

## Atomic Physics Division Fachverband Atomphysik (A)

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### Overview of Invited Talks and Sessions (Lecture halls HS 1010, 1098, and 1015; Poster Tent A, B, and C)

#### Invited Talks

A 1.1	Mon	11:00–11:30	HS 1010	<b>Exploring the Supersolid Stripe Phase in a Spin-Orbit Coupled Bose-Einstein Condensate</b> — •SARAH HIRTHE, VASILY MAKHALOV, RÉMY VATRÉ, CRAIG CHISHOLM, RAMÓN RAMOS, LETICIA TARRUELL
A 10.1	Tue	11:00–11:30	HS 1010	<b>Strong-field coherent control in the extreme ultraviolet domain</b> — •F. RICHTER, U. SAALMANN, M. WOLLENHAUPT, E. ALLARIA, C. CALLEGARI, M. DANAILOV, L. GIANESSI, M. ZANGRANDO, L. BRUDER
A 18.1	Wed	11:00–11:30	HS 1010	<b>Attosecond photoionization dynamics in CO<sub>2</sub> using coincidence spectroscopy</b> — •IOANNIS MAKOS, DAVID BUSTO, DOMINIK ERTEL, JAKUB BENDA, BARBARA MERZUK1, FABIO FRASSETTO, LUCA POLETTI, CLAUS DIETER SCHRÖTER, THOMAS PFEIFER, ZDENĚK MAŠÍN, SERGUEI PATCHKOVSKII, GIUSEPPE SANSONE
A 36.1	Fri	11:00–11:30	HS 1010	<b>Stringent Test of QED predictions using Highly Charged Tin</b> — •JONATHAN MORGNER, BINGSHENG TU, CHARLOTTE M. KÖNIG, TIM SAILER, FABIAN HEISSE, BASTIAN SIKORA, CHUNHAI LYU, VLADIMIR YEROKHIN, ZOLTÁN HARMAN, JOSÉ R. CRESPO LÓPEZ-URRUTIA, CHRISTOPH H. KEITEL, SVEN STURM, KLAUS BLAUM

#### Invited Talks of the joint Symposium SAMOP Dissertation Prize 2024 (SYAD)

See SYAD for the full program of the symposium.

SYAD 1.1	Mon	14:30–15:00	Paulusaal	<b>Quantum steering of a Szilárd engine</b> — •KONSTANTIN BEYER
SYAD 1.2	Mon	15:00–15:30	Paulusaal	<b>Does a disordered Heisenberg quantum spin system thermalize?</b> — •TITUS FRANZ
SYAD 1.3	Mon	15:30–16:00	Paulusaal	<b>Quantum optical few-mode models for lossy resonators</b> — •DOMINIK LENTRODT
SYAD 1.4	Mon	16:00–16:30	Paulusaal	<b>Non-Hermitian topology and directional amplification</b> — •CLARA WANJURA

#### Invited Talks of the joint Symposium Coulomb Explosion Imaging (SYCE)

See SYCE for the full program of the symposium.

SYCE 1.1	Tue	11:00–11:30	Paulusaal	<b>Dissociation of halogenated organic molecules induced by soft X-rays – pathways and early stages</b> — •EDWIN KUKK
SYCE 1.2	Tue	11:30–12:00	Paulusaal	<b>X-ray induced Coulomb explosion imaging with channel-selectivity</b> — •REBECCA BOLL
SYCE 1.3	Tue	12:00–12:30	Paulusaal	<b>Time-resolved Coulomb Explosion Imaging using X-ray Free-Electron Lasers</b> — •TILL JAHNKE
SYCE 1.4	Tue	12:30–13:00	Paulusaal	<b>Dynamics and control of microsolvated biomolecules studied by Coulomb explosion imaging</b> — •SEBASTIAN TRIPPEL, JOCHEN KÜPPER

## Prize Talks of the joint Awards Symposium (SYAS)

See SYAS for the full program of the symposium.

SYAS 1.1	Tue	15:00–15:30	Paulussaal	<b>Quantum Simulations with Atoms, Molecules and Photons</b> — •IMMANUEL BLOCH
SYAS 1.2	Tue	15:30–16:00	Paulussaal	<b>Spectroscopy of molecules with large amplitude motions: a journey from molecular structure to astrophysics.</b> — •ISABELLE KLEINER
SYAS 1.3	Tue	16:00–16:30	Paulussaal	<b>Quantum x-ray nuclear optics: progress and prospects</b> — •OLGA KOCHAROVSKAYA
SYAS 1.4	Tue	16:30–17:00	Paulussaal	<b>3D printed complex microoptics: fundamentals and first benchmark applications</b> — •HARALD GIESSEN

## Invited Talks of the joint Symposium Controlled Molecular Collisions (SYCC)

See SYCC for the full program of the symposium.

