

# Eduard Kamburjan

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## Personal Data

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## Education

- 2016 – 2020 **PhD/Dr. rer. nat.**, *Technical University of Darmstadt*  
Passed with distinction (summa cum laude), advisor: Prof. Reiner Hähnle, dissertation:  
*Modular Verification of a Modular Specification: Behavioral Types as Program Logics*
- 2014 – 2016 **M.Sc.**, in *Computer Science*, *Technical University of Darmstadt*

## Employment

- Since 2023 **Senior Lecturer**, *University of Oslo*, *Reliable Systems Group*
- Digital twins and asset modeling in the energy industry in cooperation with Equinor
  - Integration of techniques from the semantic web with programming languages and approaches to co-simulation
- 2020 – 2023 **Postdoctoral Fellow**, *University of Oslo*, *Analytical Solutions and Reasoning Group*
- Digital twins in the petroleum industry in cooperation with Equinor, Petrobras and Shell
  - Integration of techniques from the semantic web with programming languages and approaches to co-simulation
- 2016 – 2020 **Research Assistant**, *Technical University of Darmstadt*, *Software Engineering Group*
- Modeling and verification of railway operations in cooperation with the Institute for Railway Engineering and DB Netz AG
  - Development of new specification and verification approaches for Active Objects
- 2013 – 2016 **Student Assistant**, *Technical University of Darmstadt*, *Software Engineering Group*  
Implementing loop invariant inference in the KeY system.

## Community Service

- PC Chair *Workshop on Applications of Formal Methods and Digital Twins* (co-located with FM'23)
- Track Chair FASE'22 (*Artifact Evaluation* track)  
ISoLA'20 (*Modularity and (De-)composition in Verification* track)
- PC Member ESWC'24  
SAC'24 (*Software Verification and Testing* track)  
SemIIM@ISWC'23  
FTSCS@SPLASH'23  
MPM4CPS@MODELS'23  
ICE@DiscoTec'23  
PhD@iFM'23 (*PhD Symposium*)  
SAC'23 (*Software Verification and Testing* track)  
ANNSIM'23 (*Cyber-Physical Systems* track)  
ECOOP'23 (*Artifact Evaluation* track & *Extended Review Committee*)  
FASE'23 (*Artifact Evaluation* track)  
SPLC'22 (*Journal First* track)  
SPLC'21 (*Journal First* track)  
ECOOP'21 (*Artifact Evaluation* track)  
OOPSLA'21 (*Artifact Evaluation* track)  
SPLC'18 (*Challenges* track)
- Guest Editor Science of Computer Programming, Special Issue on FASE'22 Artifacts  
LNCS Volume 14360 on the State of the Art in Active Objects
- External Reviewer (Conferences) FASE'24,'23,'22,'21,'20,'19,'18, TACAS'24, FM'23,'21,'19, NFM'23, iFM'23,'22,'20,'19,'17, TAP'22,'21,'19, COORDINATION'22,'21, ISoLA'22, SEFM'22, FORTE'22, CoSim Workshop'21, FTfJP'21, DaLi'20,'19, ICTAC'20, FOSSACS'20, TABLEAUX'19, CADE'19, IJCAR'18, CPP'18  
*Total: Over 30 venues as external reviewer.*
- (Journals) IEEE Transactions on Software Engineering, IEEE Transactions on Automation Science and Engineering, Journal of Functional Programming, Software and System Modeling, Science of Computer Programming, Computing, Journal of Systems and Software, Journal of Logical and Algebraic Methods in Programming  
*Total: 13 journal articles for 8 journals as an external reviewer.*
- (Grants) Dutch Research Council (NWO), South African National Research Foundation (NRF)
- Other ETAPS community blog (Editorial Board, since 2023)
- Organizer ABS Workshop'23  
ABS Workshop'21  
ABS Workshop'18

## Invitations

- 03.2023 18th *CAMPaM workshop on Twinning For and By Systems Engineering* at the Institut d'Études Scientifiques de Cargèse
- 11.2022 Dagstuhl Seminar 22451 on *Principles of Contract Languages*
- 09.2021 Dagstuhl Seminar 21372 on *Behavioural Types: From theory to practice*

## Awards and Stipends

Scholarship Kristine Bonnevie travel stipend 2023, from the Faculty of Mathematics and Natural Sciences of UiO for young excellent researchers, worth 24 500 NOK

Award Best Research Paper ESWC 2022

## Industrial Collaborations

2016 – 2020 With DB Netz AG, as project member of the FormbaR project, funded by DB AG. Modelling railway operations books to increase maintainability.

since 2020 With Equinor, as project member of the PeTWIN project, funded by the Norwegian Research Council.

