

ETAPS2017

European Joint Conferences
on Theory and Practice of Software



22–29 April 2017
Uppsala, Sweden

Workshop Program

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1 8th Workshop on Developments in Implicit Computational complexity (DICE) and 5th Workshop on Foundational and Practical Aspects of Resource Analysis (FOPARA)

Saturday, 22 April, 2017, Room 12:128 Blåsenhus

07:30 - 08:45	Registration
08:45 - 09:00	Welcome
	Invited Talk 1 (chair: Georg Moser)
09:00 - 10:00	Challenges for Timing Analysis of Multi-Core Architectures <i>Jan Reineke</i>
10:00 - 10:30	Coffee break
	Session 1 (program analysis)
10:30 - 11:00	Inductive Termination Proofs by Transition Predicate Abstraction and their relationship to the Size-Change Abstraction <i>Florian Zuleger</i>
11:00 - 11:30	GUBS Upper Bound Solver <i>Michael Schaper</i>
11:30 - 12:00	Higher order interpretations for higher order complexity <i>Emmanuel Hainry</i>
12:30 - 14:00	Lunch
	Invited Talk 2
14:00 - 15:00	Whole Systems Energy Transparency: More Power to Software Developers! <i>Kerstin Eder</i>
	Session 2 (energy analysis)
15:00 - 15:30	Towards practical, precise and parametric energy analysis of IT controlled systems <i>Marko van Eekelen</i>
15:30 - 16:00	Coffee break
	Session 3 (computational complexity)
16:00 - 16:30	Cons-free programming with immutable functions <i>Cynthia Kop</i>
16:30 - 17:00	Towards an implicit characterisation of the polynomial hierarchy in an unbounded arithmetic <i>Patrick Baillot</i>

Sunday, 23 April, 2017, Room 12:128 Blåsenhus

	Invited Talk 3 (chair: Guillaume Bonfante)
09:00 - 10:00	Resource Analysis of Distributed and Concurrent Programs <i>Elvira Albert</i>
10:00 - 10:30	Coffee break
	Session 4 (type theory)
10:30 - 11:00	Computability in the Lattice of Equivalence Relations <i>Jean-Yves Moyen</i>
11:00 - 11:30	Automating Sized-Type Inference and Complexity Analysis <i>Martin Avanzini</i>
11:30 - 12:00	Two Type-Theoretic Approaches to Probabilistic Termination <i>Charles Grellois</i>
12:00 - 12:30	The Collapse of Sequential to Multiset Intersection Type Systems is Surjective <i>Pierre Vial</i>
12:30 - 14:00	Lunch
	Invited Talk 4
14:00 - 15:00	On Resource Analysis of Imperative Programs <i>Lars Kristiansen</i>
	Session 5 (graph rewriting)
15:00 - 15:30	Bounded Graph Rewriting for Natural Language Processing <i>Bruno Guillaume</i>
15:30 - 16:00	Coffee break
	Session 6 (computational complexity)
16:00 - 16:30	Loop Quasi-Invariant Chunk Motion by peeling with statement composition <i>Thomas Rubiano</i>

