Atomic Physics Division
Fachverband Atomphysik (A)

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Overview of Invited Talks and Sessions

(Lecture halls N 1, N 2, N 3, and N 25; Poster Philo 1. OG)

Invited Talks

A 2.1	Mon	11:45–12:15	N 1	**Experimental investigation of strongly interacting quantum fluids of light in rydberg atoms** — •Amar Bellahsene, Tom Bienaimé, Shannon Whitlock
A 6.1	Mon	17:00–17:30	N 1	**Measurement of neon photoemission delays and double-core-hole Auger-Meitner lifetime using Angular Streaking** — •Lars Funke, Sara Savio, Lasse Wülfing, Niclas Wieland, Markus Ilchen, Wolfram Helml
A 8.1	Mon	17:00–17:30	N 3	**Isotope shifts and population dynamics in neutron-rich Mg^+ measured with MIRACLS** — •Konstantin Mohr
A 11.1	Tue	11:00–11:30	N 2	**Dichroic Electron Emission Patterns from Oriented Helium Ions** — •Niclas Wieland, Klaus Bartschat, Filippa Dudda, Michael Meyer, Markus Ilchen
A 12.1	Tue	11:00–11:30	N 3	**Stringent Tests of the Standard Model via High-Precision Measurements at ALPHATRAP** — •Fabian Heisse, Matthew Bohman, Luca Geissler, Anton Gramberg, Philipp Justus, Charlotte König, Ivan Kortunov, Jialin Liu, Jonathan Morgner, Jacob Schrader, Victor Vogt, Stephan Schiller, Sven Sturm, Klaus Blaum
A 13.1	Tue	11:00–11:30	N 25	**Identifications of clock transitions in heavy highly charged ions with high sensitivity to physics beyond the Standard Model** — Nils-Holger Rehbehn, Lakshmi P. Kozhiparambil Sajith, Michael K. Rosner, Charles Cheung, Sergey G. Porsev, Marianna S. Safronova, Samuel M. Brewer, Steven Worm, Dmitry Budker, Thomas Pfeifer, José R. Crespo López-Urrutia, •Hendrik Bekker
A 17.1	Wed	14:30–15:00	N 1	**Three-body dynamics between an ion and two Rydberg states** — •Jennifer Krauter, Maximilian Futterknecht, Óscar Andrey Herrera Sancho, Florian Anschütz, Utzuri Högl Vidal, Moritz Berngruber, Florian Meinert, Robert Löw, Tilman Pfau
A 18.1	Wed	14:30–15:00	N 2	**Cross-process interference in single-cycle electron emission from metal needle tips** — •Anne Herzig, Peter Hommelhoff, Eleftherios Goulielmakis, Thomas Fennel, Lennart Seiffert
A 19.1	Wed	14:30–15:00	N 3	**Enhanced Sensitivity for Electron Affinity Measurements** — •Franziska Maria Maier, Erich Leistenschneider, Lutz Schweikhard, Stephan Malbrunot-Ettenauer
A 27.1	Thu	11:00–11:30	N 1	**Quantum-enabled active matter at the atomic scale** — •Sabrina Burgardt, Julian Fess, Silvia Hiebel, Alexander Guthmann, Aritra K. Mukhopadhyay, Sangyun Lee, Michael te Vrugt, Benno Liebchen, Hartmut Löwen, Raphael Wittkowski, Artur Widera
A 28.1	Thu	11:00–11:30	N 2	**Long-lived giant circular Rydberg atoms at room temperature** — •Fabian Thielemann, Einius Pultinevicius, Aaron Götzelmann, Christian Hölzl, Florian Meinert
A 28.2	Thu	11:30–12:00	N 2	**Dynamical decoupling in a dipolar Rydberg gas** — •Meny Menashes, Eduard Braun, Matthias Lotze, Maharshi Pran Bora, Gerhard Zürn, Matthias Weidemüller