SYCC 1.1	Wed	11:00–11:30	Paulussaal	<b>Dynamics of CO<sub>2</sub> activation by transition metal ions - The importance of intersystem crossing</b> — •JENNIFER MEYER
SYCC 1.2	Wed	11:30–12:00	Paulussaal	<b>Angular momentum of small molecules: quasiparticles and topology</b> — •MIKHAIL LEMESHKO
SYCC 1.3	Wed	12:00–12:30	Paulussaal	<b>Manoeuvring chemical reactions one degree of freedom at a time</b> — •JUTTA TOSCANO
SYCC 1.4	Wed	12:30–13:00	Paulussaal	<b>Cold and controlled collisions using tamed molecular beams</b> — •SEBASTIAAN VAN DE MEERAKKER

## Invited Talks of the joint Symposium Size Selected Metal Cluster Spectroscopies (SYMC)

See SYMC for the full program of the symposium.

SYMC 1.1	Thu	11:00–11:30	Paulussaal	<b>Infrared spectroscopic studies of molecular activation at metal clusters</b> — •STUART MACKENZIE
SYMC 1.2	Thu	11:30–12:00	Paulussaal	<b>Dynamic metal-metal cooperation in chemical reactions</b> — •JANA ROITHOVÁ
SYMC 1.3	Thu	12:00–12:30	Paulussaal	<b>A closer look at the electronic structure of simple metal clusters</b> — •BERND VON ISSENDORFF
SYMC 1.4	Thu	12:30–13:00	Paulussaal	<b>IR action spectroscopy of metal clusters, complexes and diatomics with free electron lasers</b> — •ANDRÉ FIELICKE

## Invited Talks of the joint Symposium Ultrafast Quantum Nano-Optics (SYQO)

See SYQO for the full program of the symposium.

SYQO 1.1	Fri	11:00–11:30	Paulussaal	<b>Coherent and incoherent dynamics of colloidal plexcitonic nanohybrids</b> — •ELISABETTA COLLINI
SYQO 1.2	Fri	11:30–12:00	Paulussaal	<b>Dissipative Many-Body Dynamics in Atomic Subwavelength Arrays in Free Space</b> — •STEFAN OSTERMANN
SYQO 1.3	Fri	12:00–12:30	Paulussaal	<b>Quantum dot sources: efficiency, entanglement, and correlations.</b> — •ANA PREDOJEVIĆ
SYQO 1.4	Fri	12:30–12:45	Paulussaal	<b>Compact chirped fiber Bragg gratings for single-photon generation from quantum dots</b> — •VIKAS REMESH, RIA KRÄMER, RENÉ SCHWARZ, FLORIAN KAPPE, YUSUF KARLI, THOMAS BRACHT, SAIMON COVRE DA SILVA, ARMANDO RASTELLI, DORIS REITER, STEFAN NOLTE, GREGOR WEIHS
SYQO 1.5	Fri	12:45–13:00	Paulussaal	<b>Observing Ultrafast Coherent Dynamics following Selective Excitation of a Single Quantum Dot</b> — •DARIUS HASHEMI KALIBAR, PHILIPP HENZLER, RON TENNE, ALFRED LEITENSTORFER

