

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

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Overview of Invited Talks and Sessions

(Lecture hall H1, H2, H5; Poster P)

Invited Talks

Q 1.1	Mon	11:45–12:15	H1	Towards phonon engineering at the nanoscale: material design and innovative experimental techniques — ●ILARIA ZARDO
Q 1.2	Mon	12:15–12:45	H1	Hilbert space structure of eigenstates in many-body quantum systems — ●ALBERTO RODRÍGUEZ
Q 9.1	Wed	10:45–11:15	H2	Critical dynamics and prethermalization in lattice gauge theories — ●JAD HALIMEH, PHILIPP HAUKE
Q 9.2	Wed	11:15–11:45	H2	Zooming in on Fermi Gases in Two Dimensions — ●PHILIPP PREISS, LUCA BAYHA, JAN HENDRIK BECHER, MARVIN HOLTEN, RALF KLEMT, PHILIPP LUNT, KEERTHAN SUBRAMANIAN, SELIM JOCHIM
Q 9.3	Wed	11:45–12:15	H2	New physical concepts: Fermionic Exchange Force and Bose-Einstein Force — ●CHRISTIAN SCHILLING

Invited talks of the joint symposium Trends in atom interferometry (SYAI)

See SYAI for the full program of the symposium.

SYAI 1.1	Mon	14:00–14:30	Audimax	Atom interferometry and its applications for gravity sensing — ●FRANCK PEREIRA DOS SANTOS, LUC ABSIL, YANN BALLAND, SÉBASTIEN MERLET, MAXIME PESCHE, RAPHAËL PICCON, SUMIT SARKAR
SYAI 1.2	Mon	14:30–15:00	Audimax	Atom interferometry for advanced geodesy and gravitational wave observation — ●PHILIPPE BOUYER
SYAI 1.3	Mon	15:00–15:30	Audimax	3D printing methods for portable quantum technologies — ●LUCIA HACKERMÜLLER
SYAI 1.4	Mon	15:30–16:00	Audimax	Fundamental physics with atom interferometry — ●PAUL HAMILTON

Invited talks of the joint symposium SAMOP Dissertation Prize 2021 (SYAD)

See SYAD for the full program of the symposium.

SYAD 1.1	Tue	10:45–11:15	Audimax	Attosecond-fast electron dynamics in graphene and graphene-based interfaces — ●CHRISTIAN HEIDE
SYAD 1.2	Tue	11:15–11:45	Audimax	About the interference of many particles — ●CHRISTOPH DITTEL
SYAD 1.3	Tue	11:45–12:15	Audimax	Supersolid Arrays of Dipolar Quantum Droplets — ●FABIAN BÖTTCHER
SYAD 1.4	Tue	12:15–12:45	Audimax	Quantum Logic Spectroscopy of Highly Charged Ions — ●PETER MICKE

Invited talks of the joint symposium Chirality meets ultrafast (SYCU)

See SYCU for the full program of the symposium.

SYCU 1.1	Tue	14:00–14:30	Audimax	Overview of the temporal dependencies of Photoelectron Circular Dichroism — ●VALERIE BLANCHET
SYCU 1.2	Tue	14:30–14:45	Audimax	Ultrafast, all-optical, and highly enantio-sensitive imaging of molecular chirality — ●DAVID AYUSO
SYCU 1.3	Tue	14:45–15:00	Audimax	Hyperfine interactions in rotational chiral states — ●ANDREY YACHMENEV
SYCU 1.4	Tue	15:00–15:30	Audimax	Chiral molecules in an optical centrifuge — ●VALERY MILNER, ALEXANDER MILNER, ILIA TUTUNNIKOV, ILYA AVERBUKH
SYCU 1.5	Tue	15:30–16:00	Audimax	Enantiomer-selective controllability of asymmetric top molecules — ●MONIKA LEIBSCHER

Invited talks of the joint symposium Awards Symposium (SYAW)

See SYAW for the full program of the symposium.

SYAW 1.1	Wed	13:30–14:15	Audimax	Frequency comb spectroscopy and interferometry — ●NATHALIE PICQUÉ
SYAW 1.2	Wed	14:15–15:00	Audimax	Capitalizing on Schrödinger — ●WOLFGANG P. SCHLEICH
SYAW 1.3	Wed	15:00–15:45	Audimax	Quantum information processing with macroscopic objects — ●EUGENE POLZIK

Invited talks of the joint symposium Hot topics in cold molecules: From laser cooling to quantum resonances (SYCM)

See SYCM for the full program of the symposium.

SYCM 1.1	Fri	14:00–14:30	Audimax	Collisions between laser-cooled molecules and atoms — ●MICHAEL TARBUTT
SYCM 1.2	Fri	14:30–15:00	Audimax	Trapped Laser-cooled Molecules for Quantum Simulation, Particle Physics, and Collisions — ●JOHN DOYLE
SYCM 1.3	Fri	15:00–15:30	Audimax	Quantum-non-demolition state detection and spectroscopy of single cold molecular ions in traps — ●STEFAN WILLITSCH
SYCM 1.4	Fri	15:30–16:00	Audimax	Quantum state tomography of Feshbach resonances in molecular ion collisions via electron-ion coincidence spectroscopy — ●EDVARDAS NAREVICIUS

Sessions

Q 1.1–1.2	Mon	11:45–12:45	H1	Quantum Nano-Optics and Quantum Effects
Q 2.1–2.13	Mon	16:30–18:30	P	Nano-Optics and Optomechanics
Q 3.1–3.10	Mon	16:30–18:30	P	Photonics and Laser Development
Q 4.1–4.21	Mon	16:30–18:30	P	Precision spectroscopy of atoms and ions (joint session A/Q)
Q 5.1–5.3	Tue	14:00–15:30	H1	Ultracold atoms, ions, and BEC I (joint session A/Q)
Q 6.1–6.17	Tue	16:30–18:30	P	Quantum Gases and Matter Waves (joint session Q/A)
Q 7.1–7.14	Tue	16:30–18:30	P	Precision Measurements
Q 8.1–8.5	Tue	16:30–18:30	P	Ultra-cold plasmas and Rydberg systems (joint session A/Q)
Q 9.1–9.3	Wed	10:45–12:15	H2	Quantum Gases
Q 10.1–10.4	Wed	14:00–16:00	H1	Precision spectroscopy of atoms and ions / Highly charge ions (joint session A/Q)
Q 11.1–11.27	Wed	16:30–18:30	P	Quantum Information (joint session QI/Q)
Q 12.1–12.6	Wed	16:30–18:30	P	Quantum Technology
Q 13.1–13.27	Wed	16:30–18:30	P	Ultra-cold atoms, ions, and BEC (joint session A/Q)
Q 14.1–14.3	Thu	10:45–12:15	H1	Ultracold atoms, ions, and BEC II / Ultracold plasmas and Rydberg systems (joint session A/Q)
Q 15	Thu	13:00–14:00	MVQ	General Assembly of the Quantum Optics and Photonics Division
Q 16.1–16.12	Thu	16:30–18:30	P	Quantum Optics
Q 17.1–17.14	Thu	16:30–18:30	P	Quantum Effects

General Assembly of the Quantum Optics and Photonics Division

Donnerstag 13:00–14:00 MVQ