

## Fachverband Atomphysik (A)

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### Übersicht der Hauptvorträge und Fachsitzungen

(Hörsäle Audimax-B, VMP 6: HS-B, HS-C und HS-E; VMP 8: R208, Poster: VMP 9 Poster)

#### Hauptvorträge

A 1.1	Mo	10:45–11:30	VMP 6 HS-B	<b>Optimierter und selbst-optimierender magnetischer Einschluß</b> — •FRIEDRICH WAGNER
A 2.1	Mo	10:45–11:15	VMP 6 HS-E	<b>Angular distributions and continuous intensity behavior in multi-photon processes</b> — •MARKUS BRAUNE, AXEL REINKÖSTER, JENS VIEFHAUS, SANJA KORICA, UWE BECKER
A 3.1	Mo	14:00–14:30	VMP 6 HS-B	<b>Laser spectroscopy of highly charged argon at the Heidelberg electron beam ion trap</b> — •VOLKHARD MÄCKEL, RENEE KLAWITTER, SVEN BERNITT, GÜNTER BRENNER, JOSÉ RAMON CRESPO LÓPEZ-URRUTIA, JOACHIM ULLRICH
A 4.1	Mo	14:00–14:30	VMP 6 HS-E	<b>Relativistic quantum dynamics in extremely strong electromagnetic fields</b> — •ANDREY SURZHYKOV, ANTON ARTEMYEV, STEPHAN FRITZSCHE, THOMAS STÖHLKER
A 5.1	Mo	16:30–17:00	VMP 6 HS-B	<b>Exceptional points in atomic spectra and Bose-Einstein condensates</b> — •HOLGER CARTARIUS, JÖRG MAIN, GÜNTER WUNNER
A 6.1	Mo	16:30–17:00	VMP 6 HS-E	<b>Atomic parity violation in one single radium ion</b> — •ROB TIMMERMANS
A 6.2	Mo	17:00–17:30	VMP 6 HS-E	<b>Ultracold few-boson systems</b> — •SASCHA ZOELLNER, HANS-DIETER MEYER, PETER SCHMELCHER
A 9.1	Di	10:30–11:00	VMP 6 HS-C	<b>Atomic and molecular ionization dynamics in strong laser fields: Excited neutral fragments after tunneling</b> — •ULLI EICHMANN
A 13.1	Di	16:30–17:00	VMP 6 HS-B	<b>The total break-up of two-electron atoms: from highly doubly excited states to double ionization of helium</b> — •JAVIER MADROÑERO, JOHANNES EIGLSPERGER, BERNARD PIRAUX
A 14.1	Di	16:30–17:00	VMP 6 HS-C	<b>Squeezing and entanglement in a Bose Einstein condensate</b> — •MARKUS OBERTHALER
A 17.1	Mi	14:00–14:30	VMP 6 HS-C	<b>Atoms and Clusters in Intense Laser Fields</b> — •DIETER BAUER
A 20.1	Mi	16:30–17:00	VMP 6 HS-B	<b>Frequenzkammgestützte Laserspektroskopie kurzlebiger Isotope zur Kernladungsradienbestimmung des Halokerns <math>^{11}\text{Be}</math></b> — •CH. GEPPERT, W. NÖRTERSCHÄUSER, J. KRÄMER, A. KRIEGER, R. NEUGART, R.M. SANCHEZ ALARCON, D. TIEDEMANN, M. ZAKOVA, M.L. BISSELL, D.T. YORDANOV, M. KOWALSKA, F. SCHMIDT-KALER, C. ZIMMERMANN
A 26.1	Do	14:00–14:30	VMP 6 HS-B	<b>X-ray spectroscopy in an ion trap: doped semiconductor cages, transition metal molecules, and water clusters</b> — •TOBIAS LAU, KONSTANTIN HIRSCH, PHILIPP KLAR, ANDREAS LANGENBERG, FABIAN LOFINK, JÜRGEN PROBST, ROBERT RICHTER, JOCHEN RITTMANN, MARLENE VOGEL, VICENTE ZAMUDIO-BAYER, BERND VON ISSENDORFF, THOMAS MÖLLER
A 26.2	Do	14:30–15:00	VMP 6 HS-B	<b>Electron and ion emission from clusters in intense laser pulses</b> — •THOMAS FENNEL
A 26.3	Do	15:00–15:30	VMP 6 HS-B	<b>Helium-embedded clusters exposed to intense laser pulses: From “local ignition” to “global cooling”</b> — •ULF SAALMANN

