

COMPLETE LIST OF PUBLICATIONS, PROF. DR. RER. NAT. MALTE LOCHAU

(02/2022)

Editorials & Proceedings

- [1] R. Capilla., M. Lochau, L. Fuentes: Software Variability in Dynamic Environments. *Journal of Systems and Software (JSS)*, Volume 156, pages 62-64, 2019
- [2] R. Capilla., M. Lochau, L. Fuentes: Proceedings of the Proceedings of the 12th International Workshop on Variability Modelling of Software-Intensive Systems (VAMOS 2018), Madrid, Spain, February 7-9, ACM, 2018.

Refereed Journal Articles

- [3] S. Ruland, M. Lochau, O. Fehse, A. Schürr: CPA/Tiger-MGP: test-goal set partitioning for efficient multi-goal test-suite generation. In: *Int. J. Softw. Tools Technol. Transf.* 23(6), 2021.
- [4] G. Kulcsár, A. Corradini, M. Lochau: A Calculus of Concurrent Graph-Rewriting Processes. In: *Journal of Logical and Algebraic Methods in Programming*. Volume 110, 2020.
- [5] D. Reuling, U. Kelter, J. Bürdek, M. Lochau: Automated N-way Program Merging for Facilitating Family-based Analyses of Variant-Rich Software. In *ACM Transactions of Software Engineering and Methodologies*, 2019.
- [6] M. Varshosaz, L. Luthmann, P. Mohr, M. Lochau and M. R. Mousavi: Modal Transition System Encoding of Featured Transition Systems. In *Journal of Logical and Algebraic Methods in Programming*, 2019.
- [7] L. Luthmann, T. Gerecht, A. Stephan, J. Bürdek, M. Lochau: Minimum/Maximum Delay Testing of Product Lines with Unbounded Parametric Real-time Constraints. In *Journal of Systems and Software*, 2019
- [8] L. Luthmann, S. Mennicke, M. Lochau: Unifying Modal Interface Theories and Compositional Input/Output Conformance Testing. In *Science of Computer Programming*, 2019
- [9] L. Luthmann, T. Gerecht, M. Lochau: Sampling Strategies for Product Lines with Unbounded Parametric Real-time Constraints. In *Springer LNCS Transactions on Foundations for Mastering Change*, 2019
- [10] M. Al-Hajjaji, T. Thüm, M. Lochau, J. Meinicke, G. Saake: Effective Product-Line Testing Using Similarity-Based Product Prioritization. In *Journal of Software & Systems Modeling*, 2016
- [11] J. Bürdek, T. Kehrer, M. Lochau, D. Reuling, U. Kelter, and A. Schürr: Reasoning about Product-Line Evolution using Complex Feature Model Differences. In *Automated Software Engineering Journal, Special Issue on Long Term Evolution of Software Systems*, pages 1-47, Springer, 2015.

- [12] M. Lochau, S. Mennicke, H. Baller, and L. Ribbeck: Incremental Model Checking of Delta-Oriented Software Product Lines. In *Journal of Logical and Algebraic Methods in Programming*, 69, Springer, 2015.
- [13] M. Lochau, J. Bürdek, S. Hölzle, A. Schürr: Specification and Automated Validation of Staged Configuration Processes for Dynamic Software Product Lines. In *Journal of Software & Systems Modeling*, pages 1-28, Springer, 2015.
- [14] M. Lochau, J. Bürdek, S. Lity, M. Hagner, C. Legat, U. Goltz, and A. Schürr: Applying Model-based Software Product Line Testing Approaches to the Automation Engineering Domain. In *Automatisierungstechnik*, 62(11), pages 771–780, 2014.
- [15] M. Lochau, S. Lity, R. Lachmann, I. Schaefer, U. Goltz: Delta-oriented model-based Integration Testing of Large-scale Systems. In *Journal of Systems and Software*, 91, pages 63-84, 2014.
- [16] S. Lity, R. Lachmann, M. Lochau, M. Dukaczewski, and I. Schaefer: Delta-orientiertes Testen von variantenreichen Systemen. In *OBJEKTSpektrum Online, Themenspecial Testing*, Sigis Datacom GmbH, 2013.
- [17] M. Lochau, S. Oster, U. Goltz, A. Schürr: Model-based pairwise testing for feature interaction coverage in software product line engineering. In *Software Quality Journal (SQJ)*, 20(3-4), pages 567-604, 2012.
- [18] M. Gietzelt, U. Goltz, D. Grunwald, M. Lochau, M. Marscholke, B. Song, K.-H. Wolf: Arden2ByteCode: A one-pass Arden Syntax compiler for service-oriented decision support systems based on the OSGi platform. In *Computer Methods and Programs in Biomedicine*, 106(2), pages 114-125, 2012.
- [19] M. Lochau and U. Goltz: Feature Interaction Aware Test Case Generation for Embedded Control Systems. In *Electronic Notes in Theoretical Computer Science (ENTCS)*, 264(3), pages 37-52, Elsevier, 2010.

