

## Quantum Optics and Photonics Division Fachverband Quantenoptik und Photonik (Q)

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### Overview of Invited Talks and Sessions

(Lecture rooms K 0.016, K 0.023, K 1.013, K 1.019, K 1.020, K 1.022, K 2.013, and K 2.020;  
Poster Redoutensaal, Orangerie, Zelt Ost, and Zelt West)

#### Invited talks of the joint symposium SYPS

See SYPS for the full program of the symposium.

SYPS 1.1	Mon	14:00–14:30	RW HS	<b>Floquet engineering of interacting quantum gases in optical lattices</b> — ●ANDRÉ ECKARDT
SYPS 1.2	Mon	14:30–15:00	RW HS	<b>Experiments on driven quantum gas and surprises</b> — ●CHENG CHIN
SYPS 1.3	Mon	15:00–15:30	RW HS	<b>Exploring 4D Quantum Hall Physics with a 2D Topological Pumps</b> — ●ODED ZILBERBERG, MICHAEL LOHSE, CHRISTIAN SCHWEIZER, IM- MANUEL BLOCH, HANNAH PRICE, YAACOV KRAUS, SHENG HUANG, MOHAN WANG, KEVIN CHEN, JONATHAN GUGLIELMON, MIKAEL RECHTSMAN
SYPS 1.4	Mon	15:30–16:00	RW HS	<b>Floquet Discrete Time Crystals in a Trapped-Ion Quantum Simula- tor</b> — ●GUIDO PAGANO, JIEHANG ZHANG, PAUL HESS, ANTONIS KYPRIAN- IDIS, PATRICK BECKER, JACOB SMITH, AARON LEE, NORMAN YAO, TOBIAS GRASS, ALESSIO CELI, MACIEJ LEWENSTEIN, CHRISTOPHER MONROE

#### Invited talks of the joint symposium SYAD

See SYAD for the full program of the symposium.

SYAD 1.1	Tue	10:30–11:00	RW HS	<b>Integrated photonic quantum walks in complex lattice structures</b> — ●MARKUS GRAEFE
SYAD 1.2	Tue	11:00–11:30	RW HS	<b>Testing the Quantumness of Atom Trajectories</b> — ●CARSTEN ROBENS
SYAD 1.3	Tue	11:30–12:00	RW HS	<b>Engineering and probing topological bands with ultracold atoms</b> — ●NICK FLÄSCHNER
SYAD 1.4	Tue	12:00–12:30	RW HS	<b>Statistical signatures of many-particle interference</b> — ●MATTIA WALSCHAERS

#### Invited talks of the joint symposium SYET

See SYET for the full program of the symposium.

SYET 1.1	Thu	11:00–11:30	RW HS	<b>The quantum design of photosynthesis</b> — ●RIENK VAN GRONDELLE
SYET 1.2	Thu	11:30–12:00	RW HS	<b>On systems with and without excess energy in environment: ICD and other interatomic mechanisms</b> — ●LORENZ CEDERBAUM
SYET 1.3	Thu	12:00–12:30	RW HS	<b>Molecular QED of Resonance Energy Transfer: Pair and Many- Body Theory</b> — ●AKBAR SALAM
SYET 1.4	Thu	12:30–13:00	RW HS	<b>The Experimental Investigation of Interatomic/Intermolecular Coulombic Decay</b> — ●UWE HERGENHAHN

#### Invited talks of the joint symposium SYQC

See SYQC for the full program of the symposium.

SYQC 1.1	Thu	14:00–14:30	RW HS	<b>The resource theory of quantum coherence</b> — ●MARTIN B PLENIO
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SYQC 1.2	Thu	14:30–15:00	RW HS	<b>Interferometric visibility and coherence</b> — ●ANDREAS WINTER
SYQC 1.3	Thu	15:00–15:30	RW HS	<b>Quantum coherence and interference patterns</b> — ●FLORIAN MINTERT
SYQC 1.4	Thu	15:30–16:00	RW HS	<b>Experiments on directly measuring quantum coherence and using it for quantum sensing</b> — ●CHUAN-FENG LI

### Invited talks of the joint symposium SYMM

See SYMM for the full program of the symposium.