2 Games for Logic and Programming Languages XII (GaLoP)

Saturday, 22 April, 2017, Room 12:129 Blåsenhus

07:30 - 09:00	Registration
09:00 - 10:00	Invited talk: A Geometry of Interaction semantics for TensorFlow <i>Dan Ghica</i>
10:00 - 10:30	Coffee break
10:30 - 10:55	Duploid situations in concurrent games <i>Pierre Clairambault and Guillaume Munch-Maccagnoni</i>
10:55 - 11:20	Dependent Types for Extensive Games <i>Pierre Lescanne</i>
11:20 - 12:30	Modal Logics with Team Semantics (Tutorial) <i>Lauri Hella</i>
12:30 - 14:00	Lunch
14:00 - 14:25	Game-theoretic Semantics for ATL+ with Applications to Model Checking <i>Valentin Goranko, Antti Kuusisto and Raine Rönholm</i>
14:25 - 14:50	Formula Size Games for Modal Logics <i>Lauri Hella and Mikka Vilander</i>
14:50 - 15:15	Logical co-operation in multiplayer games <i>Kerkko Luosto</i>
15:15 - 15:40	Filtration versus Team Semantics <i>Martin Lück</i>
15:40 - 16:05	Coffee break
16:05 - 16:35	Poly-Team Semantics <i>Jonni Virtema</i>
16:35 - 17:00	Theories of Automatic Combinators <i>Furio Honsell and Marina Lenisa</i>
17:00 - 17:25	Geometry of Interaction for Godel's System T <i>Ian Mackie</i>
17:25 - 17:50	Strategies with Parallel Causes <i>Glynn Winskel and Marc De Visme</i>

Sunday, 23 April, 2017, Room 12:129 Blåsenhus

09:00 - 10:00	Invited talk: Provenance Analysis for Logic and Games <i>Erich Grädel</i>
10:00 - 10:30	Coffee break
10:30 - 10:55	On calculating success and failure probabilities of open procedural programs <i>Aleksandar S. Dimovski</i>
10:55 - 11:55	Invited talk <i>Andreas Blass</i>
11:55 - 12:20	A Compositional Proof of Herbrand Theorem through Game Semantics <i>Aurore Alcolei, Pierre Clairambault, Martin Hyland and Glynn Winskel</i>
12:20 - 14:00	Lunch
14:00 - 14:25	Non-angelic concurrent game semantics <i>Simon Castellan, Pierre Clairambault, Jonathan Hayman and Glynn Winskel</i>
14:25 - 14:50	Transfinite Games for Countable Nondeterminism <i>W. John Gowers</i>
14:50 - 15:15	Forgetting causality in the concurrent game semantics of Probabilistic PCF <i>Simon Castellan, Pierre Clairambault, Hugo Paquet and Glynn Winskel</i>
15:15 - 15:40	Compiling, Untyped Lambda Calculus to Lower-Level Code by Game Semantics and Partial Evaluation <i>Daniil Berezun and Neil Jones</i>
15:40 - 16:05	Coffee break
16:05 - 16:35	Higher-Order Linearisability <i>Andrzej Murawski and Nikos Tzevelekos</i>
16:35 - 17:00	Categorical combinatorics of non-deterministic innocent strategies <i>Clément Jacq and Paul-André Melliès</i>
17:00 - 17:25	Dependent Types as Concrete Data Structures <i>James Laird and Valentin Blot</i>
17:25 - 17:50	Trace semantics of well-founded processes via commutativity <i>Paul Blain Levy and Nathan Bowler</i>
17:55 - 18:00	Closing

3 3rd International Workshop on Symbolic and Numerical Methods for Reachability Analysis (SNR)

Saturday, 22 April, 2017, Room 12:130 Blåsenhus

07:30 - 09:00	Registration
09:00 - 10:00	Invited talk: Towards Verification of Uncertain Cyber-Physical Systems <i>Christoph Grimm</i>
10:00 - 10:30	Coffee break
	Session 2: Synthesis and Analysis (chair: Walid Taha)
10:30 - 11:00	Guaranteed Control Synthesis of Nonlinear Switched Systems using Euler Method <i>Adrien Le Coënt, Florian De Vuyst, Ludovic Chamoin and Laurent Fribourg</i>
11:00 - 11:30	Synthesis of Optimal Plans for Process Synchronization in the Presence of Faults <i>Anna Lukina, Josef Widder and Radu Grosu</i>
11:30 - 12:20	Minkowski Operation of Sets with Application to Robot Localization <i>Benoît Desrochers and Luc Jaulin</i>
12:00 - 12:30	On the Underapproximation of Reach Sets of Abstract Continuous-time Systems <i>Ievgen Ivanov</i>
12:30 - 14:00	Lunch
	Session 3: Modelling (chair: Erika Abraham)
14:00 - 15:00	Invited talk: Fundamental Limits of Cyber-Physical and Hybrid System Modeling <i>Edward A. Lee</i>
15:00 - 15:30	Compile-Time Extensions to Hybrid ODEs <i>Yingfu Zeng, Ferenc Agoston Bartha and Walid Taha</i>
15:30 - 16:00	Coffee break
	Session 4: Tools (chair: Eugenio Moggi)
16:00 - 16:30	Reachability Analysis in the KeYmaera X Theorem Prover <i>Nathan Fulton</i>
16:30 - 17:00	HyPro: A C++ Library for State Set Representations for Hybrid Systems Reachability Analysis <i>Stefan Schupp</i>

