Preliminary Programme Dagstuhl Seminar 15451
"Verification of Evolving Graph Structures"

Monday, 2 November 2015

9:00 - 10:30
Welcome & Introduction
Tomas Vojnar: Shape Analysis via Symbolic Memory Graphs and Its Application for Conversion of Pointer Programs to Container Programs (Tutorial)

Coffee break

11:00-12:00
Giorgio Delzanno: Graphs in Infinite-State Model-Checking (Tutorial)

Lunch

14:00-15:30
Arend Rensink: Verification Techniques for Graph Rewriting (Tutorial)
Michele Loreti: Spatio-Temporal model checking

Coffee break

16:00-18:00
Viktor Vafeiadis: Separation Logic (Tutorial)
Xavier Rival: Shape analysis for unstructured sharing

Formation of Working Groups (please suggest topics!)

Dinner

Tuesday, 3 November 2015
9:00 - 10:30
Arnaud Sangnier: Local Strategies in Selective Broadcast Networks
Richard Trefler: Compositional Reasoning and Symmetry For Dynamic Protocol Analysis
Christina Jansen & Joost-Pieter Katoen: Verifying Pointer Programs using Graph Grammars

Coffee break

11:00-12:00
Annegret Habel: Dijkstra-style Verification of Graph Programs
Detlef Plump & Chris Poskitt: Hoare-style Verification of Graph Programs

Lunch

14:00-15:30
Working Groups (I)

Coffee break

16:00-18:00
Ken McMillan & Oded Padon & Mooly Sagiv: Interactive Verification of Parametrized Systems
Christoph Haase: Approaching the Coverability Problem Continuously
Roland Meyer: Pointer Race Freedom
Silvio Ghilardi: From decision procedures to full model-checking: the MCMT experience

Dinner

Wednesday, 4 November 2015
9:00 - 10:30
Fernando Orejas: On Graphical Logics for Reasoning about Graph Properties
Alexander Heußner & Chris Poskitt: A Graph-Based Semantics Workbench for Concurrent Asynchronous Programs

Paolo Baldan: A Causal View of Noninterference

Coffee break

11:00-12:00
Ahmed Rezine: Refining orderings for parameterized verification
Mohamed Faouzi Atig: TBA

Lunch

Afternoon excursion (destination: still to be decided)

Thursday, 5 November 2015

9:00 - 10:30
Holger Giese & Leen Lambers: Invariant Checking for Graph Transformation: Applications & Open Challenges
Thomas Noll: Modular Analysis of Concurrent Pointer Programs Using Graph Grammars
Reiko Heckel: Modelling Evolving Graph Structures by Differential Equations

Coffee break

11:00-12:00
Aiswarya Cyriac: Observable under-approximations
Narayan Kumar Krishnan: Bounded time-stamping for Message-passing Systems: Beyond channel bounds

Lunch

14:00-15:30
Working Groups (II)
Coffee break

16:00-18:00
Constantin Enea: Monitoring Refinement via Symbolic Reasoning
Bengt Jonsson: TBA
Cezara Dragoi: Verification of fault-tolerant algorithms that solve agreement problems
David Janin: Higher dimensional strings

Dinner

Friday, 6 November 2015

9:00 - 10:30
Thomas Wies: Automating Separation Logic using SMT
Reiko Heckel: TBA
Florian Zuleger & Tomer Kotek: TBA

Coffee break

11:00-12:00
Summary and Wrap-up of working groups

Lunch

End of workshop