-index

143  
ext. papers

6,223  
ext. citations

1.8  
avg, IF

5.99  
L-index

#	Paper	IF	Citations
141	Correlated Equilibria and Fairness in Concurrent Stochastic Games. <i>Lecture Notes in Computer Science</i> , <b>2022</b> , 60-78	0.9	
140	Probabilistic Model Checking and Autonomy. <i>Annual Review of Control, Robotics, and Autonomous Systems</i> , <b>2022</b> , 5,	11.8	2
139	A Language for Modeling and Optimizing Experimental Biological Protocols. <i>Computation</i> , <b>2021</b> , 9, 107	2.2	
138	. <i>IEEE Transactions on Automatic Control</i> , <b>2021</b> , 66, 17-32	5.9	6
137	PID Control of Biochemical Reaction Networks. <i>IEEE Transactions on Automatic Control</i> , <b>2021</b> , 1-1	5.9	9
136	Rational verification: game-theoretic verification of multi-agent systems. <i>Applied Intelligence</i> , <b>2021</b> , 51, 6569-6584	4.9	1
135	PRISM-games 3.0: Stochastic Game Verification with Concurrency, Equilibria and Time. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 475-487	0.9	19
134	Multi-player Equilibria Verification for Concurrent Stochastic Games. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 74-95	0.9	5
133	Uncertainty Quantification with Statistical Guarantees in End-to-End Autonomous Driving Control <b>2020</b> ,		7
132	Robustness Guarantees for Deep Neural Networks on Videos <b>2020</b> ,		4
131	Efficiency through uncertainty <b>2019</b> ,		9
130	Current State and Future Directions of Technology-Based Ecological Momentary Assessment and Intervention for Major Depressive Disorder: A Systematic Review. <i>Journal of Clinical Medicine</i> , <b>2019</b> , 8,	5.1	57
129	Central Limit Model Checking. <i>ACM Transactions on Computational Logic</i> , <b>2019</b> , 20, 1-35	0.9	4
128	Reasoning about Cognitive Trust in Stochastic Multiagent Systems. <i>ACM Transactions on Computational Logic</i> , <b>2019</b> , 20, 1-64	0.9	9
127	Probabilistic Strategy Logic <b>2019</b> ,		8
126	Global Robustness Evaluation of Deep Neural Networks with Provable Guarantees for the Hamming Distance <b>2019</b> ,		17
125	Equilibria-Based Probabilistic Model Checking for Concurrent Stochastic Games. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 298-315	0.9	9

124	Verification and Control of Turn-Based Probabilistic Real-Time Games. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 379-396	0.9	7
123	Gaze-based Intention Anticipation over Driving Manoeuvres in Semi-Autonomous Vehicles <b>2019</b> ,		4
122	PID Control of Biochemical Reaction Networks <b>2019</b> ,		3
121	Resource-Performance Tradeoff Analysis for Mobile Robots. <i>IEEE Robotics and Automation Letters</i> , <b>2018</b> , 3, 1840-1847	4.2	13
120	Chemical reaction network designs for asynchronous logic circuits. <i>Natural Computing</i> , <b>2018</b> , 17, 109-130	1.3	15
119	PRISM-games: verification and strategy synthesis for stochastic multi-player games with multiple objectives. <i>International Journal on Software Tools for Technology Transfer</i> , <b>2018</b> , 20, 195-210	1.3	25
118	Programming discrete distributions with chemical reaction networks. <i>Natural Computing</i> , <b>2018</b> , 17, 131-145	1.5	9
117	Parameter synthesis for probabilistic timed automata using stochastic game abstractions. <i>Theoretical Computer Science</i> , <b>2018</b> , 735, 64-81	1.1	0
116	When Your Fitness Tracker Betrays You: Quantifying the Predictability of Biometric Features Across Contexts <b>2018</b> ,		7
115	Closed-Loop Quantitative Verification of Rate-Adaptive Pacemakers. <i>ACM Transactions on Cyber-Physical Systems</i> , <b>2018</b> , 2, 1-31	2.3	5
114	Probabilistic Model Checking: Advances and Applications <b>2018</b> , 73-121		14
113	Automated Verification of Concurrent Stochastic Games. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 223-239		8
112	Experimental Biological Protocols with Formal Semantics. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 165-182		2
111	Current state and future directions of technology-based ecological momentary assessments and interventions for major depressive disorder: protocol for a systematic review. <i>Systematic Reviews</i> , <b>2018</b> , 7, 233	3	9
110	Model Checking Probabilistic Systems <b>2018</b> , 963-999		36
109	Molecular Filters for Noise Reduction. <i>Biophysical Journal</i> , <b>2018</b> , 114, 3000-3011	2.9	13
108	Efficient synthesis of robust models for stochastic systems. <i>Journal of Systems and Software</i> , <b>2018</b> , 143, 140-158	3.3	24
107	Precise parameter synthesis for stochastic biochemical systems. <i>Acta Informatica</i> , <b>2017</b> , 54, 589-623	0.9	33