A 26.4	Do	15:30–16:00	VMP 6 HS-B	<b>Resonant amplification of quantum fluctuations with a spinor gas</b> — CARSTEN KLEMP, OLIVER TOPIC, MANUEL SCHERER, THORSTEN HENNIGER, GARU GEBREYESUS, PHILIPP HYLUS, WOLFGANG ERTMER, LUIS SANTOS, ●JAN ARLT
A 27.1	Do	14:00–14:30	VMP 6 HS-C	<b>Quantum gases of ultracold polar molecules</b> — ●SILKE OSPELKAUS
A 29.1	Do	14:00–14:30	VMP 8 R208	<b>Radiometry and the nature of light</b> — ●MATHIAS RICHTER, ANDREI A. SOROKIN, KAI TIEDTKE
A 29.2	Do	14:30–15:00	VMP 8 R208	<b>Threshold Fragmentation of Simple Atoms by Electron Impact and FLASH VUV Light</b> — ●ALEXANDER DORN
A 29.3	Do	15:00–15:30	VMP 8 R208	<b>Ring molecules as tunable light sources</b> — ●ANDREY MOSKALENKO, JAMAL BERAKDAR
A 32.1	Do	16:30–17:00	VMP 6 HS-E	<b>Änd, action! Video clips of electron motion in molecules</b> — ●MATTHIAS KLING

### Hauptvorträge des Symposiums Lokalisierung und Verschränkung in photoinduzierten Prozessen (SYLV)

Siehe SYLV für das komplette Programm des Symposiums.

SYLV 1.1	Mo	14:00–14:30	VMP 8 HS	<b>Coherence, interference and entanglement in the photoionization of homonuclear diatomic molecules</b> — ●REINHARD DÖRNER, M. SCHÖFFLER, T. JAHNKE, K. KREIDI, D. AKOURY, L.PH.H. SCHMIDT, H. SCHMIDT-BÖCKING, J. TITZE, N. NEUMANN, T. WEBER, M.H. PRIOR, A. BELKACEM, P. RANITOVIC, C.L. COCKE, A. LANDERS, S. SEMENOV, N. CHEREPKOV
SYLV 1.2	Mo	14:30–15:00	VMP 8 HS	<b>Quantum Interfaces between Nanomechanical Systems and Cold Atoms</b> — ●PETER ZOLLER
SYLV 1.3	Mo	15:00–15:30	VMP 8 HS	<b>Electron entanglement studied by Doppler-resolved electron spectroscopy</b> — ●SVANTE SVENSSON
SYLV 1.4	Mo	15:30–16:00	VMP 8 HS	<b>Entanglement-assisted Ramsey Spectroscopy with Atomic Ensembles</b> — ●EUGENE POLZIK
SYLV 2.1	Mo	16:30–17:00	VMP 8 HS	<b>Coherent photoelectron emission from diatoms: Influence of scattering, recoil, and dissociation</b> — ●KIYOSHI UEDA
SYLV 2.2	Mo	17:00–17:30	VMP 8 HS	<b>Atom-Photon Entanglement</b> — ●HARALD WEINFURTER, FLORIAN HENKEL, JULIAN HOFMANN, MICHAEL KRUG, NORBERT ORTEGL, WENJAMIN ROSENFELD, JÜRGEN VOLZ, MARKUS WEBER
SYLV 2.3	Mo	17:30–18:00	VMP 8 HS	<b>Space-time entanglement: A realization of EPR's original proposal</b> — ●BURKHARD LANGER, UWE BECKER
SYLV 2.4	Mo	18:00–18:30	VMP 8 HS	<b>A long-distance quantum gate between matter qubits</b> — ●P. MAUNZ, S. OLMSCHENK, D. HAYES, D. N. MATSUKEVICH, L.-M. DUAN, C. MONROE
SYLV 2.5	Mo	18:30–19:00	VMP 8 HS	<b>Space-QUEST: Experiments with quantum entanglement in space</b> — ●RUPERT URSIN, THOMAS JENNEWEIN, ANTON ZEILINGER

### Hauptvorträge des Symposiums S-AMOP Dissertationspreis (SYDI)

Siehe SYDI für das komplette Programm des Symposiums.

