

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

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### Overview of Invited Talks and Sessions

(Lecture halls a310, e001, e214, f342, f435, and f442; Poster Empore Lichthof)

#### Invited Talks

Q 6.1	Mon	11:00–11:30	f342	<b>Hilbert space structure of eigenstates in many-body quantum systems</b> — •ALBERTO RODRÍGUEZ
Q 7.1	Mon	14:00–14:30	a310	<b>Phonon engineering and manipulation at the nanoscale</b> — •ILARIA ZARDO
Q 9.1	Mon	14:00–14:30	e214	<b>Critical dynamics and prethermalization in lattice gauge theories</b> — •JAD HALIMEH, PHILIPP HAUKE
Q 19.1	Tue	14:00–14:30	f342	<b>Interplay of dissipative and coherent processes in engineered quantum systems</b> — •ANJA METELMANN
Q 34.1	Wed	14:00–14:30	e214	<b>Zooming in on Fermi Gases in Two Dimensions</b> — •PHILIPP PREISS, LUCA BAYHA, JAN HENDRIK BECHER, MARVIN HOLTEN, RALF KLEMT, PHILIPP LUNT, KEERTHAN SUBRAMANIAN, SELIM JOCHIM
Q 49.1	Thu	14:00–14:30	e214	<b>New physical concepts: Fermionic Exchange Force and Bose-Einstein Force</b> — •CHRISTIAN SCHILLING
Q 52.1	Thu	14:00–14:30	f442	<b>Long-range interactions between polar molecules and Rydberg atoms</b> — •MARTIN ZEPPENFELD

#### Invited talks of the joint symposium SYCU

See SYCU for the full program of the symposium.

SYCU 1.1	Mon	11:00–11:30	e415	<b>Photoelectron circular dichroism in the light of resonance enhanced multi-photon ionization</b> — •THOMAS BAUMERT
SYCU 1.2	Mon	11:30–12:00	e415	<b>New strategies for controlled chirality from the rovibrational dynamics of molecules</b> — •ANDREY YACHMENEV
SYCU 1.3	Mon	12:00–12:30	e415	<b>Time-dependency in Photoelectron Circular Dichroism: from femtosecond scale to attosecond</b> — •VALERIE BLANCHET
SYCU 1.4	Mon	12:30–13:00	e415	<b>Synthetic chiral light for efficient control of chiral light-matter interaction</b> — •DAVID AYUSO, OFER NEUFELD, ANDRES F. ORDONEZ, PIERO DECLEVA, GAVRIEL LERNER, OREN COHEN, MISHA IVANOV, OLGA SMIRNOVA

#### Invited talks of the joint symposium SYAI

See SYAI for the full program of the symposium.

SYAI 1.1	Mon	14:00–14:30	e415	<b>Atom interferometry and its applications for gravity sensing</b> — •FRANCK PEREIRA DOS SANTOS, LUC ABSIL, ROMAIN CALDANI, XIAOBING DENG, ROMAIN KARCHER, SÉBASTIEN MERLET, RAPHAËL PICCON, SUMIT SARKAR
SYAI 1.2	Mon	14:30–15:00	e415	<b>Atom interferometry for advanced geodesy and gravitational wave observation</b> — •PHILIPPE BOUYER
SYAI 1.3	Mon	15:00–15:30	e415	<b>Fundamental physics with atom interferometry</b> — •PAUL HAMILTON
SYAI 1.4	Mon	15:30–16:00	e415	<b>Atoms and molecules interacting with light</b> — •LUCIA HACKERMÜLLER

## Invited talks of the joint symposium SYAD

See SYAD for the full program of the symposium.

SYAD 1.1	Tue	11:00–11:30	e415	<b>Electron Pulse Control with Terahertz Fields</b> — ●DOMINIK EHBERGER
SYAD 1.2	Tue	11:30–12:00	e415	<b>Laser-Based High-Voltage Metrology with ppm Accuracy</b> — ●KRISTIAN KÖNIG, CHRISTOPHER GEPPERT, PHILLIP IMGRAM, JÖRG KRÄMER, BERNHARD MAASS, JOHANN MEISNER, ERNST OTTEN, STEPHAN PASSON, TIM RATAJCZYK, JOHANNES ULLMANN, WILFRIED NÖRTERSCHÄUSER
SYAD 1.3	Tue	12:00–12:30	e415	<b>Structured singular light fields</b> — ●EILEEN OTTE
SYAD 1.4	Tue	12:30–13:00	e415	<b>Coherent Coupling of a Single Molecule to a Fabry-Perot Microcavity</b> — ●DAQING WANG

## Invited talks of the joint symposium SYQL

See SYQL for the full program of the symposium.

