

Atomic Physics Division (A)

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Overview of Invited Talks and Sessions

(lecture rooms A 320, B 302, E 415, F 107, F 142, F 303; poster Lichthof)

Invited Talks

A 1.1	Mo	14:00–14:30	F 303	Quantum Dynamics Visualized by Reaction Microscopes: From intense virtual towards real attosecond photon fields — •JOACHIM ULLRICH, ROBERT MOSHAMMER
A 1.2	Mo	14:30–15:00	F 303	Strong Field Dynamics Studied with Ion and Electron Momentum Imaging — •LEWIS COCKE, DIPANWITA RAY, SANKAR DE, WEI CAO, GUILLAUME LAURENT, CHIDONG LIN, AT LE, ZHANGJIN CHEN, FENG HE, UWE THUMM
A 1.3	Mo	15:00–15:30	F 303	Breaking the longest bond – Photoionization of the Helium Dimer — •R. DÖRNER, T. HAVERMEIER, H. SANN, T. JAHNKE, M. SCHÖFFLER, J. TITZE, N. NEUMANN, K. KREIDI, R. WALLAUER, S. VOSS, L. PH. H. SCHMIDT, H. SCHMIDT-BÖCKING, R. GRISENTI, W. SCHÖLLKOPF
A 1.4	Mo	15:30–16:00	F 303	Complete (e,2e) experiments with COLTRIMS — •ALEXANDER DORN
A 4.1	Mo	16:30–17:00	F 303	A hitherto unrecognized source of low-energy electrons in water — •MELANIE MUCKE, MARKUS BRAUNE, SILKO BARTH, MARKO FÖRSTEL, TORALF LISCHKE, VOLKER ULRICH, TIBERIU ARION, UWE BECKER, ALEX M. BRADSHAW, UWE HERGENHAHN
A 4.6	Mo	18:00–18:30	F 303	Two-Center Interference in Valence Photoionization of N₂ and O₂ — •MARKUS BRAUNE, MARKUS ILCHEN, SANJA KORICA, ANDRE MEISSNER, LOKESH TRIBEDI, SASCHA DEINERT, LEIF GLASER, FRANK SCHOLZ, PETER WALTER, JENS VIEFHAUS, UWE BECKER
A 6.1	Tu	14:00–14:30	F 303	Probing weakly bound molecules with nonresonant light — •MIKHAIL LEMESHKO, BRETISLAV FRIEDRICH
A 10.1	We	10:30–11:00	F 107	The promises and challenges of precision spectroscopy of cold molecules — •STEVEN HOEKSTRA
A 12.1	We	14:00–14:30	F 303	Sequential two-photon double ionization of atoms in intense FEL radiation — •STEPHAN FRITZSCHE, ALEXEI N. GRUM-GRZHIMAILO, ELENA V. GRYZLOVA, NIKOLAY M. KABACHNIK
A 12.2	We	14:30–15:00	F 303	Few-body physics with ultracold atoms — •SELIM JOCHIM, THOMAS LOMPE, MARTIN RIES, FRIEDHELM SERWANE, PHILIPP SIMON, ANDRE WENZ, GERHARD ZÜRN
A 13.1	We	14:00–14:30	F 107	Testing strong-field CED and QED with intense laser fields — •ANTONINO DI PIAZZA, KAREN Z. HATSAGORTSYAN, BEN KING, CHRISTOPH H. KEITEL
A 14.1	We	16:30–17:00	F 303	Stochastic Resonance Effects in open Bose-Einstein condensates — •DIRK WITTHAUT, FRIEDERIKE TRIMBORN, SANDRO WIMBERGER
A 14.2	We	17:00–17:30	F 303	CRASY: Correlated Rotational Alignment Spectroscopy — •THOMAS SCHULTZ
A 19.1	Th	10:30–11:00	B 302	Bound by reflection: Binding mechanisms of ultralong range Rydberg molecules — •WEIBIN LI
A 20.1	Th	14:00–14:30	F 303	The hydrated electron studied by fs-photoelectron spectroscopy — •ANDREA LÜBCKE, FRANZISKA BUCHNER, NADJA HEINE, THOMAS SCHULTZ, INGOLF VOLKMAR HERTEL
A 20.2	Th	14:30–15:00	F 303	Surface Quantum Optics: from Casimir-Polder forces to optical near-fields — •SEBASTIAN SLAMA
A 21.1	Th	14:00–14:30	F 107	Acceleration of neutral atoms in strong short pulse laser fields — •ULLI EICHMANN

