

Atomic Physics Division Fachverband Atomphysik (A)

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Overview of Invited Talks and Sessions

(Lecture rooms S HS 1 Physik, S HS 2 Physik, and S HS 3 Physik; Poster S Fobau Physik)

Invited Talks

A 4.1	Mon	10:30–11:00	S HS 3 Physik	Odd electron wave packets from cycloidal ultrashort laser fields — •STEFANIE KERBSTADT, KEVIN EICKHOFF, TIM BAYER, MATTHIAS WOLLENHAUPT
A 6.1	Mon	14:00–14:30	S HS 2 Physik	Laser spectroscopy of transfermium elements — •S. RAEDER, D. ACKERMANN, H. BACKE, M. BLOCK, B. CHEAL, P. CHHETRI, CH. E. DÜLLMANN, M. EIBACH, J. EVEN, R. FERRER, F. GIACOPPO, S. GÖTZ, F.P. HESSBERGER, O. KALEJA, J. KHUYAGBAATAR, P. KUNZ, M. LAATIAOUI, W. LAUTH, L. LENS, N. LECESNE, A. K. MISTRY, E. MINAYA RAMIREZ, T. MURBÖCK, P. VAN DUPPEN, TH. WALTHER, A. YAKUSHEV
A 7.1	Mon	14:00–14:30	S HS 3 Physik	Multielectron polarization effects and ionization of the hydrogen molecule within the semiclassical two-step model — •NIKOLAY SHVETSOV-SHILOVSKI, MANFRED LEIN, LARS MADSEN, KAROLY TOKESI
A 9.1	Mon	16:15–16:45	S HS 2 Physik	Non-equilibrium Dynamics of Ion Coulomb Systems — •TANJA E. MEHLSTÄUBLER
A 10.5	Mon	17:15–17:45	S HS 3 Physik	Towards testing physics beyond the Standard Model with the bound-electron g factor — •VINCENT DEBIERRE, CHRISTOPH H. KEITTEL, ZOLTÁN HARMAN
A 15.1	Wed	10:30–11:00	S HS 3 Physik	Decomposition of the Temporal and Spectral Response in Attosecond Transient Absorption Spectroscopy — •LORENZ DRESCHER, VISHAL SHOKEEN, TOBIAS WITTING, SERGUEI PATCHKOVSKII, MARC VRACKING, JOCHEN MIKOSCH
A 18.7	Wed	15:30–16:00	S HS 2 Physik	Towards a precise energy determination of the ^{229}Th nuclear isomer — •BENEDICT SEIFERLE, LARS V.D. WENSE, INES AMERSORFFER, PETER G. THIROLF
A 19.1	Wed	14:00–14:30	S HS 3 Physik	Imaging ultrafast dynamics in nanoparticles with resonant multicolor XUV pulses — L HECHT, B LANGBEHN, J ZIMMERMANN, J JORDAN, K KOLATZKI, N MONSERUD, Y OVCHARENKO, M SAUPPE, B SCHÜTTE, R TANYAG, A ULMER, B KRUSE, K SANDER, C PELTZ, A COLOMBO, A D'ELIA, M DI FRAIA, L GIANNESI, P PISERI, O PLEKAN, K PRINCE, M ZANGRANDO, C CALLEGARI, MJJ VRACKING, A ROUZÉE, T MÖLLER, T FENNEL, •D RUPP
A 19.2	Wed	14:30–15:00	S HS 3 Physik	Multi-coincidence experiments on electron and photon emission — •ANDRE KNIE
A 31.8	Thu	15:45–16:15	S HS 1 Physik	String patterns in the doped Hubbard model — •DANIEL GREIF
A 32.1	Thu	14:00–14:30	S HS 3 Physik	Time-resolved dynamics of slow photoelectrons in the rescattering regime — •MARTIN RANKE, SOPHIE WALTHER, ANASTASIOS DIMITRIOU, MARK J. PRANDOLINI, MARKUS PFAU, THOMAS GEBERT, MAREK WIELAND, MARKUS DRESCHER, ULRIKE FRÜHLING
A 36.1	Fri	10:30–11:00	S HS 3 Physik	Attoclock with tailored polarization — NICOLAS EICKE, •MANFRED LEIN

A 36.2	Fri	11:00–11:30	S HS 3 Physik	Chiral fragmentation of a planar molecule — •KILIAN FEHRE, SEBASTIAN ECKART, MAKSIM KUNITSKI, MARTIN PITZER, STEFAN ZELLER, CHRISTIAN JANKE, DANIEL TRABERT, JONAS RIST, MIRIAM WELLER, ALEXANDER HARTUNG, LOTHAR SCHMIDT, TILL JAHNKE, ROBERT BERGER, REINHARD DÖRNER, MARKUS SCHÖFFLER
A 36.3	Fri	11:30–12:00	S HS 3 Physik	Simple and robust control of resonant few-photon ionization — •ULF SAALMANN

Invited talks of the joint symposium SYPS

See SYPS for the full program of the symposium.