Refereed Book Chapters

- [20] T. Pett, S. Krieter, T. Thüm, M. Lochau, I. Schaefer: AutoSMP: an evaluation platform for sampling algorithms. In: *SPLC (B) 2021*, 2021.
- [21] M. Lochau, D. Reuling, J. Bürdek, T. Kehrer, S. Lity, A. Schürr, and Udo Kelter: Model-Based Round-Trip Engineering and Testing of Evolving Software Product Lines. In *Software Managed Evolution*, Springer, 2019.
- [22] T. Thüm, A. van Hoorn, S. Apel, J. Bürdek, S. Getir, R. Heinrich, R. Jung, M. Kowal, M. Lochau, I. Schaefer and J. Walter: Performance Analysis Strategies for Software Variants and Versions. In *Software Managed Evolution*, Springer, 2019.
- [23] M. Lochau, S. Peldszus, M. Kowal, I. Schaefer: Model-based Testing. In *Advanced Lectures of the 14th International School on Formal Methods for the Design of Computer, Communication, and Software Systems (SFM)*, pages 310-342, Springer, 2014.

Refereed Conference Papers

- [24] H. Göttmann, I. Bacher, N. Gottwald, M. Lochau: Static Analysis Techniques for Efficient Consistency Checking of Real-Time-Aware DSPL Specifications. In: *Proceedings of Working Conference on Variability Modelling of Software-intensive Systems (VaMoS)*, pages 17:1-17:9, 2021
- [25] T. Pett, S. Krieter, T. Runge, T. Thüm, M. Lochau, I. Schaefer: Stability of Product-Line Sampling Continuous Integration. In: *Proceedings of Working Conference on Variability Modelling of Software-intensive Systems (VaMoS)*, pages 18:1-18:9, 2021
- [26] V. Kutscher, S. Ruland, , P. Müller, N. Wasser, M. Lochau, R. Anderl, A. Schürr, M. Mezini, R-Hähle: Towards a Circular Economy of Industrial Software. In: *Proceedings of 27th CIRP Life Cycle Engineering (LCE) Conference*, Volume 90, pages 37-42, 2020
- [27] J. Soldani, L. Luthmann, M. Lochau, A. Brogi: Testing Conformance in Multi-component Enterprise Application Management. In: *Proceedings of the European Conference on Service-Oriented and Cloud Computing (ESOCC)*, pages 3-18, 2020
- [28] S. Ruland, M. Lochau, M. -C. Jakobs: HybridTiger: Hybrid Model Checking and Domination-based Partitioning for Efficient Multi-Goal Test-Suite Generation (Competition Contribution). In *Proceedings of Fundamental Approaches to Software Engineering (FASE)*, pages 520-524, Springer, 2020
- [29] M. Lochau, L. Luthmann, H. Göttmann, I. Bacher: Parametric Timed Bisimulation. In: *Proceedings of International Symposium on Leveraging Applications of Formal Methods, Verification and Validation (ISoLA)*, pages 55–71, Springer, 2020.
- [30] D. Reuling, U. Kelter, J. Bürdek, M. Lochau: On Automated N-way Program Merging for Facilitating Family-based Analyses of Variant-rich Software. In: *Software Engineering, Gesellschaft für Informatik e.V.*, pages 55-56, 2020.
- [31] S. Ruland, G. Kulcsár, E. Leblebici, S. Peldszus, M. Lochau: On Controlling the Attack Surface of Object-Oriented Refactorings. In: *Software Engineering, Gesellschaft für Informatik e.V.*, pages 89-90, 2020.
- [32] H. Göttmann, L. Luthmann, M. Lochau, A. Schürr: Real-time-aware Reconfiguration Decisions for Dynamic Software Product Lines. In *Proceedings of International Software Product Line Conference (SPLC)*, 2020
- [33] T. Pett, T. Thüm, T. Runge, S. Krieter, M. Lochau and I. Schaefer: Product Sampling for Product Lines: The Scalability Challenge. In *Proceedings of International Software Product Line Conference (SPLC)*, 2019
- [34] D. Reuling, M. Lochau, U. Kelter: From Imprecise N-Way Model Matching to Precise N-Way Model Merging. In *Proceedings of European Conference on Modeling Foundations and Applications (ECMFA)*, 2019
- [35] M. Weckesser, M. Lochau, M. Ries, A. Schürr: Mathematical Programming for Anomaly Analysis of Clafer Models. In *Proceedings of International Conference on Model Driven Engineering Languages and Systems (MoDELS)*, pages 34 – 44, 2018