## Sessions

A 1.1–1.7	Mon	11:00–13:00	HS 1010	Ultra-cold Atoms, Ions and BEC I (joint session A/Q)
A 2.1–2.8	Mon	11:00–13:00	HS 1098	Attosecond Physics I (joint session A/MO)
A 3.1–3.8	Mon	11:00–13:00	Aula	Bosonic Quantum Gases I (joint session Q/A)
A 4.1–4.7	Mon	11:00–13:00	HS 3044	Coulomb-explosion Imaging (joint session MO/A)
A 5.1–5.8	Mon	17:00–19:00	HS 1010	Ultra-cold Plasmas and Rydberg Systems I (joint session A/Q)
A 6.1–6.8	Mon	17:00–19:00	HS 1098	Atomic Systems in External Fields I
A 7.1–7.8	Mon	17:00–19:00	Aula	Bosonic Quantum Gases II (joint session Q/A)
A 8.1–8.8	Mon	17:00–19:00	HS 1221	Precision Measurements I (joint session Q/A)
A 9.1–9.6	Mon	17:00–18:30	HS 3044	Strong-field Ionization and Imaging (joint session MO/A)
A 10.1–10.7	Tue	11:00–13:00	HS 1010	Interaction with Strong or Short Laser Pulses I (joint session A/MO)
A 11.1–11.8	Tue	11:00–13:00	HS 1098	Precision Spectroscopy of Atoms and Ions I (joint session A/Q)
A 12.1–12.8	Tue	11:00–13:00	Aula	Bosonic Quantum Gases III (joint session Q/A)
A 13.1–13.7	Tue	11:00–13:00	HS 1221	Trapping and Cooling of Atoms (joint session Q/A)
A 14	Tue	13:15–14:15	HS 1010	Members' Assembly
A 15.1–15.30	Tue	17:00–19:00	Tent A	Poster I
A 16.1–16.6	Tue	17:00–19:00	Tent B	Poster II
A 17.1–17.13	Tue	17:00–19:00	Tent C	Poster III
A 18.1–18.7	Wed	11:00–13:00	HS 1010	Attosecond Physics II / Interaction with VUV and X-ray Light (joint session A/MO)
A 19.1–19.8	Wed	11:00–13:00	HS 1098	Precision Spectroscopy of Atoms and Ions II (joint session A/Q)
A 20.1–20.8	Wed	11:00–13:00	HS 1199	Fermionic Quantum Gases I (joint session Q/A)
A 21.1–21.8	Wed	14:30–16:30	HS 1010	Interaction with Strong or Short Laser Pulses II (joint session A/MO)
A 22.1–22.8	Wed	14:30–16:30	HS 1098	Highly Charged Ions and their Applications I
A 23.1–23.8	Wed	14:30–16:30	HS 1015	Atomic Clusters (joint session A/MO)
A 24.1–24.8	Wed	14:30–16:30	Aula	Fermionic Quantum Gases II (joint session Q/A)
A 25.1–25.30	Wed	17:00–19:00	Tent A	Poster IV
A 26.1–26.13	Wed	17:00–19:00	Tent C	Poster V
A 27.1–27.8	Thu	11:00–13:00	HS 1010	Precision Spectroscopy of Atoms and Ions III (joint session A/Q)
A 28.1–28.8	Thu	11:00–13:00	HS 1098	Ultra-cold Atoms, Ions and BEC II (joint session A/Q)
A 29.1–29.8	Thu	14:30–16:30	HS 1010	Ultra-cold Atoms, Ions and BEC III (joint session A/Q)
A 30.1–30.7	Thu	14:30–16:15	HS 1098	Precision Spectroscopy of Atoms and Ions IV (joint session A/Q)
A 31.1–31.8	Thu	14:30–16:30	HS 1015	Atomic Systems in External Fields II
A 32.1–32.8	Thu	14:30–16:30	Aula	Quantum Gases (joint session Q/A)
A 33.1–33.30	Thu	17:00–19:00	Tent A	Poster VI
A 34.1–34.4	Thu	17:00–19:00	Tent B	Poster VII
A 35.1–35.13	Thu	17:00–19:00	Tent C	Poster VIII
A 36.1–36.7	Fri	11:00–13:00	HS 1010	Highly Charged Ions and their Applications II
A 37.1–37.8	Fri	11:00–13:00	HS 1098	Ultra-cold Atoms, Ions and BEC IV (joint session A/Q)
A 38.1–38.7	Fri	11:00–13:00	HS 1199	Trapped Ions (joint session Q/A)
A 39.1–39.8	Fri	11:00–13:00	HS 1221	Precision Measurements II (joint session Q/A)
A 40.1–40.8	Fri	14:30–16:30	HS 1010	Ultra-cold Atoms, Ions and BEC V (joint session A/Q)
A 41.1–41.8	Fri	14:30–16:30	HS 1098	Precision Spectroscopy of Atoms and Ions V / Ultra-cold Plasmas and Rydberg Systems II (joint session A/Q)
A 42.1–42.8	Fri	14:30–16:30	HS 1221	Precision Measurements III (joint session Q/A)
A 43.1–43.8	Fri	14:30–16:30	HS 3044	Ultrafast Dynamics III and High-harmonic Generation (joint session MO/A)

## Members' Assembly of the Atomic Physics Division

Tuesday 13:15–14:15 H 1010