Combining knowledge graphs and programs to handle asset models in digital twins of petroleum industry facilities.

## Professional Membership

- The Society for Modeling & Simulation International (SCS)
- Association for Computing Machinery (ACM)
- Formal Methods Europe (FME)

## Presentations at International Venues with Peer-Review

1. *"Deltas for Functional Programs with Algebraic Data Types"*  
SPLC'23, Tokyo, Japan [16]
2. *"Digital Twin Reconfiguration Using Asset Models"*  
ISoLA'22, Rhodos, Greece [17]
3. *"Twinning-by-Construction: Ensuring Correctness for Self-Adaptive Digital Twins"*  
ISoLA'22, Rhodos, Greece [21]
4. *"Knowledge Structures over Simulation Units"*  
ANNSIM'22, virtual [19]
5. *"Never Mind the Semantic Gap: Modular, Lazy and Safe Loading of RDF Data"*  
ESWC'22, Hersonissos, Greece [18]
6. *"Designing Distributed Control with Hybrid Active Objects"*  
ISoLA'21, Rhodos, Greece [25]
7. *"Optimizing Semantically Lifted Programs through Ontology Modularity"*  
NWPT'21, Reykjavik, Iceland [42]
8. *"Variability Modules for Java-like Languages"*  
SPLC'21, online [24]
9. *"From Post-Conditions to Post-Region Invariants"*  
HSCC'21, online [2]
10. *"Programming and Debugging with Semantically Lifted States"*  
ESWC'21, online [1]

11. *"Increasing Engagement with Interactive Visualization: Formal Methods as Serious Games"*  
FMTea@FM'21, online [41]
12. *"Type Checking Semantically Lifted Programs via Query Containment under Entailment Regimes"*,  
DL Workshop'21, online [40]
13. *"Asynchronous Cooperative Contracts for Cooperative Scheduling"*  
SEFM'19, Oslo, Norway [29]
14. *"Behavioral Program Logic"*  
TABLEAUX'19, London, UK [3]
15. *"Tool Support for Validation of Formal System Models"*  
F-IDE'19, Porto, Portugal [43]
16. *"Interoperability of software product line variants"*  
SPLC'18, Gothenborg, Sweden [32]
17. *"Stateful Behavioral Types for Active Objects"*  
iFM'18, Maynooth, Ireland [30]
18. *"Prototyping Formal System Models with Active Object"*  
ICE'18, Madrid, Spain [44]
19. *"Detecting Deadlocks in Formal System Models with Condition Synchronization"*  
AVoCS'18, Oxford, UK [45]
20. *"Asynchronous Cooperative Contracts for Cooperative Scheduling"*  
NWPT'18, Oslo, Norway (abstract of [29])
21. *"Deductive Verification of Railway Operations"*  
RSSRail'17, Pistoia, Italy [33]
22. *"Uniform Modeling of Railway Operations"*  
FTCSC'16, Tokyo, Japan [46]
23. *"Session-Based Compositional Analysis for Actor-Based Languages Using Futures"*  
ICFEM'16, Tokyo, Japan [35]
24. *"Session Types for ABS"*  
NWPT'15, Reykjavik, Iceland (abstract of [35])

### Invited Presentations

1. *"Semantical Reflection for Computational Structures"*  
Reasonable MBSE Seminar, University of Antwerp, 23.11.23
2. *"Semantical Reflection for Computational Structures"*  
SIRIUS Lunch Seminar, UiO, Oslo, 14.11.23
3. *"The Semantically Reflected Digital Twin"*  
Tutorial, CAMPaM'23, with Einar Broch Johnsen, 23.03.23
4. *"Semantically Lifted Digital Twins"*  
Formal Methods Research Seminar, KIT, Karlsruhe, 09.01.23