- [36] S. Ruland, L. Luthmann, J. Bürdek, S. Lity, T. Thüm, M. Lochau, M. Ribeiro: Measuring Effectiveness of Sample-based Product-Line Testing. In *Proceedings of International Conference on Generative Programming: Concepts and Experiences (GPCE)*, pages 119 – 133, 2018
- [37] G. Kulcsár, M. Lochau, A. Schürr: Graph-Rewriting Petri Nets. In *Proceedings of International Conference on Graph Transformation (ICGT)*, pages 79-96, 2018
- [38] G. Kulcsár, A. Corradini, M. Lochau: Equivalence and Independence in Controlled Graph-Rewriting Processes. In *Proceedings of International Conference on Graph Transformation (ICGT)*, pages 134-151, 2018
- [39] S. Ruland, G. Kulcsár, E. Leblebici, S. Peldszus, M. Lochau: Controlling the Attack Surface on Object-Oriented Refactorings. In *Proceedings of Fundamental Approaches to Software Engineering (FASE)*, pages 38-55, 2018
- [40] S. Peldszus, G. Kulcsár, M. Lochau, S. Schulze: On Continuous Detection of Design Flaws in Evolving Object-Oriented Programs using Incremental Multi-Pattern Matching. In *Proceedings of Software Engineering (SE)*, pages 143-144, 2018
- [41] L. Luthmann, Andreas Stephan, Johannes Bürdek, M. Lochau: Modeling and Testing Product Lines with Unbounded Parametric Real-Time Constraints. In *Proceedings of International Software Product Line Conference (SPLC)*, pages 104 – 113, 2017
- [42] J. Bürdek, T. Kehrer, M. Lochau, D. Reuling, U. Kelter, A. Schürr: Reasoning about Product-Line Evolution using Complex Feature Model Differences. In *Proceedings of Software Engineering 2017*, pages 67 – 68, 2017
- [43] M. Weckesser, M. Lochau, T. Schnabel, B. Richerzhagen, A. Schürr: On Automated Anomaly Detection for Potentially Unbounded Cardinality based Feature Models. In *Proceedings of Software Engineering 2017*, pages 125 – 126, 2017
- [44] S. Peldszus, G. Kulcsar, M. Lochau, S. Schulze: Continuous Detection of Design Flaws in Object-Oriented Programs using Incremental Multi-Pattern Detection. In *Proceedings of International Conference on Automated Software Engineering (ASE)*, pages 578-589, 2016
- [45] M. Al-Hajjaji, S. Krieter, T. Thüm, M. Lochau, G. Saake: InCLing: Efficient Product-Line Testing using Incremental Pairwise Sampling. In *Proceedings of International Conference on Generative Programming: Concepts & Experiences (GPCE)*, pages 144 - 155, 2016
- [46] L. Luthmann, S. Mennicke, M. Lochau: Compositionality, Decompositionality and Refinement in Input/Output Conformance Testing. In *Proceedings of International Conference of Formal Aspects of Component Software (FACS)*, pages 174 - 191, 2016
- [47] C. Krupitzer, F. M. Roth, C. Becker, M. Weckesser, M. Lochau, A. Schürr: FESAS IDE: An Integrated Development Environment for Automatic Computing. In *Proceedings of International Conference on Autonomous Computing (ICAC)*, pages 15-24, 2016
- [48] M. Lochau, J. Bürdek, S. Bauregger, A. Holzer, A. von Rhein, S. Apel, D. Beyer: On facilitating reuse in multi-goal test-suite generation for software product lines. In *Proceedings of Software Engineering (SE)*, pages 81-82, GI, 2016.

