

Joost-Pieter Katoen

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5335722/publications.pdf>

Version: 2024-02-01

274
papers

7,036
citations

101543

36
h-index

110387

64
g-index

290
all docs

290
docs citations

290
times ranked

1782
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | The probabilistic model checker Storm. International Journal on Software Tools for Technology Transfer, 2022, 24, 589-610. | 1.9 | 55 |
| 2 | Synthesizing optimal bias in randomized self-stabilization. Distributed Computing, 2022, 35, 37-57. | 0.8 | 1 |
| 3 | Convex Optimization for Parameter Synthesis in MDPs. IEEE Transactions on Automatic Control, 2022, 67, 6333-6348. | 5.7 | 9 |
| 4 | Gradient-Descent for Randomized Controllers Under Partial Observability. Lecture Notes in Computer Science, 2022, , 127-150. | 1.3 | 5 |
| 5 | Model Checking Temporal Properties of Recursive Probabilistic Programs. Lecture Notes in Computer Science, 2022, , 449-469. | 1.3 | 2 |
| 6 | DFT modeling approach for operational risk assessment of railway infrastructure. International Journal on Software Tools for Technology Transfer, 2022, 24, 331-350. | 1.9 | 6 |
| 7 | Under-Approximating Expected Total Rewards in POMDPs. Lecture Notes in Computer Science, 2022, , 22-40. | 1.3 | 3 |
| 8 | Weighted programming: a programming paradigm for specifying mathematical models. , 2022, 6, 1-30. | | 7 |
| 9 | Strategy Synthesis for POMDPs in Robot Planning via Game-Based Abstractions. IEEE Transactions on Automatic Control, 2021, 66, 1040-1054. | 5.7 | 6 |
| 10 | Fine-Tuning the Odds in Bayesian Networks. Lecture Notes in Computer Science, 2021, , 268-283. | 1.3 | 4 |
| 11 | Inductive Synthesis for Probabilistic Programs Reaches New Horizons. Lecture Notes in Computer Science, 2021, , 191-209. | 1.3 | 8 |
| 12 | Finding Provably Optimal Markov Chains. Lecture Notes in Computer Science, 2021, , 173-190. | 1.3 | 8 |
| 13 | Synthesizing Invariant Barrier Certificates via Difference-of-Convex Programming. Lecture Notes in Computer Science, 2021, , 443-466. | 1.3 | 2 |
| 14 | Multi-objective Optimization of Long-run Average and Total Rewards. Lecture Notes in Computer Science, 2021, , 230-249. | 1.3 | 2 |
| 15 | PAYNT: A Tool for Inductive Synthesis of Probabilistic Programs. Lecture Notes in Computer Science, 2021, , 856-869. | 1.3 | 4 |
| 16 | A pre-expectation calculus for probabilistic sensitivity. , 2021, 5, 1-28. | | 11 |
| 17 | Scalable Reliability Analysis by Lazy Verification. Lecture Notes in Computer Science, 2021, , 180-197. | 1.3 | 2 |
| 18 | Generating Functions for Probabilistic Programs. Lecture Notes in Computer Science, 2021, , 231-248. | 1.3 | 1 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Counterexample-guided inductive synthesis for probabilistic systems. Formal Aspects of Computing, 2021, 33, 637-667. | 1.8 | 4 |
| 20 | Model Checking the Multi-Formalism Language FIGARO. , 2021, , . | | 1 |
| 21 | The complexity of reachability in parametric Markov decision processes. Journal of Computer and System Sciences, 2021, 119, 183-210. | 1.2 | 11 |
| 22 | Automated Termination Analysis of Polynomial Probabilistic Programs. Lecture Notes in Computer Science, 2021, , 491-518. | 1.3 | 14 |
| 23 | Relatively complete verification of probabilistic programs: an expressive language for expectation-based reasoning. , 2021, 5, 1-30. | | 12 |
| 24 | Latticed k-Induction with an Application to Probabilistic Programs. Lecture Notes in Computer Science, 2021, , 524-549. | 1.3 | 12 |
| 25 | The Probabilistic Termination Tool Amber. Lecture Notes in Computer Science, 2021, , 667-675. | 1.3 | 4 |
| 26 | Synergising Reliability Modelling Languages: BDMPs and Repairable DFTs. , 2021, , . | | 1 |
| 27 | IC3 software model checking. International Journal on Software Tools for Technology Transfer, 2020, 22, 135-161. | 1.9 | 5 |
| 28 | Parametric Markov chains: PCTL complexity and fraction-free Gaussian elimination. Information and Computation, 2020, 272, 104504. | 0.7 | 21 |
| 29 | Multi-cost Bounded Tradeoff Analysis in MDP. Journal of Automated Reasoning, 2020, 64, 1483-1522. | 1.4 | 9 |
| 30 | Explaining Boolean-Logic Driven Markov Processes using GSPNs. , 2020, , . | | 4 |
| 31 | Scenario-Based Verification of Uncertain MDPs. Lecture Notes in Computer Science, 2020, 12078, 287-305. | 1.3 | 11 |