5. *"Towards Contracts for Semantically Lifted Programs"*  
Dagstuhl Seminar 22451, 07.11.22
6. *"The Semantically Reflected Digital Twin"*  
Tutorial, ICTAC Summer School, with Einar Broch Johnsen, 26.10.22
7. *"Semantically Lifted Programming"*  
TCS Seminar, KTH Stockholm, 16.09.22
8. *"Semantic Programming"*  
BLDL Group Seminar, University of Bergen, 19.05.22
9. *"Session Types as Program Logics"*  
Dagstuhl Seminar 21372, 14.09.21

## Other Presentations

1. *"Digital Twins for Ecological Systems"*  
Green Data Lab Conference'23, Ås, Norway
2. *"Monitoring of Self-Adaptive Digital Twins"*  
COEMS Forsterk Seminar'22, Tromsø, Norway
3. *"25 Years of FASE/ETAPS"*  
ETAPS'22, Munich, Germany, with Gabriele Taentzer
4. *"Hybrid Active Objects"*  
Workshop on Distributed Hybrid Systems'18, Amsterdam, Netherlands
5. *"Prototyping Formal System Models with Active Objects"*  
Workshop on Actors and Active Objects'17, Turin, Italy
6. *"The future Use Cases of Formal Methods in Railways"*  
Scientific Railway Signalling Symposium'18, Darmstadt, Germany
7. *"Formalisierung von betrieblichen und anderen Regelwerken – Das FormbaR-Projekt"*  
Scientific Railway Signalling Symposium'17, Darmstadt, Germany
8. *"Context-aware Trace Contracts"*  
International KeY Symposium'23, Bergen, Norway
9. *"KeY-Style Verification for ABS and Hybrid ABS"*  
International KeY Symposium'21 (online)
10. *"Behavioral Program Logic"*  
International KeY Symposium'19, Manigod, France
11. *"Hybrid Active Objects"*  
International KeY Symposium'19, Manigod, France
12. *"Update on KeY-ABS"*  
International KeY Symposium'17, Rastatt, Germany
13. *"Session Types for ABS"*  
International KeY Symposium'16, Manigod, France

14. *"Modeling Railways with ABS and KeY-ABS"*  
International KeY Symposium'16, Manigod, France
15. *"Abstract Object Creation for an Explicit Heap Representation"*  
International KeY Symposium'14, Bühl, Germany
16. *"Context-aware Trace Contracts"*  
ABS Workshop'23, Lyon, France
17. *"Types and Verification for Delegated Control of Hybrid Objects"*  
ABS Workshop'23, Lyon, France
18. *"Crowbar and Hybrid ABS"*  
ABS Workshop'21 (online)
19. *"Behavioral Program Logic"*  
ABS Workshop'19, Amsterdam, Netherlands
20. *"Hybrid Active Objects"*  
ABS Workshop'19, Amsterdam, Netherlands
21. *"Asynchronous Method Contracts for ABS"*  
ABS Workshop'18, Darmstadt, Germany
22. *"Experiences with await on Fields"*  
ABS Workshop'17, Oslo, Norway
23. *"Session Types for ABS"*  
ABS Workshop'16, Oslo, Norway