- [49] M. Weckesser, M. Lochau, T. Schnabel, B. Richerzhagen, A. Schürr: Mind the Gap! Automated Anomaly Detection for Potentially Unbounded Cardinality-Based Feature Models. In *Proceedings of Fundamental Approaches to Software Engineering (FASE)*, pages 158-175, Springer, 2016.
- [50] J. Bürdek, M. Lochau, S. Bauregger, A. Holzer, A. von Rhein, S. Apel, D. Beyer: Facilitating Reuse in Multi-Goal Test-Suite Generation for Software Product Lines. In *Proceedings of Fundamental Approaches to Software Engineering (FASE)*, pages 84-99, Springer, 2015.
- [51] D. Reuling, J. Bürdek, S. Rotärmel, M. Lochau, and U. Kelter: Fault-based Product-line Testing: Effective Sample Generation-based on Feature-Diagram Mutation. In *Proceedings of International Software Product Line Conference (SPLC)*, pages 131–140, ACM, 2015.
- [52] S. Peldszus, G. Kulcsár, M. Lochau, and S. Schulze: Incremental Co-Evolution of Java Programs based on Bidirectional Graph Transformation. In *Proceedings of Principles and Practices of Programming on The Java Platform (PPPJ)*, pages 138–151, ACM, 2015.
- [53] A. Anjorin, K. Saller, M. Lochau, and A. Schürr: On Modularizing Triple Graph Grammars with Rule Refinement. In *Software Engineering & Management, Multikonferenz der GI-Fachbereiche Softwaretechnik (SWT) und Wirtschaftsinformatik (WI), FA WI-MAW*, pages 95–96, 2015.
- [54] A. Anjorin, K. Saller, M. Lochau, A. Schürr: Modularizing Triple Graph Grammars Using Rule Refinement. In *Proceedings of Fundamental Approaches to Software Engineering (FASE)*, pages 340-354, Springer, 2014.
- [55] H. Baller, S. Lity, M. Lochau, and I. Schaefer: Multi-Objective Test Suite Optimization for Incremental Product Family Testing. In *Proceedings of International Conference on Software Testing, Verification and Validation (ICST)*, pages 303-312, IEEE, 2014.
- [56] M. Al-Hajjaji, T. Thüm, J. Meinicke, M. Lochau, and G. Saake: Similarity-based Prioritization in Software Product-Line Testing. In *Proceedings of International Software Product Line Conference (SPLC)*, pages 197–206, ACM, 2014.
- [57] S. Mennicke, M. Lochau, J. Schroeter, and T. Winkelmann: Automated Verification of Feature Model Configuration Processes based on Workflow Petri Nets. In *Proceedings of International Software Product Line Conference (SPLC)*, pages 62–71, ACM, 2014.
- [58] M. Lochau, S. Mennicke, H. Baller, and L. Ribbeck. DeltaCCS: A Core Calculus for Behavioral Change. In *Proceedings of International Symposium on Leveraging Applications of Formal Methods, Verification and Validation*, pages 320–335, Springer, 2014.
- [59] M. Lochau, I. Schaefer, J. Kamischke, and S. Lity: Incremental Model-based Testing of Delta-oriented Software Product Lines. In *Proceedings of International Conference Tests and Proofs (TAP)*, pages 67-82, Springer, 2012.
- [60] J. Schroeter, M. Lochau, T. Winkelmann: Multi-perspectives on Feature Models. In *Proceedings of International Conference on Model Driven Engineering Languages and Systems (MoDELS)*, pages 252-268, Springer, 2012.
- [61] H. Cichos, M. Lochau, S. Oster, and A. Schürr: Reduktion von Testsuiten für Software-Produktlinien. In *Software Engineering, Fachtagung des GI-Fachbereiches Softwaretechnik*, pages 143-154, 2012.

