# Radu Calinescu

## List of Publications by Year
## in descending order

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|---|---|---|---|
| **67**<br>papers | **1,650**<br>citations | 567281<br>**15**<br>h-index | 454955<br>**30**<br>g-index |
| **69**<br>all docs | **69**<br>docs citations | **69**<br>times ranked | **955**<br>citing authors |

| # | Article | IF | Citations |
|---|---------|----|-----------| 
| 1 | Assuring the Machine Learning Lifecycle. ACM Computing Surveys, 2022, 54, 1-39. | 23.0 | 90 |
| 2 | High-availability clusters: A taxonomy, survey, and future directions. Journal of Systems and Software, 2022, 187, 111208. | 4.5 | 7 |
| 3 | Protecting Shared Virtualized Environments against Cache Side-channel Attacks. , 2022, , . | | 0 |
| 4 | Verified synthesis of optimal safety controllers for human-robot collaboration. Science of Computer Programming, 2022, 218, 102809. | 1.9 | 8 |
| 5 | Quantitative verification with adaptive uncertainty reduction. Journal of Systems and Software, 2022, 188, 111275. | 4.5 | 3 |
| 6 | Side-channel Attacks and Countermeasures in Cloud Services and Infrastructures. , 2022, , . | | 1 |
| 7 | Predicting locally manageable resource failures of high availability clusters. Software - Practice and Experience, 2022, 52, 2191-2225. | 3.6 | 0 |
| 8 | Efficient Parametric Model Checking Using Domain Knowledge. IEEE Transactions on Software Engineering, 2021, 47, 1114-1133. | 5.6 | 11 |
| 9 | Special issue on resilient software and software-controlled systems. Computing (Vienna/New York), 2021, 103, 533-534. | 4.8 | 1 |
| 10 | RiskStructures: A design algebra for risk-aware machines. Formal Aspects of Computing, 2021, 33, 763-802. | 1.8 | 4 |
| 11 | Fast Parametric Model Checking through Model Fragmentation. , 2021, , . | | 12 |
| 12 | Maintaining driver attentiveness in shared-control autonomous driving. , 2021, , . | | 5 |
| 13 | Utilising Assured Multi-Agent Reinforcement Learning within Safety-Critical Scenarios. Procedia Computer Science, 2021, 192, 1061-1070. | 2.0 | 4 |
| 14 | Reinforcement Learning with Quantitative Verification for Assured Multi-Agent Policies. , 2021, , . | | 6 |
| 15 | Probabilistic Program Performance Analysis. , 2021, , . | | 2 |
| 16 | Six Software Engineering Principles for Smarter Cyber-Physical Systems. , 2021, , . | | 2 |
| 17 | Predicting the performance of automated crystallographic model-building pipelines. Acta Crystallographica Section D: Structural Biology, 2021, 77, 1591-1601. | 2.3 | 2 |
| 18 | Evolutionary-Guided Synthesis of Verified Pareto-Optimal MDP Policies. , 2021, , . | | 5 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Towards a Bayesian prognostic framework for high-availability clusters. , 2021, , . | | 1 |
| 20 | Observation-Enhanced QoS Analysis of Component-Based Systems. IEEE Transactions on Software Engineering, 2020, 46, 526-548. | 5.6 | 12 |
| 21 | Analysis and Refactoring of Software Systems Using Performance Antipattern Profiles. Lecture Notes in Computer Science, 2020, , 357-377. | 1.3 | 6 |
| 22 | Safety Controller Synthesis for Collaborative Robots. , 2020, , . | | 8 |
| 23 | Towards Deductive Verification of Control Algorithms for Autonomous Marine Vehicles. , 2020, , . | | 7 |
| 24 | Pairwise running of automated crystallographic model-building pipelines. Acta Crystallographica Section D: Structural Biology, 2020, 76, 814-823. | 2.3 | 2 |
| 25 | Interval change-point detection for runtime probabilistic model checking. , 2020, , . | | 4 |
| 26 | Uncertainty in Self-adaptive Systems: A Research Community Perspective. ACM Transactions on Autonomous and Adaptive Systems, 2020, 15, 1-36. | 0.8 | 24 |
| 27 | Socio-Cyber-Physical Systems: Models, Opportunities, Open Challenges. , 2019, , . | | 18 |
| 28 | Architecting Trustworthy Self-Adaptive Systems (Tutorial). , 2019, , . | | 2 |
| 29 | Using Unstructured Data to Improve the Continuous Planning of Critical Processes Involving Humans. , 2019, , . | | 6 |
| 30 | Towards Systematic Engineering of Collaborative Heterogeneous Robotic Systems. , 2019, , . | | 3 |
| 31 | Taming Service Uncertainty through Probabilistic Model Learning, Analysis and Synthesis. , 2019, , . | | 0 |
| 32 | Comparison of automated crystallographic model-building pipelines. Acta Crystallographica Section D: Structural Biology, 2019, 75, 1119-1128. | 2.3 | 11 |
| 33 | Engineering Trustworthy Self-Adaptive Software with Dynamic Assurance Cases. IEEE Transactions on Software Engineering, 2018, 44, 1039-1069. | 5.6 | 119 |
| 34 | Towards Multi-Objective Optimisation of Hadoop 2.x Application Deployment on Public Clouds. , 2018, , . | | 0 |
| 35 | Towards Self-Adaptive Systems with Hierarchical Decentralised Control. , 2018, , . | | 0 |
| 36 | Synthesis of probabilistic models for quality-of-service software engineering. Automated Software Engineering, 2018, 25, 785-831. | 2.9 | 43 |