A 24.1	Fr	10:30–11:00	F 303	Interacting Bosonic and Fermionic Atoms in 3D Optical Lattice Potentials — ●SEBASTIAN WILL, THORSTEN BEST, SIMON BRAUN, PHILIPP RONZHEIMER, ULRICH SCHNEIDER, MICHAEL SCHREIBER, KIN CHUNG FONG, LUCIA HACKERMÜLLER, IMMANUEL BLOCH
A 24.2	Fr	11:00–11:30	F 303	Dressing of Ground State Atoms by Rydberg States in a Ioffe-Pritchard Trap — ●MICHAEL MAYLE, IGOR LESANOVSKY, PETER SCHMELCHER
A 26.1	Fr	10:30–11:00	B 302	Electron-initiated Chemistry — SLIM CHOUROU, VALERY NGASSAM, ASA LARSON, ●ANN OREL
A 26.2	Fr	11:00–11:30	B 302	Astrophysically motivated electron collisions studies on M-shell iron ions — ●MICHAEL LESTINSKY, OLDŘICH NOVOTNÝ, MICHAEL HAHN, DIETRICH BERNHARDT, STEFAN SCHIPPERS, ALFRED MÜLLER, CLAUDE KRANTZ, MANFRED GRIESER, ROLAND REPNOW, ANDREAS WOLF, NIGEL BADNELL, DANIEL WOLF SAVIN

Invited talks of the joint symposium SYFC

See SYFC for the full program of the Symposium.

SYFC 1.1	Mo	14:00–14:30	A 001	Fundamental constants, gravitation and cosmology — ●JEAN-PHILIPPE UZAN
SYFC 1.2	Mo	14:30–15:00	A 001	Molecular hydrogen in the lab and in the early universe; search for varying μ — ●WIM UBACHS
SYFC 1.3	Mo	15:00–15:30	A 001	Stability of the proton-to-electron mass ratio tested with molecular spectroscopy using an optical link to frequency reference — ●ANNE AMY-KLEIN, ALEXANDER SHELKOVNIKOV, ROBERT J. BUTCHER, OLIVIER LOPEZ, CHRISTOPHE DAUSSY, HAIFENG JIANG, FABIEN KÉFÉLIAN, GIORGIO SANTARELLI, CHRISTIAN CHARDONNET
SYFC 1.4	Mo	15:30–16:00	A 001	Optical clocks with trapped ions and the search for variations of fundamental constants — ●EKKEHARD PEIK
SYFC 2.1	Mo	16:30–17:00	A 001	Gravitational and cosmological probes of varying fundamental parameters — ●THOMAS DENT
SYFC 2.2	Mo	17:00–17:30	A 001	The astrophysical search for varying fundamental constants — ●NILS PRAUSE

Invited talks of the joint symposium SYDP

See SYDP for the full program of the Symposium.

SYDP 1.1	Mo	16:30–17:00	F 107	Experimental all-optical one-way quantum computing — ●ROBERT PREVEDEL
SYDP 1.2	Mo	17:00–17:30	F 107	Benchmarks and statistics of entanglement dynamics — ●MARKUS TIER-SCH
SYDP 1.3	Mo	17:30–18:00	F 107	Squeezed Light For Gravitational Wave Astronomy — ●HENNING VAHLBRUCH
SYDP 1.4	Mo	18:00–18:30	F 107	High-precision mass measurements with Penning traps — ●SEBASTIAN GEORGE

Invited talks of the joint symposium SYDC

See SYDC for the full program of the Symposium.

SYDC 1.1	Tu	14:00–14:30	E 415	Environment-induced Decoherence of Quantum States: An Introduction — ●HEINZ-PETER BREUER
SYDC 1.2	Tu	14:30–15:00	E 415	Fighting Decoherence: Quantum Information Science with Trapped Ca^+ Ions — T. MONZ, K. KIM, A. VILLAR, P. SCHINDLER, M. CHWALLA, M. RIEBE, C. F. ROOS, H. HÄFFNER, W. HÄNSEL, M. HENNRICH, ●R. BLATT
SYDC 1.3	Tu	15:00–15:30	E 415	Decoherence phenomena in molecular systems: Localization of matter waves & stabilization of chiral configuration states — ●KLAUS HORNBERGER
SYDC 1.4	Tu	15:30–16:00	E 415	Decoherence of free electron waves and visualization of the transition from quantum- to classical-behaviour — ●FRANZ HASSELBACH

SYDC 2.1	Tu	16:30–17:00	E 415	Coherence and the loss of it in molecular photoionization — ●UWE HERGENHAHN
SYDC 2.2	Tu	17:00–17:30	E 415	Decoherence in fermionic interferometers — ●FLORIAN MARQUARDT
SYDC 2.3	Tu	17:30–18:00	E 415	Quantum diffusion in gravitational waves backgrounds — ●SERGE REYNAUD, BRAHIM LAMINE, RÉMY HERVÉ, ASTRID LAMBRECHT
SYDC 2.4	Tu	18:00–18:30	E 415	Quantum coherence and decoherence in biological systems — ●MARTIN PLENIO

Invited talks of the joint symposium SYLA

See SYLA for the full program of the Symposium.

