Concur 2006, Bonn

The 17th International Conference on Concurrency Theory

Conference Program

Sponsors:
Venue Information

**Location** The Concur 2006 conference and the satellite workshops take place at the main building of the University Bonn (“Universitätshauptgebäude”, Am Hof 1).

**Internet Access** The University Bonn provides free wireless internet access in the building, please refer to the printout you have received on registration for details and your login information. *Note: The wireless network traffic is not encrypted.*

**Workspace Area** Located on the first floor, a workspace area is available, with tables and electricity (230V, 50Hz, german power sockets).
# Table of Contents

**Venue Information** .................................................. 3

## Pre Workshops

**EXPRESS 2006**  
13th International Workshop on Expressiveness in Concurrency  
Saturday, August 26 .................................................. 7

**GETCO 2006**  
8th Workshop on Geometric and Topological Methods in Concurrency  
Saturday, August 26 .................................................. 8

**INFINITY 2006**  
8th International Workshop on Verification of Infinite-State Systems  
Saturday, August 26 .................................................. 9

**SOS 2006**  
3rd Workshop on Structural Operational Semantics 2006  
Saturday, August 26 .................................................. 10

**FMICS 2006**  
11th International Workshop on Formal Methods for Industrial Critical Systems  
Saturday, August 26 .................................................. 11  
Sunday, August 27 .................................................... 12

## Main Conference

**CONCUR 2006**  
The 17th International Conference on Concurrency Theory  
Sunday, August 27 .................................................... 13  
Monday, August 28 ..................................................... 14  
Tuesday, August 29 .................................................... 15  
Wednesday, August 30 ............................................... 16
Post Workshops

**CORTOS 2006**
*Control and Observation of Real-Time Open Systems*
Thursday, August 31 ................................................................. 17

**FOCLASA 2006**
*5th International Workshop on Foundations of Coordination Languages and Software Architectures*
Thursday, August 31 ................................................................. 18

**GT-VC 2006**
*Graph Transformation for Verification and Concurrency*
Thursday, August 31 ................................................................. 19

**GVD 2006**
*2nd German Verification Day*
Thursday, August 31 ................................................................. 20

**PDMC 2006**
*5th International Workshop on Parallel and Distributed Methods in Verification*
Thursday, August 31 ................................................................. 22
SESSION 1
09:00 - 10:00  Hagen Völzer  
*Invited talk*
*When a System is Fairly Correct*

10:00 - 10:30  Diletta Cacciagrano, Flavio Corradini, Catuscia Palamidessi  
*Fair Pi*

10:30 - 11:00  **COFFEE BREAK**

SESSION 2
11:00 - 11:30  Jos Baeten, Flavio Corradini, Clemens Grabmayer  
*On the Star Height of Regular Expressions under Bisimulation*

11:30 - 12:00  Xu Wang, Marta Kwiatkowska  
*Compositional State Space Reduction Using Untangled Actions*

12:00 - 12:30  Ahmed Bouajjani, Jan Strejček, Tayssir Touili  
*On Symbolic Verification of Weakly Extended PAD*

12:30 - 14:30  **LUNCH BREAK**

SESSION 3
14:30 - 15:30  Robin Milner  
*Joint EXPRESS-INFINITY-SOS invited talk*
*Bigraphs, Multi-local Names and Confluence*

15:30 - 16:00  Vincent Danos, Jean Krivine, Pawel Sobocinski  
*General Reversibility*

16:00 - 16:30  **COFFEE BREAK**

SESSION 4
16:30 - 17:00  Daniele Gorla  
*Synchrony vs Asynchrony in Communication Primitives*

17:00 - 17:30  Lucy Saunders-Evans, Glynn Winskel  
*Event Structure Spans for Non-deterministic Dataflow*

17:30 - 18:00  Luís Caires, Hugo Torres Vieira  
*Extensionality of Spatial Observations in Distributed Systems*

