

Atomic Physics Division Fachverband Atomphysik (A)

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Overview of Invited Talks and Sessions

(Lecture halls a320, f107, f303; Poster Empore Lichthof)

Invited Talks

A 1.1	Mon	11:00–11:30	a320	Unraveling the mechanisms of single- and multiple-electron removal in energetic electron-ion collisions: from few-electron ions to extreme atomic systems. — ●ALEXANDER BOROVIK JR
A 2.1	Mon	11:00–11:30	f107	Highly nonlinear ionization of atoms induced by intense HHG pulses — BJÖRN SENFFTLER, MARTIN KRETSCHMAR, ANDREAS HOFFMANN, MARIO SAUPPE, JOHANNES TÜMLER, INGO WILL, TAMÁS NAGY, MARC J. J. VRAKING, DANIELA RUPP, ●BERND SCHÜTTE
A 3.1	Mon	11:00–11:30	f303	Creation of ultracold bosonic $^{23}\text{Na}^{39}\text{K}$ ground state molecules — ●KAI KONRAD VOGES, PHILIPP GERSEMA, TORSTEN HARTMANN, MARA MEYER ZUM ALTEN BORGLOH, TORBEN ALEXANDER SCHULZE, ALESSANDRO ZENESINI, SILKE OSPELKAUS
A 6.1	Mon	14:00–14:30	a320	Time-resolved X-ray Imaging of Anisotropic Nanoplasma Expansion — ●CHRISTIAN PELTZ, CHRISTOPH BOSTEDT, MATHIAS KLING, THOMAS BRABEC, ECKART RUEHL, ARTEM RUDENKO, TAIS GORKHOVER, THOMAS FENNEL
A 6.2	Mon	14:30–15:00	a320	Imaging anisotropic dynamics in superfluid helium nanodroplets — ●B. LANGBEHN, K. SANDER, Y. OVCHARENKO, C. PELTZ, A. CLARK, M. CORENO, R. CUCINI, A. DEMIDOVICH, M. DRABELLS, P. FINETTI, M. DI FRAIA, L. GIANNESI, C. GRAZIOLI, D. IABLONSKYI, A. C. LAForge, T. NISHIYAMA, V. OLIVER ÁLVAREZ DE LARA, P. PISERI, O. PLEKAN, K. UEDA, J. ZIMMERMANN, K. C. PRINCE, F. STIENKEMEIER, C. CALLEGARI, T. FENNEL, D. RUPP, T. MÖLLER
A 7.1	Mon	14:00–14:30	f107	Laser spectroscopy of the heaviest actinides — ●PREMADITYA CHHETRI, DIETER ACKERMANN, HARTMUT BACKE, MICHAEL BLOCK, BRADLEY CHEAL, CHRISTOPH EMANUEL DÜLLMANN, JULIA EVEN, RAFAEL FERRER, FRANCESCA GIACOPPO, STEFAN GÖTZ, FRITZ PETER HESSBERGER, MARK HUUSE, OLIVER KALEJA, JADAMBAA KHUYAGBAATAR, PETER KUNZ, MUSTAPHA LAATIAOUI, WERNER LAUTH, LOTTE LENS, ENRIQUE MINAYA RAMIREZ, ANDREW MISTRY, TOBIAS MURBÖCK, SEBASTIAN RAEDER, FABIAN SCHNIEDER, PIET VAN DUPPEN, THOMAS WALTHER, ALEXANDER YAKUSHEV
A 8.1	Mon	14:00–14:30	f303	Reducing their complexity and miniaturise BEC interferometers — ●WALDEMAR HERR, HENDRIK HEINE, ALEXANDER KASSNER, CHRISTOPH KÜNZLER, MARC C. WURZ, ERNST M. RASEL
A 10.1	Tue	14:00–14:30	a320	Scattering of twisted x-rays from a crystal — ●ANTON PESHKOV, STEPHAN FRITZSCHE, ANDREY SURZHYKOV
A 11.1	Tue	14:00–14:30	f107	Probing electronic wavefunctions and chiral structure using all-optical attosecond interferometry — ●MICHAEL KRÜGER, DORON AZOURY, OMER KNELLER, SHAKED ROZEN, BARRY D. BRUNER, ALEX CLERGERIE, BERNARD PONS, BAPTISTE FABRE, YANN MAIRESSE, OREN COHEN, OLGA SMIRNOVA, NIRIT DUDOVICH
A 12.1	Tue	14:00–14:30	f303	BECCAL - Quantum Gases on the ISS — ●LISA WÖRNER, CHRISTIAN SCHUBERT, JENS GROSSE, CLAUS BRAXMAIER, ERNST RASEL, WOLFGANG SCHLEICH, THE BECCAL COLLABORATION