| 32 | Simple Strategies in Multi-Objective MDPs. Lecture Notes in Computer Science, 2020, , 346-364. | 1.3 | 13 |
| 33 | Interpretation-Based Violation Witness Validation for C: NITWIT. Lecture Notes in Computer Science, 2020, , 40-57. | 1.3 | 13 |
| 34 | Stochastic Games with Lexicographic Reachability-Safety Objectives. Lecture Notes in Computer Science, 2020, , 398-420. | 1.3 | 7 |
| 35 | PrIC3: Property Directed Reachability for MDPs. Lecture Notes in Computer Science, 2020, , 512-538. | 1.3 | 9 |
| 36 | A Compositional Semantics for Repairable BDMPs. Lecture Notes in Computer Science, 2020, , 82-98. | 1.3 | 4 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 37 | Probabilistic Model Checking of AODV. Lecture Notes in Computer Science, 2020, , 54-73. | 1.3 | 1 |
| 38 | Bayesian Inference by Symbolic Model Checking. Lecture Notes in Computer Science, 2020, , 115-133. | 1.3 | 4 |
| 39 | Termination Analysis of Probabilistic Programs with Martingales. , 2020, , 221-258. | | 8 |
| 40 | Aiming low is harder: induction for lower bounds in probabilistic program verification. , 2020, 4, 1-28. | | 21 |
| 41 | On the hardness of analyzing probabilistic programs. Acta Informatica, 2019, 56, 255-285. | 0.5 | 23 |
| 42 | Quantitative separation logic: a logic for reasoning about probabilistic pointer programs. , 2019, 3, 1-29. | | 24 |
| 43 | Safety analysis for vehicle guidance systems with dynamic fault trees. Reliability Engineering and System Safety, 2019, 186, 37-50. | 8.9 | 40 |
| 44 | COMPASSÂ3.0. Lecture Notes in Computer Science, 2019, , 379-385. | 1.3 | 10 |
| 45 | Shepherding Hordes of Markov Chains. Lecture Notes in Computer Science, 2019, , 172-190. | 1.3 | 18 |
| 46 | A DFT Modeling Approach for Infrastructure Reliability Analysis of Railway Station Areas. Lecture Notes in Computer Science, 2019, , 40-58. | 1.3 | 4 |
| 47 | Counterexample-Driven Synthesis for Probabilistic Program Sketches. Lecture Notes in Computer Science, 2019, , 101-120. | 1.3 | 15 |
| 48 | Model Repair Revamped. Lecture Notes in Computer Science, 2019, , 107-125. | 1.3 | 4 |
| 49 | Are Parametric Markov Chains Monotonic?. Lecture Notes in Computer Science, 2019, , 479-496. | 1.3 | 12 |
| 50 | The 10,000 Facets of MDP Model Checking. Lecture Notes in Computer Science, 2019, , 420-451. | 1.3 | 12 |
| 51 | Conditioning in Probabilistic Programming. ACM Transactions on Programming Languages and Systems, 2018, 40, 1-50. | 2.1 | 19 |
| 52 | Fast Dynamic Fault Tree Analysis by Model Checking Techniques. IEEE Transactions on Industrial Informatics, 2018, 14, 370-379. | 11.3 | 74 |
| 53 | A new proof rule for almost-sure termination. , 2018, 2, 1-28. | | 46 |
| 54 | Multi-cost Bounded Reachability in MDP. Lecture Notes in Computer Science, 2018, , 320-339. | 1.3 | 18 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 55 | How long, O Bayesian network, will I sample thee?. Lecture Notes in Computer Science, 2018, , 186-213. | 1.3 | 12 |
| 56 | One Net Fits All. Lecture Notes in Computer Science, 2018, , 272-293. | 1.3 | 7 |
| 57 | Synthesis in pMDPs: A Tale of 1001 Parameters. Lecture Notes in Computer Science, 2018, , 160-176. | 1.3 | 22 |
| 58 | Improving Generalization in Software IC3. Lecture Notes in Computer Science, 2018, , 85-102. | 1.3 | 4 |
| 59 | Let this Graph Be Your Witness!. Lecture Notes in Computer Science, 2018, , 3-11. | 1.3 | 3 |
| 60 | Sound Value Iteration. Lecture Notes in Computer Science, 2018, , 643-661. | 1.3 | 31 |
| 61 | Monitoring CTMCs by Multi-clock Timed Automata. Lecture Notes in Computer Science, 2018, , 507-526. | 1.3 | 3 |
| 62 | Parameter-Independent Strategies for pMDPs via POMDPs. Lecture Notes in Computer Science, 2018, , 53-70. | 1.3 | 8 |
| 63 | Quantitative model-checking of controlled discrete-time Markov processes. Information and Computation, 2017, 253, 1-35. | 0.7 | 16 |
| 64 | Sequential Convex Programming for the Efficient Verification of Parametric MDPs. Lecture Notes in Computer Science, 2017, , 133-150. | 1.3 | 22 |
| 65 | Fault trees on a diet: automated reduction by graph rewriting. Formal Aspects of Computing, 2017, 29, 651-703. | 1.8 | 9 |
| 66 | Modal Stochastic Games. Lecture Notes in Computer Science, 2017, , 426-445. | 1.3 | 1 |
| 67 | A weakest pre-expectation semantics for mixed-sign expectations. , 2017, , . | | 13 |