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|---|---------|-----|-----------|
| 37 | Efficient synthesis of robust models for stochastic systems. Journal of Systems and Software, 2018, 143, 140-158. | 4.5 | 40 |
| 38 | Efficient parametric model checking using domain-specific modelling patterns. , 2018, , . | | 2 |
| 39 | Accurate Analysis of Quality Properties of Software with Observation-Based Markov Chain Refinement. , 2017, , . | | 8 |
| 40 | Designing Robust Software Systems through Parametric Markov Chain Synthesis. , 2017, , . | | 22 |
| 41 | UNDERSEA: An Exemplar for Engineering Self-Adaptive Unmanned Underwater Vehicles. , 2017, , . | | 29 |
| 42 | Software Quality Analysis with Observation-Enhanced Quantitative Verification (Tutorial). , 2017, , . | | 0 |
| 43 | Self-Adaptive Role-Based Access Control for Business Processes. , 2017, , . | | 13 |
| 44 | Synthesis and Verification of Self-aware Computing Systems. , 2017, , 337-373. | | 23 |
| 45 | Formal Verification With Confidence Intervals to Establish Quality of Service Properties of Software Systems. IEEE Transactions on Reliability, 2016, 65, 107-125. | 4.6 | 59 |
| 46 | FACT: A Probabilistic Model Checker for Formal Verification with Confidence Intervals. Lecture Notes in Computer Science, 2016, , 540-546. | 1.3 | 16 |
| 47 | A Computational Model for the AMPA Receptor Phosphorylation Master Switch Regulating Cerebellar Long-Term Depression. PLoS Computational Biology, 2016, 12, e1004664. | 3.2 | 22 |
| 48 | Search-Based Synthesis of Probabilistic Models for Quality-of-Service Software Engineering (T). , 2015, , . | | 32 |
| 49 | A Multi-agent Framework for Dependable Adaptation of Evolving System Architectures. , 2015, , . | | 4 |
| 50 | Re-engineering the Database Layer of Legacy Applications for Scalable Cloud Deployment. , 2014, , . | | 1 |
| 51 | Synthesis of Adaptation Plans for Cloud Infrastructure with Hybrid Cost Models. , 2014, , . | | 7 |
| 52 | A scalable approach for re-configuring evolving industrial control systems. , 2014, , . | | 10 |
| 53 | Big data â€‰+â€‰politicsâ€‰=â€‰open data: The case of health care data in England. Policy and Internet, 2013, 5, 228-243. | 4.3 | 23 |
| 54 | Services2Cloud: A Framework for Revenue Analysis of Software-as-a-Service Provisioning. , 2013, , . | | 3 |

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|---|---------|----|-----------| 
| 55 | Towards a Model-Driven Solution to the Vendor Lock-In Problem in Cloud Computing. , 2013, , . | | 10 |
| 56 | A Systematic Review of Cloud Lock-In Solutions. , 2013, , . | | 25 |
| 57 | Developing self-verifying service-based systems. , 2013, , . | | 22 |
| 58 | Using Intelligent Proxies to Develop Self-Adaptive Service-Based Systems. , 2013, , . | | 3 |
| 59 | An incremental verification framework for component-based software systems. , 2013, , . | | 46 |
| 60 | Large-scale complex IT systems. Communications of the ACM, 2012, 55, 71-77. | 4.5 | 209 |
| 61 | Self-adaptive software needs quantitative verification at runtime. Communications of the ACM, 2012, 55, 69-77. | 4.5 | 238 |
| 62 | Compositional Reverification of Probabilistic Safety Properties for Large-Scale Complex IT Systems. Lecture Notes in Computer Science, 2012, , 303-329. | 1.3 | 19 |
| 63 | Dynamic QoS Management and Optimization in Service-Based Systems. IEEE Transactions on Software Engineering, 2011, 37, 387-409. | 5.6 | 290 |
| 64 | Formal Methods @ Runtime. Lecture Notes in Computer Science, 2011, , 122-135. | 1.3 | 17 |
| 65 | CADS*: Computer-Aided Development of Self-* Systems. Lecture Notes in Computer Science, 2009, , 421-424. | 1.3 | 21 |
| 66 | BULK-SYNCHRONOUS PARALLEL ALGORITHMS FOR QR AND QZ MATRIX FACTORISATION. International Journal of Parallel, Emergent and Distributed Systems, 1997, 11, 97-112. | 0.4 | 3 |
| 67 | BULK SYNCHRONOUS PARALLEL ALGORITHMS FOR CONSERVATIVE DISCRETE EVENT SIMULATIONâˆ—. International Journal of Parallel, Emergent and Distributed Systems, 1996, 9, 15-38. | 0.4 | 2 |