A 29.1	Thu	11:00–11:30	N 3	**An optical clock with entangled trapped $^{40}Ca^{+}$ ions.** — •Kai Dietze, Lennart Pelzer, Bennet Benny, Fabian Dawel, Mirza A. Ali, Derwell Drapier, Piet O. Schmidt
A 32.1	Thu	14:30–15:00	N 2	**IR-laser induced dressing signatures in helium nanodroplets probed by coherent diffractive imaging** — •Tom von Scheven, Björn Kruse, Thomas Fennel
A 40.1	Fri	11:00–11:30	N 1	**Toolbox for of Rydberg state engineering in trapped ions** — •Robin Thomm, Vinay Shankar, Natalia Kuk, Markus Hennrich
A 41.1	Fri	11:00–11:30	N 2	**State-resolved femtosecond phase control in dense-gas laser-atom interaction enabled by XUV interferometry** — •Lina Hedewig, Carlo Kleine, Yu He, Felix Wieder, Christian Ott, Thomas Pfeifer

Invited Talks of the joint Symposium SAMOP Dissertation Prize 2026 (SYAD)

See SYAD for the full program of the symposium.

SYAD 1.1	Mon	14:30–15:00	RW 1	**What graphs can tell us about quantum information** — •Kiara Hansenne
SYAD 1.2	Mon	15:00–15:30	RW 1	**Realization of alkaline-earth circular Rydberg qubits in optical tweezer arrays** — •Christian Hölzl
SYAD 1.3	Mon	15:30–16:00	RW 1	**Pattern Formation and Supersolid-like Sound Modes in a Driven Superfluid** — •Nikolas Liebster
SYAD 1.4	Mon	16:00–16:30	RW 1	**Harnessing time-frequency qudits using integrated nonlinear processes** — •Laura Serino

Invited Talks of the joint Symposium Classical and Quantum Structured Light (SYSL)

See SYSL for the full program of the symposium.

SYSL 1.1	Mon	17:00–17:30	P 1	**Structured-light-matter interaction for quantum cryptography and nanoscale modal control** — •Eileen Otte, Asma Fallah, William A. Jarrett, Alexander D. White, Giovanni Scuri, Seungjun Eun, Nicholas A. Guesken, Hossein Taghinejad, Jelena Vuckovic, Mark L. Brongersma
SYSL 1.2	Mon	17:30–18:00	P 1	**Attosecond Structured Light Pulses with Topology and Polarization Textures** — •Carlos Hernandez-Garcia
SYSL 1.3	Mon	18:00–18:30	P 1	**Structured light for the creation of squeezed multiplets to encode quantum information in trapped ions** — •Corina Révora, Christian Tomás Schmiegelow, Juan Pablo Paz
SYSL 1.4	Mon	18:30–19:00	P 1	**Atomic Magnetometry Employing Vector Light Beams** — •Riaan Philipp Schmidt, Richard Aguiar Maduro, Anton Peshkov, Sonja Franke-Arnold, Andrey Surzhykov

Invited Talks of the joint Symposium Spin-Boson Models (SYSB)

See SYSB for the full program of the symposium.

SYSB 1.1	Tue	11:00–11:30	RW 1	**Tailoring the quantum dynamics of spins with bosonic baths** — •Giovanna Morigi
SYSB 1.2	Tue	11:30–12:00	RW 1	**Spins, Qubits, and Bosons** — •Guido Burkard
SYSB 1.3	Tue	12:00–12:30	RW 1	**Spin-boson models under strong ac-driving** — •Milena Grifoni
SYSB 1.4	Tue	12:30–13:00	RW 1	**Kibble-Zurek scenario for melting of discrete time crystals** — •Phatthamon Kongkhambut, Hans Kessler, Roy D. Jara Jr., Jayson G. Cosme, Andreas Hemmerich

Invited Talks of the joint Symposium Selected Highlights of AMOP in Austria (SYAU)

See SYAU for the full program of the symposium.