| 68 | Motion planning under partial observability using game-based abstraction. , 2017, , . | | 13 |
| 69 | Automated Fine Tuning of Probabilistic Self-Stabilizing Algorithms. , 2017, , . | | 7 |
| 70 | Synthesis and Verification of Self-aware Computing Systems. , 2017, , 337-373. | | 23 |
| 71 | Markov Automata with Multiple Objectives. Lecture Notes in Computer Science, 2017, , 140-159. | 1.3 | 17 |
| 72 | A Storm is Coming: A Modern Probabilistic Model Checker. Lecture Notes in Computer Science, 2017, , 592-600. | 1.3 | 244 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 73 | Model-Based Safety Analysis for Vehicle Guidance Systems. Lecture Notes in Computer Science, 2017, , 3-19. | 1.3 | 8 |
| 74 | Boosting Fault Tree Analysis by Formal Methods. Lecture Notes in Computer Science, 2017, , 368-389. | 1.3 | 5 |
| 75 | Formal Methods for Aerospace Systems. , 2017, , 133-159. | | 9 |
| 76 | The Probabilistic Model Checking Landscape. , 2016, , . | | 88 |
| 77 | Probabilistic Model Checking for Uncertain Scenario-Aware Data Flow. ACM Transactions on Design Automation of Electronic Systems, 2016, 22, 1-27. | 2.6 | 3 |
| 78 | Reasoning about Recursive Probabilistic Programs. , 2016, , . | | 54 |
| 79 | Uncovering Dynamic Fault Trees. , 2016, , . | | 28 |
| 80 | Model-Checking Assisted Protocol Design for Ultra-reliable Low-Latency Wireless Networks. , 2016, , . | | 9 |
| 81 | Advancing Dynamic Fault Tree Analysis - Get Succinct State Spaces Fast and Synthesise Failure Rates. Lecture Notes in Computer Science, 2016, , 253-265. | 1.3 | 12 |
| 82 | Confluence reduction for Markov automata. Theoretical Computer Science, 2016, 655, 193-219. | 0.9 | 7 |
| 83 | Efficient GPU algorithms for parallel decomposition of graphs into strongly connected and maximal end components. Formal Methods in System Design, 2016, 48, 274-300. | 0.8 | 28 |
| 84 | Inferring Covariances for Probabilistic Programs. Lecture Notes in Computer Science, 2016, , 191-206. | 1.3 | 6 |
| 85 | Parameter Synthesis for Markov Models: Faster Than Ever. Lecture Notes in Computer Science, 2016, , 50-67. | 1.3 | 61 |
| 86 | Bounded Model Checking for Probabilistic Programs. Lecture Notes in Computer Science, 2016, , 68-85. | 1.3 | 17 |
| 87 | Weakest Precondition Reasoning for Expected Runâ€Times of Probabilistic Programs. Lecture Notes in Computer Science, 2016, , 364-389. | 1.3 | 64 |
| 88 | Safety-Constrained Reinforcement Learning for MDPs. Lecture Notes in Computer Science, 2016, , 130-146. | 1.3 | 44 |
| 89 | Performance Evaluation of Concurrent Data Structures. Lecture Notes in Computer Science, 2016, , 38-49. | 1.3 | 2 |
| 90 | Conditioning in Probabilistic Programming. Electronic Notes in Theoretical Computer Science, 2015, 319, 199-216. | 0.9 | 9 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 91 | Juggernaut: using graph grammars for abstracting unbounded heap structures. Formal Methods in System Design, 2015, 47, 159-203. | 0.8 | 3 |
| 92 | A Statistical Approach for Timed Reachability in AADL Models. , 2015, , . | | 6 |
| 93 | Probabilistic Programming: A True Verification Challenge. Lecture Notes in Computer Science, 2015, , 1-3. | 1.3 | 1 |
| 94 | Understanding Probabilistic Programs. Lecture Notes in Computer Science, 2015, , 15-32. | 1.3 | 13 |
| 95 | Verifying pointer programs using graph grammars. Science of Computer Programming, 2015, 97, 157-162. | 1.9 | 3 |
| 96 | Modelling and statistical model checking of a microgrid. International Journal on Software Tools for Technology Transfer, 2015, 17, 537-554. | 1.9 | 2 |
| 97 | A Greedy Approach for the Efficient Repair of Stochastic Models. Lecture Notes in Computer Science, 2015, , 295-309. | 1.3 | 33 |
| 98 | Counterexamples for Expected Rewards. Lecture Notes in Computer Science, 2015, , 435-452. | 1.3 | 4 |
| 99 | PROPhESY: A PRObabilistic ParamETER SYnthesis Tool. Lecture Notes in Computer Science, 2015, , 214-231. | 1.3 | 78 |
| 100 | Multi-objective Parameter Synthesis in Probabilistic Hybrid Systems. Lecture Notes in Computer Science, 2015, , 93-107. | 1.3 | 6 |
| 101 | Fault Trees on a Diet. Lecture Notes in Computer Science, 2015, , 3-18. | 1.3 | 9 |
| 102 | On the Hardness of Almost-“Sure Termination. Lecture Notes in Computer Science, 2015, , 307-318. | 1.3 | 31 |
