

Schedule of the Dagstuhl Seminar 25172
Information Exchange in Software Verification

Wednesday, April 23, 2025

- 7.30 – 8.45 *Breakfast*
- 9.00 – 10.30 Opening, introduction, and talks:
Julien Signoles: ACSL
Nikolai Kosmatov: Specification and Verification with
Frama-C/MetAcsl
Jan Strejček: Correctness Verification Witnesses 2.0
Gidon Ernst: Contract-LIB
- 10.30 – 11.00 *Coffee break*
- 11.00 – 12.00 Talks:
Martin Jonáš: SMT-LIB
Alberto Griggion: K2 and VMT
Kristin Yvonne Rozier: MoXI
Zsófia Ádám: Bridging Hardware and Software Formal
Verification
- 12.15 *Lunch*
- 14.00 – 15.30 Breakout groups for researchers of
- software model checking
- deductive software verification
- intermediate languages
to answer the following questions:
- What do we want to achieve with the exchange formats?
- Which objects do we want to exchange?
- What are suitable formats to use for the exchange?
- Compare common language vs. writing adapters
- 15.30 – 16.00 *Cake and coffee*
- 16.00 – 17.45 Report from breakout groups and creative discussion
- 18.00 *Dinner*

Thursday, April 24, 2025

- 7.30 – 8.45 *Breakfast*
- 9.00 – 10.30 Talks on successful cooperation between approaches/tools:
Heike Wehrheim: Reducers to Aid Information Exchange
Marieke Huisman: VerCors and Automatic Tools
Cedric Richter: Cooperation via Splitting
Marie-Christine Jakobs: CoVeriTest and Predicate Maps
Matthias Heizmann: Deductive Validation: Witnesses
from Automatic Verifiers for
Deductive Verifiers
Mattias Ulbrich: Paradigm-spanning Collaboration
- 10.30 – 11.00 *Coffee break*
- 11.00 – 12.00 Talks:
Wolfgang Ahrendt: StaRVOOrS – The Force Awakens
Again
Thomas Lemberger: Distributed Summary Synthesis
Dirk Beyer: FM-Tools
Jean-Christophe Filliâtre: Proofs on Inductive
Predicates in Why3
- 12.15 *Lunch*
- 14.00 – 14.15 Talk:
Rosemary Monahan: From Requirements to
Heterogenous Verification:
Where Is the Toolchain?
- 14.15 – 15.30 Breakout groups on selected topics
- 15.30 – 16.00 *Cake and coffee*
- 16.00 – 16.45 Breakout groups on selected topics (cont.)
- 16.45 – 17.45 Report from breakout groups and creative discussion
- 18.00 *Dinner*

Friday, April 25, 2025

7.30 – 8.45 *Breakfast*

9.00 – 10.30 Breakout groups on selected topics, e.g.

- Extensions of witness format for partial results
- Exchange between deductive verification and model checkers,
- “Our” intermediate language (K2 like)
- “Our” simple formalized CIL/LLVM/?-like language (the base for more fine-grained information exchange)
- Information exchange between automatic SW verifiers and/or program analysers (follow up on the Wednesday “Software model checking” breakout group)

Please try to formulate some action items or roadmap.

10.30 – 11.00 *Coffee break*

11.00 – 11.45 Summaries from the groups, including action items/roadmaps

Cooperation brokerage: applications and usage of certain exchange formats, what information are we interested in, who is interested in what objects, . . .

11.45 Closing remarks, next seminar?

12.15 *Lunch*