Games and Decisions for Rigorous Systems Engineering

Seminar Program

Monday, 12 November, 2012
9:00 - 9:30 Welcome and Introduction
   Chair: Krishnendu Chatterjee
9:30 - 10:30 Laurent Doyen: Tutorial on Games
10:30 - 11:00 Coffee break
   Chair: Krishnendu Chatterjee
11:00 - 11:30 Laurent Doyen: Tutorial on Games
11:30 - 12:00 David A. Parker: Automated Game-theoretic Verification for Probabilistic Systems
12:15 - 14:00 Lunch
   Chair: Laura Kovács
14:00 - 15:30 Albert Oliveras: Tutorial on SMT
15:30 - 16:00 Coffee break
   Chair: Nikolaj Bjørner
16:00 - 16:30 Alberto Griggio: Deciding Floating-Point Logic with Systematic Abstraction
16:30 - 17:00 Albert Rubio: Proving termination of C-like programs using MAX-SMT
16:30 - 17:00 Dirk Beyer: Conditional Model Checking: A Technique to Pass Information between Verifiers
17:30 - 18:00 Discussion
18:00 - 19:00 Dinner
19:00 - Reinhard Wilhelm: History of Dagstuhl

Tuesday, 13 November, 2012
   Chair: Rupak Majumdar
9:00 - 10:30 Bernd Finkbeiner: Tutorial on Synthesis
10:30 - 11:00 Coffee break
   Chair: Rupak Majumdar
11:00 - 11:30 Tomas Brazdil: Efficient Controller Synthesis for Consumption Games with Multiple Resource Types
11:30 - 12:00 Discussion on Games and Synthesis: Benchmarks and Competition
12:15 - 14:00 Lunch
14:00 - 15:30 Andrei Voronkov: Tutorial on First-Order Theorem Proving
15:30 - 16:00 Coffee break

Chair: Alberto Griggio
16:00 - 16:30 Konstantin Korovin: Preprocessing for first-order logic with applications to hardware verification
16:30 - 17:00 Georg Weissenbacher: Labelled Interpolation Systems
17:00 - 17:30 Thomas Wies: Complete Instantiation-Based Interpolation
17:30 - 18:00 Discussion

18:00 - 19:00 Dinner

Wednesday, 14 November, 2012

Chair: Helmut Seidl
9:00 - 9:20 Anca Muscholl: Asynchronous Games over Tree Architectures
9:40 - 10:00 Aarti Gupta: Concurrent Test Generation using Concolic Multi-Trace Analysis
10:00 - 10:30 Coffee break

Chair: Thomas Wies
10:30 -10:50 Joel Ouaknine: Decision Problems for Linear Recurrence Sequences
10:50 - 11:10 Radu Iosif: Under-approximating Procedure Summaries for Recursive Integer Programs
11:10 - 11:30 Tomas Vojnar: Verification of Low Level List Manipulation
11:30 - 12:00 Discussion
12:15 - 14:00 Lunch
15:30 - 22:00 Social Programme

Thursday, 15 November, 2012

Chair: Dirk Beyer
9:00 - 9:20 Swarat Chaudhuri: Stochastic Program Synthesis with Smoothed Numerical Search
9:20 - 9:40 Azadeh Farzan: Inductive Data Flow Graphs
9:40 - 10:00 Helmut Veith: Secure Two-Party Computation in ANSI C
10:00 - 10:30 Coffee break

Chair: Arie Gurfinkel
10:30 - 10:50 Andrey Rybalchenko: Program verification as constraint solving (also for CTL* properties)
10:50 - 11:10 Nikolaj Bjorner: Horn Satisfiability for symbolic software model-checking and an algorithm based on IC3/PDR
11:10 - 11:30 Rupak Majumdar: IC3 for Petri Nets
11:30 - 12:00 Dirk Beyer: SV-Comp and benchmarks
12:15 - 14:00 Lunch
15:30 - 18:00 Discussion
Friday, 16 November, 2012

Chair: Nikolaj Bjørner
9:00 - 9:20 Martina Seidl: QBFs and Certificates
9:20 - 9:40 Uwe Egly: A new learning scheme for QDPLL solvers
9:40 - 10:00 Discussions

10:00 - 10:30 Coffee break

Chair: Georg Weissenbacher
10:30 - 10:50 Ana Sokolova: Quantitatively Relaxed Concurrent Data Structures
10:40 - 11:10 Josef Widder: Parameterized Model Checking of Fault-tolerant Distributed Algorithms
11:10 - 12:00 Discussions and concluding remarks