| 103 | Zero-reachability in probabilistic multi-counter automata. , 2014, , . | | 12 |
| 104 | Layered Reduction for Abstract Probabilistic Automata. , 2014, , . | | 3 |
| 105 | Exponentially timed SADF. , 2014, , . | | 6 |
| 106 | Probably safe or live. , 2014, , . | | 8 |
| 107 | Symbolic counterexample generation for large discrete-time Markov chains. Science of Computer Programming, 2014, 91, 90-114. | 1.9 | 16 |
| 108 | Software Engineering and Formal Methods. Lecture Notes in Computer Science, 2014, , . | 1.3 | 0 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 109 | Minimal counterexamples for linear-time probabilistic verification. Theoretical Computer Science, 2014, 549, 61-100. | 0.9 | 20 |
| 110 | Spacecraft early design validation using formal methods. Reliability Engineering and System Safety, 2014, 132, 20-35. | 8.9 | 49 |
| 111 | Operational versus weakest pre-expectation semantics for the probabilistic guarded command language. Performance Evaluation, 2014, 73, 110-132. | 1.2 | 48 |
| 112 | Counterexample Generation for Discrete-Time Markov Models: An Introductory Survey. Lecture Notes in Computer Science, 2014, , 65-121. | 1.3 | 32 |
| 113 | Layered Reduction for Modal Specification Theories. Lecture Notes in Computer Science, 2014, , 329-347. | 1.3 | 2 |
| 114 | GPU-Based Graph Decomposition into Strongly Connected and Maximal End Components. Lecture Notes in Computer Science, 2014, , 310-326. | 1.3 | 13 |
| 115 | Accelerating Parametric Probabilistic Verification. Lecture Notes in Computer Science, 2014, , 404-420. | 1.3 | 40 |
| 116 | Fast Debugging of PRISM Models. Lecture Notes in Computer Science, 2014, , 146-162. | 1.3 | 18 |
| 117 | Tight Game Abstractions of Probabilistic Automata. Lecture Notes in Computer Science, 2014, , 576-591. | 1.3 | 1 |
| 118 | Parametric LTL on Markov Chains. Lecture Notes in Computer Science, 2014, , 207-221. | 1.3 | 4 |
| 119 | Performance Analysis of Computing Servers "A Case Study Exploiting a New GSPN Semantics. Lecture Notes in Computer Science, 2014, , 57-72. | 1.3 | 1 |
| 120 | A compositional modelling and analysis framework for stochastic hybrid systems. Formal Methods in System Design, 2013, 43, 191-232. | 0.8 | 98 |
| 121 | Abstract Probabilistic Automata. Information and Computation, 2013, 232, 66-116. | 0.7 | 16 |
| 122 | Quantitative automata-based controller synthesis for non-autonomous stochastic hybrid systems. , 2013, , . | | 34 |
| 123 | Model checking for performability. Mathematical Structures in Computer Science, 2013, 23, 751-795. | 0.6 | 22 |
| 124 | Model-Based Energy Optimization of Automotive Control Systems. , 2013, , . | | 5 |
| 125 | SMT-Based Bisimulation Minimisation of Markov Models. Lecture Notes in Computer Science, 2013, , 28-47. | 1.3 | 16 |
| 126 | A Semantics for Every GSPN. Lecture Notes in Computer Science, 2013, , 90-109. | 1.3 | 47 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 127 | Prinsysâ€™ On a Quest for Probabilistic Loop Invariants. Lecture Notes in Computer Science, 2013, , 193-208. | 1.3 | 19 |
| 128 | High-Level Counterexamples for Probabilistic Automata. Lecture Notes in Computer Science, 2013, , 39-54. | 1.3 | 16 |
| 129 | Modelling, Reduction and Analysis of Markov Automata. Lecture Notes in Computer Science, 2013, , 55-71. | 1.3 | 31 |
| 130 | Concurrency Meets Probability: Theory and Practice. Lecture Notes in Computer Science, 2013, , 44-45. | 1.3 | 0 |
| 131 | Symbolic Counterexample Generation for Discrete-Time Markov Chains. Lecture Notes in Computer Science, 2013, , 134-151. | 1.3 | 5 |
| 132 | Robust PCTL model checking. , 2012, , . | | 18 |
| 133 | Model checking of Scenario-Aware Dataflow with CADP. , 2012, , . | | 10 |
| 134 | Operational Versus Weakest Precondition Semantics for the Probabilistic Guarded Command Language. , 2012, , . | | 5 |
| 135 | Formal correctness, safety, dependability, and performance analysis of a satellite. , 2012, , . | | 43 |
| 136 | GSPNs Revisited: Simple Semantics and New Analysis Algorithms. , 2012, , . | | 11 |
| 137 | Layered reasoning for randomized distributed algorithms. Formal Aspects of Computing, 2012, 24, 477-496. | 1.8 | 7 |
| 138 | A linear process-algebraic format with data for probabilistic automata. Theoretical Computer Science, 2012, 413, 36-57. | 0.9 | 11 |