106	Reachability Computation for Switching Diffusions <b>2017</b> ,		8
105	Designing Robust Software Systems through Parametric Markov Chain Synthesis <b>2017</b> ,		13
104	Symbolic optimal expected time reachability computation and controller synthesis for probabilistic timed automata. <i>Theoretical Computer Science</i> , <b>2017</b> , 669, 1-21	1.1	5
103	Syntax-Guided Optimal Synthesis for Chemical Reaction Networks. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 375-395	0.9	15
102	Synthesizing Pareto Optimal Decision for Autonomic Clouds Using Stochastic Games Model Checking <b>2017</b> ,		1
101	Synthesis and Verification of Self-aware Computing Systems <b>2017</b> , 337-373		17
100	Symbolic Verification and Strategy Synthesis for Linearly-Priced Probabilistic Timed Automata. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 289-309	0.9	2
99	Chemical Reaction Network Designs for Asynchronous Logic Circuits. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 67-81	0.9	5
98	Stochastic analysis of Chemical Reaction Networks using Linear Noise Approximation. <i>BioSystems</i> , <b>2016</b> , 149, 26-33	1.9	30
97	2014 CAV award announcement. <i>Formal Methods in System Design</i> , <b>2016</b> , 48, 149-151	1.4	
96	Quantitative verification and strategy synthesis for stochastic games. <i>European Journal of Control</i> , <b>2016</b> , 30, 15-30	2.5	27
95	Approximation of Probabilistic Reachability for Chemical Reaction Networks Using the Linear Noise Approximation. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 72-88	0.9	10
94	A Stochastic Hybrid Approximation for Chemical Kinetics Based on the Linear Noise Approximation. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 147-167	0.9	14
93	Static Program Analysis for Identifying Energy Bugs in Graphics-Intensive Mobile Apps <b>2016</b> ,		1
92	Programming Discrete Distributions with Chemical Reaction Networks. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 35-51	0.9	8
91	Expected reachability-time games. <i>Theoretical Computer Science</i> , <b>2016</b> , 631, 139-160	1.1	6
90	Simulation-Based Verification of Cardiac Pacemakers With Guaranteed Coverage. <i>IEEE Design and Test</i> , <b>2015</b> , 32, 27-34	1.4	1
89	Computing Cumulative Rewards Using Fast Adaptive Uniformization. <i>ACM Transactions on Modeling and Computer Simulation</i> , <b>2015</b> , 25, 1-23	0.6	2

88	Guiding the folding pathway of DNA origami. <i>Nature</i> , <b>2015</b> , 525, 82-6	50.4	110
87	DNA walker circuits: computational potential, design, and verification. <i>Natural Computing</i> , <b>2015</b> , 14, 195-211		19
86	Modelling DNA origami self-assembly at the domain level. <i>Journal of Chemical Physics</i> , <b>2015</b> , 143, 165103.9		20
85	On Quantitative Modelling and Verification of DNA Walker Circuits Using Stochastic Petri Nets. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 1-32	0.9	4
84	Adaptive Aggregation of Markov Chains: Quantitative Analysis of Chemical Reaction Networks. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 195-213	0.9	15
83	Stochastic Analysis of Chemical Reaction Networks Using Linear Noise Approximation. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 64-76	0.9	10
82	Strategy Synthesis for Stochastic Games with Multiple Long-Run Objectives. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 256-271	0.9	14
81	On Quantitative Software Quality Assurance Methodologies for Cardiac Pacemakers. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 365-384	0.9	3
80	Formal Modelling and Validation of Rate-Adaptive Pacemakers <b>2014</b> ,		11
79	Probabilistic Model Checking of Labelled Markov Processes via Finite Approximate Bisimulations. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 40-58	0.9	12
78	Invariant Verification of Nonlinear Hybrid Automata Networks of Cardiac Cells. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 373-390	0.9	17
77	Verification of Markov Decision Processes Using Learning Algorithms. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 98-114	0.9	91
76	Precise Parameter Synthesis for Stochastic Biochemical Systems. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 86-98	0.9	26
75	Compositional Controller Synthesis for Stochastic Games. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 173-187		12
74	From software verification to EverywhereVerification. <i>Computer Science - Research and Development</i> , <b>2013</b> , 28, 295-310		3
73	Preface to the special issue on Probabilistic Model Checking. <i>Formal Methods in System Design</i> , <b>2013</b> , 43, 121-123	1.4	2
72	Automatic verification of competitive stochastic systems. <i>Formal Methods in System Design</i> , <b>2013</b> , 43, 61-92	1.4	69
71	Model Repair for Markov Decision Processes <b>2013</b> ,		41

