

# Sebastian Uchitel

## List of Publications by Year in descending order

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Version: 2024-02-01

98  
papers

1,832  
citations

567281

15  
h-index

477307

29  
g-index

104  
all docs

104  
docs citations

104  
times ranked

830  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Control and Discovery of Environment Behaviour. IEEE Transactions on Software Engineering, 2022, 48, 1965-1978.   | 5.6 | 1         |
| 2  | Enabledness-based Testing of Object Protocols. ACM Transactions on Software Engineering and Methodology, 2021, 30, 1-36.  | 6.0 | 1         |
| 3  | Synthesis of Run-To-Completion Controllers for Discrete Event Systems. , 2021, , .  |     | 0         |
| 4  | Assumption Monitoring Using Runtime Verification for UAV Temporal Task Plan Executions. , 2021, , .   |     | 10        |
| 5  | Assured Mission Adaptation of UAVs. ACM Transactions on Autonomous and Adaptive Systems, 2021, 16, 1-27.  | 0.8 | 0         |
| 6  | Adaptation <sup>2</sup> : Adapting Specification Learners in Assured Adaptive Systems. , 2021, , .  |     | 3         |
| 7  | Dynamic Update of Discrete Event Controllers. IEEE Transactions on Software Engineering, 2020, 46, 1220-1240.   | 5.6 | 13        |
| 8  | Compositional Supervisory Control via Reactive Synthesis and Automated Planning. IEEE Transactions on Automatic Control, 2020, 65, 3502-3516.                   | 5.7 | 3         |
| 9  | Dynamic Reconfiguration of Business Processes. Lecture Notes in Computer Science, 2019, , 35-51.  | 1.3 | 3         |
| 10 | Using contexts to extract models from code. Software and Systems Modeling, 2017, 16, 523-557.   | 2.7 | 13        |
| 11 | Interaction Models and Automated Control under Partial Observable Environments. IEEE Transactions on Software Engineering, 2017, 43, 19-33.                     | 5.6 | 10        |
| 12 | An Extended Description of MORPH: A Reference Architecture for Configuration and Behaviour Self-Adaptation. Lecture Notes in Computer Science, 2017, , 377-408. | 1.3 | 5         |
| 13 | Behaviour abstraction adequacy criteria for API call protocol testing. Software Testing Verification and Reliability, 2016, 26, 211-244.                        | 2.0 | 2         |
| 14 | 2 <sup>1/2</sup> -player generalized reactivity (1) games. , 2016, , .  |     | 0         |
| 15 | Directed Controller Synthesis of discrete event systems: Taming composition with heuristics. , 2016, , .  |     | 9         |
| 16 | Risk-driven revision of requirements models. , 2016, , .  |     | 8         |
| 17 | Logic-based learning in software engineering. , 2016, , .   |     | 1         |
| 18 | Runtime controller synthesis for self-adaptation. , 2016, , .   |     | 3         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 19 | Probabilistic Interface Automata. IEEE Transactions on Software Engineering, 2016, 42, 843-865.   | 5.6 | 0         |
| 20 | Robust degradation and enhancement of robot mission behaviour in unpredictable environments. , 2015, , .  |     | 3         |
| 21 | MORPH: a reference architecture for configuration and behaviour self-adaptation. , 2015, , .  |     | 45        |
| 22 | Automated support for diagnosis and repair. Communications of the ACM, 2015, 58, 65-72.   | 4.5 | 14        |
| 23 | Controllability in Partial and Uncertain Environments. , 2014, , .  |     | 3         |
| 24 | Hope for the best, prepare for the worst: multi-tier control for adaptive systems. , 2014, , .  |     | 51        |
| 25 | Automated goal operationalisation based on interpolation and SAT solving. , 2014, , .   |     | 14        |
| 26 | Revisiting Compatibility of Input-Output Modal Transition Systems. Lecture Notes in Computer Science, 2014, , 367-381.                          | 1.3 | 1         |
| 27 | Supporting incremental behaviour model elaboration. Computer Science - Research and Development, 2013, 28, 279-293.                             | 2.7 | 12        |
| 28 | Behaviour Abstraction Coverage as Black-Box Adequacy Criteria. , 2013, , .  |     | 4         |
| 29 | Synthesizing Modal Transition Systems from Triggered Scenarios. IEEE Transactions on Software Engineering, 2013, 39, 975-1001.                  | 5.6 | 18        |
| 30 | Elaborating Requirements Using Model Checking and Inductive Learning. IEEE Transactions on Software Engineering, 2013, 39, 361-383.             | 5.6 | 22        |
| 31 | Synthesizing nonanomalous event-based controllers for liveness goals. ACM Transactions on Software Engineering and Methodology, 2013, 22, 1-36. | 6.0 | 48        |
| 32 | Enabledness-based program abstractions for behavior validation. ACM Transactions on Software Engineering and Methodology, 2013, 22, 1-46.       | 6.0 | 13        |
| 33 | Automated reliability estimation over partial systematic explorations. , 2013, , .  |     | 4         |