4 14th International Workshop on Formal Engineering approaches to Software Components and Architectures (FESCA)

Saturday, 22 April, 2017, Room 12:228 Blåsenhus

07:30 - 08:30	Registration
08:30 - 10:00	Keynote: Towards dynamic architectures of smart cyber-physical systems <i>Tomas Bures</i>
10:00 - 10:30	Coffee break
10:30 - 11:00	Exploiting Hierarchy in the Abstraction-Based Verification of State-charts
11:00 - 11:30	Modelling System of Systems Interface Contract Behaviour
11:30 - 12:00	Verifying Patterns of Dynamic Architectures using Model Checking
12:00 - 12:30	Model-based Testing of the Java network API
12:30 - 14:00	Lunch
14:00 - 14:30	Checking Properties along Multiple Reconfiguration Paths for Component-Based Systems
14:30 - 15:30	Tutorial I: Engineering the software of robotic systems <i>Patrizio Pelliccione</i>
15:30 - 16:00	Coffee break
16:00 - 17:00	Tutorial II: Engineering the software of robotic systems <i>Patrizio Pelliccione</i>

5 VerifyThis 2017

Saturday - Monday, 22 - 24 April, 2017, Room 12:229 Blåsenhus

07:30 - 09:00	Registration
09:00 - 09:45	Why3 tutorial - Jean-Christophe Filliâtre, CNRS (open to everybody)
9:45 - 10:30	Why3 challenge (open to everybody)
10:00 - 10:30	Coffee break
11:00 - 12:30	Challenge 1 (90 minutes)
12:30 - 14:00	Lunch
14:00 - 15:30	Challenge 2 (90 minutes)
15:30 - 16:00	Coffee break
16:00 - 17:30	Challenge 3 (90 minutes)
17:30 - 19:00	Participants that are leaving already discuss their answers with the judges
19:30	Dinner for all competition participants
Sunday, 23 April	Whole day informal discussions among participants and judging
Monday, 24 April	Award ceremony (during lunch)

6 4th International Workshop on Synthesis of Complex Parameters (SynCoP) and 3rd International Workshop on Parameterized Verification (PV)

Saturday, 22 April, 2017, Room 12:230 Blåsenhus

07:30 - 09:00	Registration
09:00 - 10:00	Invited talk: Parameter synthesis in dynamical systems by model checking <i>David Safranek</i>
10:00 - 10:30	Coffee break
10:30 - 12:30	Session 1
	TBA <i>Kim Larsen</i>
	Compositional parameter synthesis <i>Saddek Bensalem</i>
12:30 - 14:00	Lunch
14:00 - 15:30	Session 2
	Parametric verification of concurrent programs over the Total <i>Ahmed Bouajjani</i>
	Store Ordering weak memory model <i>Béatrice Bérard</i>
	Polynomial Interrupt Timed Automata
15:30 - 16:00	Coffee break
16:00 - 17:30	Session 3
	Parameterised Verification for Multi-Agent Systems <i>Panagiotis Kowaros</i>