18:00 - 18:30  Daniel Hirschhoff, Damien Pous  
*On Closure under Substitution of Strong Bisimilarity*
**GETCO 2006** (Location: HS IV)  
**Saturday, August 26, 2006**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:20 - 09:30</td>
<td><strong>Welcome</strong></td>
</tr>
</tbody>
</table>
| 09:40 - 10:30 | Viorica Sofronie-Stokermann  
*Sheaves and Geometric logic in the study of Concurrency* |
| 10:30 - 11:00 | **Coffee Break**                            |
| 11:00 - 11:45 | Sanjeevi Krishnan  
*Homotopies on Continuous lattices* |
| 11:45 - 12:30 | Emmanuel Haucourt  
*Tutorial*  
*Fundamental categories and Components of Partially ordered spaces* |
| 12:30 - 14:30 | **Lunch Break**                             |
| 14:30 - 15:15 | Thomas Kahl  
*Relative directed homotopy of Partially ordered spaces* |
| 15:15 - 16:00 | Luigi Santocanale  
*Topological properties of Events structures* |
| 16:00 - 16:30 | **Coffee Break**                            |
INFINITY 2006 (Location: HS V)  Saturday, August 26, 2006

09:00 - 09:30  REGISTRATION - WELCOME

SESSION 1  SOFTWARE VERIFICATION (INVITED LECTURE)
09:30-10:30  Andrey Rybalchenko (with B. Cook and A. Podelski)  
Termination Proofs for Systems Code

10:30 - 11:00  COFFEE BREAK

SESSION 2  REACHABILITY ANALYSIS, BISIMULATION
11:00 - 11:30  Giorgio Delzanno, Roberto Montagna  
On the Reachability Problem for Fragments of Mobile Ambients with Name Restriction
11:30 - 12:00  Mihaela Sighireanu, Tayssir Touili  
Bounded Communication Reachability Analysis of O-Process Rewrite Systems
12:00 - 12:30  Sibylle Froeschle, Slawomir Lasota  
Normed Processes, Unique Decomposition, and Complexity of Bisimulation Equivalences

12:30 - 14:30  LUNCH BREAK

SESSION 3  PROCESS CALCULI, CONCURRENCY
14:30 - 15:30  Robin Milner  Joint EXPRESS-INFINITY-SOS invited talk  
Bigraphs, Multi-local Names and Confluence  Location: HS VIII
15:30 - 16:00  David Teller  
Concurrent memory management with the pi-calculus

16:00 - 16:30  COFFEE BREAK

SESSION 4  WELL-STRUCTURED SYSTEMS
16:30 - 17:00  Nathalie Bertrand (with Ch. Baier and Ph. Schnoebelen)  
On Computing Fixpoints in Well-Structured Regular Model Checking, with Applications to Lossy Channel Systems
17:00 - 17:30  Gilles Geeraerts (with J-F. Raskin and L. van Begin)  
An Efficient Algorithm to Compute the Coverability Set of Petri Nets

17:30 - 17:45  BREAK

SESSION 5  LEARNING (INVITED LECTURE)
17:45 - 18:45  Mahesh Viswanathan  
Learning to Verify
09:20 - 09:30  WELCOME

SESSION 1
09:30 - 10:30  Bartek Klin  Invited talk
Bialgebraic methods in structural operational semantics

10:30 - 11:00  COFFEE BREAK

SESSION 2
11:00 - 11:30  MohammadReza Mousavi, Michel A. Reniers
On well-foundedness and expressiveness of promoted tyft
11:30 - 12:00  Christiano Braga, Alberto Verdejo
Modular SOS with strategies
12:00 - 12:30  Adrian Pop, Peter Fritzson
An Eclipse-based integrated environment for developing executable structural operational semantics specifications (tool demonstration)

12:30 - 14:30  LUNCH BREAK

SESSION 3
14:30 - 15:30  Robin Milner  Joint EXPRESS-INFINITY-SOS invited talk
Bigraphs, Multi-local Names and Confluence  Location: HS VIII

16:00 - 16:30  COFFEE BREAK

SESSION 4
16:30 - 17:00  Henrik Pilegaard, Flemming Nielson, Hanne Riis Nielson
Active evaluation contexts for reaction semantics
17:00 - 17:30  Simone Tini
Notes on probabilistic bisimulations
17:30 - 18:00  Vincent Danos, Jean Krivine, Fabien Tarissan
Self-assembling trees