- [62] M. Lochau and J. Kamischke: Parameterized Preorder Relations for Model-based Testing of Software Product Lines. In *Proceedings of International Symposium on Leveraging Applications of Formal Methods, Verification and Validation*, pages 223-237, Springer, 2012.
- [63] H. Cichos, S. Oster, M. Lochau, and A. Schürr: Model-based Coverage-Driven Test Suite Generation for Software Product Lines. In *Proceedings of International Conference on Model Driven Engineering Languages and Systems (MoDELS)*, pages 425-439, Springer, 2011.
- [64] M. Lochau, T. Müller, S. Detering, U. Goltz, and T. Form: Architektur-Evaluation von AUTOSAR-Systemen: Adaption und Integration. In *Proceedings of Elektronik Automotive Congress*, 2009.
- [65] M. Lochau, T. Müller, J. Steiner, U. Goltz, and T. Form: Optimierung von AUTOSAR-Systemen durch automatisierte Architektur-Evaluation. In *Proceedings Internationaler Kongress Elektronik im Kraftfahrzeug*, VDI-Berichte 2075, pages 827-838, 2009.
- [66] M. Lochau, B. Sun, P. Huhn, and U. Goltz: Model-based Parameter Optimization of an Engine Control Unit using Genetic Algorithms. In *Proceedings of Symposium on Automotive/Avionics System Engineering (SAASE)*, 2009.
- [67] C. Knieke, M. Huhn, and M. Lochau. Executable Requirements Specification: Formal Semantics of Live Activity Diagrams. In *Proceedings of International Symposium on Theoretical Aspects of Software Engineering (TASE)*, pages 109-112, IEEE, 2008.
- [68] C. Knieke, M. Huhn, and M. Lochau: Modeling and Validation of Executable Requirements Using Live Activity Diagrams. In *Proceedings of International Conference on Software Engineering Research, Management and Applications (SERA)*, pages 51-58, IEEE, 2008.

Refereed Workshop Papers

- [69] M. Varshosaz, M.R. Mousavi, L. Luthmann, M. Lochau, Malte: Expressive Power and Encoding of Transition System Models for Software Product Lines. In: *Proceedings of Nordic Workshop on Programming Theory (NWPT)*, 2017
- [70] M. Weckesser, M. Lochau, M. Ries, A. Schürr: Towards Complete Consistency Checks of Clafer Models. In *Proceedings of International Workshop on Feature-Oriented Software Development (FOSD)*, ACM, 2017
- [71] T. Schnabel, M. Weckesser, R. Kluge, M. Lochau, A. Schürr: CardyGAN: Tool Support for Cardinality-based Feature Models. In *Proceedings of Workshop on Variability Modelling of Software-intensive Systems (VaMoS)*, ACM, 2016.
- [72] F. Deckwerth, G. Kulcsár, M. Lochau, G. Varró, A. Schürr: Conflict Detection for Edits on Extended Feature Models using Symbolic Graph Transformation. In *Proceedings of Workshop on Formal Methods and Analysis in SPL Engineering (FMSPLE)*, pages 17–31, 2016.
- [73] F. Benduhn, T. Thüm, M. Lochau, T. Leich, and G. Saake: A Survey on Modeling Techniques for Formal Behavioral Verification of Software Product Lines. In *Proceedings of International Workshop on Variability Modelling of Software-intensive Systems (VaMoS)*, ACM, 2015.