| 139 | Three-valued abstraction for probabilistic systems. The Journal of Logic and Algebraic Programming, 2012, 81, 356-389. | 1.4 | 29 |
| 140 | Minimal Critical Subsystems for Discrete-Time Markov Models. Lecture Notes in Computer Science, 2012, , 299-314. | 1.3 | 29 |
| 141 | Quantitative Timed Analysis of Interactive Markov Chains. Lecture Notes in Computer Science, 2012, , 8-23. | 1.3 | 35 |
| 142 | Weighted Lumpability on Markov Chains. Lecture Notes in Computer Science, 2012, , 322-339. | 1.3 | 13 |
| 143 | Efficient Modelling and Generation of Markov Automata. Lecture Notes in Computer Science, 2012, , 364-379. | 1.3 | 32 |
| 144 | The COMICS Tool â€™ Computing Minimal Counterexamples for DTMCs. Lecture Notes in Computer Science, 2012, , 349-353. | 1.3 | 12 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 145 | Compositional Abstraction Techniques for Probabilistic Automata. Lecture Notes in Computer Science, 2012, , 325-341. | 1.3 | 8 |
| 146 | Quantitative Modelling and Analysis. Lecture Notes in Computer Science, 2012, , 290-292. | 1.3 | 0 |
| 147 | System-Software Co-Engineering: Dependability and Safety Perspective. , 2011, , . | | 5 |
| 148 | New Results on Abstract Probabilistic Automata. , 2011, , . | | 17 |
| 149 | Safety, Dependability and Performance Analysis of Extended AADL Models. Computer Journal, 2011, 54, 754-775. | 2.4 | 171 |
| 150 | Abstract Probabilistic Automata. Lecture Notes in Computer Science, 2011, , 324-339. | 1.3 | 24 |
| 151 | A two-step scheme for approximate model checking of stochastic hybrid systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 4519-4524. | 0.4 | 3 |
| 152 | The ins and outs of the probabilistic model checker MRMC. Performance Evaluation, 2011, 68, 90-104. | 1.2 | 174 |
| 153 | Time-bounded reachability in tree-structured QBDs by abstraction. Performance Evaluation, 2011, 68, 105-125. | 1.2 | 6 |
| 154 | Quantitative automata model checking of autonomous stochastic hybrid systems. , 2011, , . | | 24 |
| 155 | Reachability probabilities in Markovian Timed Automata. , 2011, , . | | 6 |
| 156 | Efficient CTMC Model Checking of Linear Real-Time Objectives. Lecture Notes in Computer Science, 2011, , 128-142. | 1.3 | 24 |
| 157 | A Local Greibach Normal Form for Hyperedge Replacement Grammars. Lecture Notes in Computer Science, 2011, , 323-335. | 1.3 | 10 |
| 158 | Analysing and Improving Energy Efficiency of Distributed Slotted Aloha. Lecture Notes in Computer Science, 2011, , 197-208. | 1.3 | 4 |
| 159 | SMA€”The Smyle Modeling Approach. Lecture Notes in Computer Science, 2011, , 103-117. | 1.3 | 1 |
| 160 | Observing Continuous-Time MDPs by 1-Clock Timed Automata. Lecture Notes in Computer Science, 2011, , 2-25. | 1.3 | 7 |
| 161 | Towards Trustworthy Aerospace Systems: An Experience Report. Lecture Notes in Computer Science, 2011, , 1-4. | 1.3 | 2 |
| 162 | Performance evaluation and model checking join forces. Communications of the ACM, 2010, 53, 76-85. | 4.5 | 64 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|------|-----------|
| 163 | Performability assessment by model checking of Markov reward models. Formal Methods in System Design, 2010, 36, 1-36. | 0.8 | 21 |
| 164 | Computing Optimal Schedules of Battery Usage in Embedded Systems. IEEE Transactions on Industrial Informatics, 2010, 6, 276-286. | 11.3 | 31 |
| 165 | Approximate Model Checking of Stochastic Hybrid Systems. European Journal of Control, 2010, 16, 624-641. | 2.6 | 140 |
| 166 | Learning Communicating Automata from MSCs. IEEE Transactions on Software Engineering, 2010, 36, 390-408. | 5.6 | 16 |
| 167 | DTMC Model Checking by SCC Reduction. , 2010, , . | | 20 |
| 168 | A Linear Process-Algebraic Format for Probabilistic Systems with Data. , 2010, , . | | 4 |
| 169 | Analyzing Energy Consumption in a Gossiping MAC Protocol. Lecture Notes in Computer Science, 2010, , 107-119. | 1.3 | 4 |
| 170 | Leader Election in Anonymous Radio Networks: Model Checking Energy Consumption. Lecture Notes in Computer Science, 2010, , 247-261. | 1.3 | 3 |
| 171 | libalf: The Automata Learning Framework. Lecture Notes in Computer Science, 2010, , 360-364. | 1.3 | 57 |
| 172 | A Model Checker for AADL. Lecture Notes in Computer Science, 2010, , 562-565. | 1.3 | 19 |
| 173 | Linear-Invariant Generation for Probabilistic Programs:. Lecture Notes in Computer Science, 2010, , 390-406. | 1.3 | 52 |