70	Compositional probabilistic verification through multi-objective model checking. <i>Information and Computation</i> , <b>2013</b> , 232, 38-65	0.8	22
69	A simulink hybrid heart model for quantitative verification of cardiac pacemakers <b>2013</b> ,		11
68	Verification of linear duration properties over continuous-time markov chains. <i>ACM Transactions on Computational Logic</i> , <b>2013</b> , 14, 1-35	0.9	5
67	DNA Walker Circuits: Computational Potential, Design, and Verification. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 31-45	0.9	21
66	Automated Verification and Strategy Synthesis for Probabilistic Systems. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 5-22	0.9	32
65	Incremental Runtime Verification of Probabilistic Systems. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 314-319	0.9	17
64	Assume-Guarantee Reasoning for Safe Component Behaviours. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 92-109	0.9	4
63	PRISM-games: A Model Checker for Stochastic Multi-Player Games. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 185-191	0.9	57
62	Advances in Quantitative Verification for Ubiquitous Computing. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 42-58	0.9	4
61	On Stochastic Games with Multiple Objectives. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 266-277	0.9	32
60	Computing Cumulative Rewards Using Fast Adaptive Uniformisation. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 33-49	0.9	5
59	Quantitative Verification of Implantable Cardiac Pacemakers <b>2012</b> ,		16
58	<b>2012</b> ,		5
57	Design and analysis of DNA strand displacement devices using probabilistic model checking. <i>Journal of the Royal Society Interface</i> , <b>2012</b> , 9, 1470-85	4.1	58
56	Self-adaptive software needs quantitative verification at runtime. <i>Communications of the ACM</i> , <b>2012</b> , 55, 69-77	2.5	191
55	2011 CAV award announcement. <i>Formal Methods in System Design</i> , <b>2012</b> , 41, 1-2	1.4	1
54	Probabilistic verification of Herman's self-stabilisation algorithm. <i>Formal Aspects of Computing</i> , <b>2012</b> , 24, 661-670	1.2	24
53	Verification of linear duration properties over continuous-time markov chains <b>2012</b> ,		3

52	Automatic Verification of Competitive Stochastic Systems. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 315-330	0.9	14
51	A Compositional Specification Theory for Component Behaviours. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 148-168	0.9	23
50	Revisiting Timed Specification Theories: A Linear-Time Perspective. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 75-90	0.9	6
49	Pareto Curves for Probabilistic Model Checking. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 317-332	0.9	44
48	Dynamic QoS Management and Optimization in Service-Based Systems. <i>IEEE Transactions on Software Engineering</i> , <b>2011</b> , 37, 387-409	3.5	225
47	On software verification for sensor nodes. <i>Journal of Systems and Software</i> , <b>2011</b> , 84, 1693-1707	3.3	31
46	Partial Order Reduction for Model Checking Markov Decision Processes under Unconditional Fairness <b>2011</b> ,		4
45	Incremental quantitative verification for Markov decision processes <b>2011</b> ,		36
44	PRISM 4.0: Verification of Probabilistic Real-Time Systems. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 585-591	0.9	953
43	Automated Learning of Probabilistic Assumptions for Compositional Reasoning. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 2-17	0.9	14
42	Quantitative Multi-objective Verification for Probabilistic Systems. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 112-127	0.9	52
41	Automated Verification Techniques for Probabilistic Systems. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 53-113	0.9	140
40	Verifying Team Formation Protocols with Probabilistic Model Checking. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 190-207	0.9	14
39	Time-Bounded Verification of CTMCs against Real-Time Specifications. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 26-42	0.9	17
38	Expected Reachability-Time Games. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 122-136	0.9	6
37	Compositional Verification of Probabilistic Systems Using Learning <b>2010</b> ,		22
36	Software Engineering Techniques for the Development of Systems of Systems. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 59-82	0.9	13
35	A game-based abstraction-refinement framework for Markov decision processes. <i>Formal Methods in System Design</i> , <b>2010</b> , 36, 246-280	1.4	62

