

Boudewijn R Haverkort

List of Publications by Year in descending order

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119
papers

2,454
citations

361296

20
h-index

265120

42
g-index

128
all docs

128
docs citations

128
times ranked

1100
citing authors

#	ARTICLE	IF	CITATIONS
1	Model-checking algorithms for continuous-time markov chains. IEEE Transactions on Software Engineering, 2003, 29, 524-541.	4.3	560
2	Composite performance and dependability analysis. Performance Evaluation, 1992, 14, 197-215.	0.9	132
3	Efficient computation of time-bounded reachability probabilities in uniform continuous-time Markov decision processes. Theoretical Computer Science, 2005, 345, 2-26.	0.5	100
4	Model Checking Continuous-Time Markov Chains by Transient Analysis. Lecture Notes in Computer Science, 2000, , 358-372.	1.0	90
5	Fitting world-wide web request traces with the EM-algorithm. Performance Evaluation, 2003, 52, 175-191.	0.9	90
6	Performance evaluation and model checking join forces. Communications of the ACM, 2010, 53, 76-85.	3.3	64
7	On the Logical Characterisation of Performability Properties. Lecture Notes in Computer Science, 2000, , 780-792.	1.0	63
8	Smart Industry: How ICT Will Change the Game!. IEEE Internet Computing, 2017, 21, 8-10.	3.2	54
9	Performability modelling tools and techniques. Performance Evaluation, 1996, 25, 17-40.	0.9	45
10	Model Checking Markov Chains with Actions and State Labels. IEEE Transactions on Software Engineering, 2007, 33, 209-224.	4.3	44
11	Specification techniques for Markov reward models. Discrete Event Dynamic Systems: Theory and Applications, 1993, 3, 219-247.	0.6	42
12	Sensitivity and uncertainty analysis of Markov-reward models. IEEE Transactions on Reliability, 1995, 44, 147-154.	3.5	40
13	Computing Battery Lifetime Distributions. , 2007, , .		40
14	Computing Optimal Schedules of Battery Usage in Embedded Systems. IEEE Transactions on Industrial Informatics, 2010, 6, 276-286.	7.2	31
15	Markovian Models for Performance and Dependability Evaluation. Lecture Notes in Computer Science, 2001, , 38-83.	1.0	30
16	Sequential and distributed model checking of Petri nets. International Journal on Software Tools for Technology Transfer, 2005, 7, 43-60.	1.7	27
17	Maximizing system lifetime by battery scheduling. , 2009, , .		27
18	Approximate performability and dependability analysis using generalized stochastic Petri nets. Performance Evaluation, 1993, 18, 61-78.	0.9	26

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19	Formal analysis techniques for gossiping protocols. <i>Operating Systems Review (ACM)</i> , 2007, 41, 28-36.	1.5	25
20	Mean-field framework for performance evaluation of push-pull gossip protocols. <i>Performance Evaluation</i> , 2011, 68, 157-179.	0.9	25
21	Model checking for performability. <i>Mathematical Structures in Computer Science</i> , 2013, 23, 751-795.	0.5	22
22	Performability assessment by model checking of Markov reward models. <i>Formal Methods in System Design</i> , 2010, 36, 1-36.	0.9	21
23	On hypothesis testing for statistical model checking. <i>International Journal on Software Tools for Technology Transfer</i> , 2015, 17, 377-395.	1.7	21
24	Energy Resilience Modelling for Smart Houses. , 2015, , .		21
25	CSL model checking algorithms for QBDs. <i>Theoretical Computer Science</i> , 2007, 382, 24-41.	0.5	19
26	Mean-Field Analysis for the Evaluation of Gossip Protocols. , 2009, , .		19
27	Performance of LTE for Smart Grid Communications. <i>Lecture Notes in Computer Science</i> , 2014, , 225-239.	1.0	19
28	Automated Performance and Dependability Evaluation Using Model Checking. <i>Lecture Notes in Computer Science</i> , 2002, , 261-289.	1.0	19
29	Survivability Evaluation of Gas, Water and Electricity Infrastructures. <i>Electronic Notes in Theoretical Computer Science</i> , 2015, 310, 5-25.	0.9	17
30	Techniques and tools for reliability and performance evaluation: Problems and perspectives. <i>Lecture Notes in Computer Science</i> , 1994, , 1-24.	1.0	16
31	Survivability Evaluation of Fluid Critical Infrastructures Using Hybrid Petri Nets. , 2013, , .		16
32	Does Your Domestic Photovoltaic Energy System Survive Grid Outages?. <i>Energies</i> , 2016, 9, 736.	1.6	16
33	Comparison of the Mean-Field Approach and Simulation in a Peer-to-Peer Botnet Case Study. <i>Lecture Notes in Computer Science</i> , 2011, , 133-147.	1.0	15
34	Region-Based Analysis of Hybrid Petri Nets with a Single General One-Shot Transition. <i>Lecture Notes in Computer Science</i> , 2012, , 139-154.	1.0	15
35	Model checking meets performance evaluation. <i>Performance Evaluation Review</i> , 2005, 32, 10-15.	0.4	15
36	MeanField analysis for the evaluation of gossip protocols. <i>Performance Evaluation Review</i> , 2008, 36, 31-39.	0.4	14