SYMM 1.1	Fri	13:30–14:00	RW HS	<b>Some experimental contributions to the study of thermodynamics in quantum systems.</b> — ●IAN WALMSLEY
SYMM 1.2	Fri	14:00–14:30	RW HS	<b>Levitated Nanoparticle Micromachines</b> — ●NIKOLAI KIESEL
SYMM 1.3	Fri	14:30–15:00	RW HS	<b>Autonomous quantum machines and timekeeping</b> — ●MARCUS HUBER
SYMM 1.4	Fri	15:00–15:30	RW HS	<b>An autonomous thermal machine for amplification of coherence</b> — ●JUAN MR PARRONDO, GONZALO MANZANO, RALPH SILVA

### Sessions

Q 1.1–1.6	Mon	10:30–12:00	K 0.011	<b>Cold atoms I - Rydbergs (joint session A/Q)</b>
Q 2.1–2.7	Mon	10:30–12:30	K 0.016	<b>Quantum Optics I</b>
Q 3.1–3.9	Mon	10:30–12:45	K 0.023	<b>Ultrashort Laser Pulses</b>
Q 4.1–4.8	Mon	10:30–12:30	K 1.013	<b>Matter Wave Optics I</b>
Q 5.1–5.5	Mon	10:30–12:00	K 1.016	<b>Precision Spectroscopy I - trapped ions (joint session A/Q)</b>
Q 6.1–6.7	Mon	10:30–12:30	K 1.019	<b>Quantum Information (Concepts and Methods) I</b>
Q 7.1–7.7	Mon	10:30–12:30	K 1.020	<b>Quantum Information (Quantum Computing)</b>
Q 8.1–8.6	Mon	10:30–12:15	K 2.013	<b>Ultracold Plasmas and Rydberg Systems I (joint session Q/A)</b>
Q 9.1–9.6	Mon	10:30–12:00	K 2.019	<b>Cold atoms II - interactions (joint session A/Q)</b>
Q 10.1–10.8	Mon	10:30–12:30	K 2.020	<b>Quantum Gases (Bosons) I</b>
Q 11.1–11.6	Mon	14:00–15:30	K 0.011	<b>Cold atoms III - optical lattices (joint session A/Q)</b>
Q 12.1–12.8	Mon	14:00–16:00	K 0.016	<b>Quantum Optics II</b>
Q 13.1–13.7	Mon	14:00–15:45	K 0.023	<b>Laser Development and Applications (joint session Q/A)</b>
Q 14.1–14.5	Mon	14:00–15:45	K 1.016	<b>Precision Spectroscopy II - trapped ions (joint session A/Q)</b>
Q 15.1–15.7	Mon	14:00–16:00	K 1.019	<b>Quantum Information (Concepts and Methods) II</b>
Q 16.1–16.7	Mon	14:00–15:45	K 1.020	<b>Quantum Information and Simulation</b>
Q 17.1–17.9	Mon	14:00–16:15	K 2.016	<b>Bose-Einstein Condensation (joint session A/Q)</b>
Q 18.1–18.8	Mon	14:00–16:00	K 2.020	<b>Quantum Gases (Bosons) II</b>
Q 19.1–19.5	Mon	16:15–17:30	K 0.011	<b>Cold atoms IV - topological systems (joint session A/Q)</b>
Q 20.1–20.6	Mon	16:15–17:45	K 0.016	<b>Quantum Optics III</b>
Q 21.1–21.6	Mon	16:15–17:45	K 0.023	<b>Optomechanics I</b>
Q 22.1–22.6	Mon	16:15–17:45	K 1.013	<b>Matter Wave Optics II</b>
Q 23.1–23.5	Mon	16:15–17:45	K 1.016	<b>Precision Spectroscopy III - trapped ions (joint session A/Q)</b>
Q 24.1–24.6	Mon	16:15–17:45	K 1.020	<b>Quantum Information (Solid State Systems)</b>
Q 25.1–25.7	Mon	16:15–18:00	K 1.022	<b>Quantum Gases (Fermions) I</b>
Q 26.1–26.5	Mon	16:15–17:30	K 2.013	<b>Ultracold Plasmas and Rydberg Systems II (joint session Q/A)</b>
Q 27.1–27.6	Mon	16:15–17:45	K 2.020	<b>Quantum Gases (Bosons) III</b>
Q 28.1–28.6	Tue	14:00–15:30	K 0.011	<b>Cold atoms V - optical lattices (joint session A/Q)</b>
Q 29.1–29.8	Tue	14:00–16:00	K 0.016	<b>Quantum Optics and Photonics I</b>
Q 30.1–30.6	Tue	14:00–15:30	K 0.023	<b>Optomechanics II</b>
Q 31.1–31.7	Tue	14:00–15:45	K 1.013	<b>Quantum Effects (QED)</b>
Q 32.1–32.6	Tue	14:00–15:45	K 1.016	<b>Precision Spectroscopy IV - highly charged ions (joint session A/Q)</b>
Q 33.1–33.7	Tue	14:00–16:00	K 1.019	<b>Quantum Information (Concepts and Methods) III</b>
Q 34.1–34.7	Tue	14:00–15:45	K 1.020	<b>Quantum Information (Quantum Communication)</b>
Q 35.1–35.9	Tue	14:00–16:15	K 1.022	<b>Quantum Gases (Fermions) II</b>
Q 36.1–36.6	Tue	14:00–15:30	K 2.013	<b>Ultracold Molecules</b>