SYPS 1.1	Mon	14:00–14:30	U Audimax	Optimal control of many-body quantum systems — •SIMONE MONTANGERO
SYPS 1.2	Mon	14:30–15:00	U Audimax	Light matter quantum interface based on single colour centres in diamond — •FEDOR JELEZKO
SYPS 1.3	Mon	15:00–15:30	U Audimax	Principles of Quantum Systems Theory and Control Engineering — •THOMAS SCHULTE-HERBRÜGGEN
SYPS 1.4	Mon	15:30–16:00	U Audimax	Quantum metrology with Rydberg atoms — •SEBASTIEN GLEYZES, ARTHUR LARROUY, REMI RICHAUD, SABRINA PATSCH, JEAN-MICHEL RAIMOND, MICHEL BRUNE, CHRISTIANE KOCH

Invited talks of the joint symposium SYAD

See SYAD for the full program of the symposium.

SYAD 1.1	Tue	10:30–11:00	U Audimax	Quantum States and their Marginals: from Multipartite Entanglement to Quantum Error-Correcting Codes — •FELIX HUBER
SYAD 1.2	Tue	11:00–11:30	U Audimax	The Uniform Electron Gas at Warm Dense Matter Conditions — •SIMON GROTH
SYAD 1.3	Tue	11:30–12:00	U Audimax	Relativistically intense laser-microplasma interactions (and potential applications) — •TOBIAS OSTERMAYER
SYAD 1.4	Tue	12:00–12:30	U Audimax	Motional quantum state engineering for quantum logic spectroscopy of molecular ions — •FABIAN WOLF

Invited talks of the joint symposium SYSI

See SYSI for the full program of the symposium.

SYSI 1.1	Wed	10:30–11:00	U Audimax	The redefinition of the SI in November 2018 — •TERRY QUINN
SYSI 1.2	Wed	11:00–11:30	U Audimax	Quantum Hall effect and the new SI — •KLAUS VON KLITZING
SYSI 1.3	Wed	11:30–12:00	U Audimax	The electron charge for the definition and realisation of the ampere — •JAN-THEODOOR JANSSEN
SYSI 1.4	Wed	12:00–12:30	U Audimax	The Planck constant and the realization of the kilogram — •STEPHAN SCHLAMMINGER

Invited talks of the joint symposium SYXR

See SYXR for the full program of the symposium.

SYXR 1.1	Thu	14:00–14:30	U Audimax	Superradiance of an ensemble of nuclei excited by a free electron laser — •ALEKSANDR CHUMAKOV
SYXR 1.2	Thu	14:30–15:00	U Audimax	Quantum imaging with incoherently scattered light from a Free-Electron Laser — •JOACHIM VON ZANTHIER
SYXR 1.3	Thu	15:00–15:30	U Audimax	Stimulated X-Ray Emission Spectroscopy for Chemical Analysis — •NINA ROHRINGER
SYXR 1.4	Thu	15:30–16:00	U Audimax	X-Ray Multiphoton Ionization of Atoms and Molecules — •DANIEL ROLLES

Invited talks of the joint symposium SYQM

See SYQM for the full program of the symposium.

SYQM 1.1	Fri	10:30–11:00	U Audimax	Robust symmetry-protected metrology with a topological phase — •STEPHEN BARTLETT, GAVIN BRENNEN, AKIMASA MIYAKE
SYQM 1.2	Fri	11:00–11:30	U Audimax	Diamond quantum sensors for nanoscale magnetic resonance — •FEDOR JELEZKO
SYQM 1.3	Fri	11:30–12:00	U Audimax	Quantum metrology for subdiffraction incoherent optical imaging — •MANKEI TSANG
SYQM 1.4	Fri	12:00–12:30	U Audimax	Learning Hamiltonians using quantum and classical resources — •NATHAN WIEBE