SYDI 1.1	Di	10:30–11:00	VMP 8 HS	<b>Experimental manipulation of atoms and photons: the application in quantum information processing</b> — ●YU-AO CHEN
SYDI 1.2	Di	11:00–11:30	VMP 8 HS	<b>Cavity QED with a Bose-Einstein Condensate</b> — ●TOBIAS DONNER, STEPHAN RITTER, FERDINAND BRENNECKE, ANTON OETTL, THOMAS BOURDEL, MICHAEL KOEHL, TILMAN ESSLINGER
SYDI 1.3	Di	11:30–12:00	VMP 8 HS	<b>Poking and probing strongly correlated gases in optical lattices</b> — ●SIMON FÖLLING, ARTUR WIDERA, STEFAN TROTZKY, OLAF MANDEL, TATJANA GERICKE, TORBEN MÜLLER, FABRICE GERBIER, PATRICK CHEINET, IMMANUEL BLOCH
SYDI 1.4	Di	12:00–12:30	VMP 8 HS	<b>Discrete optics in femtosecond-laser written photonic structures</b> — ●ALEXANDER SZAMEIT

## Hauptvorträge des Symposiums Ultra-fast Dynamics in FEL Light Pulses (SYUF)

Siehe SYUF für das komplette Programm des Symposiums.

SYUF 1.1	Mi	14:00–14:30	VMP 8 HS	<b>Atoms and molecules in intense FEL radiation</b> — ●ARTEM RUDENKO
SYUF 1.2	Mi	14:30–15:00	VMP 8 HS	<b>Electronic decay in clusters and molecules subject to intense FEL radiation</b> — ●VITALI AVERBUKH, ULF SAALMANN, JAN MICHAEL ROST
SYUF 1.3	Mi	15:00–15:30	VMP 8 HS	<b>Spectroscopy of Highly Charged Ions with Free Electron Lasers</b> — ●SASCHA EPP, MARTIN SIMON, THOMAS BAUMANN, GÜNTER BRENNER, VOLKHARD MÄCKEL, PAUL MOKLER, HIRO TAWARA, NATALIA GUERASSIMOVA, EVGENY SCHNEIDMILLER, ROLF TREUSCH, JOSÉ CRESPO LOPÉZ URRUTIA, JOACHIM ULLRICH
SYUF 1.4	Mi	15:30–16:00	VMP 8 HS	<b>Ultra-fast dynamics in atoms and solids</b> — ●ALEXANDER FÖHLISCH
SYUF 2.1	Mi	16:30–17:00	VMP 8 HS	<b>Pump-probe experiments at FLASH</b> — ●STEFAN DÜSTERER
SYUF 2.2	Mi	17:00–17:30	VMP 8 HS	<b>Chemistry with Free Electron Laser Radiation: Proof of Principle</b> — ●SIMONE TECHERT
SYUF 2.3	Mi	17:30–18:00	VMP 8 HS	<b>Ultrafast processes and single shot imaging of clusters with intense soft x-ray radiation from the FLASH free electron laser</b> — ●CHRISTOPH BOSTEDT
SYUF 2.4	Mi	18:00–18:30	VMP 8 HS	<b>Ultrafast Coherent Diffractive Imaging at FLASH</b> — ●HENRY CHAPMAN