SYLA 1.1	We	14:00–14:30	E 415	How the laser happend — ●HERBERT WELLING
SYLA 1.2	We	14:30–15:00	E 415	The origin of the quantum theory of lasing — ●FRITZ HAAKE
SYLA 1.3	We	15:00–15:30	E 415	Lasers for precision measurements — ●THOMAS UDEM
SYLA 1.4	We	15:30–16:00	E 415	Short, Ultra Short, Atto Short — ●DIETRICH VON DER LINDE
SYLA 2.1	We	16:30–17:00	E 415	Our Daily Life with Semiconductor Lasers — ●DIETER BIMBERG
SYLA 2.2	We	17:00–17:30	E 415	Power to the Industry - the story of Laser upscaling — ●REINHART POPRAWE
SYLA 2.3	We	17:30–18:00	E 415	The Outstanding Qualities of Fiber Lasers and Thin Disk Lasers — ●ADOLF GIESEN
SYLA 2.4	We	18:00–18:30	E 415	Solid State Lasers:meeting the challenges of the 21st Century — ●ROBERT L. BYER

Invited talks of the joint symposium SYSA

See SYSA for the full program of the Symposium.

SYSA 1.1	Th	10:30–11:00	A 320	Cavity EIT with single atoms — ●STEPHAN RITTER, MARTIN MÜCKE, EDEN FIGUEROA, JÖRG BOCHMANN, CAROLIN HAHN, CELSO J. VILLAS-BOAS, GERHARD REMPE
SYSA 1.2	Th	11:00–11:30	A 320	Optical detection of single trapped atoms with less than one spontaneous emission — JÜRGEN VOLZ, ROGER GEHR, GUILHEM DUBOIS, JÉRÔME ESTÈVE, ●JAKOB REICHEL
SYSA 1.3	Th	11:30–12:00	A 320	Substantial interaction between a single atom and a focused light beam — ●GLEB MASLENNIKOV, SYED ABDULLAH ALJUNID, BRENDA CHNG, FLORIAN HUBER, MENG KHOON TEY, TIMOTHY LIEW, VALERIO SCARANI, CHRISTIAN KURTSIEFER
SYSA 1.4	Th	12:00–12:30	A 320	Exploring Quantum Physics with Single Neutral Atoms — ●ARTUR WIDERA
SYSA 2.1	Th	14:00–14:30	A 320	Detecting single ultra cold atoms — ●JÖRG SCHMIEDMAYER
SYSA 2.2	Th	14:30–15:00	A 320	Entanglement of two individual neutral atoms using Rydberg blockade — ●TATJANA WILK, ALPHA GAËTAN, CHARLES EVELLIN, JANIK WOLTERS, YEVHEN MIROSHNYCHENKO, PHILIPPE GRANGIER, ANTOINE BROWAEYS

Invited talks of the joint symposium SYDI

See SYDI for the full program of the Symposium.

SYDI 1.1	Fr	10:30–11:00	E 415	Flash diffraction imaging with X-ray lasers — ●JANOS HAJDU
SYDI 1.2	Fr	11:00–11:30	E 415	The hitchhikers guide to cryo-electron tomography - A voyage to the inner space of cells — ●JUERGEN PLITZKO
SYDI 1.3	Fr	11:30–12:00	E 415	Far-Field Optical Nanoscopy by Optical Switching — ●ANDREAS SCHÖNLE, STEFAN HELL
SYDI 1.4	Fr	12:00–12:30	E 415	Coherent Diffractive Imaging at LCLS — ●HENRY CHAPMAN
SYDI 2.1	Fr	14:00–14:30	E 415	High Harmonic Generation from Molecules: Prospects for ultra-fast imaging of molecular structure and dynamics — ●JONATHAN MARANGOS
SYDI 2.2	Fr	14:30–15:00	E 415	Time-resolved diffraction from selectively aligned molecules — ●ERNST FILL, MARTIN CENTURION, PETER RECKENTHÄLER, WERNER FUSS, FERENC KRAUSZ

SYDI 2.3	Fr	15:00–15:30	E 415	Imaging Molecules from Within: Ultra-fast Structure Determination of Molecules via Photoelectron Holography with Free Electron Lasers. — ●JOACHIM ULLRICH, FATON KRASNIQI, BENNAEUR NAJJARI, ALEXANDER VOITKIV, SASCHA EPP, DANIEL ROLLES, ARTEM RUDENKO, LOTHAR STRÜDER
SYDI 2.4	Fr	15:30–16:00	E 415	Ultrafast processes and imaging of clusters — ●THOMAS MÖLLER

Invited talks of the joint symposium SYPS

See SYPS for the full program of the Symposium.