19:30  WORKSHOP DINNER
Please contact the workshop organisers in advance if wishing to attend
**SESSION 1  INVITED TALK**

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker(s)</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00 - 10:00</td>
<td>Anna Slobodova</td>
<td><em>Challenges for Formal Verification in Industrial Setting</em></td>
</tr>
<tr>
<td>10:00 - 10:30</td>
<td>M. Siegle, K. Lampka, M. Walter</td>
<td><em>An easy-to-use, efficient tool-chain to analyze the availability of telecommunication equipment</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Coffee Break</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:30 - 11:00</td>
<td></td>
</tr>
</tbody>
</table>

**SESSION 2  HANDLING LARGE STATE SPACES**

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker(s)</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00 - 11:30</td>
<td>M. Weber, M. Hammer</td>
<td><em>“To Store or Not To Store” Reloaded: Reclaiming Memory on Demand</em></td>
</tr>
<tr>
<td>11:30 - 12:00</td>
<td>H. Saidi</td>
<td><em>Discovering Symmetries</em></td>
</tr>
<tr>
<td>12:00 - 12:30</td>
<td>L. Brim, I. Cerna, P. Moravec, J. Simsa</td>
<td><em>On Combining Partial Order Reduction with Fairness Assumptions</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Lunch Break</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:30 - 14:30</td>
<td></td>
</tr>
</tbody>
</table>

**SESSION 3  MODEL BASED TESTING**

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker(s)</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:30 - 15:00</td>
<td>F. Maraninchi, C. Helmstetter, L. Maillet-Contoz</td>
<td><em>Test Coverage for Loose Timing Annotations</em></td>
</tr>
<tr>
<td>15:00 - 15:30</td>
<td>A. Hessel, P. Pettersson</td>
<td><em>Model Based Testing of a WAP Gateway</em></td>
</tr>
<tr>
<td>15:30 - 16:00</td>
<td>T. Willemse</td>
<td><em>Heuristics for ioco-Based Test-Based Modelling</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Coffee Break</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:00 - 16:30</td>
<td></td>
</tr>
</tbody>
</table>

**SESSION 4  CASE STUDIES I**

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker(s)</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:30 - 17:00</td>
<td>A. Smrcka, P. Matousek, Z. Rehak, D. Safranek, T. Vojnar, V. Rehak</td>
<td><em>Verifying VHDL Designs with Multiple Clocks in SMV</em></td>
</tr>
<tr>
<td>17:00 - 17:30</td>
<td>A. Mathijsen, A. J. Pretorius</td>
<td><em>Verified Design of an Automated Parking Garage</em></td>
</tr>
<tr>
<td>17:30 - 18:00</td>
<td>S. Gilmore, A. Clark</td>
<td><em>Evaluating quality of service for service level agreements</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>FMICS Conference Dinner</th>
</tr>
</thead>
<tbody>
<tr>
<td>19:30</td>
<td></td>
</tr>
<tr>
<td>Session 1</td>
<td>Invited Talk</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------</td>
</tr>
<tr>
<td>09:30 - 10:30</td>
<td>Edward Lee</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Session 2</th>
<th>Case Studies II</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00 - 11:30</td>
<td>P. Cuijpers, A. Fyukov</td>
</tr>
</tbody>
</table>

Simulation-based Performance Analysis of a Medical Image-Processing Architecture |

| 11:30 - 12:00 | J. T. Muehlberg, G. Luettgen |

BLASTing Linux Code |

| 12:00 - 12:30 | S. Roy, I. Sahal |

A Finite State Modelling of AFDX Frame Management using Spin |

<table>
<thead>
<tr>
<th>Session 3</th>
<th>Formal Description and Analyzis Techniques</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:30 - 15:00</td>
<td>H. Fecher, J. Schoenborn</td>
</tr>
</tbody>
</table>