| 34 | Merging Partial Behaviour Models with Different Vocabularies. Lecture Notes in Computer Science, 2013, , 91-105.                                | 1.3 | 10        |
| 35 | Weak Alphabet Merging of Partial Behavior Models. ACM Transactions on Software Engineering and Methodology, 2012, 21, 1-47.                     | 6.0 | 22        |
| 36 | Generating obstacle conditions for requirements completeness. , 2012, , .   |     | 21        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 37 | Automated Abstractions for Contract Validation. IEEE Transactions on Software Engineering, 2012, 38, 141-162.                           | 5.6 | 29        |
| 38 | Learning from Vacuously Satisfiable Scenario-Based Specifications. Lecture Notes in Computer Science, 2012, , 377-393.                  | 1.3 | 10        |
| 39 | Integrating Model Checking and Inductive Logic Programming. Lecture Notes in Computer Science, 2012, , 45-60.                           | 1.3 | 2         |
| 40 | The Modal Transition System Control Problem. Lecture Notes in Computer Science, 2012, , 155-170.  | 1.3 | 11        |
| 41 | Distribution of Modal Transition Systems. Lecture Notes in Computer Science, 2012, , 403-417.   | 1.3 | 7         |
| 42 | Abstractions for Validation in Action. Lecture Notes in Computer Science, 2012, , 192-218.  | 1.3 | 0         |
| 43 | Exploring inconsistencies between modal transition systems. Software and Systems Modeling, 2011, 10, 117-142.                           | 2.7 | 11        |
| 44 | Contractor.NET. , 2011, , .   |     | 7         |
| 45 | Synthesis of live behaviour models for fallible domains. , 2011, , .  |     | 36        |
| 46 | Program abstractions for behaviour validation. , 2011, , .  |     | 14        |
| 47 | CSSL. , 2011, , .   |     | 6         |
| 48 | Specification and Analysis of Dynamically-Reconfigurable Service Architectures. Lecture Notes in Computer Science, 2011, , 428-446.     | 1.3 | 4         |
| 49 | Runtime Support for Dynamic and Adaptive Service Composition. Lecture Notes in Computer Science, 2011, , 585-603.                       | 1.3 | 4         |
| 50 | An Integrated Workbench for Model-Based Engineering of Service Compositions. IEEE Transactions on Services Computing, 2010, 3, 131-144. | 4.6 | 17        |
| 51 | Synthesis of live behaviour models. , 2010, , .   |     | 50        |
| 52 | My model checker died!. , 2010, , .   |     | 8         |
| 53 | Validation of contracts using enabledness preserving finite state abstractions. , 2009, , .   |     | 13        |
| 54 | Probabilistic environments in the quantitative analysis of (non-probabilistic) behaviour models. , 2009, , .                            |     | 9         |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 55 | Towards accurate probabilistic models using state refinement. , 2009, , .  |     | 2         |
| 56 | Synthesis of Partial Behavior Models from Properties and Scenarios. IEEE Transactions on Software Engineering, 2009, 35, 384-406.                          | 5.6 | 96        |
| 57 | A Sound Observational Semantics for Modal Transition Systems. Lecture Notes in Computer Science, 2009, , 215-230.  | 1.3 | 14        |
| 58 | Engage: Engineering Service Modes with WS-Engineer and Dino. Lecture Notes in Computer Science, 2009, , 641-642.   | 1.3 | 0         |
| 59 | Partial Behaviour Modelling: Foundations for Incremental and Iterative Model-Based Software Engineering. Lecture Notes in Computer Science, 2009, , 17-22. | 1.3 | 5         |
| 60 | Towards Self-management in Service-Oriented Computing with Modes. Lecture Notes in Computer Science, 2009, , 338-350.                                      | 1.3 | 3         |
| 61 | Deriving event-based transition systems from Goal-oriented requirements models. Automated Software Engineering, 2008, 15, 175-206.                         | 2.9 | 62        |
| 62 | Deriving Non-zero Behavior Models from Goal Models Using ILP. , 2008, , 1-15.  |     | 4         |
| 63 | MTSA: The Modal Transition System Analyser. , 2008, , .  |     | 49        |
| 64 | Existential live sequence charts revisited. , 2008, , .  |     | 37        |
| 65 | On correct and complete strong merging of partial behaviour models. , 2008, , .  |     | 22        |
| 66 | Towards compositional synthesis of evolving systems. , 2008, , .   |     | 7         |
| 67 | Towards Faithful Model Extraction Based on Contexts. , 2008, , 101-115.  |     | 7         |
| 68 | MTSA. , 2007, , .  |     | 12        |
| 69 | Model checking service compositions under resource constraints. , 2007, , .  |     | 34        |
| 70 | Behaviour Model Synthesis from Properties and Scenarios. Proceedings - International Conference on Software Engineering, 2007, , .                         | 0.0 | 53        |
| 71 | Detecting Implied Scenarios from Execution Traces. , 2007, , .   |     | 20        |
| 72 | WS-Engineer: A Model-Based Approach to Engineering Web Service Compositions and Choreography. , 2007, , 87-119.  |     | 26        |