SYPS 1.1	Fr	11:00–11:30	A 001	Status of QED tests in heavy highly charged ions — ●PAUL INDELICATO
SYPS 1.2	Fr	11:30–12:00	A 001	Penning trap mass spectrometry with highly charged ions — ●SZILARD NAGY
SYPS 1.3	Fr	12:00–12:30	A 001	Diagnostic of Hot Dense Plasmas by Advanced XUV and X-ray Spectroscopy — ●INGO USCHMANN
SYPS 1.4	Fr	12:30–13:00	A 001	Measurements of masses and beta-lifetimes of stored exotic highly charged ions — ●FRITZ BOSCH
SYPS 2.1	Fr	14:00–14:30	A 001	Exciting and ionizing trapped highly charged ions with electrons and photons in an EBIT — ●JOSÉ R. CRESPO LOPÉZ-URRUTIA
SYPS 2.2	Fr	14:30–15:00	A 001	Precision x-ray spectroscopy of intense laser-plasma interaction experiments — ●NIGEL WOOLSEY

Sessions

A 1.1–1.4	Mo	14:00–16:00	F 303	COLTRIMS-based Collision Physics (exchanged with A4)
A 2.1–2.8	Mo	14:00–16:00	F 107	Atomic Systems in External Fields I
A 3.1–3.8	Mo	14:00–16:00	A 320	Ultra-Cold Atoms: Trapping and Cooling (with Q)
A 4.1–4.6	Mo	16:30–18:30	F 303	Photoionization I (exchanged with A1)
A 5.1–5.9	Mo	16:30–19:00	A 320	Ultra-Cold Atoms: Rydberg Gases / Miscellaneous (with Q)
A 6.1–6.7	Tu	14:00–16:00	F 303	Ultra-Cold Atoms, Ions and BEC I (with Q)
A 7.1–7.8	Tu	14:00–16:00	A 320	Ultra-Cold Atoms: Manipulation and Detection (with Q)
A 8.1–8.56	Tu	16:30–19:00	Lichthof	Poster I
A 9.1–9.8	We	10:30–12:30	F 303	Ultra-Cold Atoms, Ions and BEC II (with Q)
A 10.1–10.7	We	10:30–12:30	F 107	Precision Spectroscopy of Atoms and Ions I
A 11.1–11.8	We	10:30–12:30	B 302	Interaction with VUV and X-Ray Light I
A 12.1–12.6	We	14:00–16:00	F 303	Atomic Clusters I
A 13.1–13.7	We	14:00–16:00	F 107	Interaction with Strong or Short Laser Pulses I
A 14.1–14.5	We	16:30–18:15	F 303	Atomic Clusters II
A 15.1–15.8	We	16:30–18:30	F 107	Attosecond Physics I
A 16.1–16.4	We	16:30–17:45	A 320	Ultra-Cold Atoms: Single Atoms (with Q)
A 17.1–17.8	Th	10:30–12:30	F 303	Ultra-Cold Atoms, Ions and BEC III (with Q)
A 18.1–18.9	Th	10:30–12:45	F 107	Precision Spectroscopy of Atoms and Ions II
A 19.1–19.7	Th	10:30–12:30	B 302	Ultra-Cold Plasmas and Rydberg System
A 20.1–20.6	Th	14:00–16:00	F 303	Atomic Clusters III (with MO)
A 21.1–21.7	Th	14:00–16:00	F 107	Interaction with Strong or Short Laser Pulses I
A 22.1–22.4	Th	14:00–15:00	F 142	Cold Molecules (with MO)
A 23.1–23.57	Th	16:30–19:00	Lichthof	Poster II
A 24.1–24.5	Fr	10:30–12:15	F 303	Atomic Clusters IV
A 25.1–25.9	Fr	10:30–12:45	F 107	Precision Spectroscopy of Atoms and Ions III
A 26.1–26.7	Fr	10:30–12:45	B 302	Electron Scattering and Recombination / Interaction of Matter with Ions (with MO)
A 27.1–27.7	Fr	14:00–15:45	F 303	Ultra-Cold Atoms, Ions and BEC IV / Interaction with VUV and X-Ray Light II (with Q)
A 28.1–28.7	Fr	14:00–15:45	F 107	Attosecond Physics II / Interaction with Strong or Short Laser Pulses III
A 29.1–29.8	Fr	14:00–16:00	B 302	Atomic Systems in External Fields II

Mittwoch 13:30–14:00 F 303

- Bericht
- Verschiedenes