## Fachsitzungen

A 1.1–1.5	Mo	10:45–12:30	VMP 6 HS-B	<b>Plasma Interactions / Rydberg Atoms</b>
A 2.1–2.5	Mo	10:45–12:30	VMP 6 HS-E	<b>Interaction with VUV and X-Ray Light I</b>
A 3.1–3.6	Mo	14:00–16:00	VMP 6 HS-B	<b>Precision Spectroscopy of Atoms and Ions I</b>
A 4.1–4.5	Mo	14:00–16:00	VMP 6 HS-E	<b>Electron Scattering and Recombination</b>
A 5.1–5.5	Mo	16:30–18:00	VMP 6 HS-B	<b>Atomic Systems in External Fields I</b>
A 6.1–6.4	Mo	16:30–18:00	VMP 6 HS-E	<b>Scattering Processes</b>
A 7.1–7.8	Di	10:30–12:30	Audi-B	<b>Ultracold atoms I: Traps and cooling (with Q)</b>
A 8.1–8.6	Di	10:30–12:30	VMP 6 HS-B	<b>Atomic Clusters I</b>
A 9.1–9.6	Di	10:30–12:30	VMP 6 HS-C	<b>Interaction with Strong or Short Laser Pulses I</b>
A 10.1–10.6	Di	14:00–15:45	Audi-B	<b>Ultracold atoms II: Single atoms (with Q)</b>
A 11.1–11.6	Di	14:00–16:00	VMP 6 HS-B	<b>Attosecond Physics I</b>
A 12.1–12.7	Di	14:00–16:00	VMP 6 HS-C	<b>Precision Spectroscopy of Atoms and Ions II</b>
A 13.1–13.4	Di	16:30–18:00	VMP 6 HS-B	<b>Atomic Systems in External Fields II</b>
A 14.1–14.4	Di	16:30–18:00	VMP 6 HS-C	<b>Ultra-Cold Atoms, Ions and BEC I (with Q)</b>
A 15.1–15.58	Di	16:30–19:00	VMP 9 Poster	<b>Poster I</b>
A 16.1–16.6	Mi	14:00–16:00	VMP 6 HS-B	<b>Atomic Clusters II</b>
A 17.1–17.7	Mi	14:00–16:00	VMP 6 HS-C	<b>Atomic Systems in External Fields III</b>
A 18.1–18.5	Mi	14:00–16:00	VMP 8 R208	<b>Photoionization I</b>
A 19.1–19.9	Mi	16:30–18:45	Audi-B	<b>Ultracold atoms III: Manipulation and detection / Rydbergatoms (with Q)</b>
A 20.1–20.4	Mi	16:30–18:00	VMP 6 HS-B	<b>Precision Spectroscopy of Atoms and Ions III</b>
A 21.1–21.5	Mi	16:30–18:00	VMP 6 HS-C	<b>Interaction with Strong or Short Laser Pulses II</b>
A 22.1–22.3	Mi	16:30–17:30	VMP 8 R208	<b>Attosecond Physics II</b>
A 23.1–23.5	Do	10:30–12:30	VMP 6 HS-B	<b>Interaction of Matter with Ions</b>
A 24.1–24.6	Do	10:30–12:15	VMP 6 HS-C	<b>Ultra-Cold Atoms, Ions and BEC II (with Q)</b>
A 25.1–25.3	Do	10:30–11:15	VMP 8 R208	<b>Interaction with Strong or Short Laser Pulses III</b>
A 26.1–26.4	Do	14:00–16:00	VMP 6 HS-B	<b>Atomic Clusters III</b>
A 27.1–27.6	Do	14:00–16:00	VMP 6 HS-C	<b>Ultra-Cold Atoms, Ions and BEC III (with Q)</b>
A 28.1–28.4	Do	14:00–15:00	VMP 6 HS-E	<b>Precision Spectroscopy of Atoms and Ions IV, Interaction with VUV and X-Ray Light III</b>
A 29.1–29.3	Do	14:00–15:30	VMP 8 R208	<b>Photoionization II</b>
A 30.1–30.4	Do	16:30–17:45	VMP 6 HS-B	<b>Precision Spectroscopy of Atoms and Ions V</b>
A 31.1–31.4	Do	16:30–18:00	VMP 6 HS-C	<b>Ultra-Cold Atoms, Ions and BEC IV (with Q)</b>
A 32.1–32.4	Do	16:30–18:00	VMP 6 HS-E	<b>Attosecond Physics III</b>
A 33.1–33.5	Do	16:30–18:30	VMP 8 R208	<b>Interaction with VUV and X-Ray Light II</b>
A 34.1–34.57	Do	16:30–19:00	VMP 9 Poster	<b>Poster II</b>
A 35.1–35.6	Fr	10:30–12:30	VMP 6 HS-B	<b>Precision Spectroscopy of Atoms and Ions VI</b>

A 36.1–36.6	Fr	10:30–12:30	VMP 6 HS-C	<b>Ultra-Cold Atoms, Ions and BEC V (with Q)</b>
A 37.1–37.6	Fr	14:00–16:00	VMP 6 HS-B	<b>Precision Spectroscopy of Atoms and Ions VII</b>
A 38.1–38.5	Fr	14:00–15:15	VMP 6 HS-C	<b>Atomic Clusters IV</b>

**Mitgliederversammlung Fachverband Atomphysik**

Dienstag 13:30–14:00 VMP 6 HS-C

- Bericht
- Verschiedenes