Sessions

A 1.1–1.2	Sun	16:00–18:00	U HS 326	Tutorial X-Ray Lasers (joint session AKjDPG/A)
A 2.1–2.7	Mon	10:30–12:15	S HS 1 Physik	Ultra-cold atoms and molecules I (joint session A/MO/Q)
A 3.1–3.8	Mon	10:30–12:30	S HS 2 Physik	Precision Spectroscopy of atoms and ions I (joint session A/Q)
A 4.1–4.7	Mon	10:30–12:30	S HS 3 Physik	Atomic systems in external fields
A 5.1–5.8	Mon	14:00–16:00	S HS 1 Physik	Ultra-cold atoms and molecules II (joint session A/MO/Q)
A 6.1–6.6	Mon	14:00–15:45	S HS 2 Physik	Precision Spectroscopy of atoms and ions II (joint session A/Q)
A 7.1–7.7	Mon	14:00–16:00	S HS 3 Physik	Interaction with strong or short laser pulses
A 8.1–8.6	Mon	16:15–17:45	S HS 1 Physik	Ultra-cold atoms, ions and BEC (joint session A/Q)
A 9.1–9.6	Mon	16:15–18:00	S HS 2 Physik	Precision Spectroscopy of atoms and ions III (joint session A/Q)
A 10.1–10.5	Mon	16:15–17:45	S HS 3 Physik	Highly charged ions and their applications
A 11.1–11.15	Tue	16:30–18:30	S Fobau Physik	Ultra-cold plasmas and Rydberg systems
A 12.1–12.30	Tue	16:30–18:30	S Fobau Physik	Ultra-cold atoms, ions and BEC
A 13.1–13.8	Wed	10:30–12:30	S HS 1 Physik	Ultra-cold atoms (joint session A/Q)
A 14.1–14.7	Wed	10:30–12:15	S HS 2 Physik	Precision Spectroscopy of atoms and ions IV
A 15.1–15.7	Wed	10:30–12:30	S HS 3 Physik	Attosecond physics
A 16	Wed	12:45–13:45	S HS 1 Physik	FV Atomic Physics: General Assembly
A 17.1–17.8	Wed	14:00–16:00	S HS 1 Physik	Ultra-cold plasmas and Rydberg systems (joint session A/Q)
A 18.1–18.7	Wed	14:00–16:00	S HS 2 Physik	Precision Spectroscopy of atoms and ions V (Th 229)
A 19.1–19.7	Wed	14:00–16:15	S HS 3 Physik	Cluster I (joint session A/MO)
A 20.1–20.8	Wed	14:00–16:00	S HS 002 Biologie	Cold Molecules (joint session MO/A)
A 21.1–21.10	Wed	16:15–18:15	S Fobau Physik	Cluster II (joint session A/MO)
A 22.1–22.7	Wed	16:15–18:15	S Fobau Physik	Highly charged ions and their applications
A 23.1–23.3	Wed	16:15–18:15	S Fobau Physik	Collisions, scattering and correlation phenomena
A 24.1–24.1	Wed	16:15–18:15	S Fobau Physik	Atomic collisions and ultracold plasmas
A 25.1–25.9	Wed	16:15–18:15	S Fobau Physik	Attosecond physics
A 26.1–26.7	Wed	16:15–18:15	S Fobau Physik	Atomic systems in external fields
A 27.1–27.6	Thu	10:30–12:00	S HS 1 Physik	Quantum gases (Bosons) (joint session A/Q)
A 28.1–28.8	Thu	10:30–12:30	S HS 3 Physik	Interaction with VUV and X-ray light
A 29.1–29.7	Thu	10:30–12:30	S HS 001 Biologie	Cluster III (joint session MO/A)
A 30.1–30.8	Thu	10:30–12:30	S HS 002 Biologie	Atomic Physics, Molecular Physics, and Quantum Optics with X-ray FELs (joint session MO/A)
A 31.1–31.8	Thu	14:00–16:15	S HS 1 Physik	Quantum gases (Fermions) (joint session A/Q)
A 32.1–32.7	Thu	14:00–16:00	S HS 3 Physik	Collisions, scattering and correlation phenomena
A 33.1–33.10	Thu	16:15–18:15	S Fobau Physik	Interaction with strong and short laser pulses
A 34.1–34.8	Thu	16:15–18:15	S Fobau Physik	Interaction with VUV and X-ray light
A 35.1–35.22	Thu	16:15–18:15	S Fobau Physik	Precision Spectroscopy of atoms and ions
A 36.1–36.4	Fri	10:30–12:15	S HS 3 Physik	Quantum dynamics in tailored waveforms

Annual General Meeting of the Atomic Physics Division

Wednesday 12:45–13:45 S HS 1 Physik