Q 37.1–37.8	Tue	14:00–16:00	K 2.020	<b>Quantum Gases (Bosons) IV</b>
Q 38.1–38.20	Tue	16:15–18:15	Orangerie	<b>Poster: Quantum Optics and Photonics I</b>
Q 39.1–39.23	Tue	16:15–18:15	Zelt Ost	<b>Poster: Quantum Optics and Photonics II</b>
Q 40.1–40.24	Tue	16:15–18:15	Zelt West	<b>Poster: Quantum Optics and Photonics III</b>
Q 41.1–41.7	Wed	14:00–15:45	K 0.011	<b>Ultracold Plasmas and Rydberg systems III (joint session A/Q)</b>
Q 42.1–42.7	Wed	14:00–16:00	K 0.016	<b>Quantum Optics and Photonics II</b>
Q 43.1–43.8	Wed	14:00–16:15	K 0.023	<b>Nano-Optics (Single Quantum Emitters)</b>
Q 44.1–44.7	Wed	14:00–16:00	K 1.013	<b>Quantum Effects (Cavity QED)</b>
Q 45.1–45.7	Wed	14:00–15:45	K 1.016	<b>Precision Spectroscopy V - highly charged ions (joint session A/Q)</b>
Q 46.1–46.9	Wed	14:00–16:15	K 1.019	<b>Quantum Information (Concepts and Methods) IV</b>
Q 47.1–47.7	Wed	14:00–16:00	K 1.020	<b>Quantum Information (Quantum Repeater)</b>
Q 48.1–48.9	Wed	14:00–16:15	K 1.022	<b>Quantum Gases (Fermions) III</b>
Q 49.1–49.5	Wed	14:00–15:30	K 2.013	<b>Precision Measurements and Metrology (Atom Interferometry) (joint session Q/A)</b>
Q 50.1–50.8	Wed	14:00–16:00	K 2.020	<b>Quantum Gases (Bosons) V</b>
Q 51.1–51.69	Wed	16:15–18:15	Redoutensaal	<b>Poster: Quantum Optics and Photonics IV</b>
Q 52.1–52.7	Thu	10:30–12:15	K 0.011	<b>Cold atoms VI - traps (joint session A/Q)</b>
Q 53.1–53.8	Thu	10:30–12:30	K 0.016	<b>Quantum Optics and Photonics III</b>
Q 54.1–54.9	Thu	10:30–12:45	K 0.023	<b>Nano-Optics (Single Quantum Emitters and Plasmonics)</b>
Q 55.1–55.7	Thu	10:30–12:30	K 1.013	<b>Quantum Effects</b>
Q 56.1–56.8	Thu	10:30–12:30	K 1.019	<b>Quantum Information (Coherence and Entanglement)</b>
Q 57.1–57.7	Thu	10:30–12:15	K 1.022	<b>Ultracold Atoms I (joint session Q/A)</b>
Q 58.1–58.6	Thu	10:30–12:00	K 2.013	<b>Precision Measurements and Metrology (Gravity and Miscellaneous) (joint session Q/A)</b>
Q 59.1–59.9	Thu	10:30–12:45	K 2.020	<b>Quantum Gases (Bosons) VI</b>
Q 60	Thu	12:45–13:30	K 2.013	<b>Annual General Meeting of the Quantum Optics and Photonics Division</b>
Q 61.1–61.7	Thu	14:00–16:00	K 1.016	<b>Precision Spectroscopy VI - neutrals and ions (joint session A/Q)</b>
Q 62.1–62.101	Thu	16:15–18:15	Redoutensaal	<b>Poster: Quantum Optics and Photonics V</b>
Q 63.1–63.5	Fri	10:30–11:50	K 0.011	<b>Cold atoms VII - micromachines (joint session A/Q)</b>
Q 64.1–64.8	Fri	10:30–12:30	K 0.016	<b>Quantum Optics and Photonics IV</b>
Q 65.1–65.7	Fri	10:30–12:15	K 0.023	<b>Nano-Optics and Biophotonics</b>
Q 66.1–66.8	Fri	10:30–12:30	K 1.013	<b>Quantum Effects (Entanglement and Decoherence)</b>
Q 67.1–67.8	Fri	10:30–12:30	K 1.016	<b>Precision Spectroscopy VII (nuclear systems) (joint session A/Q)</b>
Q 68.1–68.8	Fri	10:30–12:30	K 1.019	<b>Quantum Information (Concepts and Methods) V</b>
Q 69.1–69.4	Fri	10:30–11:30	K 1.020	<b>Post-Deadline Session</b>
Q 70.1–70.8	Fri	10:30–12:30	K 1.022	<b>Ultracold Atoms II (joint session Q/A)</b>
Q 71.1–71.7	Fri	10:30–12:15	K 2.013	<b>Precision Measurements and Metrology (Optical Clocks) (joint session Q/A)</b>

## Annual General Meeting of the Quantum Optics and Photonics Division

Thursday 12:45–13:30 K 2.013