| 174 | The How and Why of Interactive Markov Chains. Lecture Notes in Computer Science, 2010, , 311-337. | 1.3 | 28 |
| 175 | Model Checking Markov Chains Using Krylov Subspace Methods: An Experience Report. Lecture Notes in Computer Science, 2010, , 115-130. | 1.3 | 1 |
| 176 | Simulation-Based CTMC Model Checking: An Empirical Evaluation. , 2009, , . | | 7 |
| 177 | Verification and performance evaluation of aadl models. , 2009, , . | | 9 |
| 178 | The Ins and Outs of the Probabilistic Model Checker MRMC. , 2009, , . | | 59 |
| 179 | Time-Bounded Reachability in Tree-Structured QBDs by Abstraction. , 2009, , . | | 1 |
| 180 | Codesign of dependable systems: A component-based modeling language. , 2009, , . | | 7 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 181 | Quantitative Model Checking of Continuous-Time Markov Chains Against Timed Automata Specifications. , 2009, , . | | 38 |
| 182 | Maximizing system lifetime by battery scheduling. , 2009, , . | | 27 |
| 183 | Counterexample Generation in Probabilistic Model Checking. IEEE Transactions on Software Engineering, 2009, 35, 241-257. | 5.6 | 84 |
| 184 | Delayed Nondeterminism in Continuous-Time Markov Decision Processes. Lecture Notes in Computer Science, 2009, , 364-379. | 1.3 | 24 |
| 185 | The COMPASS Approach: Correctness, Modelling and Performability of Aerospace Systems. Lecture Notes in Computer Science, 2009, , 173-186. | 1.3 | 59 |
| 186 | LTL Model Checking of Time-Inhomogeneous Markov Chains. Lecture Notes in Computer Science, 2009, , 104-119. | 1.3 | 7 |
| 187 | Regular Expressions for PCTL Counterexamples. , 2008, , . | | 15 |
| 188 | Quantitative Evaluation in Embedded System Design: Trends in Modeling and Analysis Techniques. , 2008, , . | | 1 |
| 189 | Perspectives in Probabilistic Verification. , 2008, , . | | 3 |
| 190 | Time-Abstracting Bisimulation for Probabilistic Timed Automata. , 2008, , . | | 8 |
| 191 | Approximate Parameter Synthesis for Probabilistic Time-Bounded Reachability. , 2008, , . | | 50 |
| 192 | Symmetry reduction for stochastic hybrid systems. , 2008, , . | | 1 |
| 193 | The Surprising Robustness of (Closed) Timed Automata against Clock-Drift. International Federation for Information Processing, 2008, , 537-553. | 0.4 | 8 |
| 194 | Smyle: A Tool for Synthesizing Distributed Models from Scenarios by Learning. Lecture Notes in Computer Science, 2008, , 162-166. | 1.3 | 6 |
| 195 | Abstraction for Stochastic Systems by Erlang's Method of Stages. Lecture Notes in Computer Science, 2008, , 279-294. | 1.3 | 5 |
| 196 | Compositional Modeling and Minimization of Time-Inhomogeneous Markov Chains. Lecture Notes in Computer Science, 2008, , 244-258. | 1.3 | 9 |
| 197 | Model checking mobile stochastic logic. Theoretical Computer Science, 2007, 382, 42-70. | 0.9 | 58 |
| 198 | Replaying Play In and Play Out: Synthesis of Design Models from Scenarios by Learning. Lecture Notes in Computer Science, 2007, , 435-450. | 1.3 | 14 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 199 | motor:The modest Tool Environment. Lecture Notes in Computer Science, 2007, , 500-504. | 1.3 | 10 |
| 200 | Counterexamples in Probabilistic Model Checking. , 2007, , 72-86. | | 44 |
| 201 | Bisimulation Minimisation Mostly Speeds Up Probabilistic Model Checking. , 2007, , 87-101. | | 76 |
| 202 | Three-Valued Abstraction for Continuous-Time Markov Chains. , 2007, , 311-324. | | 56 |
| 203 | Bisimulation and Logical Preservation for Continuous-Time Markov Decision Processes. Lecture Notes in Computer Science, 2007, , 412-427. | 1.3 | 17 |
| 204 | Providing Evidence of Likely Being on Time: Counterexample Generation for CTMC Model Checking. , 2007, , 331-346. | | 14 |
| 205 | How Fast and Fat Is Your Probabilistic Model Checker? An Experimental Performance Comparison. , 2007, , 69-85. | | 37 |
| 206 | Abstraction of Probabilistic Systems. Lecture Notes in Computer Science, 2007, , 1-3. | 1.3 | 2 |
| 207 | Safe On-The-Fly Steady-State Detection for Time-Bounded Reachability. , 2006, , . | | 6 |
| 208 | MODEST: A Compositional Modeling Formalism for Hard and Softly Timed Systems. IEEE Transactions on Software Engineering, 2006, 32, 812-830. | 5.6 | 112 |
| 209 | Guest Editors' Introduction to the Special Section on the First International Conference on the Quantitative Evaluation of SysTems (QEST). IEEE Transactions on Software Engineering, 2006, 32, 529-530. | 5.6 | 0 |