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37	Approximate analysis of networks of PH \hat{A} PH 1 \hat{A} K queues: Theory & tool support. Lecture Notes in Computer Science, 1995, , 239-253.	1.0	13
38	Probabilistic evaluation for the analytical solution of large Markov models: Algorithms and tool support. Microelectronics Reliability, 1996, 36, 733-755.	0.9	13
39	Automating the Mean-Field Method for Large Dynamic Gossip Networks. , 2010, , .		13
40	A logic for model-checking mean-field models. , 2013, , .		13
41	What's under the hood? Improving SCADA security with process awareness. , 2016, , .		13
42	An integrated testbed for locally monitoring SCADA systems in smart grids. Energy Informatics, 2018, 1, .	1.4	13
43	Model Checking Infinite-State Markov Chains. Lecture Notes in Computer Science, 2005, , 237-252.	1.0	13
44	The pseudo-self-similar traffic model: application and validation. Performance Evaluation, 2004, 56, 3-22.	0.9	12
45	Survivability analysis of a sewage treatment facility using hybrid Petri nets. Performance Evaluation, 2016, 97, 36-56.	0.9	12
46	Distributed disk-based algorithms for model checking very large Markov chains. Formal Methods in System Design, 2006, 29, 177-196.	0.9	11
47	Arcade - A Formal, Extensible, Model-Based Dependability Evaluation Framework. , 2008, , .		11
48	Mastering operational limitations of LEO satellites – The GomX-3 approach. Acta Astronautica, 2018, 151, 726-735.	1.7	11
49	A Score Function for Optimizing the Cycle-Life of Battery-Powered Embedded Systems. Lecture Notes in Computer Science, 2015, , 305-320.	1.0	11
50	Automated Rare Event Simulation for Stochastic Petri Nets. Lecture Notes in Computer Science, 2013, , 372-388.	1.0	11
51	Sequential and Distributed Model Checking of Petri Net Specifications. Electronic Notes in Theoretical Computer Science, 2002, 68, 539-558.	0.9	10
52	Context-aware local Intrusion Detection in SCADA systems: A testbed and two showcases. , 2017, , .		10
53	A Class-Based Least-Recently Used Caching Algorithm for World-Wide Web Proxies. Lecture Notes in Computer Science, 2003, , 273-290.	1.0	10
54	Approximate analysis of networks of PH PH 1 K queues with customer losses: Test results. Annals of Operations Research, 1998, 79, 271-291.	2.6	9

