30th Nordic Workshop on Programming Theory (NWPT’18)

**Wednesday, October 24th**

9:00–9:30: Registration of the workshop participants.

9:30–9:35: Workshop opening and welcome from the organizers.

09:35–10:30 (# 1. Main room, chair: Olaf Owe) (invited talk)

- **Invited talk:** *Design and Validation of Cloud Storage Systems using Rewriting Logic* by Peter Ölveczky.

10:30–11:00: COFFEE BREAK

11:00–12:30 (# 2. Main room, chair: Jaakko Järvi) (semantics)

- *Connecting Choreography Languages With Verified Stacks* by Alejandro Gómez Londoño and Johannes Åman Pohjola.
- *Adding Constraints to CRDTs: From Eventual Consistency to Observable Atomic Consistency* by Xin Zhao and Philipp Haller.

12:30–13:30: LUNCH

13:30–15:00 (# 3. Main room, chair: Peter Ölveczky) (software engineering)

- *Adaptations of API test case generation* by Cyrille Valentin Artho, Rudolf Ramler, Martina Seidl and Jun Yoneyama.
- *Graph Algebras and Software Engineering* by Uwe Wolter.

15:00–15:30: COFFEE BREAK

15:30–17:00 (# 4. Main room, chair: Martin Steffen) (semantics theory)

- *Higher-Dimensional Timed Automata* by Uli Fahrenberg.
- *A verified proof checker for higher-order logic* by Oskar Abrahamsson.
- *The Complexity of Identifying Characteristic Formulae* by Luca Aceto, Antonis Achilleos, Adrian Francalanza and Anna Ingolfsdottir.

17:30: Reception/tapas Ole-Johan Dahl’s building, 5th floor (https://www.mn.uio.no/ifi/english/about/)
Thursday, October 25th

09:00–10:30 (# 5. Main room, chair: Einar Broch Johnsen) (invited talk)
- Railway planning as bounded model checking by Bjørnar Luteberget.

10:30–11:00: COFFEE BREAK

11:00–12:30 (# 6. Main room, chair: Magne Haveraaen) (analysis)
- Static analysis for dynamic data race detection with TeSSLa by Svetlana Jakšić, Malte Schmitz, Volker Stolz and Daniel Thoma.
- Contract-based Verification of Asynchronous Calls with Cooperative Scheduling by Eduard Kamburjan, Crystal Chang Din, Reiner Hähnle and Einar Broch Johnsen.

12:30–13:30: LUNCH

13:30–15:00 (# 7. Main Room, chair: Marina Waldén) (modeling)
- On choreographies and communication failures by Fabrizio Montesi and Marco Peressotti.
- Towards Compositional User Interfaces: Semantics of Multi-Way Dataflow Constraints by Magne Haveraaen and Jaakko Järvi.

15:00–15:30: COFFEE BREAK

15:30–17:00 (# 8A. Parallel Session A Main room, chair: Uwe Wolter) (formal methods)
- Towards Efficient Bit-Vector Interpolation by Peter Backeman, Philipp Ruemmer and Aleksandar Zeljić.
- A Roadmap for Multi-Model Consistency Management by Patrick Stünkel, Harald König, Yngve Lamo and Adrian Rutle.
- Specifying with Syntactic Theory Functors by Magne Haveraaen and Markus Roggenbach.

15:30–17:00 (# 8B. Parallel Session B Room Nimbus, chair: Volker Stolz) (privacy and security)
- Language-Based Support for GDPR-Related Privacy Requirements by Shukun Tokas and Toktam Ramezanifardkhani.
- The Future Mechanism and Information Flow Security by Farzane Karami, Christian Johansen, Olaf Owe and Gerardo Schneider.
- Security Ceremonies with Heterogeneous Devices in ANP and PDL by Antonio Gonzalez-Burgueño and Peter Ölveczky.

18:30: Workshop dinner at Ekeberg Restaurant (https://www.ekebergrestauranten.com/english/)
Friday October 26th

09:30–10:30 (# 9. Main room, chair: Olaf Owe) (invited talk)

- **Invited talk:** *Breaking and Fixing IoT Apps: from Attacks to Formal Methods for Security* by Andrei Sabelfeld.

10:30–11:00: COFFEE BREAK

11:00–12:30 (# 10. Main room, chair: Andrei Sabelfeld) (privacy and security)

- *A Runtime Enforcement Mechanism for Collaborative Privacy Policies in Online Social Networks* by Hanaa Alshareef, Raul Pardo and Gerardo Schneider.
- *A Language for Modelling Privacy* by Ian Oliver.
- *A Survey of Semantic Attribute-Based Access Control Schemes* by Hamed Arshad.

12:30–13:30: LUNCH and PC meeting

13:30: End of the workshop and departure.