A 15.1	Wed	11:00–11:30	f107	The ALPHATRAP g-factor experiment — •TIM SAILER, IOANNA ARAPOGLOU, ALEXANDER EGL, FELIX HAHNE, MARTIN HÖCKER, PETER MICKE, BINGSHENG TU, ANDREAS WEIGEL, JOSÉ R. CRESPO LÓPEZ-URRUTIA, SVEN STURM, KLAUS BLAUM
A 16.1	Wed	11:00–11:30	a320	Photoionization dynamics of many-electron atoms: an accelerated Green functions approach — •MICHAEL BONITZ, NICLAS SCHLÜNZEN, JAN-PHILIP JOOST, MAXIMILIAN RODRIGUEZ RASMUSSEN
A 17.1	Wed	11:00–11:30	f303	Fate of the Amplitude Mode in a Trapped Supersolid — •JENS HERTKORN, FABIAN BÖTTCHER, MINGYANG GUO, JAN-NIKLAS SCHMIDT, TIM LANGEN, HANS PETER BÜCHLER, TILMAN PFAU
A 19.1	Wed	14:00–14:30	f107	Fragmentation of HeH^+ in strong laser fields — •FLORIAN OPPERMAN, PHILIPP WUSTELT, SAURABH MHATRE, STEFANIE GRÄFE, GERHARD G. PAULUS, MANFRED LEIN
A 20.1	Wed	14:00–14:30	f303	Coherent laser spectroscopy of highly charged ions using quantum logic — •PETER MICKE, TOBIAS LEOPOLD, STEVEN A. KING, ERIK BENKLER, LUKAS J. SPIESS, LISA SCHMÖGER, MARIA SCHWARZ, JOSÉ R. CRESPO LÓPEZ-URRUTIA, PIET O. SCHMIDT
A 23.1	Thu	11:00–11:30	f107	Manipulating dissipative channels of highly excited systems — •STEFAN YOSHI BUHMANN
A 24.1	Thu	11:00–11:30	f303	Status update of the muonic hydrogen ground-state hyperfine splitting experiment — •A. OUF, R. POHL ON BEHALF OF THE CREMA COLLABORATION
A 25.1	Thu	14:00–14:30	a320	Anderson localization in a Rydberg composite — •MATTHEW EILES, ALEXANDER EISFELD, JAN-MICHAEL ROST
A 26.1	Thu	14:00–14:30	f107	Towards fast adaptive resonant x-ray optics — MIRIAM GERHARZ, •JÖRG EVERS
A 26.2	Thu	14:30–15:00	f107	Control of complex Fano resonances by shaped laser pulses — CAMILO GRANADOS, NICOLA MAYER, EVGENII IKONNIKOV, MISHA IVANOV, •OLEG KORNILOV
A 27.1	Thu	14:00–14:30	f303	Dynamics of a mobile hole in a Hubbard antiferromagnet — •MARTIN LEBRAT, GEOFFREY JI, MUQING XU, CHRISTIE CHIU, MARKUS GREINER
A 29.1	Fri	11:00–11:30	b305	Coherent facilitation dynamics in Rydberg atomic lattice quantum simulators — •PAOLO PIETRO MAZZA, RICHARD SCHMIDT, IGOR LESANOVSKY
A 30.1	Fri	11:00–11:30	f303	Interaction-induced lattices for bound states: Designing flat bands, quantized pumps and higher-order topological insulators for doublons — •GRAZIA SALERNO, GIANDOMENICO PALUMBO, NATHAN GOLDMAN, MARCO DI LIBERTO

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	Photoelectron circular dichroism in the light of resonance enhanced multi-photon ionization — •THOMAS BAUMERT
SYCU 1.2	Mon	11:30–12:00	e415	New strategies for controlled chirality from the rovibrational dynamics of molecules — •ANDREY YACHMENEV
SYCU 1.3	Mon	12:00–12:30	e415	Time-dependency in Photoelectron Circular Dichroism: from femtosecond scale to attosecond — •VALERIE BLANCHET
SYCU 1.4	Mon	12:30–13:00	e415	Synthetic chiral light for efficient control of chiral light-matter interaction — •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	Atom interferometry and its applications for gravity sensing — •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	Atom interferometry for advanced geodesy and gravitational wave observation — •PHILIPPE BOUYER
SYAI 1.3	Mon	15:00–15:30	e415	Fundamental physics with atom interferometry — •PAUL HAMILTON
SYAI 1.4	Mon	15:30–16:00	e415	Atoms and molecules interacting with light — •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	Electron Pulse Control with Terahertz Fields — •DOMINIK EHBERGER
SYAD 1.2	Tue	11:30–12:00	e415	Laser-Based High-Voltage Metrology with ppm Accuracy — •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	Structured singular light fields — •EILEEN OTTE
SYAD 1.4	Tue	12:30–13:00	e415	Coherent Coupling of a Single Molecule to a Fabry-Perot Microcavity — •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	The unity of physics: the beauty and power of spectroscopy — •PAUL JULIENNE
SYQL 1.2	Thu	11:30–12:00	e415	Using spectroscopy to explore the Rb₂ molecule and its formation — •JOHANNES HECKER DENSCHLAG
SYQL 1.3	Thu	12:00–12:30	e415	Cold molecules: a chemistry kitchen for physicists — •OLIVIER DULIEU
SYQL 1.4	Thu	12:30–13:00	e415	The birth of a degenerate Fermi gas of molecules — •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	Trapped Laser-cooled Molecules for Quantum Simulation, Particle Physics, and Collisions — •JOHN DOYLE
SYCM 1.2	Fri	11:30–12:00	e415	Cold polyatomic molecules — •GERHARD REMPE
SYCM 1.3	Fri	12:00–12:30	e415	Collisions between laser-cooled molecules and atoms — •MICHAEL TARBUTT
SYCM 1.4	Fri	12:30–13:00	e415	Collisions between cold molecules in a superconducting magnetic trap — •EDVARDAS NAREVICIUS

