

## Quantum Information Division Fachverband Quanteninformation (QI)

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### Overview of Invited Talks and Sessions

(Lecture halls H3, H4 and H5; Poster P)

#### Invited Talks

QI 1.1	Mon	10:45–11:15	H4	<b>TBA</b> — •CHRISTINE SILBERHORN
QI 1.2	Mon	11:15–11:45	H4	<b>TBA</b> — •JONATHAN HOME
QI 3.1	Mon	14:00–14:30	H4	<b>Quantum Non-Locality in Networks</b> — •NICOLAS GISIN
QI 3.2	Mon	14:30–15:00	H4	<b>Quantum Foundations Meets Causal Inference</b> — •ROBERT W. SPEKKENS
QI 4.1	Tue	14:00–14:30	H3	<b>Principles of quantum functional testing</b> — NADIA MILAZZO, OLIVIER GI-RAUD, •DANIEL BRAUN
QI 4.6	Tue	15:30–16:00	H3	<b>Noncommuting conserved quantities in thermodynamics</b> — •NICOLE YUNGER HALPERN
QI 5.1	Tue	14:00–14:30	H4	<b>Recent progress with superconducting fluxonium qubit</b> — •VLADIMIR MANUCHARYAN
QI 5.2	Tue	14:30–15:00	H4	<b>Quantum information processing with semiconductor technology: from qubits to integrated quantum circuits</b> — •MENNO VELDHORST
QI 6.1	Wed	10:45–11:15	H3	<b>Stabilization and operation of a Kerr-cat qubit in a nonlinear superconducting resonator</b> — •ALEXANDER GRIMM
QI 6.2	Wed	11:15–11:45	H3	<b>The 3rd quantum revolution: Quantum Algorithmic Experiments.</b> — •DORIT AHARONOV
QI 9.1	Thu	10:45–11:15	H4	<b>The true Heisenberg limit in optical interferometry</b> — •RAFAL DEMKOWICZ-DOBZANSKI
QI 9.2	Thu	11:15–11:45	H4	<b>On the quantum limits of field sensing</b> — •MORGAN MITCHELL
QI 11.1	Thu	14:00–14:30	H4	<b>Numerical Security Analysis for Quantum Key Distribution and Application to Optical Protocols</b> — •NORBERT LÜTKENHAUS
QI 11.2	Thu	14:30–15:00	H4	<b>Photonic graph states for quantum communication and quantum computing</b> — •STEFANIE BARZ
QI 12.1	Fri	10:45–11:15	H3	<b>Emergent Hilbert-space fragmentation in tilted Fermi-Hubbard chains</b> — •MONIKA AIDELSBURGER
QI 12.2	Fri	11:15–11:45	H3	<b>An entanglement-based perspective on quantum many-body systems</b> — •NORBERT SCHUCH
QI 14.1	Fri	14:00–14:30	H3	<b>Quantum computing: scaling from university lab to industry</b> — •JAN GOETZ, IQM TEAM
QI 14.2	Fri	14:30–15:00	H3	<b>Gate Based Quantum Computing at Volkswagen</b> — •MARTIN LEIB
QI 14.3	Fri	15:00–15:30	H3	<b>TBA</b> — •SARAH SHELDON

#### Sessions

QI 1.1–1.6	Mon	10:45–12:45	H4	<b>Implementations: Atoms, Ions and Photons</b>
QI 2.1–2.8	Mon	10:45–12:45	H5	<b>Quantum Computing and Algorithms I</b>
QI 3.1–3.6	Mon	14:00–16:00	H4	<b>Quantum Information and Foundations I</b>
QI 4.1–4.6	Tue	14:00–16:00	H3	<b>Quantum Thermodynamics and Open Quantum Systems</b>
QI 5.1–5.6	Tue	14:00–16:00	H4	<b>Implementations: Solid State Systems</b>
QI 6.1–6.6	Wed	10:45–12:45	H3	<b>Quantum Computing and Algorithms II</b>
QI 7.1–7.7	Wed	10:45–12:30	H4	<b>Quantum Information: Applications</b>
QI 8.1–8.27	Wed	16:30–18:30	P	<b>Quantum Information: Poster (joint session QI/Q)</b>

QI 9.1–9.6	Thu	10:45–12:45	H4	<b>Quantum Metrology</b>
QI 10.1–10.7	Thu	10:45–12:30	H5	<b>Certification and Benchmarking of Quantum Systems</b>
QI 11.1–11.6	Thu	14:00–16:00	H4	<b>Quantum Communication</b>
QI 12.1–12.6	Fri	10:45–12:45	H3	<b>Quantum Simulation and Many-Body Systems</b>
QI 13.1–13.7	Fri	10:45–12:30	H4	<b>Quantum Information and Foundations II</b>
QI 14.1–14.3	Fri	14:00–15:30	H3	<b>Quantum Computing in Industry</b>