## Teaching Experience

Course	<i>IN5170 Models of Concurrency</i> , Autumn Term'23	Lecturer
Course	<i>IN5170 Models of Concurrency</i> , Autumn Term'22	Lecturer
Course	<i>Analysis of Hybrid Systems</i> , Summer Term'20	Lecturer
Course	<i>IN3040 Programming Languages</i> , Autumn Term'22	Guest Lecturer
Course	<i>Automatic Theorem Proving</i> , Summer Term'18	Teaching Assistant
Seminar	<i>Actor Languages</i> , Winter Term'19	Teaching Assistant
Seminar	<i>Symbolic Execution</i> , Summer Term'19	Teaching Assistant
Seminar	<i>Software Failures</i> , Summer Term'17	Teaching Assistant
Grading	<i>IKT212 Programming Languages</i> , Autumn'23, University of Agder.	External Examiner
Grading	<i>INF113 Operational Systems</i> , Autumn'23, University of Bergen.	External Examiner
Grading	<i>INF113 Operational Systems</i> , Autumn'22, University of Bergen.	External Examiner
Grading	<i>INF113 Operational Systems</i> , Autumn'21, University of Bergen.	External Examiner
Project	<i>KalkulierbaR</i> , Winter Term'20	As supervisor
Project	<i>KollaborierbaR</i> , Winter Term'19	As supervisor
Project	<i>VisualisierbaR II</i> , Winter Term'18	As supervisor
Project	<i>VisualisierbaR I</i> , Winter Term'17	As supervisor

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## PhD Student Supervision

- Co-supervisor *Trace-Based Symbolic Execution*, Åsmund Kløvstad  
On-going since 08.2022, main examiner: Prof. Einar Broch Johnsen
- Co-supervisor *Composition of Multi-Scale Models for Digital Twins*, Riccardo Sieve  
On-going since 09.2023, main examiner: Prof. Einar Broch Johnsen

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## Thesis and Student Supervision

- Master *Semantic Reflection of a Digital-Twin-as-a-Service Platform* on-going
- Master *On backwards symbolic execution* on-going
- Master *A backend for semantic digital twins* on-going
- Master *Developing a semantic digital twin framework with live and historical sensor data* on-going
- Master *A Climate Barometer for the Oslo Fjord Using a Digital Twin Architecture* on-going
- Master *Semantic framework for reconfiguration of digital twins* on-going
- Master *Mobile Assets in Semantic Digital Twins* 2023
- Master *Semantic Debugging for the JVM* 2022
- Master *Implementing Variability-aware Modules* 2020
- Master *Evaluation of ABS in Modeling Real World Safety-Critical Systems* 2018
- Master *A Formal Model of a Railway Operating Procedure with Moving Blocks and Dynamic Speed Profile*, 2017
- Bachelor *Design and Development of the Digital Twin of a Greenhouse* co-supervisor, 2023
- Bachelor *Introducing and Exploiting Extended Types for ABS* 2020
- Bachelor *Counterexample Generation for Formal Verification of ABS* 2020, published in [5]
- Bachelor *Semi-Dynamic Session Types for ABS* 2019, published in [27]
- Bachelor *Makroskopisches Editieren von prototypischen Eisenbahnbetriebsverfahren* 2019, published in [43]
- Bachelor *Formalizing the Concurrency Model of AOs in a Linearization Framework* 2019
- Bachelor *Concept Formation in Computer Science: Modeling and Programming* 2019
- Bachelor *Hybrid Active Objects mit ABS* 2018
- Bachelor *Active Object Languages for Railway Modeling* 2018
- Study Thesis *Practical Counterexample Generation and Lightweight Session Types for ABS* 2021
- Master *Exploring Automatic Text Simplification of Requirements* 2022  
(Examiner)
- Master *Commutativity Analysis in ABS* 2021  
(Examiner)

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## Software

- Main Author SMOL [smolang.org](http://smolang.org), actively maintained since 2021  
*A language and interpreter combining knowledge graphs and object-orientation*
- Main Author Crowbar [github.com/edkamb/crowbar-tool](https://github.com/edkamb/crowbar-tool), actively maintained since 2020  
*A deductive verification system for active objects*

Main Author Hybrid ABS Compiler [formbar.raillab.de/habs](http://formbar.raillab.de/habs), actively maintained since 2018  
*An extension of active objects with differential equations for dynamic behavior*

Contributor ABS Compiler [abs-models.org](http://abs-models.org), since 2017  
*Responsible for the variability layer*

Contributor KeY Verification System [key-project.org](http://key-project.org), 2014-2016  
*Implemented an approach for loop invariant inference*



## Publications

In total, I have published 46 peer-reviewed articles: 40 in the proceedings of international conferences and workshops, and 6 journal articles.