UML 2.0 State Machines: Complete Formal Semantics via Core State Machines |

| 15:00 - 15:30 | B. Bonakdarpour, S. S. Kulkarni |

Automated Incremental Synthesis of Timed Automata |

| 15:30 - 16:00 | W. Zhang |

SAT-based Verification of LTL formulas |

<table>
<thead>
<tr>
<th>Session 4</th>
<th>Tools Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:30 - 17:00</td>
<td>T. Wahls, B. Krause</td>
</tr>
</tbody>
</table>

jmle: A Tool for Executing JML Specifications via Constraint Programming |

| 17:00 - 17:30 | R. Huuck, A. Fehnker, F. Rauch, M. Lussenburg, P. Jayet |

Goanna – A Static Model Checker |

| 17:30 - 18:00 | T. Margaria |

jETI repository of verification tools |

<p>| 18:00 - 19:00 | FMICS Business Meeting |</p>
<table>
<thead>
<tr>
<th>Time</th>
<th>Session/Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:20 - 09:30</td>
<td>Welcome</td>
</tr>
<tr>
<td>09:30 - 10:30</td>
<td><strong>SESSION 1</strong>&lt;br&gt;&lt;br&gt;Chair: Holger Hermanns&lt;br&gt;Edward Lee&lt;br&gt;&lt;br&gt;Joint invited talk with FMICS&lt;br&gt;Making Concurrency Mainstream&lt;br&gt;Location: HS I</td>
</tr>
<tr>
<td>10:30 - 11:00</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>11:00 - 11:30</td>
<td><strong>SESSION 2</strong>&lt;br&gt;&lt;br&gt;Chair: Rob van Glabbeek&lt;br&gt;David Kitchin, William Cook, Jayadev Misra&lt;br&gt;A Language for Task Orchestration and its Semantic Properties&lt;br&gt;Parosh Aziz Abdulla, Bengt Jonsson, Ahmed Rezine, Mayank Saksena&lt;br&gt;Proving Liveness by Backward Reachability&lt;br&gt;Maciej Koutny, Marta Peitkiewicz-Koutny&lt;br&gt;Transition Systems of Elementary Net Systems with Localities</td>
</tr>
<tr>
<td>12:00 - 12:30</td>
<td>Lunch Break</td>
</tr>
<tr>
<td>14:30 - 15:00</td>
<td><strong>SESSION 3</strong>&lt;br&gt;&lt;br&gt;Chair: Ugo Montanari&lt;br&gt;Rob van Glabbeek, Marc Voorhoeve&lt;br&gt;Liveness, Fairness and Impossible Futures&lt;br&gt;Flavio Corradini, Maria Rita Di Berardini, Walter Vogler&lt;br&gt;Checking a Mutex Algorithm in a Process Algebra with Fairness&lt;br&gt;Yoshinao Isobe, Marcus Roggenbach&lt;br&gt;A Complete Axiomatic Semantics for the CSP Stable-Failures Model</td>
</tr>
<tr>
<td>16:00 - 16:30</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>16:30 - 18:00</td>
<td><strong>SESSION 4</strong>&lt;br&gt;&lt;br&gt;Chair: Eike Best&lt;br&gt;Uwe Nestmann&lt;br&gt;Invited tutorial&lt;br&gt;Welcome to the jungle: A Subjective Guide to Mobile Process Calculi</td>
</tr>
<tr>
<td>18:30 - 20:30</td>
<td>Reception&lt;br&gt;Location: Festsaal</td>
</tr>
</tbody>
</table>
SESSION 1

09:00 - 10:00  Jan-Willem Klop  
Definability and Process Graphs  
Invited talk

10:00 - 10:30  Arend Rensink  
Model Checking Quantified Computation Tree Logic

10:30 - 11:00  COFFEE BREAK

SESSION 2  
MINIMIZATION AND EQUIVALENCE CHECKING  
Chair: Gerald Luettgen

11:00 - 11:30  Henri Hansen, Antti Valmari  
Operational Determinism and Fast Algorithms

