



OSLO

18 - 20 September, 2019



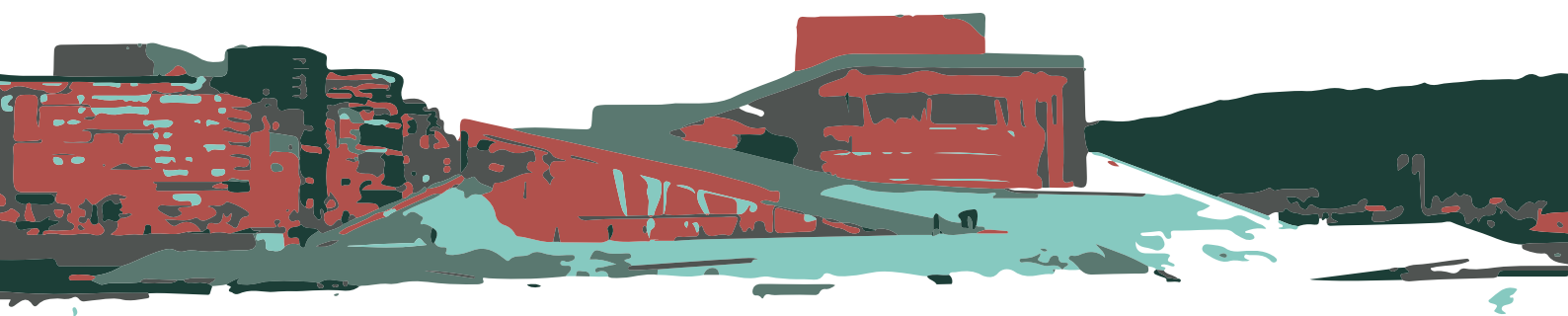
Forskningsparken - Oslo Science Park, Norway



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09:00 - 09:30



Registration

09:30 - 09:40



Opening

09:40 - 10:40



**Invited Talk**

David Basin  
Security Protocols: Model Checking Standards.

10:40 - 11:00



Coffee Break

11:00 - 13:00



**Operating Systems; Behavioral Contracts**

**Reproducible Execution of POSIX Programs with DiOS**  
Zuzana Baranová, Jiri Barnat, Katarína Kejstová, Jan Mrázek and Petr Ročkal.

**Efficient Formal Verification for the Linux Kernel**  
Daniel Bristot de Oliveira, Tommaso Cucinotta and Rômulo Silva de Oliveira.

**Asynchronous Cooperative Contracts for Cooperative Scheduling**  
Eduard Kamburjan, Crystal Chang Din, Reiner Hähnle and Einar Broch Johnsen.

**Relating Session Types and Behavioural Contracts:  
the Asynchronous Case**  
Mario Bravetti and Gianluigi Zavattaro.

13:00 - 14:00



Lunch

14:00 - 15:30



**Security and Assurance**

**Using Threat Analysis Techniques to Guide Formal Verification:  
A Case Study of Cooperative Awareness Messages**  
Marie Farrell, Matthew Bradbury, Hu Yuan, Michael Fisher, Louise Dennis, Clare Dixon and Carsten Maple.

**Evolution of Formal Model Based Assurance Cases for Autonomous Robots**  
Mario Gleirscher, Simon Foster and Yakoub Nemouchi.

**Towards Detecting Trigger-based Behavior In Binaries: Uncovering the Correct Environment**  
Dorottya Papp, Thorsten Tarrach and Levente Buttyan.

15:30 - 16:00



Coffee Break

16:00 - 17:30



**Verification**

**Partially Bounded Context-Aware Verification**  
Luka Le Roux and Ciprian Teodorov.

**Formal Verification of Rewriting Rules for Dynamic Fault Trees**  
Yassmeen Elderhalli, Matthias Volk, Osman Hasan, Joost-Pieter Katoen and Sofiene Tahar.

**Towards Integrating Formal Verification of Autonomous Robots with Battery Prognostics  
and Health Management**  
Xingyu Zhao, Matt Osborne, Jenny Lantair, Valentin Robu, David Flynn, Xiaowei Huang, Michael Fisher,  
Fabio Papacchini and Angelo Ferrando.