| 210 | Towards a Logic for Performance and Mobility. Electronic Notes in Theoretical Computer Science, 2006, 153, 161-175. | 0.9 | 5 |
| 211 | Bisimulation and Simulation Relations for Markov Chains. Electronic Notes in Theoretical Computer Science, 2006, 162, 73-78. | 0.9 | 8 |
| 212 | Guest editorsâ€™ introduction: quantitative analysis of real-time embedded systems. International Journal on Software Tools for Technology Transfer, 2006, 8, 605-606. | 1.9 | 0 |
| 213 | YMCA. Electronic Notes in Theoretical Computer Science, 2006, 162, 107-112. | 0.9 | 12 |
| 214 | Probably on Time and within BudgetOn Reachability in Priced Probabilistic Timed Automata. , 2006, , . | | 5 |
| 215 | Safety and Liveness in Concurrent Pointer Programs. Lecture Notes in Computer Science, 2006, , 280-312. | 1.3 | 5 |
| 216 | Efficient computation of time-bounded reachability probabilities in uniform continuous-time Markov decision processes. Theoretical Computer Science, 2005, 345, 2-26. | 0.9 | 100 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 217 | Comparative branching-time semantics for Markov chains. Information and Computation, 2005, 200, 149-214. | 0.7 | 128 |
| 218 | A theory of stochastic systems part I: Stochastic automata. Information and Computation, 2005, 203, 1-38. | 0.7 | 57 |
| 219 | A theory of Stochastic systems. Part II: Process algebra. Information and Computation, 2005, 203, 39-74. | 0.7 | 28 |
| 220 | A Markov reward model checker. , 2005, , . | | 158 |
| 221 | Model checking meets performance evaluation. Performance Evaluation Review, 2005, 32, 10-15. | 0.6 | 15 |
| 222 | Discrete-Time Rewards Model-Checked. Lecture Notes in Computer Science, 2004, , 88-104. | 1.3 | 72 |
| 223 | Guest editorsâ€™ introduction: Advancements and extensions of verification techniques. International Journal on Software Tools for Technology Transfer, 2004, 6, 99-101. | 1.9 | 0 |
| 224 | Probabilistic weak simulation is decidable in polynomial time. Information Processing Letters, 2004, 89, 123-130. | 0.6 | 15 |
| 225 | Efficient Computation of Time-Bounded Reachability Probabilities in Uniform Continuous-Time Markov Decision Processes. Lecture Notes in Computer Science, 2004, , 61-76. | 1.3 | 9 |
| 226 | Embedded Software Analysis with MOTOR. Lecture Notes in Computer Science, 2004, , 268-293. | 1.3 | 3 |
| 227 | A tool for model-checking Markov chains. International Journal on Software Tools for Technology Transfer, 2003, 4, 153-172. | 1.9 | 61 |
| 228 | Model-checking large structured Markov chains. The Journal of Logic and Algebraic Programming, 2003, 56, 69-97. | 1.4 | 39 |
| 229 | Model-checking algorithms for continuous-time markov chains. IEEE Transactions on Software Engineering, 2003, 29, 524-541. | 5.6 | 560 |
| 230 | A QoS-Oriented Extension of UML Statecharts. Lecture Notes in Computer Science, 2003, , 76-91. | 1.3 | 20 |
| 231 | The Modest Modeling Tool and Its Implementation. Lecture Notes in Computer Science, 2003, , 116-133. | 1.3 | 11 |
| 232 | Comparative Branching-Time Semantics for Markov Chains. Lecture Notes in Computer Science, 2003, , 492-507. | 1.3 | 12 |
| 233 | Process algebra for performance evaluation. Theoretical Computer Science, 2002, 274, 43-87. | 0.9 | 189 |
| 234 | A Probabilistic Extension of UML Statecharts. Lecture Notes in Computer Science, 2002, , 355-374. | 1.3 | 25 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 235 | Automated Performance and Dependability Evaluation Using Model Checking. Lecture Notes in Computer Science, 2002, , 261-289. | 1.3 | 19 |
| 236 | Model Checking Birth and Death. , 2002, , 435-447. | | 9 |
| 237 | Performance Evaluation:= (Process Algebra + Model Checking) X Markov Chains. Lecture Notes in Computer Science, 2001, , 59-81. | 1.3 | 9 |
| 238 | Metric semantics for true concurrent real time. Theoretical Computer Science, 2001, 254, 501-542. | 0.9 | 19 |
| 239 | General Distributions in Process Algebra. Lecture Notes in Computer Science, 2001, , 375-429. | 1.3 | 19 |
| 240 | Faster and Symbolic CTMC Model Checking. Lecture Notes in Computer Science, 2001, , 23-38. | 1.3 | 37 |
| 241 | Beyond Memoryless Distributions: Model Checking Semi-Markov Chains. Lecture Notes in Computer Science, 2001, , 57-70. | 1.3 | 23 |