Sunday, 23 April, 2017, Room 12:230 Blåsenhus

09:00 - 10:00	Invited talk :Advancing Parameter Synthesis in Markov Models <i>Joost-Pieter Katoen</i>
10:00 - 10:30	Coffee break
10:30 - 12:30	Session 4
	Liveness of Parameterized Timed Networks <i>Florian Zuleger</i>
	Analysis of parameterised timed systems using Horn constraints <i>Philipp Rümmer</i>
	Parametrised Model Checking of Multi-token Systems via the Composition Method <i>Benjamin Aminof</i>
12:30 - 14:00	Lunch
14:00 - 15:30	Session 5
	WBTS: the new class of WSTS without WQO <i>Alain Finkel</i>
	Verification of Timed Security Protocols with Clock Drift <i>Sun Jun</i>
15:30 - 16:00	Coffee break

7 Workshop in Honour of Prof. Don Sannella

Sunday, 23 April, 2017, Room 12:004 Blåsenhus

07:30 - 08:30	Registrations
09:00 - 10:00	Session 1
	Introduction by David Aspinall
	Institutions for Logics of Patterns <i>Fernando Orejas</i>
10:00 - 10:30	Coffee break
10:30 - 12:30	Session 2
	Observations on Observational Abstraction <i>Rolf Hennicker</i>
	CoFI with Don <i>Peter Mosses</i>
	Consistency in Rewriting <i>Stefan Kahrs</i>
12:30 - 14:00	Lunch
14:00 - 15:30	Session 3
	About Don <i>Andrzej Tarlecki</i>
	Extending ML: Fun with Modules <i>Claudio Russo</i>
15:30 - 16:00	Coffee break
16:00 - 17:30	Session 4
	From proof carrying code to deep specifications <i>Lennart Beringer</i>
	Modular Datalog <i>Bob Atkey</i>
	Specification Meets Program Transformation: How International Collaboration Made Science <i>Martin Wirsing</i>
	Closing remarks
19:30	Dinner

8 3rd Workshop on Theory and Applications of Graphs as Models (GaM)

Sunday, 23 April, 2017, Room 12:020 Blåsenhus

07:30 - 09:00	Registration
09:00 - 09:15	Welcome and Opening <i>Timo Kehrer</i>
09:15 - 10:00	Session 1
	Analysing the performance of GPU hashtables for state space exploration <i>Nathan Cassee and Anton Wijs</i>
10:00 - 10:30	Coffee break
10:30 - 12:00	Session 2
	The Commutative Problem of MapReduce Programs <i>Yu-Fang Chen</i>
	Kappa: a Graph rewriting formalism for systems biology <i>Pierre Boutillier</i>
12:30 - 14:00	Lunch
14:00 - 15:30	Session 3
	Past and Current Research on Bigraphs <i>Michele Sevegnani</i>
	A new foundation for string diagram rewriting <i>Fabio Zanasi</i>
15:30 - 16:00	Coffee break
16:00 - 17:30	Session 4
	Features of Agent-based Models <i>Reiko Heckel, Alexander Kurz and Edmund Chattoe-Brown</i>
	Tool Demonstration: GPUexplore <i>Nathan Cassee and Anton Wijs</i>

9 5th Workshop on Hot Issues in Security Principles and Trust (HotSpot)

Sunday, 23 April, 2017, Room 12:130 Blåsenhus

07:30 - 08:30	Registration
	Session I
08:30 - 09:00	Making decryption accountable <i>Mark Ryan</i>
09:00 - 09:30	On Composability of Game-based Password Authenticated Key Exchange <i>Jean Lancrenon and Marjan Skrobot</i>
09:30 - 10:00	Securing the End-points of the Signal Protocol using Intel SGX based Containers <i>Kristoffer Severinsen, Christian Johansen, and Sergiu Bursuc</i>
10:00 - 10:30	Coffee break
	Session II
10:30 - 11:00	On the Content Security Policy Violations due to the Same-Origin Policy <i>Dolière Francis Some, Nataliia Bielova, and Tamara Rezk</i>
11:00 - 11:30	A Runtime Monitoring System to Secure Browser Extensions <i>Raúl Pardo, Pablo Picazo-Sanchez, Gerardo Schneider, and Juan Tapiador</i>
11:30 - 12:00	Combining Graph-Based and Deduction-Based Information-Flow Analysis <i>Bernhard Beckert, Simon Bischof, Mihai Herda, Michael Kirsten, and Marko Kleine Büning</i>
12:00 - 12:30	Securing Concurrent Lazy Programs <i>Marco Vassena, Joachim Breitner, and Alejandro Russo</i>
12:30 - 14:00	Lunch
	Session III
14:00 - 15:00	Invited talk: Taint Tracking without Tracking Taints <i>Andrei Sabelfeld</i>
15:00 - 15:30	A Linguistic Framework for Firewall Decompilation and Analysis <i>Chiara Bodei, Pierpaolo Degano, Letterio Galletta, Riccardo Focardi, Mauro Tempesta, and Lorenzo Veronese</i>
15:30 - 16:00	Coffee break
16:00 - 17:30	IFIP WG 1.7 Meeting