11:30 - 12:00  Viraj Kumar, P. Madhusudan, Mahesh Viswanathan  
Minimization, Learning, and Conformance Testing of Boolean Programs

12:00 - 12:30  Tachio Terauchi, Alex Aiken  
A Capability Calculus for Concurrency and Determinism

12:30 - 14:30  LUNCH BREAK

SESSION 3  
TYPES  
Chair: Roberto Amadio

14:30 - 15:00  Naoki Kobayashi  
A New Type System for Deadlock-Free Processes

15:30 - 15:30  Lars Birkedal, Soren Debois, Thomas Hildebrandt  
Sortings for Reactive Systems

15:30 - 16:00  Avik Chaudhuri  
Dynamic Access Control in a Concurrent Object Calculus

16:00 - 16:30  COFFEE BREAK

SESSION 4  
Chair: Franck van Breugel

16:30 - 18:00  Roberto Segala  
Probability and Nondeterminism in Operational Models of Concurrency  
Invited tutorial
<table>
<thead>
<tr>
<th>Time</th>
<th>Session 1</th>
<th>Session 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00 - 09:30</td>
<td>Concurrent Rewriting for Graphs with Equivalences</td>
<td>A Complete Axiomatization of Branching Bisimulation for Probabilistic Systems, with an Application in Protocol Verification</td>
</tr>
<tr>
<td>9:30 - 10:00</td>
<td>Event Structure Semantics for Nominal Calculi</td>
<td>Probabilistic I/O Automata: Theories of Two Equivalences</td>
</tr>
<tr>
<td>10:00 - 10:30</td>
<td>Encoding CDuce in the Cpi-calculus</td>
<td>Reachability in Recursive Markov Decision Processes</td>
</tr>
<tr>
<td>10:30 - 11:00</td>
<td>Coffee Break</td>
<td></td>
</tr>
<tr>
<td>11:00 - 11:30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SESSION 1
9:00 - 10:00 Orna Kupferman  
*Sanity Checks in Formal Verification*  
**Invited talk**
10:00 - 10:30 Krishnendu Chatterjee, Thomas Henzinger  
*Strategy Improvement for Stochastic Rabin and Streett Games*

10:30 - 11:00 **COFFEE BREAK**

SESSION 2  
BISIMULATION AND SIMULATION  
Chair: Roberto Amadio
11:00 - 11:30 Damien Pous  
*Weak Bisimulation up to Elaboration*
11:30 - 12:00 Ichiro Hasuo  
*Generic Forward and Backward Simulation*
12:00 - 12:30 Taolue Chen, Wan Fokkink  
*On Finite Alphabets and Infinite Bases III: Simulation*

12:30 - 14:30 **LUNCH BREAK**

SESSION 3  
REAL TIME  
Chair: Kim Larsen
14:30 - 15:00 Olga Grinchtein, Bengt Jonsson, Paul Pettersson  
*Inference of Event-Recording Automata Using Timed Decision Trees*
15:00 - 15:30 Patricia Bouyer, Laura Bozzelli, Fabrice Chevalier  
*Controller Synthesis for MTL Specifications*
15:30 - 16:00 Ramzi Ben Salah, Marius Bozga, Oded Maler  
*On Interleaving in Timed Automata*

16:00 - 16:30 **COFFEE BREAK**

SESSION 4  
FORMAL LANGUAGES  
Chair: Barbara König
16:30 - 17:00 Stefan Leue, Alin Stefanescu, Wei Wei  
*A Livelock Freedom Analysis for Infinite State Asynchronous Reactive Systems*
17:00 - 17:30 Orna Kupferman, Sarai Sheinvald-Faragy  
*Finding Shortest Witnesses to the Nonemptiness of Automata on Infinite Words*
17:30 - 18:00 Colin Stirling  
*Second-Order Simple Grammars*

18:00 **CLOSING**
CORTOS 2006 (Location: HS V)  
Thursday, August 31, 2006

08:15 - 08:30  WELCOME

SESSION 1
08:30 - 09:30  Thomas Brihaye (Univ. Mons-Hainaut, Belgium)  
Verification and control of o-minimal hybrid systems
09:30 - 10:30  Franck Cassez (CNRS/IRCCyN, France)  
Monitoring and Fault-Diagnosis with Digital Clocks