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|----|--|-----|-----------|
| 73 | Modes for Software Architectures. Lecture Notes in Computer Science, 2006, , 113-126.  | 1.3 | 40        |
| 74 | Goal and scenario validation: a fluent combination. Requirements Engineering, 2006, 11, 123-137.   | 3.1 | 16        |
| 75 | A foundation for behavioural conformance in software product line architectures. , 2006, , .   |     | 89        |
| 76 | Inferring operational requirements from scenarios and goal models using inductive learning. , 2006, , .  |     | 3         |
| 77 | Properties of Behavioural Model Merging. Lecture Notes in Computer Science, 2006, , 98-114.  | 1.3 | 12        |
| 78 | Extracting Requirements from Scenarios with ILP. Lecture Notes in Computer Science, 2006, , 64-78.   | 1.3 | 8         |
| 79 | Sensitivity analysis for a scenario-based reliability prediction model. , 2005, , .  |     | 9         |
| 80 | Leveraging Eclipse for integrated model-based engineering of web service compositions. , 2005, , .   |     | 4         |
| 81 | Monitoring and control in scenario-based requirements analysis. , 2005, , .  |     | 35        |
| 82 | Fluent temporal logic for discrete-time event-based models. , 2005, , .  |     | 16        |
| 83 | Introduction to doctoral symposium. , 2005, , .  |     | 0         |
| 84 | Sensitivity analysis for a scenario-based reliability prediction model. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2005, 30, 1-5. | 0.7 | 2         |
| 85 | Reliability Prediction in Model-Driven Development. Lecture Notes in Computer Science, 2005, , 339-354.  | 1.3 | 27        |
| 86 | Using Scenarios to Predict the Reliability of Concurrent Component-Based Software Systems. Lecture Notes in Computer Science, 2005, , 111-126.   | 1.3 | 62        |
| 87 | Merging partial behavioural models. , 2004, , .  |     | 54        |
| 88 | Incremental elaboration of scenario-based specifications and behavior models using implied scenarios. ACM Transactions on Software Engineering and Methodology, 2004, 13, 37-85.                           | 6.0 | 136       |
| 89 | Merging partial behavioural models. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2004, 29, 43-52.                                   | 0.7 | 27        |
| 90 | Predictable Dynamic Plugin Systems. Lecture Notes in Computer Science, 2004, , 129-143.  | 1.3 | 17        |

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|----|---|-----|-----------|
| 91 | A summary of the second ICSE 2003 workshop on. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2003, 28, 9-9.   | 0.7 | 0         |
| 92 | Behaviour model elaboration using partial labelled transition systems. , 2003, , .  |     | 21        |
| 93 | LTSA-MSC: Tool Support for Behaviour Model Elaboration Using Implied Scenarios. Lecture Notes in Computer Science, 2003, , 597-601.   | 1.3 | 26        |
| 94 | Negative scenarios for implied scenario elicitation. , 2002, , .  |     | 29        |
| 95 | Implied Scenario Detection in the Presence of Behaviour Constraints <sup>1</sup> <sup>1</sup> Partially supported by EPSRC Grant GR/M24493 (BEADS Project).. Electronic Notes in Theoretical Computer Science, 2002, 65, 65-84. | 0.9 | 6         |
| 96 | Detecting implied scenarios in message sequence chart specifications. , 2001, , .   |     | 62        |
| 97 | Proving Deadlock Freedom in Component-Based Programming. Lecture Notes in Computer Science, 2001, , 60-75.  | 1.3 | 18        |
| 98 | Towards a Periodic Table of Connectors. Lecture Notes in Computer Science, 1999, , 418-418.   | 1.3 | 6         |