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55	Distributed Markovian Bisimulation Reduction aimed at CSL Model Checking. <i>Electronic Notes in Theoretical Computer Science</i> , 2008, 220, 35-50.	0.9	9
56	Efficient Computation of Time-Bounded Reachability Probabilities in Uniform Continuous-Time Markov Decision Processes. <i>Lecture Notes in Computer Science</i> , 2004, , 61-76.	1.0	9
57	Performance Evaluation for Collision Prevention Based on a Domain Specific Language. <i>Lecture Notes in Computer Science</i> , 2013, , 276-287.	1.0	9
58	Improving SCADA security of a local process with a power grid model. , 2016, , .		9
59	Rare event simulation for highly dependable systems with fast repairs. <i>Performance Evaluation</i> , 2012, 69, 336-355.	0.9	8
60	Computing Response Time Distributions Using Iterative Probabilistic Model Checking. <i>Lecture Notes in Computer Science</i> , 2015, , 208-224.	1.0	8
61	iDSL: Automated Performance Prediction and Analysis of Medical Imaging Systems. <i>Lecture Notes in Computer Science</i> , 2015, , 227-242.	1.0	8
62	Quality of service management using generic modelling and monitoring techniques. <i>Distributed Systems Engineering</i> , 1997, 4, 28-37.	0.6	7
63	<title>Fitting World Wide Web request traces with the EM-algorithm</title>. , 2001, , .		7
64	Battery Aging, Battery Charging and the Kinetic Battery Model: A First Exploration. <i>Lecture Notes in Computer Science</i> , 2017, , 88-103.	1.0	7
65	Analysis of a sewage treatment facility using hybrid Petri nets. , 2014, , .		7
66	Fitting heavy-tailed HTTP traces with the new stratified EM-algorithm. , 2008, , .		6
67	Rare Event Simulation for Highly Dependable Systems with Fast Repairs. , 2010, , .		6
68	Time-bounded reachability in tree-structured QBDs by abstraction. <i>Performance Evaluation</i> , 2011, 68, 105-125.	0.9	6
69	Assessing the cost of energy independence. , 2016, , .		6
70	Evaluation of Advanced Data Centre Power Management Strategies. <i>Electronic Notes in Theoretical Computer Science</i> , 2018, 337, 173-191.	0.9	6
71	Changes in the Web from 2000 to 2007. <i>Lecture Notes in Computer Science</i> , 2008, , 136-148.	1.0	6
72	Fluid Survival Tool: A Model Checker for Hybrid Petri Nets. <i>Lecture Notes in Computer Science</i> , 2014, , 255-259.	1.0	6

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73	CSL Model Checking Algorithms for Infinite-State Structured Markov Chains. Lecture Notes in Computer Science, 2007, , 336-351.	1.0	6
74	Product forms for availability models. Applied Stochastic Models and Data Analysis, 1992, 8, 283-302.	0.5	5
75	Performance evaluation of polling-based communication systems using SPNs. Lecture Notes in Computer Science, 1999, , 176-209.	1.0	5
76	Designing Cyber-Physical Systems with aDSL: a Domain-Specific Language and Tool Support. , 2018, , .		5
77	Hybrid Petri nets with multiple stochastic transition firings. , 2015, , .		5
78	Bottleneck Analysis for Two-Hop IEEE 802.11e Ad Hoc Networks. , 2008, , 279-294.		5
79	A mean-value analysis of slotted-ring network models. Telecommunication Systems, 1996, 6, 203-227.	1.6	4
80	Design and evaluation of a connection management mechanism for an ATM-based connectionless service. Distributed Systems Engineering, 1996, 3, 53-67.	0.6	4
81	A Massively Scalable Architecture For Instant Messaging & Presence. Electronic Notes in Theoretical Computer Science, 2010, 261, 109-130.	0.9	4
82	Development of a Smart Grid Simulation Environment. Electronic Notes in Theoretical Computer Science, 2015, 318, 19-29.	0.9	4
83	Stochastic Petri Net Models for the Analysis of Trade-Offs in Data Centres with Power Management. Lecture Notes in Computer Science, 2015, , 52-67.	1.0	4
84	FiFiQueues: Fixed-Point Analysis of Queueing Networks with Finite-Buffer Stations. Lecture Notes in Computer Science, 2000, , 324-327.	1.0	4
85	Efficiently Computing Latency Distributions by Combined Performance Evaluation Techniques. , 2016, , .		4
86	iDSL: Automated Performance Evaluation of Service-Oriented Systems. Lecture Notes in Computer Science, 2017, , 214-236.	1.0	4
87	Performance evaluation of multicast communication in packet-switched networks. Performance Evaluation, 2000, 39, 61-80.	0.9	3
88	Uniformization with representatives. , 2006, , .		3
89	Specification of Data Centre Power Management Strategies. , 2017, , .		3
90	A Fixed-Point Algorithm for Closed Queueing Networks. Lecture Notes in Computer Science, 2007, , 154-170.	1.0	3