10 5th International Workshop on Quantitative Aspects of Programming Languages and Systems (QAPL)

Sunday, 23 April, 2017, Room 12:128 Blåsenhus

07:30 - 09:00	Registration
09:00 - 10:00	Invited talk: Divide and Conquer: Variable Set Separation in Hybrid Systems Reachability Analysis <i>Erika Abraham (with Stefan Schupp and Johanna Nellen)</i>
10:00 - 10:30	Coffee break
10:30 - 11:00	SEA-PARAM: Exploring Schedulers in Parametric MDPs <i>Sebastian Arming, Ezio Bartocci and Ana Sokolova</i>
11:00 - 11:30	Paws: A Tool for the Analysis of Weighted Systems <i>Sebastian Kuepper, Barbara Koenig and Christina Mika</i>
11:30 - 12:00	Mining for Safety using Interactive Trace Analysis <i>Stephan Brandauer and Tobias Wrigstad</i>
12:00 - 12:30	Logical Characterization of Trace Metrics <i>Valentina Castiglioni and Simone Tini</i>
12:30 - 14:00	Lunch
14:00 - 15:00	Invited talk: Language-based abstractions for dynamical systems <i>Andrea Vandin</i>
15:00 - 15:00	Design and Optimisation of the FlyFast Front-end for Attribute-based Coordination <i>Diego Latella and Mieke Massink</i>
15:30 - 16:00	Coffee break
16:00 - 16:30	Bridging Static and Dynamic Program Analysis using Fuzzy Logic <i>Jacob Lidman and Josef Svenningsson</i>
16:30 - 17:00	Jacob Lidman and Josef Svenningsson <i>Yuri Gil Dantas, Tobias Hamann, Heiko Mantel and Johannes Schickel</i>
17:00 - 17:30	Mean-payoff Objectives for Markov Decision Processes <i>Pranav Ashok, Jan Kretinsky, Tobias Meggendorfer, Przemyslaw Daca and Krishnendu Chatterjee</i>

11 2nd Workshop on Models for Formal Analysis of Real Systems (MARS)

