
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
