

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

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Overview of Invited Talks and Sessions

(Lecture halls A320, E001, E214, F342, and F442; Poster Empore Lichthof)

Invited Talks

Q 2.1	Mon	11:00–11:30	E001	Interferometry with Bose-Einstein Condensates for inertial sensing — ●SVEN ABEND, CHRISTIAN SCHUBERT, MATTHIAS GERSEMANN, ERNST M. RASEL, QUANTUS-QGYRO TEAMS
Q 9.1	Mon	17:00–17:30	A320	Compressibility and the equation of state of an optical quantum gas in a box — ●JULIAN SCHMITT
Q 10.1	Mon	17:00–17:30	E001	Maiman’s ruby laser reborn as diode pumped cw laser — ●WALTER LUHS, BERND WELLEGEHAUSEN
Q 17.1	Tue	11:00–11:30	E001	Thin-film lithium niobate waveguides for integrated quantum photonic technologies — ●FRANCESCO LENZINI, EMMA LOMONTE, WOLFRAM PERNICE
Q 18.1	Tue	11:00–11:30	E214	Atoms coupled to nanofibers: from topological phases to correlated photon emission — ●BEATRIZ OLMOS
Q 36.1	Wed	14:30–15:00	E214	BMBF-Förderprogramm: Wissenschaftliche Vorprojekte — ●BERNHARD IHRIG, JOHANNES MUND
Q 47.1	Thu	11:00–11:30	E001	Quantum metrology with non-classical states of light — ●MICHÈLE HEURS
Q 48.1	Thu	11:00–11:30	E214	Using optomechanical systems to test gravitational theory – possibilities and limitations — ●DENNIS RÄTZEL
Q 52.1	Thu	14:30–15:00	E001	Nonperturbative Floquet engineering and Floquet-dissipative state preparation — ●FRANCESCO PETIZIOL
Q 53.1	Thu	14:30–15:00	E214	Quantum information with atomic quantum metasurfaces and integrated nanophotonics — ●RIVKA BEKENSTEIN
Q 61.1	Fri	11:00–11:30	E001	Quantum Imaging With Nonlinear Interferometers — ●MARKUS GRÄFE

Invited Talks of the joint Symposium SAMOP Dissertation Prize 2023

See SYAD for the full program of the symposium.

SYAD 1.1	Mon	14:30–15:00	E415	Quantum gas magnifier for sub-lattice resolved imaging of 3D quantum systems — ●LUCA ASTERIA
SYAD 1.2	Mon	15:00–15:30	E415	From femtoseconds to femtometers – controlling quantum dynamics in molecules with ultrafast lasers — ●PATRICK RUPPRECHT
SYAD 1.3	Mon	15:30–16:00	E415	Particle Delocalization in Many-Body Localized Phases — ●MAXIMILIAN KIEFER-EMMANOULIDIS
SYAD 1.4	Mon	16:00–16:30	E415	Feshbach resonances in a hybrid atom-ion system — ●PASCAL WECKESSER

Prize Talks of the joint Awards Symposium

See SYAS for the full program of the symposium.

SYAS 1.1	Tue	14:35–15:05	E415	The Reaction Microscope: A Bubble Chamber for AMOP — ●JOACHIM ULLRICH
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SYAS 1.2	Tue	15:05–15:35	E415	Quantum Computation and Quantum Simulation with Strings of Trapped Ca⁺ Ions — ●RAINER BLATT
SYAS 1.3	Tue	15:35–16:05	E415	Amplitude, Phase and Entanglement in Strong Field Ionization — ●SEBASTIAN ECKART
SYAS 1.4	Tue	16:05–16:35	E415	All-optical Nonlinear Noise Suppression in Mode-locked Lasers and Ultrafast Fiber Amplifiers — ●MARVIN EDELMANN

Invited Talks of the joint Symposium From Molecular Spectroscopy to Collision Control at the Quantum Limit

See SYCC for the full program of the symposium.

SYCC 1.1	Thu	11:00–11:30	E415	The unity of physics: the beauty and power of spectroscopy — ●PAUL JULIENNE
SYCC 1.2	Thu	11:30–12:00	E415	Using high-resolution molecular spectroscopy to explore how chemical reactions work — ●JOHANNES HECKER DENSCHLAG
SYCC 1.3	Thu	12:00–12:30	E415	Monitoring ultracold collisions with laser light — ●OLIVIER DULIEU
SYCC 1.4	Thu	12:30–13:00	E415	The birth of a degenerate Fermi gas of molecules — ●JUN YE

Invited Talks of the joint PhD-Symposium – Many-body Physics in Ultracold Quantum Systems

See SYPD for the full program of the symposium.

SYPD 1.1	Thu	14:30–15:00	E415	Entanglement and quantum metrology with microcavities — ●JAKOB REICHEL
SYPD 1.2	Thu	15:00–15:30	E415	Many-body physics in dipolar quantum gases — ●FRANCESCA FERLAINO
SYPD 1.3	Thu	15:30–16:00	E415	Quantum Simulation: from Dipolar Quantum Gases to Frustrated Quantum Magnets — ●MARKUS GREINER
SYPD 1.4	Thu	16:00–16:30	E415	Quantum gas in a box — ●ZORAN HADZIBABIC

Invited Talks of the joint Symposium Quantum Optics and Quantum Information with Rigid Rotors

See SYQR for the full program of the symposium.