Saturday, 29 April, 2017, Room 12:128 Blåsenhus

07:30 - 08:30	Registration
08:30 - 10:00	Data Transfer
	Evaluating The Stream Control Transmission Protocol Using Uppaal <i>Shruti Saini, Ansgar Fehnker</i>
	Split, Send, Reassemble: A Formal Specification of a CAN bus Protocol Stack <i>Rob van Glabbeek, Peter Höfner</i>
	Modelling, Verification, and Comparative Performance Analysis of the B.A.T.M.A.N. Protocol <i>Kaylash Chaudhary, Ansgar Fehnker, Vinay Mehta</i>
10:00 - 10:30	Coffee break
10:30 - 12:00	Coordination and Trust
	Formalizing Memory Accesses and Interrupts <i>Reto Achermann, Lukas Humbel, David Cock, Timothy Roscoe</i>
	Modelling and Verification of a Cluster-tree Formation Protocol Implementation for the IEEE 802.15.4 TSCH MAC Operation Mode <i>Mahmoud Talebi, Jan Friso Groote, Conrad Dandelski</i>
	Comparative Study of Abstract Data Types, Term Rewrite Systems, and LNT on Formal Models of a Pioneering Cryptographic Algorithm <i>Hubert Garavel, Lina Marsso</i>
12:30 - 14:00	Lunch
14:00 - 15:30	Productivity
	Modelling of Autosar Libraries for Large Scale Testing <i>Wojciech Mostowski, Thomas Arts, John Hughes</i>
	A Benchmark on Reliability of Complex Discrete Systems: Emergency Power Supply of a Nuclear Power Plant <i>Marc Bouissou</i>
	A Model-Derivation Framework for Software Analysis <i>Bugra Mehmet Yildiz, Arend Rensink, Christoph Bockisch, Mehmet Aksit</i>
15:30 - 16:00	Coffee break
16:00 - 17:00	Robotics
	The Unheralded Value of Hoare's Multiway Rendezvous: Illustration with the Production Cell Benchmark <i>Hubert Garavel, Wendelin Serwe</i>
	Towards Probabilistic Formal Modeling of Robotic Cell Injection System <i>Muhammad Usama Sardar, Osman Hasan</i>
17:15 - 17.45	Business meeting on MARS

12 2nd International Workshop on Causal Reasoning for Embedded and Safety-critical Systems Technologies (CREST)

Saturday, 29 April, 2017, Room 12:129 Blåsenhus

07:30 - 08:50	Registration
08:50 - 09:00	Opening remarks
	Session 1, Chair: Oleg Sokolsky
09:00 - 10:00	Keynote presentation: The Logic of Causality <i>Samantha Kleinberg, Stevens Institute of Technology</i>
10:00 - 10:30	Coffee break
	Session 2, Chair: Gregor Goessler
10:30 - 11:00	Preemption and Overdetermination in Formal Models of Actual Causality <i>Sjur Kristoffer Dyrkolbotn</i>
11:00 - 11:30	ACC Bench: A Framework for comparing Causality Algorithms <i>Simon Rehwald, Amjad Ibrahim, Kristian Beckers and Alexander Pretschner</i>
11:30 - 12:00	Invited presentation: Causality-based Model Checking <i>Bernd Finkbeiner</i>
12:00 - 12:30	Invited presentation: Fault Detection and Isolation in Spacecraft Data Acquisition Systems <i>Jan-Gerd Meß</i>
12:30 - 14:00	Lunch
	Session 3, Chair: Mohammad Reza Mousavi
14:00 - 15:00	Keynote presentation: Causality and temporal dependencies in the design of fault management systems <i>Marco Bozzano, Fondazione Bruno Kessler</i>
15:00 - 15:30	A quest for formal tools for reasoning about counterfactual causation <i>Gregor Goessler, Jean-Bernard Stefani and Oleg Sokolsky</i>
15:30 - 16:00	Coffee break
	Session 4, Chair: Stefan Leue
16:00 - 16:30	Invited presentation: Combining Epistemic and Operational Aspects in Compositional Verification of Protocols <i>Mohammad Reza Mousavi</i>
16:30 - 17:00	Incorporating epistemic uncertainty into the safety assurance of socio-technical systems <i>Chris Leong, Tim Kelly and Rob Alexander</i>
17:00 - 17:30	Closing discussion: Quo vadis CREST? Community building and future of the CREST workshop
	Workshop Dinner
18:30	Workshop Dinner (self-pay), location to be announced.