SYAU 1.2	Wed	11:15–11:45	RW 1	**Supersolidity: When Superfluid Flow Meets Crystalline Order** — •Francesca Ferlaino
SYAU 1.3	Wed	11:45–12:15	RW 1	**Charged Helium Nanodroplets: A Cold Laboratory for Molecular Ions** — •Elisabeth Gruber

SYAU 1.4	Wed	12:15–12:45	RW 1	**Advances in Broadband Saturation Spectroscopy: Towards Probing New Physics in the Mid-Infrared** — •Oliver Heckl
SYAU 1.5	Wed	12:45–13:15	RW 1	**Precision laser spectroscopy of the Thorium-229 nuclear transition** — •Thorsten Schumm

Invited Talks of the joint Symposium One-Dimensional Quantum Many-Body Systems between Bose and Fermi Statistics (SYMB)

See SYMB for the full program of the symposium.

SYMB 1.1	Thu	14:30–15:00	P 1	**Exploring gauge theories for 1D anyons in Raman-coupled Bose gases** — •Leticia Tarruell
SYMB 1.2	Thu	15:00–15:30	P 1	**Non trivial particle exchange in one dimension: The anyon Hubbard model and beyond** — •André Eckardt
SYMB 1.3	Thu	15:30–16:00	P 1	**Exotic Quantum Statistics in Strongly Interacting 1D Bose Gases** — •Hanns-Christoph Nägerl
SYMB 1.4	Thu	16:00–16:30	P 1	**Dipolar gases in triangular ladders** — •Luis Santos

Invited Talks of the joint Symposium Tests of Fundamental Physics with AMO Systems (SYFP)

See SYFP for the full program of the symposium.

SYFP 1.1	Fri	11:00–11:30	RW 1	**Searches for new bosons with isotope shift spectroscopy and the thorium nuclear transition** — •Elina Fuchs
SYFP 1.2	Fri	11:30–12:00	RW 1	**Precision spectroscopy of muonic atoms** — •Randolf Pohl
SYFP 1.3	Fri	12:00–12:30	RW 1	**Quantum-Controlled Molecules for Fundamental Physics and Quantum Science** — •Nicholas Hutzler
SYFP 1.4	Fri	12:30–13:00	RW 1	**Testing Baryon Asymmetry with Antiprotons** — •Stefan Ulmer

Sessions

A 1.1–1.5	Mon	11:45–13:00	P 2	**Ultracold Matter I – Fermions (joint session Q/A)**
A 2.1–2.3	Mon	11:45–12:45	N 1	**Ultra-cold Plasmas and Rydberg Systems I (joint session A/Q)**
A 3.1–3.5	Mon	11:45–13:00	N 2	**Collisions, Scattering and Correlation Phenomena I (joint session A/MO)**
A 4.1–4.5	Mon	11:45–13:00	N 25	**Highly Charged Ions and their Applications I**
A 5.1–5.8	Mon	17:00–19:00	P 2	**Ultracold Matter II – Bosons (joint session Q/A)**
A 6.1–6.6	Mon	17:00–18:45	N 1	**Attosecond Physics I (joint session A/MO)**
A 7.1–7.8	Mon	17:00–19:00	N 2	**Collisions, Scattering and Correlation Phenomena II (joint session A/MO)**
A 8.1–8.7	Mon	17:00–19:00	N 3	**Precision Spectroscopy of Atoms and Ions I (joint session A/Q)**
A 9.1–9.8	Tue	11:00–13:00	P 2	**Ultracold Matter III – Fermions (joint session Q/A)**
A 10.1–10.8	Tue	11:00–13:00	N 1	**Ultra-cold Atoms, Ions and BEC I (joint session A/Q)**
A 11.1–11.7	Tue	11:00–13:00	N 2	**Atomic Systems in External Fields I**
A 12.1–12.7	Tue	11:00–13:00	N 3	**Precision Spectroscopy of Atoms and Ions II (joint session A/Q)**
A 13.1–13.6	Tue	11:00–12:45	N 25	**Highly Charged Ions and their Applications II**
A 14.1–14.29	Tue	17:00–19:00	Philo 1. OG	**Poster – Precision Spectroscopy of Atoms and Ions (joint session A/Q)**
A 15.1–15.9	Tue	17:00–19:00	Philo 1. OG	**Poster – Highly Charged Ions and their Applications**
A 16.1–16.8	Wed	14:30–16:30	P 2	**Ultracold Matter IV – Bosons, Rydberg Systems, and Others (joint session Q/A)**
A 17.1–17.7	Wed	14:30–16:30	N 1	**Ultra-cold Atoms, Ions and BEC II (joint session A/Q)**
A 18.1–18.6	Wed	14:30–16:15	N 2	**Interaction with Strong or Short Laser Pulses I (joint session A/MO)**
A 19.1–19.7	Wed	14:30–16:30	N 3	**Precision Spectroscopy of Atoms and Ions III (joint session A/Q)**

