

Final Program NWPT'07

10 - 12 October 2007, Oslo, Norway

Wednesday October 10th

Chair: Gerardo Schneider:

13:30 *Invited Talk.* *Gilles Barthe:*
Certificate Translation

14:30 - 14:45 *Break*

Chair: Jüri Vain: Timed Systems

14:45 *Simon Tschirner and Wang Yi:*
Validating QoS Properties in Biomedical Sensor Networks

15:10 *Mohammad Mahdi Jaghoori, Frank de Boer and Marjan Sirjani:*
Task Scheduling in Rebeca

15:35 *Pavel Krčál, Leonid Mokrushin and Wang Yi:*
A Tool for Compositional Analysis of Timed Systems by Abstraction

16:00 - 16:15 *Coffee Break*

Chair: Gilles Barthe: Languages and Semantics

16:15 *Erika Ábrahám, Immo Grabe, Andreas Grüner and Martin Steffen:*
Abstract interface behavior of an object-oriented language with futures and promises

16:40 *Fritz Henglein:*
What is a sorting function?

17:05 *Joseph Morris and Malcolm Tyrrell:*
Higher-Order Data Type Refinement

17:30 *Härmel Nestra:*
Transfinite Semantics in the form of Greatest Fixpoint

17:55 *Free*

Thursday October 11th

Chair: Einar Broch Johnsen:

- 09:00 *Invited Talk.* *Davide Sangiorgi:*
A historical perspective on bisimulation and coinduction
- 10:00 - 10:15 *Break*

Chair: Wang Yi: **Probabilistic Systems**

- 10:15 *Damas Gruska:*
Probabilistic Opacity
- 10:40 *Joost-Pieter Katoen, Mani Swaminathan and Martin Franzle:*
Symbolic Robustness Analysis of Probabilistic Timed Systems
- 11:05 *Gyrd Brændeland and Ketil Stølen:*
A probabilistic semantic paradigm for component-based security risk analysis
- 11:30 - 11:45 *Coffee Break*

Chair: Uwe Wolter: **Hardware and Low-Level Models**

- 11:45 *Magne Haveraaen and Eva Suci:*
A Hardware Independent Parallel Programming Model
- 12:10 *Stefan Bygde:*
Analysis of Arithmetical Congruences on Low-Level Code
- 12:35 *Aske Brekling, Michael R. Hansen and Jan Madsen:*
Hardware Modelling Language and Verification of Design Properties
- 13:00 - 14:00 *Lunch Break*

Chair: Neelam Soundarajan: **Verification and Testing**

- 14:00 *Frank de Boer, Marcello Bonsangue, Andreas Grüener and Martin Steffen:*
Test Driver Generation from Object-Oriented Interaction Traces
- 14:25 *Juri Vain, Kullo Raiend, Andres Kull and Juhan Ernits:*
Test Purpose Directed Reactive Planning Tester for Nondeterministic Systems
- 14:50 *Frank de Boer and Immo Grabe:*
Finite-State Call-Chain Abstractions for Deadlock Detection in Multithreaded Object-Oriented Languages
- 15:15 *Gift Samuel, Yoshinao Isobe and Markus Roggenbach:*
Reasoning on Responsiveness – Extending CSP-Prover by the model R
- 15:40 - 16:00 *Coffee Break*

Chair: Bengt Nordström: **Type Systems**

- 16:00 *Kai Trojahner and Clemens Grelck:*
Independently Typed Array Programs Don't Go Wrong
- 16:25 *Steffen van Bakel and Maria Grazia Vigliotti:*
Note on a simple type system for non-interference
- 16:50 *Tobias Gedell and Daniel Hedin:*
A Method for Parameterizing Type Systems over Relational Information
- 17:15 *Ando Saabas and Tarmo Uustalu:*
Relational Soundness and Optimality Proofs for Simple Partial Redundancy Elimination
- 17:40 Free
- 19:00 Dinner

Friday October 12th

Chair: Olaf Owe:

09:00 *Invited Talk.* *Neelam Soundarajan:*
Design Refinement: From Design Patterns to System Design

10:00 - 10:15 *Break*

Chair: Davide Sangiorgi: **Security**

10:15 *Aslan Askarov and Andrei Sabelfeld:*
Gradual Release: Unifying Declassification, Encryption and Key Release Policies

10:40 *Fredrik Degerlund, Mats Neovius and Kaisa Sere:*
A Framework for Formal Reasoning about Distributed Webs of Trust

11:05 *Alejandro Russo:*
Controlling Timing Channels in Multithreaded Programs

11:30 - 11:45 *Coffee Break*

Chair: Tarmo Uustalu: **UML**

11:45 *Harald Fecher, Jens Schoenborn, and Heiko Schmidt:*
UML state machines: Fairness Conditions specify the Event Pool

12:10 *Marta Plaska, Marina Waldén and Colin Snook:*
Visualising program transformations in a stepwise manner

12:35 *Bjørnar Solhaug and Ketil Stølen:*
Refinement, Compliance and Adherence of Policies in the Setting of UML Interactions

13:00 - 14:00 *Lunch Break*

Chair: Marina Waldén: **Algebraic Techniques**

14:00 *Adrian Rutle, Yngve Lamo and Uwe Wolter:*
Generalized Sketches and Model Driven Architectures

14:25 *David Frutos Escrig and Carlos Gregorio-Rodríguez:*
Algebraic and Coinductive Characterizations of Semantics Provide General Results for Free

14:50 *Tarmo Uustalu and Varmo Vene:*
Guarded and Mendler-Style Structured (Co)Recursion in Circular Proofs

15:15 Finished / PC meeting