13 6th International Workshop on Bidirectional Transformations (BX)

Saturday, 29 April, 2017, Room 12:130 Blåsenhus

07:30 - 09:00	Registration
09:00 - 09:10	Welcome
	Session 1: Benchmarks and Tools (Chair: Perdita Stevens)
09:10 - 9:40	BenchmarkX Reloaded: A Practical Benchmark Framework for Bidirectional Transformations <i>Anthony Anjorin, Zinovy Diskin, Frédéric Jouault, Hsiang-Shang Ko, Erhan Leblebici and Bernhard Westfechtel</i>
09:40 - 10:00	Comparison of QVT-O and Henshin-TGG for Synchronization of Concrete Syntax Models <i>Stephan Seifermann and Jörg Henß</i>
10:00 - 11:00	Coffee break
	Session 2: Addressing Updates Propagation (Chair: Jeremy Gibbons)
11:00 - 11:30	Universal updates for symmetric lenses <i>Michael Johnson and Robert Rosebrugh</i>
11:30 - 12:00	Taking updates seriously <i>Danel Ahman and Tarmo Uustalu</i>
12:00 - 12:30	Compositionality of update propagation: Lax PutPut <i>Zinovy Diskin</i>
12:30 - 14:00	Lunch
	Session 3: Principles and Methods (Chair: Zinovy Diskin)
14:00 - 14:30	On ontologology <i>Perdita Stevens and Jeremy Gibbons</i>
14:30 - 15:00	Existing and New Ideas on Least Change Triple Graph Grammars <i>Milica Stojkovic, Sven Lauz and Anthony Anjorin</i>
15:00 - 15:30	Bidirectional Certified Programming <i>Daisuke Kinoshita and Keisuke Nakano</i>
15:30 - 16:00	Coffee break
	Session 4: Talk Proposals (Chair: Anthony Anjorin)
16:00 - 16:20	Profunctor Optics: Modular Data Accessors <i>Jeremy Gibbons</i>
16:20 - 16:40	Bx in the Large <i>Perdita Stevens</i>
	Panel Discussion
16:40 - 17:30	Panel Discussion and Wrap Up

14 5th International Workshop on Verification and Program Transformation (VPT)

Saturday, 29 April, 2017, Room 12:228 Blåsenhus

07:30 - 09:00	Registration
08:25 - 08:30	Welcome
08:30 - 09:30	Invited talk: Polynomial Analysis Algorithms for Free-Choice Workflow Nets <i>Javier Esparza (Technische Universitt Mnchen, Germany)</i>
09:30 - 10:00	From Concurrent Programs to Sequential Simulating Programs: Correctness of a Transformation <i>Allan Blanchard, Frédéric Loulergue, and Nikolai Kosmatov</i>
10:00 - 10:30	Coffee Break
10:30 - 11:30	Invited talk: Energy Consumption Analysis and Verification <i>Manuel Hermenegildo (IMDEA Software Institute, Madrid, Spain)</i>
11:30 - 12:00	Transforming Coroutining Logic Programs into Equivalent CHR Programs <i>Vincent Nys, Danny De Schreye</i>
12:00 - 12:30	Verifying Programs via Intermediate Interpretation <i>Alexei Lisitsa, Andrei Nemytykh</i>
12:30 - 14:00	Lunch
14:00 - 15:00	Invited talk: Software Model Checking of Linux Device Drivers <i>Alexey Khoroshilov (Linux Verification Center, ISPRAS, Moscow, Russia)</i>
15:00 - 15:30	Towards Evaluating Size Reduction Techniques for Software Model Checking <i>Gyula Sallai, Ákos Hajdu, Tamás Tóth, and Zoltán Micskei</i>
15:30 - 16:00	Coffee break
15:50 - 16:20	Etude on Recursion Elimination by Program Manipulation and Problem Analysis <i>Nikolay Shilov</i>
16:20 - 16:50	Generating Loop Invariants for Program Verification by Transformation <i>Geoff Hamilton</i>
16:50 - 17:20	Trustworthy Refactoring via Decomposition and Schemes: A Complex Case Study <i>Dániel Horpácsi, Judit Kőszegi, and Zoltán Horváth</i>
17:20 - 17:30	Closing

15 1st Workshop on Learning in Verification (LiVe)