- [74] G. Kulcsár, F. Deckwerth, M. Lochau, G. Varró, A. Schürr: Improved Conflict Detection for Graph Transformation with Attributes. In *Proceedings of Graphs as Models (GaM)*, pages 97-112, 2015.
- [75] G. Kulcsár, S. Peldszus, and M. Lochau: A Solution to the Java Refactoring Case Study using eMoflon. In *CEUR Workshop Proceedings of Transformation Tool Contest*, 2015.
- [76] S. Lity, J. Bürdek, M. Lochau, M. Berens, A. Schürr, and I. Schaefer: Re-Engineering Automation Systems as Dynamic Software Product Lines. In *Proceedings of Dagstuhl-Workshop on Model-Based Development of Embedded Systems (MBEES)*, 2015.
- [77] L. Luthmann, S. Mennicke, and M. Lochau: Towards an I/O Conformance Testing Theory for Software Product Lines based on Modal Interface Automata. In *Proceedings of Workshop on Formal Methods and Analysis in SPL Engineering (FMSPLE)*, pages 1–13, 2015.
- [78] J. Bürdek, S. Lity, M. Lochau, M. Berens, U. Goltz, and A. Schürr: Staged Configuration of Dynamic Software Product Lines with Complex Binding Time Constraints. 2014. In *Proceedings of International Workshop on Variability Modelling of Software-intensive Systems (VaMoS)*, ACM, 2014.
- [79] H. Baller and M. Lochau: Towards Incremental Test Suite Optimization for Software Product Lines: In *Proceedings of International Workshop on Feature-Oriented Software Development (FOSD)*, pages 30–36, ACM, 2014.
- [80] K. Saller, M. Lochau, and I. Reimund: Context-Aware DSPLs: Model-Based Runtime Adaptation for Resource-Constrained Systems. In *Proceedings International Software Product Line Conference co-located Workshops*, pages 106 – 113, ACM, 2013.
- [81] S. Schulze, M. Lochau, and S. Brunswig: Implementing Refactorings for FOP - Lessons Learned and Challenges Ahead. In *Proceedings of International Workshop on Feature-Oriented Software Development (FOSD)*, pages 33-40, ACM, 2013.
- [82] M. Dukaczewski, I. Schaefer, R. Lachmann, and M. Lochau: Requirements-Based Delta-Oriented SPL Testing. In *Proceedings of International Workshop on Product Line Approaches in Software Engineering (PLEASE)*, pages 49-52, IEEE, 2013.
- [83] M. Steffens, S. Oster, M. Lochau, and T. Fogdal: Industrial evaluation of pairwise SPL testing with MoSo-PoLiTe. In *Proceedings of International Workshop on Variability Modeling of Software-intensive Systems (VaMoS)*, pages 55–62, ACM, 2012.
- [84] K. Saller, S. Oster, A. Schürr, J. Schroeter, and M. Lochau: Reducing Feature Models to Improve Runtime Adaptivity on Resource Limited Devices. In *Proceedings of International Software Product Line Conference co-located Workshops*, pages 135 – 142, ACM, 2012.
- [85] J. Schroeter, P. Mucha, M. Muth, K. Jugel, and M. Lochau: Dynamic Configuration Management of Cloud-Based Applications. In *Proceedings International Software Product Line Conference co-located Workshops*, pages 171-178, ACM, 2012.
- [86] J. Kamischke, M. Lochau, and H. Baller: Conditioned Model Slicing of Feature-Annotated State Machines. In *Proceedings of International Workshop on Feature-Oriented Software Development (FOSD)*, pages 9-16, ACM, 2012.

- [87] S. Lity, M. Lochau, I. Schaefer, and U. Goltz: Delta-oriented Model-based SPL Regression Testing. In *Proceedings International Workshop on Product Line Approaches in Software Engineering (PLEASE)*, pages 53-56, IEEE, 2012.
- [88] K. Schmid, H. Eichelberger, U. Goltz, and M. Lochau: Evolving Adaptable Systems: Potential and Challenges. In *Proceedings of Workshop des GI-Arbeitskreises Langlebige Softwaresysteme (L2S2): Design for Future - Langlebige Softwaresysteme*, 2012.
- [89] J. Schroeter, M. Lochau, and T. Winkelmann: Conper: Consistent Perspectives on Feature Models. In *Proceedings of Workshop on Academics Modeling with Eclipse (ACME)*, 2012.
- [90] S. Oster, I. Zorcic, F. Markert, and M. Lochau: MoSo-PoLiTe - Tool Support for Pairwise and Model-Based Software Product Line Testing. In *Proceedings of International Workshop on Variability Modelling of Software-intensive Systems (VaMoS)*, pages 79–82, ACM, 2011.
- [91] S. Oster, M. Lochau, M. Zink, and M. Grechanik: Pairwise Feature-Interaction Testing for SPLs: Potentials and Limitations. In *Proceedings of International on Feature-Oriented Software Development (FOSD)*, ACM, 2011.
- [92] M. Lochau and U. Goltz: Qualitätssicherende Koevolution von Architekturen eingebetteter Systeme. In *Proceedings of Workshop des GI-Arbeitskreises Langlebige Softwaresysteme (L2S2): Design for Future - Langlebige Softwaresysteme*, pages 111-122, 2009
- [93] M. Lochau and H. Günther: A Static Aspect Language for Modelica Models. In *Proceedings of International Workshop on Equation-Based Object-Oriented Languages and Tools (EOOLT)*, pages 47-57, ACM, 2008.