| 242 | MoDeST â€” A Modelling and Description Language for Stochastic Timed Systems. Lecture Notes in Computer Science, 2001, , 87-104. | 1.3 | 27 |
| 243 | First Passage Time Analysis of Stochastic Process Algebra Using Partial Orders. Lecture Notes in Computer Science, 2001, , 220-235. | 1.3 | 5 |
| 244 | Automated compositional Markov chain generation for a plain-old telephone system. Science of Computer Programming, 2000, 36, 97-127. | 1.9 | 67 |
| 245 | Pattern-matching algorithms based on term rewrite systems. Theoretical Computer Science, 2000, 238, 439-464. | 0.9 | 1 |
| 246 | Model Checking Continuous-Time Markov Chains by Transient Analysis. Lecture Notes in Computer Science, 2000, , 358-372. | 1.3 | 90 |
| 247 | Towards Model Checking Stochastic Process Algebra. Lecture Notes in Computer Science, 2000, , 420-439. | 1.3 | 30 |
| 248 | On the Logical Characterisation of Performability Properties. Lecture Notes in Computer Science, 2000, , 780-792. | 1.3 | 63 |
| 249 | A Markov Chain Model Checker. Lecture Notes in Computer Science, 2000, , 347-362. | 1.3 | 56 |
| 250 | On a Temporal Logic for Object-Based Systems. IFIP Advances in Information and Communication Technology, 2000, , 305-325. | 0.7 | 27 |
| 251 | Approximative Symbolic Model Checking of Continuous-Time Markov Chains. Lecture Notes in Computer Science, 1999, , 146-161. | 1.3 | 111 |
| 252 | On Generative Parallel Composition ¹ ¹ Supported by the NWO/SION project 612-33-006 and the System Validation Centre/CTIT.. Electronic Notes in Theoretical Computer Science, 1999, 22, 30-54. | 0.9 | 27 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 253 | A Consistent Causality-Based View on a Timed Process Algebra Including Urgent Interactions. Formal Methods in System Design, 1998, 12, 189-216. | 0.8 | 14 |
| 254 | Partial order models for quantitative extensions of LOTOS. Computer Networks, 1998, 30, 925-950. | 1.0 | 11 |
| 255 | The bounded retransmission protocol must be on time!. Lecture Notes in Computer Science, 1997, , 416-431. | 1.3 | 62 |
| 256 | Causal ambiguity and partial orders in event structures. Lecture Notes in Computer Science, 1997, , 317-331. | 1.3 | 22 |
| 257 | Code generation = A* + BURS. Lecture Notes in Computer Science, 1996, , 160-176. | 1.3 | 3 |
| 258 | Design and analysis of dynamic leader election protocols in broadcast networks. Distributed Computing, 1996, 9, 157-171. | 0.8 | 51 |
| 259 | Systolic arrays for the recognition of permutation-invariant segments. Science of Computer Programming, 1996, 27, 119-137. | 1.9 | 0 |
| 260 | A design model for open distributed processing systems. Computer Networks, 1995, 27, 1263-1285. | 1.0 | 20 |
| 261 | Causal behaviours and nets. Lecture Notes in Computer Science, 1995, , 258-277. | 1.3 | 5 |
| 262 | Performance analysis and true concurrency semantics. Amast Series in Computing, 1995, , 309-337. | 0.0 | 7 |
| 263 | Bottom-up tree acceptors. Science of Computer Programming, 1989, 13, 51-72. | 1.9 | 9 |
| 264 | Model checking performability properties. , 0, , . | | 35 |
| 265 | ETMCC: model checking performability properties of Markov chains. , 0, , . | | 9 |
| 266 | On integrating the MOBIUS and MODEST modeling tools. , 0, , . | | 6 |
| 267 | Model Checking Markov Reward Models with Impulse Rewards. , 0, , . | | 21 |
| 268 | Are You Still There? â€” A Lightweight Algorithm to Monitor Node Presence in Self-Configuring Networks. , 0, , . | | 1 |
| 269 | Markov automata with multiple objectives. Formal Methods in System Design, 0, , 1. | 0.8 | 1 |
| 270 | Analysis of Timed and Long-Run Objectives for Markov Automata. Logical Methods in Computer Science, 0, Volume 10, Issue 3, . | 0.4 | 23 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 271 | High-level Counterexamples for Probabilistic Automata. Logical Methods in Computer Science, 0, Volume 11, Issue 1, . | 0.4 | 10 |
| 272 | Model Checking of Continuous-Time Markov Chains Against Timed Automata Specifications. Logical Methods in Computer Science, 0, Volume 7, Issue 1, . | 0.4 | 31 |
| 273 | Various Ways to Quantify BDMPs. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 316, 1-14. | 0.8 | 3 |
| 274 | Model Checking HML on Piecewise-Constant Inhomogeneous Markov Chains. Lecture Notes in Computer Science, 0, , 203-217. | 1.3 | 5 |