18:00 - 21:00



Reception

09:30 - 10:30		<p><b>Invited Talk</b></p> <p><b>Wil van der Aalst</b> Object-Centric Process Mining: Dealing with Divergence and Convergence in Event Data.</p>
10:30 - 11:00		<p><b>Coffee Break</b></p>
11:00 - 12:30		<p><b>Testing</b></p> <p><b>Test Model Coverage Analysis under Uncertainty</b> Wishnu Prasetya and Rick Klomp.</p> <p><b>Mutation Testing with Hyperproperties</b> Andreas Fellner, Mitra Tabaei and Georg Weissenbacher.</p> <p><b>Multi-objective search for effective testing of Cyber-Physical Systems</b> Hugo Araujo, Gustavo Carvalho, Mohammadreza Mousavi and Augusto Sampaio.</p>
12:30 - 13:30		<p><b>Lunch</b></p>
13:30 - 15:00		<p><b>Model inference/learning; Machine learning</b></p> <p><b>Incorporating Data into EFSM Inference</b> Michael Foster, Achim D. Brucker, Ramsay Taylor, Siobhán North and John Derrick.</p> <p><b>Towards Logical Specification of Statistical Machine Learning</b> Yusuke Kawamoto.</p> <p><b>Learning Minimal DFA: Taking Inspiration from RPNI to Improve SAT Approach</b> Florent Avellaneda and Alexandre Petrenko.</p>
15:00 - 15:30		<p><b>Coffee Break</b></p>
15:30 - 17:00		<p><b>System Development; Case Study</b></p> <p><b>SAT Encodings of the At-Most-k Constraint - A Case Study on Configuring University Courses</b> Paul Maximilian Bittner, Thomas Thüm and Ina Schaefer.</p> <p><b>Compositional Feature-oriented Systems</b> Clemens Dubslaff.</p> <p><b>Software Evolution with a Typeful Version Control System</b> Luís Carvalho and João Costa Seco.</p>
19:00 - 23:00		<p><b>Dinner</b></p>

10:00 - 11:00		<p><b>Invited Talk</b></p> <p><b>Koushik Sen</b> Automated Test Generation: A Journey from Symbolic Execution to Smart Fuzzing and Beyond</p>
11:00 - 11:30		<p><b>Coffee Break</b></p>
11:30 - 13:00		<p><b>Monitoring; Ontology</b></p> <p><b>An Operational Guide to Monitorability</b> Luca Aceto, Antonis Achilleos, Adrian Francalanza, Anna Ingolfsdottir and Karoliina Lehtinen.</p> <p><b>Let's Prove it Later - Verification at Different Points in Time</b> Martin Ring and Christoph Lüth.</p> <p><b>Isabelle/DOF: Design and Implementation</b> Achim D. Brucker and Burkhart Wolff.</p>
13:00 - 14:00		<p><b>Lunch</b></p>
14:00 - 15:30		<p><b>Relating Systems/Models</b></p> <p><b>Modular Indirect Push-button Formal Verification of Multi-threaded Code Generators</b> Anton Wijs and Maciej Wilkowski.</p> <p><b>An implementation relation for cyclic systems that uses refusals and discrete time</b> Raluca Lefticaru, Rob Hierons and Manuel Núñez.</p> <p><b>Automatic Failure Explanation in CPS Models</b> Ezio Bartocci, Niveditha Manjunath, Leonardo Mariani, Cristinel Mateis and Dejan Ničković.</p>
15:30 - 16:00		<p><b>Coffee Break</b></p>
16:00 - 17:00		<p><b>Program Verification</b></p> <p><b>Using Relational Verification for Program Slicing</b> Bernhard Beckert, Thorsten Bormer, Stephan Gocht, Mihai Herda, Daniel Lentzsch and Mattias Ulbrich.</p> <p><b>Local Nontermination Detection for Parallel C++ Programs</b> Vladimír Štill and Jiří Barnat.</p>
17:00 - 17:10		<p><b>Closing</b></p>

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