

# 7th International Workshop on Quantum Compilation

6-7 September 2025

Helsinki, Finland

## Saturday Schedule

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

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## Sunday Schedule

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