SYQL 1.1	Thu	11:00–11:30	e415	<b>The unity of physics: the beauty and power of spectroscopy</b> — ●PAUL JULIENNE
SYQL 1.2	Thu	11:30–12:00	e415	<b>Using spectroscopy to explore the Rb<sub>2</sub> molecule and its formation</b> — ●JOHANNES HECKER DENSCHLAG
SYQL 1.3	Thu	12:00–12:30	e415	<b>Cold molecules: a chemistry kitchen for physicists</b> — ●OLIVIER DULIEU
SYQL 1.4	Thu	12:30–13:00	e415	<b>The birth of a degenerate Fermi gas of molecules</b> — ●JUN YE

## Invited talks of the joint symposium SYCM

See SYCM for the full program of the symposium.

SYCM 1.1	Fri	11:00–11:30	e415	<b>Trapped Laser-cooled Molecules for Quantum Simulation, Particle Physics, and Collisions</b> — ●JOHN DOYLE
SYCM 1.2	Fri	11:30–12:00	e415	<b>Cold polyatomic molecules</b> — ●GERHARD REMPE
SYCM 1.3	Fri	12:00–12:30	e415	<b>Collisions between laser-cooled molecules and atoms</b> — ●MICHAEL TARBUTT
SYCM 1.4	Fri	12:30–13:00	e415	<b>Collisions between cold molecules in a superconducting magnetic trap</b> — ●EDVARDAS NAREVICIUS

## Sessions

Q 1.1–1.2	Sun	16:00–18:00	b305	<b>Tutorial Chirality (joint session AKjDPG/Q)</b>
Q 2.1–2.7	Mon	11:00–12:45	a310	<b>Optomechanics</b>
Q 3.1–3.7	Mon	11:00–13:00	e001	<b>Quantum Information (Concepts and Methods) I</b>
Q 4.1–4.8	Mon	11:00–13:00	e214	<b>Quantum gases (Fermions) I</b>
Q 5.1–5.7	Mon	11:00–13:00	f303	<b>Ultracold atoms, ions, and BEC I (joint session A/Q)</b>
Q 6.1–6.7	Mon	11:00–13:00	f342	<b>Quantum Effects (Disorder and Entanglement)</b>
Q 7.1–7.7	Mon	14:00–16:00	a310	<b>Nano-Optics (Microscopy and Plasmonics)</b>
Q 8.1–8.8	Mon	14:00–16:00	e001	<b>Quantum Information (Concepts and Methods) II</b>
Q 9.1–9.7	Mon	14:00–16:00	e214	<b>Quantum gases (Bosons) I</b>
Q 10.1–10.7	Mon	14:00–16:00	f303	<b>Ultra-cold atoms, ions, and BEC II (joint session A/Q)</b>
Q 11.1–11.8	Mon	14:00–16:00	f342	<b>Quantum Optics I</b>
Q 12.1–12.8	Mon	14:00–16:00	f442	<b>Quantum Effects</b>
Q 13.1–13.70	Mon	16:30–18:30	Empore Lichthof	<b>Posters: Quantum Optics and Photonics I</b>
Q 14.1–14.8	Tue	11:00–13:00	a310	<b>Precision Measurements and Metrology</b>
Q 15.1–15.7	Tue	11:00–13:00	e214	<b>Quantum gases (Bosons) II</b>
Q 16.1–16.8	Tue	14:00–16:00	e001	<b>Quantum Information (Concepts and Methods) III</b>
Q 17.1–17.8	Tue	14:00–16:00	e214	<b>Quantum gases (Bosons) III</b>
Q 18.1–18.7	Tue	14:00–16:00	f303	<b>Ultracold atoms, ions, and BEC III (joint session A/Q)</b>
Q 19.1–19.7	Tue	14:00–16:00	f342	<b>Quantum Optics II</b>
Q 20.1–20.7	Tue	14:00–15:45	f435	<b>Ultrashort Laser Pulses and Biophotonics</b>
Q 21.1–21.7	Tue	14:00–16:00	f442	<b>Ultracold Atoms (Trapping and Cooling)</b>
Q 22.1–22.67	Tue	16:30–18:30	Empore Lichthof	<b>Posters: Quantum Optics and Photonics II</b>
Q 23.1–23.7	Wed	11:00–13:00	a310	<b>Nano-Optics (Single Quantum Emitters) I</b>

