

Formal Verification of Distributed Algorithms

TENTATIVE PROGRAM (AS OF APRIL 4, 2013)

Tuesday, April 2, 2013

09:00–09:15 Welcome

09:15–10:30 Eric Ruppert: Tutorial on distributed algorithms

10:30–11:00 Coffee Break

11:15–11:45 Peter Bokor & Neeraj Suri: Partial-order reductions and new approaches

11:45–12:15 Igor Konnov: Parameterized model checking of fault-tolerant broadcasting algorithms

12:15 – 14:00 Lunch

14:00–14:30 Uwe Nestmann: Isabelle proofs for some Consensus algorithms

14:30–15:00 Stephan Merz: Formal verification of Consensus algorithms in the proof assistant Isabelle

15:00–15:30 Wilfried Steiner: Formal Verification of Distributed Algorithms at TTTech

15:30–16:00 Coffee Break

16:00–16:30 Fabrice Kordon: Verification of a quasi Certification Protocol over a DHT

16:30–17:00 Borzoo Bonakdarpour: Automated repair of distributed systems

17:00–17:30 Alexey Gotsman: Semantics of Eventually Consistent Systems

18:00 Dinner

Wednesday, April 3, 2013

09:00–10:30 John Rushby: Tutorial

10:30–11:00 Coffee Break

11:15–12:15 Discussion groups

12:15 – 14:00 Lunch

14:00–14:30 Andrey Rybalchenko: Epistemic Perspective on Consistency of Concurrent Computations
14:30–15:00 Pierre Casteran: coq for "local computation systems"
15:00–15:30 Christoph Weidenbach: Proof Automation: What we can do, what we could do and what is needed?

15:30–16:00 Coffee Break

16:00–17:30 Shared Session

17:30–18:00

18:00 Dinner

Thursday, April 4, 2013

09:00–10:30 Murali Talupur: Tutorial on parameterized model checking

10:30–11:00 Coffee Break

11:15–12:15 Discussion groups

12:15–14:00 Lunch

14:00–14:30 Victor Luchangco: A Framework for Verifying Software Transactional Memory (and Other Concurrent Algorithms)

14:30–15:00 Serge Haddad: Formal Models for Verification and Design of Distributed Algorithms

15:30–16:00 Coffee Break

16:00–16:30 Philippe Schoebelen: Unidirectional channel systems

16:30–17:00 Akash Lal: Finding Non-Terminating Executions in Distributed Asynchronous Programs

17:00–18:00 Discussion: How to follow up?

18:00 Dinner

Friday, April 5, 2013

09:00–09:30 Serdar Tasiran: Correctness without Serializability: Verifying Transactional Programs Running on Relaxed Consistency Models

09:30–10:00 Gerwin Klein: Scaling up interactive verification

10:00–10:30 Josef Widder: Efficient Checking of Link-reversal-based Concurrent Systems

10:30–11:00 Coffee Break

11:15–12:15 Discussions

12:15–14:00 Lunch