Sessions

A 1.1–1.5	Mon	11:00–12:30	a320	Highly charged ions and their applications
A 2.1–2.8	Mon	11:00–13:15	f107	Attosecond physics I
A 3.1–3.7	Mon	11:00–13:00	f303	Ultracold atoms, ions, and BEC I (joint session A/Q)
A 4.1–4.8	Mon	11:00–13:15	f102	Clusters I (joint session MO/A)
A 5	Mon	13:15–13:45	f107	Annual general meeting
A 6.1–6.7	Mon	14:00–16:15	a320	Atomic clusters (joint session A/MO)
A 7.1–7.7	Mon	14:00–16:00	f107	Precision spectroscopy of atoms and ions I
A 8.1–8.7	Mon	14:00–16:00	f303	Ultra-cold atoms, ions, and BEC II (joint session A/Q)
A 9.1–9.23	Mon	16:00–18:00	Empore Lichthof	Poster Session - Atomic Physics I
A 10.1–10.8	Tue	14:00–16:15	a320	Collisions, scattering and correlation phenomena

A 11.1–11.7	Tue	14:00–16:00	f107	Attosecond physics II
A 12.1–12.7	Tue	14:00–16:00	f303	Ultracold atoms, ions, and BEC III (joint session A/Q)
A 13.1–13.7	Tue	14:00–15:45	f142	Clusters II (joint session MO/A)
A 14.1–14.30	Tue	16:00–18:00	Empore Lichthof	Poster Session - Atomic Physics II
A 15.1–15.8	Wed	11:00–13:15	f107	Precision spectroscopy of atoms and ions II
A 16.1–16.8	Wed	11:00–13:15	a320	Interaction with strong or short laser pulses I
A 17.1–17.7	Wed	11:00–13:00	f303	Ultracold atoms, ions, and BEC IV (joint session A/Q)
A 18.1–18.1	Wed	13:10–13:55	f303	Lunch talk: German Research Foundation (DFG) (joint session A/K/P/MO/MS/Q)
A 19.1–19.8	Wed	14:00–16:15	f107	Interaction with strong or short laser pulses II
A 20.1–20.7	Wed	14:00–16:00	f303	Precision spectroscopy of atoms and ions III
A 21.1–21.8	Wed	14:00–16:00	f342	Ultracold plasmas and Rydberg systems I (joint session Q/A)
A 22.1–22.28	Wed	16:00–18:00	Empore Lichthof	Poster Session - Atomic Physics III
A 23.1–23.7	Thu	11:00–13:00	f107	Interaction with VUV and X-ray light I
A 24.1–24.7	Thu	11:00–13:00	f303	Ultracold atoms, ions, and BEC V (joint session A/Q)
A 25.1–25.6	Thu	14:00–15:45	a320	Ultra-cold plasmas and Rydberg systems II (joint session A/Q)
A 26.1–26.6	Thu	14:00–16:00	f107	Interaction with VUV and X-ray light II
A 27.1–27.6	Thu	14:00–15:45	f303	Ultra-cold atoms, ions, and BEC VI (joint session A/Q)
A 28.1–28.33	Thu	16:00–18:00	Empore Lichthof	Poster Session - Atomic Physics IV
A 29.1–29.7	Fri	11:00–13:00	b305	Ultra-cold plasmas and Rydberg systems III (joint session A/Q)
A 30.1–30.7	Fri	11:00–13:00	f303	Ultra-cold atoms, ions, and BEC VII (joint session A/Q)

Annual General Meeting of the Atomic Physics Division

Monday 13:15–13:45 f107

- Bericht
- Wahl
- Verschiedenes