10:30 - 11:00  COFFEE BREAK

SESSION 2
11:00 - 12:00  Patricia Bouyer (LSV-CNRS/ENS-Cachan, France)  
Weighted Timed Games: Model-Checking and Games

12:30 - 14:30  LUNCH BREAK

SESSION 3
14:00 - 15:00  Kim G. Larsen (Aalborg Univ. Denmark)  
TBA
15:00 - 16:00  Jean-François Raskin (Univ. Libre de Bruxelles, Belgium)  
A lattice theory to solve games of imperfect information

16:00 - 16:30  COFFEE BREAK
SESSION 1  CHANNEL-BASED INTERACTION
09:00 - 09:30 Gabriel Ciobanu, Cristian Prisacariu
Coordination by Timers for Channel-Based Anonymous Communications
09:30 - 10:00 Sascha Klueppelholz, Christel Baier
Symbolic Model Checking for Channel-based Component Connectors
10:00 - 10:30 Marco Antonio Barbosa, Luis Soarez Barbosa
Configurations of Web Service

10:30 - 11:00 COFFEE BREAK

SESSION 2  COORDINATION AND ADAPTION
11:00 - 11:30 Matteo Casadei, Luca Gardelli, Mirko Viroli
Simulating Emergent Properties of Coordination in Maude: the Collective Sorting Case
11:30 - 12:00 Antonio Brogi, Javier Camara, Carlos Canal, Javier Cubo, Ernesto Pimentel
Dynamic Contextual Adaptation
12:00 - 12:30 Andrea Omicini
Formal ReSpecT in the A&A Perspective

12:30 - 14:30 LUNCH BREAK

SESSION 3  THEORY OF COMPONENT INTERACTION
14:30 - 15:00 Michael Kohler and Heiko Rolke
Dynamic Transition Refinement
15:00 - 15:30 J. K. F. Bowles, S. Moschyiannis
Concurrent Logic and Automata Combined: A semantics for Components
15:30 - 16:00 Tom Chothia, Jetty Kleijn
Q-Automata: Modelling the Resource Usage of Concurrent Components

16:00 - 16:30 COFFEE BREAK

SESSION 4  PANEL DISCUSSION
16:30 - 18:00
SESSION 1  OPENING
09:00 - 10:00 Andrea Corradini  
**Invited talk**
Towards a categorical semantics of concurrency for adhesive rewriting systems
10:00 - 10:30 Ana Paula Lüdtke Ferreira, Leila Ribeiro and Luciana Foss
Formal Verification of Object-Oriented Graph Grammars Specifications

10:30 - 11:00 COFFEE BREAK

SESSION 2  THEORETICAL ASPECTS
11:00 - 11:30 Tihamer Levendovszky, Ulrike Prange and Hartmut Ehrig
Termination Criteria for DPO Transformations with Injective Matches
11:30 - 12:00 Lars Birkedal, Troels Damgaard, Arne Glenstrup and Robin Milner
Matching of Bigraphs
12:00 - 12:15 Tobias Heindel and Filippo Bonchi
Adhesive DPO Parallelism for monic matches
12:15 - 12:30 Claudia Faggian and Mauro Piccolo
A graph abstract machine describing event structure composition

12:30 - 14:30 LUNCH BREAK

SESSION 3  QUANTITATIVE ASPECTS
14:30 - 15:00 Piotr Kosiuczenko and Georgios Lajios
Simulation of Generalised Semi-Markov Processes based on Graph Transformation Systems
15:00 - 15:30 László Gönczy and Dániel Varró
Modeling and Verification of Reliable Messaging by Graph Transformation Systems
15:30 - 15:45 Vitali Kozioura
Verification of Random Graph Transformation Systems
15:45 - 16:00 Preparation for discussion session

