

# Program

## Monday 13 May 2019

- 09:00 – 10:00 Arrival, registration
- 10:00 – 10:15 Welcome by Lorentz Center
- 10:15 – 10:30 Opening by organizers: Welcome and explanation of objectives and way of working
- 10:30 – 11:30 James Brotherston: Keynote Lecture on Logics for Pointer Programs
- 11:30 – 12:30 Thomas Wies: Keynote Lecture on Static Analysis of Pointer Programs
- 12:30 – 14:00 Lunch @Snellius restaurant
- 14:00 – 15:30 Tutorials on Verification tools (2 tutorials in parallel)  
Bart Jacobs: [The VeriFast Program Verifier](#)  
Robbert Krebbers: [Iris - A Higher-Order Concurrent Separation Logic Framework](#)
- 15:30 – 16:00 Coffee and tea break
- 16:00 – 17:00 Session on Concurrency I (2 talks of 30 min; chaired by Lennart Beringer)  
Emanuele D'Ousualdo: Inductive Invariants for Automatic Verification of Cryptographic Protocols  
Jorge A. Perez: Static Analysis Based on Session Types
- 17:00 Wine & cheese party @common room, poster session

## Tuesday 14 May 2019

- 09:00 – 10:30 Session on Entailment Checking for SL (3 talks of 30 min; chaired by Makoto Tatsuta)  
Jens Katelaan: Effective Entailment Checking for Separation Logic with InductiveDefinitions  
Daisuke Kimura: An Entailment Checking Procedure for Symbolic Heaps using a Complete Cyclic Proof System  
Adam Rogalewicz: Deciding Entailments in Inductive Separation Logic with Tree Automata
- 10:30 – 11:00 Coffee/tea break
- 11:00 – 11:45 Plenary session to present verification challenge problems
- 11:45 – 12:30 Breakout sessions to work on verification challenges
- 12:00 – 14:00 Lunch @Snellius restaurant
- 14:00 – 15:30 Tutorials on Verification tools (2 tutorials in parallel)  
Daniel Frumin: [ReLoC \(Relational Logic for Fine-Grained Concurrency\)](#)  
Alex Summers: [Viper \(Verification Infrastructure for Permission-based Reasoning\)](#)
- 15.30 – 16.00 Coffee/tea break
- 16:00 – 17:15 Breakout sessions to work on verification challenges
- 17:15 – 17:30 Plenary conclusion

## Wednesday 15 May 2019

- 09:00 – 10:30 Session on Concurrency II (3 talks of 30 min; chaired by Robbert Krebbers)  
Philippa Gardner: TADA Live: Compositional Reasoning for the Termination of Fine-grained Concurrent Programs  
Siddarth Krishna: Compositional Abstractions for Concurrent Data Structures

	Thomas Wies: Verifying Concurrent Search Structure Templates
10:30 – 11:00	Coffee/tea break
11:00 – 11:15	Plenary introduction
11:15 – 12:30	Breakout sessions to work on verification challenges
12:00 – 14:00	Lunch @Snellius restaurant
14:00 – 15:30	Tutorials on Verification tools (2 tutorials in parallel) Qinxiang Cao: Coq-Based Verification of Programs Eddy Westbrook: <u>SAW (Software Analysis Workbench)</u>
15.30 – 16.00	Coffee/tea break
16:00 – 17:00	Breakout sessions to work on verification challenges
17:00 – 17:15	Plenary conclusion
17:15	Departure to workshop dinner

## Thursday 16 May 2019

09:00 – 10:30	Session on Abstract Interpretation and Randomization (3 talks of 30 min; chaired by Lennart Beringer) Sandrine Blazy: Verasco – A Formally Verified C Static Analyzer Christoph Matheja: Quantitative Separation Logic Joseph Tassarotti: A Separation Logic for Concurrent Randomized Programs
10:30 – 11:00	Coffee/tea break
11:00 – 11:15	Plenary introduction
11:15 – 12:30	Breakout sessions to work on verification challenges
12:00 – 14:00	Lunch @Snellius restaurant
14:00 – 15:30	Tutorials on Verification tools (2 tutorials in parallel) Marieke Huisman: <u>The VerCors Toolset</u> William Mansky: <u>Using VST to Verify Lock-Free Concurrent Programs</u>
15.30 – 16.00	Coffee/tea break
16:00 – 17:15	Breakout sessions to work on verification challenges
17:15 – 17:30	Plenary conclusion

## Friday 17 May 2019

09:00 – 10:30	Session with talks (3 talks of 30 min; chaired by Thomas Noll) Lennart Beringer: Modular Verification in VST Leon Gondelman: Semi-Automated Reasoning about Non-Determinism in C Expressions Bart Jacobs: How to specify realistic platforms' I/O APIs for modular verification of program behavior using Hoare logic
10:30 – 11:00	Coffee/tea break
11:00 – 12:00	Final discussions and conclusions of the week, for example <ul style="list-style-type: none"> <li>• What lessons did we learn?</li> <li>• What are today's limitations?</li> <li>• What are the most promising research directions for the future?</li> <li>• Follow up of this workshop</li> </ul>
12:00 – 13:00	Lunch @Snellius restaurant