## Selected Conference Publications

- [1] Eduard Kamburjan, Vidar Norstein Klungre, Rudolf Schlatte, Einar Broch Johnsen, and Martin Giese. *Programming and Debugging with Semantically Lifted States*. In *ESWC, LNCS 12731*, 2021.
- [2] Eduard Kamburjan. *From Post-Conditions to Post-Region Invariants: Deductive Verification of Hybrid Objects*. In *HSCC*. ACM, 2021.
- [3] Eduard Kamburjan. *Behavioral Program Logic*. In *TABLEAUX, LNCS 11714*, 2019.

## Journal Articles

- [4] Andreas Harth, Tobias Käfer, Anisa Rula, Jean-Paul Calbimonte, Eduard Kamburjan, and Martin Giese. *Towards Representing Processes and Reasoning with Process Descriptions on the Web*. *Transactions on Graph Data and Knowledge*, 2, 2024. accepted for publication.
- [5] Eduard Kamburjan, Marco Scaletta, and Nils Rollshausen. *Deductive Verification of Active Objects with Crowbar*. *Sci. Comput. Program.*, 226, 2023.
- [6] Ferruccio Damiani, Reiner Hähnle, Eduard Kamburjan, Michael Lienhardt, and Luca Paolini. *Variability Modules*. *Journal of Systems and Software*, 195, 2023.
- [7] Rudolf Schlatte, Einar Broch Johnsen, Eduard Kamburjan, and Silvia Lizeth Tapia Tarifa. *The ABS Simulator Toolchain*. *Sci. Comput. Program.*, 223, 2022.
- [8] Eduard Kamburjan, Stefan Mitsch, and Reiner Hähnle. *A Hybrid Programming Language for Formal Modeling and Verification of Hybrid Systems*. *Leibniz Trans. Embed. Syst.*, 18(2), 2022.
- [9] Eduard Kamburjan, Reiner Hähnle, and Sebastian Schön. *Formal modeling and analysis of railway operations with active objects*. *Sci. Comput. Program.*, 166, 2018.

## Conference Publications

- [10] Eduard Kamburjan and Michael Lienhardt. *Types and Verification for Delegated Control of Hybrid Objects*. In *Active Object Languages: Current Research Trends, LNCS 14360*, 2024. in production.
- [11] Reiner Hähnle, Eduard Kamburjan, and Marco Scaletta. *Context-aware Trace Contracts*. In *Active Object Languages: Current Research Trends, LNCS 14360*, 2024. in production.
- [12] Åsmund Aqissiaq Arild Kløvstad, Eduard Kamburjan, and Einar Broch Johnsen. *Compositional Correctness and Completeness for Symbolic Partial Order Reduction*. In *CONCUR, LIPIcs 279*, 2023.
- [13] Prasad Talasila, Claudio Gomes, Peter Høgh Mikkelsen, Santiago Gil Arboleda, Eduard Kamburjan, and Peter Gorm Larsen. *Digital Twin as a Service (DTaaS): A Platform for Digital Twin Developers and Users*. In *IEEE Digital Twins*, 2023.
- [14] Yuanwei Qu, Eduard Kamburjan, and Marting Giese. *A Geological Case Study on Semantically Triggered Processes*. In *ESWC, LNCS 13998*, 2023.

