

## Quantum Information Division Fachverband Quanteninformatik (QI)

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### Overview of Invited Talks and Sessions

(Lecture halls H8 and H9; Poster P2)

#### Invited Talks

QI 1.1	Mon	9:30–10:00	H8	<b>Coherence of spin qubits in planar germanium</b> — ●NICO WILLEM HENDRICKX
QI 2.1	Mon	9:30–10:00	H9	<b>Measuring the thermodynamic cost of timekeeping</b> — ●YELENA GURYANOVA
QI 2.6	Mon	11:15–11:45	H9	<b>Finite-size effects in quantum thermodynamics</b> — ●KAMIL KORZEKWA
QI 3.1	Mon	15:00–15:30	H8	<b>Generalized randomized benchmarking with short random quantum circuits</b> — MARKUS HEINRICH, ●MARTIN KLIESCH, INGOR ROTH
QI 5.1	Tue	9:30–10:00	H8	<b>Towards universal quantum computation and simulation with NV centre in diamond</b> — ●VADIM VOROBYOV
QI 6.1	Tue	9:30–10:00	H9	<b>Towards an Artificial Muse for new Ideas in Quantum Physics</b> — ●MARIO KRENN
QI 8.1	Wed	15:00–15:30	H9	<b>Exploring Quantum Materials with Quantum Sensors</b> — ●URI VOOL
QI 10.1	Thu	9:30–10:00	H9	<b>Entanglement Transition in the Projective Transverse Field Ising Model</b> — ●HANS PETER BÜCHLER
QI 13.1	Fri	9:30–10:00	H8	<b>Scalable control of superconducting qubits</b> — ●STEFAN FILIPP
QI 14.1	Fri	9:30–10:00	H9	<b>Testing quantum theory with generalized noncontextuality</b> — ●MARKUS P. MÜLLER, ANDREW J. P. GARNER

#### Invited Talks of the joint Symposium Entanglement Distribution in Quantum Networks (SYED)

See SYED for the full program of the symposium.

SYED 1.1	Wed	9:30–10:00	H1	<b>A multi-node quantum network of remote solid-state qubits</b> — ●RONALD HANSON
SYED 1.2	Wed	10:00–10:30	H1	<b>Quantum key distribution with highly entangled photons from GaAs quantum dots</b> — ●ARMANDO RASTELLI, SANTANU MANNA, SAIMON COVRE DA SILVA, GABRIEL UNDEUTSCH, CHRISTIAN SCHIMPF
SYED 1.3	Wed	10:30–11:00	H1	<b>Entanglement distribution with minimal memory requirements using time-bin photonic qubits</b> — ●JOHANNES BORREGAARD
SYED 1.4	Wed	11:15–11:45	H1	<b>Quantum photonics: interference beyond HOM and quantum networks</b> — ●STEFANIE BARZ
SYED 1.5	Wed	11:45–12:15	H1	<b>Photonic cluster-state generation for memory-free quantum repeaters</b> — ●TOBIAS HUBER

#### Sessions

QI 1.1–1.11	Mon	9:30–12:45	H8	<b>Implementations: Spin Qubits, Atoms, and Photons</b>
QI 2.1–2.10	Mon	9:30–12:45	H9	<b>Quantum Thermodynamics and Open Quantum Systems</b>
QI 3.1–3.10	Mon	15:00–18:00	H8	<b>Certification and Benchmarking of Quantum Systems</b>
QI 4.1–4.41	Mon	18:00–20:00	P2	<b>Poster: Quantum Information</b>
QI 5.1–5.9	Tue	9:30–12:15	H8	<b>Implementations: Solid state systems</b>
QI 6.1–6.11	Tue	9:30–12:45	H9	<b>Quantum Information: Concepts and Methods</b>
QI 7.1–7.10	Wed	15:00–17:45	H8	<b>Quantum Communication and Networks</b>
QI 8.1–8.9	Wed	15:00–17:45	H9	<b>Quantum Sensors and Metrology</b>

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QI 9.1–9.10	Thu	9:30–12:15	H8	<b>Quantum Correlations</b>
QI 10.1–10.9	Thu	9:30–12:15	H9	<b>Quantum Simulation and Many-Body Systems</b>
QI 11	Thu	14:00–15:00	H8	<b>Members’ Assembly</b>
QI 12.1–12.12	Thu	15:00–18:15	H8	<b>Quantum Computing and Algorithms</b>
QI 13.1–13.11	Fri	9:30–12:45	H8	<b>Implementations: Superconducting Qubits</b>
QI 14.1–14.10	Fri	9:30–12:30	H9	<b>Quantum Foundations</b>

## **Members’ Assembly of the Quantum Information Division**

Donnerstag, 8. September 2022 14:00–15:00 H8

More information will be sent to the members of the division by e-mail.