SYQR 1.1	Fri	11:00–11:30	E415	Femtosecond timed imaging of rotation and vibration of alkali dimers on the surface of helium nanodroplets — ●HENRIK STAPELFELDT
SYQR 1.2	Fri	11:30–12:00	E415	Quantum toolbox for molecular state spaces — ERIC KUBISCHTA, SHUBHAM JAIN, IAN TEIXEIRA, ERIC R. HUDSON, WESLEY C. CAMPBELL, MIKHAIL LEMESHKO, ●VICTOR V. ALBERT
SYQR 1.3	Fri	12:00–12:30	E415	Coherent rotational state control of chiral molecules — ●SANDRA EIBENBERGER-ARIAS
SYQR 1.4	Fri	12:30–13:00	E415	Optically levitated rotors: potential control and optimal measurement — ●MARTIN FRIMMER
SYQR 2.1	Fri	14:30–15:00	E415	Rotational optomechanics with levitated nanodumbbells — ●TONGCANG LI
SYQR 2.2	Fri	15:00–15:30	E415	Quantum rotations of nanoparticles — ●BENJAMIN A. STICKLER
SYQR 2.3	Fri	15:30–16:00	E415	Quantum control of trapped molecular ions — ●STEFAN WILLITSCH
SYQR 2.4	Fri	16:00–16:30	E415	Full control over randomly oriented quantum rotors: controllability analysis and application to chiral observables — ●MONIKA LEIBSCHER

Sessions

Q 1.1–1.8	Mon	11:00–13:00	A320	Quantum Technologies (joint session Q/A/QI)
Q 2.1–2.7	Mon	11:00–13:00	E001	Matter Wave Optics
Q 3.1–3.8	Mon	11:00–13:00	E214	Quantum Computing and Simulation (joint session Q/QI)
Q 4.1–4.8	Mon	11:00–13:00	F102	Cold Molecules (joint session MO/Q)
Q 5.1–5.8	Mon	11:00–13:00	F342	Quantum Optics: Open Quantum Systems