- [15] Eduard Kamburjan and Crystal Chang Din. *Runtime Enforcement Using Knowledge Bases*. In *FASE, LNCS 13991*, 2023.
- [16] Ferruccio Damiani, Eduard Kamburjan, Michael Lienhardt, and Luca Paolini. *Deltas for Functional Programs with Algebraic Data Types*. In *SPLC*. ACM, 2023.
- [17] Eduard Kamburjan, Vidar Norstein Klungre, Rudolf Schlatte, S. Lizeth Tarifa Tapia, David Cameron, and Einar Broch Johnsen. *Digital Twin Reconfiguration Using Asset Models*. In *ISoLA, LNCS 13704*. Springer, 2022.
- [18] Eduard Kamburjan, Vidar Norstein Klungre, and Martin Giese. *Never Mind the Semantic Gap: Modular, Lazy and Safe Loading of RDF Data*. In *ESWC, LNCS 13261*, 2022. **Best Paper Award**.
- [19] Eduard Kamburjan and Einar Broch Johnsen. *Knowledge Structures over Simulation Units*. In *ANNSIM*. IEEE, 2022.
- [20] Eduard Kamburjan and Sandro Rama Fiorini. *On the notion of naturalness in formal modeling*. In *The Logic of Software. A Tasting Menu of Formal Methods, LNCS 13360*, 2022.
- [21] Eduard Kamburjan, Crystal Chang Din, Rudolf Schlatte, S. Lizeth Tarifa Tapia, and Einar Broch Johnsen. *Twinning-by-Construction: Ensuring Correctness for Self-Adaptive Digital Twins*. In *ISoLA, LNCS 13701*. Springer, 2022.
- [22] Ole Jørgen Abusdal, Eduard Kamburjan, Violat Ka I Pun, and Volker Stolz. *A Notion of Equivalence for Refactorings with Abstract Execution*. In *ISoLA, LNCS 13702*. Springer, 2022.
- [23] Rudolf Schlatte, Einar Broch Johnsen, Eduard Kamburjan, and S. Lizeth Tapia Tarifa. *Modeling and analyzing resource-sensitive actors: A tutorial introduction*. In *COORDINATION, LNCS 12717*, 2021.
- [24] Ferruccio Damiani, Reiner Hähnle, Eduard Kamburjan, Michael Lienhardt, and Luca Paolini. *Variability Modules for Java-like Languages*. In *SPLC*. ACM, 2021.
- [25] Eduard Kamburjan, Rudolf Schlatte, Einar Broch Johnsen, and S. Lizeth Tapia Tarifa. *Designing Distributed Control with Hybrid Active Objects*. In *ISoLA, LNCS 12479*, 2020.
- [26] Eduard Kamburjan, Crystal Chang Din, Reiner Hähnle, and Einar Broch Johnsen. *Behavioral Contracts for Cooperative Scheduling*. In *20 Years of KeY, LNCS 12345*. 2020.
- [27] Reiner Hähnle, Anton Haubner, and Eduard Kamburjan. *Locally Static, Globally Dynamic Session Types for Active Objects*. In *Recent Developments in the Design and Implementation of Programming Languages, OASiCs 86*. Schloss Dagstuhl, 2020.
- [28] Dilian Gurov, Reiner Hähnle, and Eduard Kamburjan. *Who Carries the Burden of Modularity? - Introduction to ISoLA 2020 Track on Modularity and (De-)composition in Verification*. In *ISoLA, LNCS 12476*, 2020.
- [29] Eduard Kamburjan, Crystal Chang Din, Reiner Hähnle, and Einar Broch Johnsen. *Asynchronous Cooperative Contracts for Cooperative Scheduling*. In *SEFM, LNCS 11724*, 2019.
- [30] Eduard Kamburjan and Tzu-Chun Chen. *Stateful Behavioral Types for Active Objects*. In *IFM, LNCS 11023*, 2018.

- [31] Ferruccio Damiani, Reiner Hähnle, Eduard Kamburjan, and Michael Lienhardt. *Same Same But Different: Interoperability of Software Product Line Variants*. In *Principled Software Development*. Springer, 2018.
- [32] Ferruccio Damiani, Reiner Hähnle, Eduard Kamburjan, and Michael Lienhardt. *Interoperability of software product line variants*. In *SPLC*. ACM, 2018.
- [33] Eduard Kamburjan and Reiner Hähnle. *Deductive Verification of Railway Operations*. In *RSSRail, LNCS 10598*, 2017.
- [34] Ferruccio Damiani, Reiner Hähnle, Eduard Kamburjan, and Michael Lienhardt. *A Unified and Formal Programming Model for Deltas and Traits*. In *FASE, LNCS 10202*, 2017.
- [35] Eduard Kamburjan, Crystal Chang Din, and Tzu-Chun Chen. *Session-Based Compositional Analysis for Actor-Based Languages Using Futures*. In *ICFEM, LNCS 10009*, 2016.
- [36] Quoc Huy Do, Eduard Kamburjan, and Nathan Wasser. *Towards Fully Automatic Logic-Based Information Flow Analysis: An Electronic-Voting Case Study*. In *POST, LNCS 9635*, 2016.