A 20.1–20.2	Wed	17:00–19:00	Philo 1. OG	**Poster – Atomic Clusters**
A 21.1–21.5	Wed	17:00–19:00	Philo 1. OG	**Poster – Atomic Systems in External Fields**
A 22.1–22.7	Wed	17:00–19:00	Philo 1. OG	**Poster – Attosecond Physics (joint session A/MO)**
A 23.1–23.3	Wed	17:00–19:00	Philo 1. OG	**Poster – Interaction with Strong or Short Laser Pulses (joint session A/MO)**
A 24.1–24.4	Wed	17:00–19:00	Philo 1. OG	**Poster – Interaction with VUV and X-ray Light (joint session A/MO)**
A 25.1–25.8	Wed	17:00–19:00	Philo 1. OG	**Poster – Cluster and Nanoparticles (joint session MO/A)**
A 26.1–26.32	Wed	17:00–19:00	Philo 2. OG	**Poster – Ultracold Matter (joint session Q/A)**
A 27.1–27.7	Thu	11:00–13:00	N 1	**Ultra-cold Atoms, Ions and BEC III (joint session A/Q)**
A 28.1–28.6	Thu	11:00–13:00	N 2	**Ultra-cold Plasmas and Rydberg Systems II (joint session A/Q)**
A 29.1–29.7	Thu	11:00–13:00	N 3	**Precision Spectroscopy of Atoms and Ions IV (joint session A/Q)**
A 30	Thu	13:15–14:00	N 25	**Members' Assembly**
A 31.1–31.8	Thu	14:30–16:30	N 1	**Ultra-cold Atoms, Ions and BEC IV (joint session A/Q)**
A 32.1–32.7	Thu	14:30–16:30	N 2	**Interaction with VUV and X-ray Light I (joint session A/MO)**
A 33.1–33.8	Thu	14:30–16:30	N 3	**Precision Spectroscopy of Atoms and Ions V (joint session A/Q)**
A 34.1–34.3	Thu	14:30–15:15	N 25	**Correlation Phenomena**
A 35.1–35.5	Thu	15:15–16:45	P 105	**Cluster and Nanoparticles (joint session MO/A)**
A 36.1–36.42	Thu	17:00–19:00	Philo 1. OG	**Poster – Ultra-cold Atoms, Ions and BEC (joint session A/Q)**
A 37.1–37.9	Thu	17:00–19:00	Philo 1. OG	**Poster – Ultra-cold Plasmas and Rydberg Systems (joint session A/Q)**
A 38.1–38.3	Thu	17:00–19:00	Philo 1. OG	**Poster – Collisions, Scattering and Correlation Phenomena (joint session A/MO)**
A 39.1–39.15	Thu	17:00–19:00	Philo 2. OG	**Poster – Precision Measurement (joint session Q/A)**
A 40.1–40.7	Fri	11:00–13:00	N 1	**Ultra-cold Atoms, Ions and BEC V (joint session A/Q)**
A 41.1–41.6	Fri	11:00–12:45	N 2	**Interaction with Strong or Short Laser Pulses II**
A 42.1–42.7	Fri	11:00–12:45	N 3	**Atomic Systems in External Fields II**
A 43.1–43.6	Fri	14:30–16:00	N 1	**Ultra-cold Atoms, Ions and BEC VI (joint session A/Q)**
A 44.1–44.4	Fri	14:30–15:30	N 3	**Precision Spectroscopy of Atoms and Ions VI (joint session A/Q)**

Members' Assembly of the Atomic Physics Division

Thursday 13:15–14:00 N 25