34	Assume-Guarantee Verification for Probabilistic Systems. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 23-37	0.9	59
33	Dependability Analysis and Verification for Connected Systems. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 263-277	0.9	4
32	<b>2009</b> ,		57
31	CADS*: Computer-Aided Development of Self-* Systems. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 421-429	0.9	17
30	Concavely-Priced Probabilistic Timed Automata. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 415-430	0.9	12
29	Stochastic Games for Verification of Probabilistic Timed Automata. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 212-227	0.9	32
28	Establishing a Framework for Dynamic Risk Management in Intelligent Aero-Engine Control. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 326-341	0.9	5
27	Bug-Free Sensors: The Automatic Verification of Context-Aware TinyOS Applications. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 101-105	0.9	5
26	Probabilistic model checking of complex biological pathways. <i>Theoretical Computer Science</i> , <b>2008</b> , 391, 239-257	1.1	110
25	Multi-Objective Model Checking of Markov Decision Processes. <i>Logical Methods in Computer Science</i> , <b>2008</b> , 4,		56
24	Stochastic Model Checking <b>2007</b> , 220-270		259
23	Symbolic model checking for probabilistic timed automata. <i>Information and Computation</i> , <b>2007</b> , 205, 1027-1077	0.8	79
22	Quantitative verification <b>2007</b> ,		44
21	Quantitative Analysis With the Probabilistic Model Checker PRISM. <i>Electronic Notes in Theoretical Computer Science</i> , <b>2006</b> , 153, 5-31	0.7	60
20	Performance analysis of probabilistic timed automata using digital clocks. <i>Formal Methods in System Design</i> , <b>2006</b> , 29, 33-78	1.4	111
19	Numerical vs. statistical probabilistic model checking. <i>International Journal on Software Tools for Technology Transfer</i> , <b>2006</b> , 8, 216-228	1.3	117
18	A formal analysis of bluetooth device discovery. <i>International Journal on Software Tools for Technology Transfer</i> , <b>2006</b> , 8, 621-632	1.3	55
17	PRISM: A Tool for Automatic Verification of Probabilistic Systems. <i>Lecture Notes in Computer Science</i> , <b>2006</b> , 441-444	0.9	289

16	Using probabilistic model checking for dynamic power management. <i>Formal Aspects of Computing</i> , <b>2005</b> , 17, 160-176	1.2	38
15	Probabilistic model checking in practice. <i>Performance Evaluation Review</i> , <b>2005</b> , 32, 16-21	0.4	39
14	Stochastic Transition Systems for Continuous State Spaces and Non-determinism. <i>Lecture Notes in Computer Science</i> , <b>2005</b> , 125-139	0.9	24
13	Probabilistic symbolic model checking with PRISM: a hybrid approach. <i>International Journal on Software Tools for Technology Transfer</i> , <b>2004</b> , 6, 128-142	1.3	189
12	Mathematical Techniques for Analyzing Concurrent and Probabilistic Systems. <i>CRM Monograph Series</i> , <b>2004</b> ,		95
11	Probabilistic Model Checking of Deadline Properties in the IEEE 1394 FireWire Root Contention Protocol. <i>Formal Aspects of Computing</i> , <b>2003</b> , 14, 295-318	1.2	57
10	Automatic verification of real-time systems with discrete probability distributions. <i>Theoretical Computer Science</i> , <b>2002</b> , 282, 101-150	1.1	210
9	Domain equations for probabilistic processes. <i>Mathematical Structures in Computer Science</i> , <b>2000</b> , 10, 665-717	0.5	24
8	On Topological Hierarchies of Temporal Properties. <i>Fundamenta Informaticae</i> , <b>2000</b> , 41, 259-294	1	13
7	Model checking for a probabilistic branching time logic with fairness. <i>Distributed Computing</i> , <b>1998</b> , 11, 125-155	1.2	124
6	Symbolic model checking for probabilistic processes. <i>Lecture Notes in Computer Science</i> , <b>1997</b> , 430-440	0.9	63
5	Strategic Analysis of Trust Models for User-Centric Networks. <i>Electronic Proceedings in Theoretical Computer Science</i> , <i>EPTCS</i> ,112, 53-59		7
4	Modal Specifications for Probabilistic Timed Systems. <i>Electronic Proceedings in Theoretical Computer Science</i> , <i>EPTCS</i> ,117, 66-80		2
3	Automatic verification of concurrent stochastic systems. <i>Formal Methods in System Design</i> ,1	1.4	7
2	Verification of Real-Time Probabilistic Systems249-288		7
1	Practical Applications of Probabilistic Model Checking to Communication Protocols133-150		8