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91	Analysis of windowing mechanisms with infinite-state stochastic Petri nets. Performance Evaluation Review, 1998, 26, 38-46.	0.4	2
92	<title>Weighted fair queueing scheduling for World Wide Web proxy servers</title>. , 2002, , .		2
93	Versatile stochastic models for networks with asymmetric TCP sources. Performance Evaluation, 2007, 64, 507-523.	0.9	2
94	A Control-Theoretic Modeling Approach for Service Differentiation in Multi-hop Ad-hoc Networks. , 2008, , .		2
95	The Performability Tool P'ility. , 2008, , .		2
96	Adaptive resource control in 2-hop ad-hoc networks. , 2009, , .		2
97	Fitting a code-red virus spread model: An account of putting theory into practice. , 2016, , .		2
98	Fitting Realistic Data Centre Workloads. , 2018, , .		2
99	Performance and verification. Performance Evaluation Review, 2005, 32, 3-3.	0.4	2
100	Evaluating load balancing policies for performance and energy-efficiency. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 227, 98-117.	0.8	2
101	Enabling Network Caching of Dynamic Web Objects. Lecture Notes in Computer Science, 2002, , 329-338.	1.0	2
102	Time-Bounded Reachability in Tree-Structured QBDs by Abstraction. , 2009, , .		1
103	The Dependable Systems-of-Systems Design Challenge. IEEE Security and Privacy, 2013, 11, 62-65.	1.5	1
104	A Domain-Specific Language and Toolchain for Performance Evaluation Based on Measurements. Lecture Notes in Computer Science, 2018, , 295-301.	1.0	1
105	Setting the Parameters Right for Two-Hop IEEE 802.11e Ad Hoc Networks. Lecture Notes in Computer Science, 2010, , 168-182.	1.0	1
106	Simulative and Analytical Evaluation for ASD-Based Embedded Software. Lecture Notes in Computer Science, 2012, , 166-181.	1.0	1
107	QNA-MC: A Performance Evaluation Tool for Communication Networks with Multicast Data Streams. Lecture Notes in Computer Science, 1998, , 63-74.	1.0	1
108	A Uniformization-Based Algorithm for Model Checking the CSL Until Operator on Labeled Queueing Networks. Lecture Notes in Computer Science, 0, , 188-202.	1.0	1

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109	<title>Analysis of windowing mechanisms with infinite-state stochastic petri nets</title>. , 1998, 3530, 178.		0
110	Introduction to the special section on petri nets and performance models. IEEE Transactions on Software Engineering, 2002, 28, 913-914.	4.3	0
111	Guest Editorial for the Special Issue on the 2005 IEEE/IFIP Conference on Dependable Systems and Networks, including the Dependable Computing and Communications and Performance and Dependability Symposia. IEEE Transactions on Dependable and Secure Computing, 2006, 3, 169-171.	3.7	0
112	Quantitative Evaluation in Embedded System Design: Predicting Battery Lifetime in Mobile Devices. , 2008, , .		0
113	Combining Energy Saving Techniques in Data Centres using Model-Based Analysis. , 2018, , .		0
114	Faster SPDL Model Checking Through Property-Driven State Space Generation. Lecture Notes in Computer Science, 2007, , 80-96.	1.0	0
115	An Adaptive Resource Control Mechanism in Multi-hop Ad-Hoc Networks. Lecture Notes in Computer Science, 2011, , 309-322.	1.0	0
116	Lifetime Improvement by Battery Scheduling. Lecture Notes in Computer Science, 2012, , 106-120.	1.0	0
117	A Tool for Generating Automata of IEC60870-5-104 Implementations. Lecture Notes in Computer Science, 2018, , 307-311.	1.0	0
118	A Tool for Requirements Analysis of Safety-Critical Cyber-Physical Systems. Lecture Notes in Computer Science, 2020, , 242-258.	1.0	0
119	Machine Learning Data Center Workloads Using Generative Adversarial Networks. Performance Evaluation Review, 2020, 48, 21-23.	0.4	0