Q 24.1–24.7	Wed	11:00–13:00	e001	Quantum Information (Quantum Computing)
Q 25.1–25.8	Wed	11:00–13:00	e214	Quantum gases (Bosons) IV
Q 26.1–26.7	Wed	11:00–13:00	f303	Ultracold atoms, ions, and BEC IV (joint session A/Q)
Q 27.1–27.8	Wed	11:00–13:00	f342	Quantum Optics III
Q 28.1–28.7	Wed	11:00–12:45	f435	Precision Measurements and Metrology (Gravity)
Q 29.1–29.8	Wed	11:00–13:00	f442	Quantum Effects (Entanglement and Decoherence)
Q 30	Wed	13:00–14:00	f342	Annual General Meeting
Q 31.1–31.1	Wed	13:10–13:55	f303	Lunch talk: German Research Foundation (DFG) (joint session A/K/P/MO/MS/Q)
Q 32.1–32.8	Wed	14:00–16:00	a310	Precision Measurements and Metrology (Optical Clocks)
Q 33.1–33.7	Wed	14:00–16:00	e001	Quantum Information (Concepts and Methods) IV
Q 34.1–34.7	Wed	14:00–16:00	e214	Quantum gases (Fermions) II
Q 35.1–35.5	Wed	14:00–15:15	f102	Cold Molecules I (joint session MO/Q)
Q 36.1–36.8	Wed	14:00–16:00	f342	Ultracold plasmas and Rydberg systems I (joint session Q/A)
Q 37.1–37.7	Wed	14:00–15:45	f435	Ultrashort Laser Pulses
Q 38.1–38.8	Wed	14:00–16:00	f442	Quantum Effects (QED) I
Q 39.1–39.61	Wed	16:30–18:30	Empore Lichthof	Posters: Quantum Optics and Photonics III
Q 40.1–40.7	Thu	11:00–13:00	a310	Precision Measurements and Metrology (Atom Interferometry)
Q 41.1–41.7	Thu	11:00–13:00	e001	Quantum Information (Quantum Communication and Quantum Repeater) I
Q 42.1–42.7	Thu	11:00–13:00	f303	Ultracold atoms, ions, and BEC V (joint session A/Q)
Q 43.1–43.8	Thu	11:00–13:00	f342	Quantum Optics and Photonics
Q 44.1–44.8	Thu	11:00–13:00	f435	Laser Development and Applications
Q 45.1–45.8	Thu	11:00–13:00	f442	Quantum Effects (QED) II
Q 46.1–46.8	Thu	14:00–16:00	a310	Nano-Optics (Single Quantum Emitters) II
Q 47.1–47.6	Thu	14:00–15:45	a320	Ultra-cold plasmas and Rydberg systems II (joint session A/Q)
Q 48.1–48.7	Thu	14:00–16:00	e001	Quantum Information (Quantum Communication and Quantum Repeater) II
Q 49.1–49.7	Thu	14:00–16:00	e214	Quantum gases (Miscellaneous)
Q 50.1–50.6	Thu	14:00–15:45	f303	Ultra-cold atoms, ions, and BEC VI (joint session A/Q)
Q 51.1–51.8	Thu	14:00–16:00	f342	Quantum Optics IV
Q 52.1–52.6	Thu	14:00–15:45	f442	Cold Molecules II (joint session Q/MO)
Q 53.1–53.6	Thu	16:30–18:30	Empore Lichthof	SYCM: Contributed posters for the Symposium Hot topics in cold molecules: From laser cooling to quantum resonances
Q 54.1–54.53	Thu	16:30–18:30	Empore Lichthof	Posters: Quantum Optics and Photonics IV
Q 55.1–55.8	Fri	11:00–13:00	a310	Matter Wave Optics
Q 56.1–56.7	Fri	11:00–13:00	b305	Ultra-cold plasmas and Rydberg systems III (joint session A/Q)
Q 57.1–57.7	Fri	11:00–13:00	e001	Quantum Information (Quantum Repeater)
Q 58.1–58.7	Fri	11:00–13:00	e214	Quantum gases (Bosons) V
Q 59.1–59.7	Fri	11:00–13:00	f303	Ultra-cold atoms, ions, and BEC VII (joint session A/Q)
Q 60.1–60.8	Fri	11:00–13:00	f442	Quantum Effects (Cavity QED)
Q 61.1–61.5	Fri	14:00–15:15	e415	SYCM: Contributed talks for the Symposium Hot topics in cold molecules: From laser cooling to quantum resonances
Q 62.1–62.8	Fri	14:00–16:00	f102	Control (joint session MO/Q)

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

Wednesday 13:00–14:00 f342

- Bericht
- Verschiedenes