Technical Reports

- [94] L. Luthmann, H. Göttmann, M. Lochau: Compositional Liveness-Preserving Conformance Testing of Timed I/O Automata – *Technical Report. arXiv.org CoRR abs/1909.003703*, 2019
- [95] L. Luthmann, H. Göttmann, M. Lochau: Checking Timed Bisimulation with Bounded Zone History Graphs – *Technical Report. arXiv.org CoRR abs/1910.08992*, 2019
- [96] J. Greenyer, M. Lochau and T. Vogel: Explainable Software for Cyber-Physical Systems (ES4CPS): Report from the GI Dagstuhl Seminar 19023, January 06 – 11, 2019, Schloss Dagstuhl. *Technical Report. arXiv.org*, 2019.
- [97] L. Luthmann, S. Mennicke, M. Lochau: Compositionality, Decompositionality and Refinement in Input/Output Conformance Testing - *Technical Report. arXiv.org*, 2016.
- [98] S. Lity, R. Lachmann, M. Lochau, and I. Schaefer: Delta-oriented Software Product Line Test Models - The Body Comfort System Case Study. *Technical Report 2012-07*, TU Braunschweig, 2012.
- [99] D. Grunwald, M. Lochau, E. Börger, and U. Goltz: An Abstract State Machine Model for the Generic Java Type System. *Technical Report 2012-02*, TU Braunschweig, 2012.

- [100] H. Cichos, S. Oster, M. Lochau, and A. Schürr: Extended Version of Model-based Coverage-Driven Test Suite Generation for Software Product Lines. *Technical Report Nr. 2011-07*, TU Braunschweig, 2011.
- [101] J. Schroeter, M. Lochau, and T. Winkelmann: Extended Version of Multi-Perspectives on Feature Models. *Technical Report TU-FI11-07*, TU Dresden, 2011.
- [102] Hans J. Boehm, Ursula Goltz, Holger Hermanns, Peter Sewell (Eds.), edited in cooperation with Christian Eisentraut and Malte Lochau: Multi-Core Memory Models and Concurrency Theory (Dagstuhl Seminar 11011), *Dagstuhl Reports, Schloss Dagstuhl - Leibniz-Zentrum für Informatik*, 2011
- [103] T. Müller, M. Lochau, S. Detering, F. Saust, H. Garbers, L. Märting, T. Form, and U. Goltz: A Comprehensive Description of a Model-based, Continuous Development Process for AUTOSAR Systems with Integrated Quality Assurance. *Technical Report 2009-06*, TU Braunschweig, 2009.
- [104] B. Sun, M. Lochau, P. Huhn, and U. Goltz: Parameter Optimization of an Engine Control Unit using Genetic Algorithms. *Technical Report 2009-04*, TU Braunschweig, 2009.

Theses

- [105] M. Lochau: "Model-based Quality Assurance of Cyber-Physical Systems with Variability in Space, over Time, and at Runtime. *Habilitation Thesis, TU Darmstadt*, 2017.
- [106] M. Lochau: Model-Based Conformance Testing of Software Product Lines. *PhD thesis, Verlag Dr. Hut*, 2012.
- [107] M. Lochau: On Synthesizing Statecharts from Live Sequence Chart Specifications. *Diploma Thesis, TU Braunschweig*, 2007.

Teaching Material

- [108] U. Goltz, T. Gehrke, M. Lochau: Vorlesungsskript Compilerbau. TU Braunschweig, 2010
- [109] M. Lochau, J. Kamischke, U. Goltz: Vorlesungsskript Compiler II. TU Braunschweig, 2012