## Workshop Publications

- [37] Eduard Kamburjan, Vidar Norstein Klungre, S. Lizeth Tapia Tarifa, Rudolf Schlatte, Martin Giese, David Cameron, and Einar Broch Johnsen. *Emerging Challenges in Compositionality and Correctness for Digital Twins*. In *FMDT*, 2023.
- [38] Johan Cederbladh, Loek Cleophas, Eduard Kamburjan, Lucas Lima, and Hans Vangheluwe. *Symbolic Reasoning for Early Decision-Making in Model-Based Systems Engineering*. In *MBSE@Models*. IEEE, 2023. accepted for publication.
- [39] Eduard Kamburjan and Nathan Wasser. *The Right Kind of Non-Determinism: Using Concurrency to Verify C Programs with Underspecified Semantics*. In *ICE*, 365. EPTCS, 2022.
- [40] Eduard Kamburjan and Egor V. Kostylev. *Type Checking Semantically Lifted Programs via Query Containment under Entailment Regimes*. In *Description Logic Workshop, CEUR Workshop Proceedings 2954*. CEUR-WS.org, 2021.
- [41] Eduard Kamburjan and Lukas Grätz. *Increasing Engagement with Interactive Visualization: Formal Methods as Serious Games*. In *Formal Methods Teaching, LNCS 13122*, 2021.
- [42] Eduard Kamburjan and Jieying Chen. *Optimizing Semantically Lifted Programs through Ontology Modularity*. In *NWPT*. Reykjavik University Technical Reports, 2021.
- [43] Eduard Kamburjan and Jonas Stromberg. *Tool Support for Validation of Formal System Models: Interactive Visualization and Requirements Traceability*. In *F-IDE@FM, EPTCS 310*, 2019.
- [44] Eduard Kamburjan and Reiner Hähnle. *Prototyping Formal System Models with Active Objects*. In *ICE, EPTCS 279*, 2018.
- [45] Eduard Kamburjan. *Detecting Deadlocks in Formal System Models with Condition Synchronization*. *AVoCS, Electron. Commun. Eur. Assoc. Softw. Sci. Technol.*, 76, 2018.
- [46] Eduard Kamburjan and Reiner Hähnle. *Uniform Modeling of Railway Operations*. In *FTSCS, CCIS 694*, 2016.

## PhD Thesis

- [47] Eduard Kamburjan. *Modular Verification of a Modular Specification: Behavioral Types as Program Logics*. PhD thesis, Technical University of Darmstadt, 2020.

## Editorship

- [48] Stefan Hallerstede and Eduard Kamburjan, editors. *Proceedings of the Workshop on Applications of Formal Methods and Digital Twins, co-located with 25th International Symposium on Formal Methods (FM 2023), Lübeck, Germany, March 06, 2023.*, CEUR Workshop Proceedings 3507. CEUR-WS.org, 2023.
- [49] Frank de Boer, Ferruccio Damiani, Reiner Hähnle, Einar Broch Johnsen, and Eduard Kamburjan, editors. *Active Object Languages: Current Research Trends*, LNCS 14360. Springer, 2024. in production.
- [50] Marie-Christine Jakobs and Eduard Kamburjan. *Special issue on Fundamental Approaches to Software Engineering (FASE 2022)*. *Sci. Comput. Program.*, 228, 2024.

## Preprints

- [51] Eduard Kamburjan. Modular analysis of distributed hybrid systems using post-regions (full version), 2023. <https://doi.org/10.48550/arXiv.2309.10470>.

## Other Publications

- [52] Reiner Hähnle, Eduard Kamburjan, and Marco Scaletta. *Herding CATs (invited paper)*. In *SEFM'23*, LNCS 14323, 2023.
- [53] Sebastian Schön, Eduard Kamburjan, and Reiner Hähnle. *The Future Use Cases of Formal Methods in Railways*. In *Scientific Railway Signalling Symposium*. TU Darmstadt, 2018.