Q 6.1–6.8	Mon	11:00–13:00	F442	Quantum Effects (QED) (joint session Q/A)
Q 7.1–7.32	Mon	16:30–19:00	Empore Lichthof	Poster I
Q 8.1–8.49	Mon	16:30–19:00	Empore Lichthof	QI Poster I (joint session QI/Q)
Q 9.1–9.7	Mon	17:00–19:00	A320	Quantum Gases: Bosons I
Q 10.1–10.7	Mon	17:00–19:00	E001	Photonics I
Q 11.1–11.8	Mon	17:00–19:00	E214	Precision Measurements: Gravity I
Q 12.1–12.6	Mon	17:00–18:45	F107	Precision Spectroscopy of Atoms and Ions I (joint session A/Q)
Q 13.1–13.7	Mon	17:00–19:00	F303	Ultra-cold Atoms, Ions and BEC I (joint session A/Q)
Q 14.1–14.8	Mon	17:00–19:00	F342	Quantum Technologies: Color Centers I (joint session Q/A/QI)
Q 15.1–15.8	Mon	17:00–19:00	F442	Quantum Communication (joint session Q/QI)
Q 16.1–16.8	Tue	11:00–13:00	A320	Photonic Quantum Technologies (joint session Q/QI)
Q 17.1–17.7	Tue	11:00–13:00	E001	Integrated Photonics I (joint session Q/QI)
Q 18.1–18.7	Tue	11:00–13:00	E214	Quantum Optics: Cavity and Waveguide QED I
Q 19.1–19.7	Tue	11:00–12:45	F303	Precision Spectroscopy of Atoms and Ions II (joint session A/Q)
Q 20.1–20.8	Tue	11:00–13:00	F342	Quantum Gases: Bosons II
Q 21.1–21.8	Tue	11:00–13:00	F442	Quantum Technologies: Color Centers II (joint session Q/QI)
Q 22.1–22.86	Tue	16:30–19:00	Empore Lichthof	Poster II
Q 23.1–23.7	Wed	11:00–12:45	A320	Optomechanics I & Optovibronics
Q 24.1–24.6	Wed	11:00–12:45	B305	Quantum Networks I (joint session QI/Q)
Q 25.1–25.8	Wed	11:00–13:00	E001	Solid State Quantum Optics
Q 26.1–26.8	Wed	11:00–13:00	E214	Quantum Gases: Bosons III
Q 27.1–27.7	Wed	11:00–13:00	F303	Ultra-cold Atoms, Ions and BEC II (joint session A/Q)
Q 28.1–28.8	Wed	11:00–13:00	F342	Quantum Technologies: Trapped Ions (joint session Q/QI)
Q 29.1–29.7	Wed	11:00–13:00	F428	Implementations: Ions and Atoms (joint session QI/Q)
Q 30.1–30.8	Wed	11:00–13:00	F442	Nano-optics
Q 31.1–31.8	Wed	11:00–13:00	F102	Precision Measurements: Atom Interferometry I (joint session Q/A)
Q 32	Wed	13:00–14:00	F342	Members' Assembly
Q 33.1–33.8	Wed	14:30–16:30	A320	Quantum Gases: Bosons IV
Q 34.1–34.7	Wed	14:30–16:30	B305	Quantum Communication (joint session QI/Q)
Q 35.1–35.8	Wed	14:30–16:30	E001	Quantum Optics: Cavity and Waveguide QED II
Q 36.1–36.7	Wed	14:30–16:30	E214	Quantum Technologies (joint session Q/MO/QI)
Q 37.1–37.7	Wed	14:30–16:15	F142	Collisions (with Q) (joint session MO/Q)
Q 38.1–38.8	Wed	14:30–16:30	F303	Ultra-cold Plasmas and Rydberg Systems I (joint session A/Q)
Q 39.1–39.8	Wed	14:30–16:30	F342	Quantum Optics & Nano-Optics
Q 40.1–40.8	Wed	14:30–16:30	F442	Photonics II
Q 41.1–41.6	Wed	14:30–16:00	F428	Ultra-cold Atoms, Ions and BEC III (joint session A/Q)
Q 42.1–42.36	Wed	16:30–19:00	Empore Lichthof	Poster III
Q 43.1–43.65	Wed	16:30–19:00	Empore Lichthof	QI Poster II (joint session QI/Q)
Q 44.1–44.8	Wed	17:00–19:00	A320	Integrated Photonics II (joint session Q/QI)
Q 45.1–45.8	Thu	11:00–13:00	A320	Photonics III
Q 46.1–46.7	Thu	11:00–13:00	B305	Quantum Control (joint session QI/Q)
Q 47.1–47.7	Thu	11:00–13:00	E001	Precision Measurements with Optical Clocks (joint session Q/QI)
Q 48.1–48.7	Thu	11:00–13:00	E214	Optomechanics II
Q 49.1–49.7	Thu	11:00–13:00	F303	Ultra-cold Atoms, Ions and BEC IV (joint session A/Q)
Q 50.1–50.8	Thu	11:00–13:00	F342	Quantum Gases: Fermions I
Q 51.1–51.8	Thu	14:30–16:30	A320	Precision Measurements
Q 52.1–52.7	Thu	14:30–16:30	E001	Floquet Engineering and Topology
Q 53.1–53.7	Thu	14:30–16:30	E214	Single Quantum Emitters (joint session Q/QI)
Q 54.1–54.8	Thu	14:30–16:30	F102	Quantum Optics and Quantum Information with Rigid Rotors (joint session MO/Q/QI)
Q 55.1–55.7	Thu	14:30–16:30	F303	Precision Spectroscopy of Atoms and Ions III (joint session A/Q)
Q 56.1–56.8	Thu	14:30–16:30	F342	Quantum Gases: Fermions II

Q 57.1–57.8	Thu	14:30–16:30	F428	Quantum Networks II (joint session QI/Q)
Q 58.1–58.8	Thu	14:30–16:30	F442	Quantum Optics with Photons I
Q 59.1–59.80	Thu	16:30–19:00	Empore Lichthof	Poster IV
Q 60.1–60.7	Fri	11:00–12:45	A320	Photonics IV
Q 61.1–61.7	Fri	11:00–13:00	E001	Quantum Optics with Photons II
Q 62.1–62.8	Fri	11:00–13:00	E214	Precision Measurements: Gravity II
Q 63.1–63.6	Fri	11:00–12:45	F107	Ultra-cold Plasmas and Rydberg Systems II (joint session A/Q)
Q 64.1–64.6	Fri	11:00–12:45	F303	Precision Spectroscopy of Atoms and Ions IV (joint session A/Q)
Q 65.1–65.8	Fri	11:00–13:00	F342	Many-body Physics
Q 66.1–66.8	Fri	11:00–13:00	F428	Quantum Metrology (joint session QI/Q)
Q 67.1–67.8	Fri	11:00–13:00	F442	Optomechanics III
Q 68.1–68.7	Fri	14:30–16:15	B305	Quantum Gases: Bosons V
Q 69.1–69.7	Fri	14:30–16:30	F303	Ultra-cold Atoms, Ions and BEC V (joint session A/Q)
Q 70.1–70.8	Fri	14:30–16:30	F342	Precision Measurements: Atom Interferometry II (joint session Q/A)
Q 71.1–71.4	Fri	14:30–15:30	F442	Quantum Optics: Cavity and Waveguide QED III
Q 72.1–72.6	Fri	14:30–16:00	B302	Precision Spectroscopy of Atoms and Ions V (joint session A/Q)

Members' Assembly of the Quantum Optics and Photonics Division

Wednesday 13:00–14:00 F342