16:00 - 16:30 COFFEE BREAK

SESSION 4  DISCUSSION SESSION
16:30 - 18:00 Ambitions for Graph Transformation-Based Verification
SESSION 1  WELCOME
08:30 - 09:00 Werner Damm, CvO Universität Oldenburg
       Wolfgang Paul, Universität des Saarlandes
       Christine Petry, DFG
       Rainer Jansen, BMBF

SESSION 2A  SURVEY TALK
09:00-09:30 Werner Damm, CvO Universität Oldenburg
            The SFB/TR AVACS

SESSION 2B  SELECTED PRESENTATIONS FROM AVACS
09:30-10:00 Johannes Faber, CvO Universität Oldenburg
            Verifying real-time aspects of the European Train Control System
10:00-10:30 Martin Fränzle, CvO Universität Oldenburg
            A tight integration of SAT and interval constraint propagation

10:30 - 11:00 COFFEE BREAK

SESSION 2C  SELECTED PRESENTATIONS FROM AVACS
11:00-11:30 Sven Schewe, Universität des Saarlandes
            Verifying Partial Designs
11:30-12:00 Jörg Bauer, Universität des Saarlandes
            Platoon Modelling and Verification

SESSION 3A  INVITED PRESENTATIONS
12:00-12:45 Joost-Pieter Katoen, RWTH Aachen
            Recent Advances in Probabilistic Model Checking

12:45 - 14:00 LUNCH BREAK
SESSION 3B  INVITED PRESENTATIONS
14:00-14:45  Gert Döhmen, Airbus D
            *Industrialisation of Formal Methods in System Development*
14:45-15:30  Warren A. Hunt, Jr., The University of Texas at Austin
            *Mathematics-Based IP*

SESSION 4A  SURVEY TALK
15:30-16:00  Wolfgang Paul, Universität des Saarlandes
            *The BMBF Project Verisoft*

16:00 - 16:30  COFFEE BREAK

SESSION 4B  SELECTED PRESENTATIONS FROM VERISOFT
16:30 - 17:00  Lars Kuhtz, Universität des Saarlandes
               *Validating C-to-Assembler Translations*
17:00 - 17:30  Tobias Nipkow, TU München
               *Improving ISABELLE in the Verisoft Context*
17:30 - 18:00  Wolfgang Büttner, OneSpin Solutions
               *Automation and Robustness of Correctness Proofs for Processors*
18:00 - 18:30  Steffen Knapp, Universität des Saarlandes
               *Status Report: The Formal Verification of a Distributed Realtime System*
SESSION 1  OPENING AND KEYNOTE ADDRESS
09:00 – 09:30  Jaco van de Pol, Boudewijn Havorkort
Welcome
09:30 – 10:30  Luboš Brim
Distributed Verification: Exploring the Power of Raw Computing Power

10:30 - 11:00  COFFEE BREAK

SESSION 2  EXPLICIT MODEL CHECKING
11:00 - 11:30  Christophe Pajault, Jean-François Pradat-Peyre
Distributed Colored Petri Net Model-Checking with Galaxy
11:30 - 12:00  Jiří Barnat, Pavel Moravec
Parallel Algorithms for Finding SCCs in Implicitly Given Graphs
12:00 - 12:30  Anton Wijs (work-in-progress report)
Distributed Guided State Space Exploration for Scheduling Problems

12:30 - 14:30  LUNCH BREAK

SESSION 3  SYMBOLIC MODEL CHECKING
14:30 - 15:00  Jonathan Ezekiel, Gerald Luettgen, Radu Siminiceanu
Can Saturation be Parallelised? On the Parallelisation of a Symbolic State-Space Generator
15:30 - 15:30  Erika Ábrahám, Bernd Becker, Martin Fränzle, Christian Herde, Tobias Schubert
Parallel SAT-Solving in Bounded Model Checking
15:30 - 16:00  Jiří Barnat, Luboš Brim, Ivana Černá, Milan Češka, Jana Tůmová
(work-in-progress report)
Distributed Qualitative LTL Model Checking of Markov Decision Processes

16:00 - 16:30  COFFEE BREAK

SESSION 4  DISCUSSION, STAND-UP RESEARCHERS AND CLOSING