7th International Workshop on Quantum Compilation

6-7 September 2025
Helsinki, Finland

Saturday Schedule

09:00	*Registration, Welcome, Coffee*
09:30	**Olivia di Matteo** "*Seeing the big picture: challenges and opportunities in higher-level optimization of quantum programs*"
10:30	**Yannick Stade**, Wan-Hsuan Lin, Jason Cong and Robert Wille *Routing-Aware Placement for Zoned Neutral Atom Quantum Computers*
10:55	*Coffee break*
11:30	**Mark Koch** and Will Simmons *T Gate Hoisting in Dynamic Circuits*
11:55	Will Simmons, **Mark Koch** and Silas Dilkes *Data-Flow Analysis of Stabilizers for Quantum Programs*
12:20	**Yusei Mori**, Hideaki Hakoshima and Keisuke Fujii *Multi-product commutation relation for transpiling Clifford+T circuits*
12:45	*Lunch*
14:00	Tanuj Khattar, Noah Shutty, Craig Gidney, **Dmitri Maslov**, Ryan Babbush and Stephen P Jordan *Efficient quantum circuits for solving classically intractable optimization problems using Decoded Quantum Interferometry*
14:25	**Daniele Trisciani**, Marco Cattaneo and Zoltán Zimborás *Decomposition of multi-qutrit gates generated by Weyl-Heisenberg strings*
14:50	**David Wierichs**, Maxwell West, Roy Forestano, Marco Cerezo and Nathan Killoran *Recursive Cartan decompositions for unitary synthesis*
15:15	Maxime Remaud and **Vivien Vandaele** *Ancilla-free Quantum Adder with Sublinear Depth*
15:40	*POSTER SESSION*

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Sunday Schedule

09:00	*Coffee, Chatting, Hanging out*
10:00	**Adam Glos** "*A practical framework for compilation of fermionic circuits*"
11:00	*Coffee break*
11:30	**Theodore Yoder, Eddie Schoute, Patrick Rall, Emily Pritchett, Jay Gambetta, Andrew Cross, Malcolm Carroll and Michael Beverland** *Tour de gross: A modular quantum computer based on bivariate bicycle codes*
11:55	**Erik Weilandt, Tom Peham and Robert Wille** *Synthesis of Fault-tolerant State Preparation Circuits using Steane-type Error Detection*
12:20	**Simon Martiel and Ali Javadi-Abhari** *Compiling low-overhead circuits for error detection*
12:45	*Lunch*
14:00	**Vivien Vandaele, Simon Perdrix and Christophe Vuillot** *Optimal number of parametrized rotations and Hadamard gates in parametrized Clifford circuits with non-repeated parameters*
14:25	**Maxime Garnier, Thierry Martinez and Mateo Uldemolins** *Graphix: An Open-Source Compiler and Simulator for Measurement-Based Quantum Computation*
14:50	**Jordan Sullivan, Brad Chase, Nate Steman, Misty Wahl, Nathan Shammah and Will Zeng** *Unitary Compiler Collection: A Community-Driven, Interoperable, Open-Source Quantum Compiler*
15:15	*Coffee break*
15:45	**Brad Chase, Kean Chen and Gushu Li** *ucc-ft: Formal Verification for the Fault-Tolerant Compiler Stack*
16:10	**Marcin Szyniszewski, Paul Skrzypczyk, Noah Linden and Aleks Kissinger** *Approximate simulation of quantum circuits via mixed-channel phase squashing*
16:35	*IWQC25 Business Meeting*