Saturday, 29 April, 2017, Room 12:229 Blåsenhus

07:30 - 09:00	Registration
09:00 - 10:00	Invited talk: Learning, Synthesis and Verification for Stochastic Hybrid Games <i>Kim Guldstrand Larsen</i>
10:00 - 10:30	Coffee break
10:30 - 12:30	Data-driven and model-based formal verification of complex physical systems <i>Alessandro Abate</i>
	Synthesis of Shared Control Protocols with Provable Safety and Performance Guarantees <i>Nils Jansen, L. Murat Cubuktepe and Ufuk Topcu</i>
	Learning-based Analysis of Markov Decision Processes: Reachability, LTL, and Mean Payoff <i>Pranav Ashok, Jan Kretinsky and Tobias Meggendorfer</i>
	Integrating Machine Learning and Model Checking for Model Repair <i>Tom Janson and Sebastian Junges</i>
	ICE Learning: An Overview <i>Daniel Neider</i>
12:30 - 14:00	Lunch
14:00-15:30	A Non-monotonic Theory of Oracle-guided Inductive Synthesis <i>Dalal Alrajeh, Susmit Jha and Sanjit Seshia</i>
	CALF: Categorical Automata Learning Framework <i>Gerco van Heerdt, Matteo Sammartino and Alexandra Silva</i>
	Machine Learning for Model Abstraction <i>Luca Bortolussi</i>
	Strategy Representation by Decision Trees <i>Tomas Brazdil, Krishnendu Chatterjee, Jan Kretinsky and Viktor Toman</i>
15:30 - 16:00	Coffee break
12:30 - 14:00	Lunch
16:00-17:30	Predicting Rankings of Software Verification Competitions <i>Mike Czech, Eyke Huellermeier, Marie-Christine Jakobs and Heike Wehrheim</i>
	Probabilistic Formal Analysis of a Mobile App Usage to Inform Redesign <i>Oana Andrei, Muffy Calder, Matthew Chalmers, Alistair Morrison and Mattias Rost</i>
	Uppaal Stratego for Intelligent Traffic Light <i>Marco Muniz, Kim Guldstrand Larsen and Jakob Haahr Taankvist</i>
	Wrap-up discussion

16 Programming Language Approaches to Concurrency - and Communication-cEntric Software (PLACES)

Saturday, 29 April, 2017, Room 12:230 Blåsenhus

07:30 - 08:30	Registration
08:30	Welcome and opening
	Section 1
08:35 - 09:35	Invited talk: The Encore Programming Language: Actors, Capabilities, Garbage <i>Dave Clarke, Uppsala University</i>
98:35 - 10:05	Towards an Empirical Study of Affine Types for Isolated Actors in Scala <i>Philipp Haller and Fredrik Sommar</i>
10:00 - 10:30	Coffee break
	Section 2
10:30 - 11:00	Actors without Borders: Amnesty for Imprisoned State <i>Elias Castegren and Tobias Wrigstad</i>
11:00 - 11:30	Quantifying and Explaining Immutability in Scala <i>Philipp Haller and Ludvig Axelsson</i>
11:30 - 12:00	Inferring Types for Parallel Programs <i>Hans Hüttel, Francisco Martins, and Vasco T. Vasconcelos</i>
12:00 - 12:30	Multiparty Session Types, Beyond Duality (Extended Abstract) <i>Alceste Scalas and Nobuko Yoshida</i>
12:30 - 14:00	Lunch
	Section 3
14:00 - 15:00	Invited talk: Dependent Types for Correct Concurrent Programming <i>Edwin Brady, University of St Andrews</i>
15:00 - 15:30	Generating Representative Executions (Extended Abstract) <i>Hendrik Maarand and Tarmo Uustalu</i>
15:30 - 16:00	Coffee break
	Section 4
16:00 - 16:30	Towards a Categorical Representation of Reversible Event Structures <i>Eva Graversen, Iain Phillips, and Nobuko Yoshida</i>
16:30 - 17:00	Best-by-Simulations: A Framework for Comparing Efficiency of Reconfigurable Multicore Architectures on Workloads with Deadlines <i>Sanjiva Prasad</i>
17:00	Closing remarks