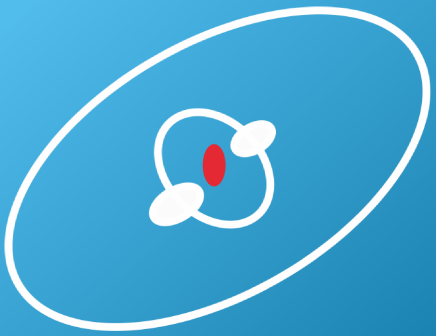
Program

12th European Conference on Atoms, Molecules and Photons



ECAMP 12
Frankfurt am Main

September 5th - 9th, 2016

GOETHE
UNIVERSITÄT
FRANKFURT AM MAIN

Industrial Exhibition

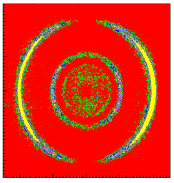
COHERENT

MenloSystems

moglabs

PFEIFFER VACUUM

Quantel
Industrial and Scientific Laser Division
4 rue Louis de Broglie
22300 Lannion - FRANCE



RoentDek
Handels GmbH

Supersonic Gas Jets
Detection Techniques
Data Acquisition System
Multifragment Imaging Systems

TOPTICA PHOTONICS

Welcome to ECAMP 2016

Questions/Support:

In case of any problems please contact either the conference office or ask the conference staff for help. The staff is wearing easily recognizable “ECAMP 12” T-shirts.

Conference Office: HSZ, 3rd Floor, HZ13

Help Hotline: +49 (0)69 798-19463
+49 (0)1590-8146358 (cell)

WiFi Access:

- Eduroam is available on campus.
- In case you do not have eduroam, a personal WiFi-account can be requested at the conference office.

The ECAMP 12 is

organized by the Institut für Kernphysik Frankfurt

and hosted by the Goethe-Universität Frankfurt

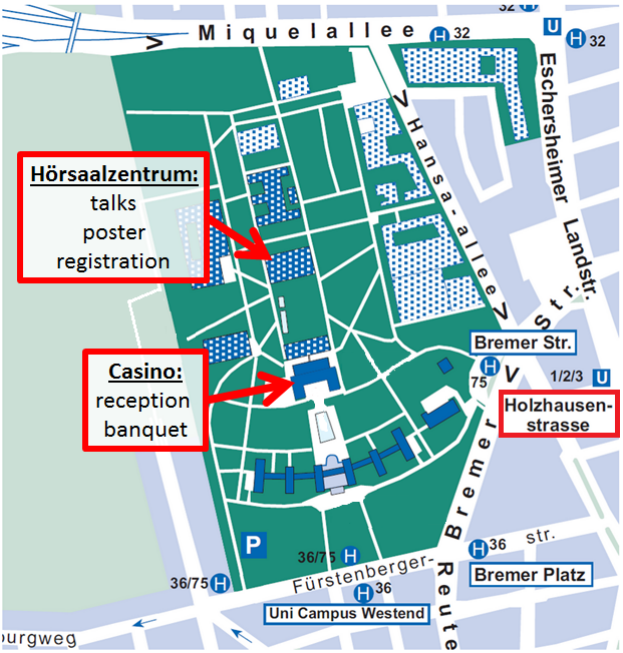
ECAMP 12 Local Organizing Committee:

Reinhard Dörner
Till Jahnke
Horst Schmidt-Böcking
Markus Schöffler
Lothar Schmidt

Scientific Committee

Dominique Vernhet (Chair)
Fritz Aumayr (Vice-Chair)
Thomas Schlathölter
Reinhard Dörner
Alexander Eisfeld
Jan-Petter Hansen
Guglielmo Tino
Igor Ryabtsev
Nina Rohringer
Pierre Pillet
Olga Smirnova
Tim Softley
Sergio Diaz Tendero

Campus map



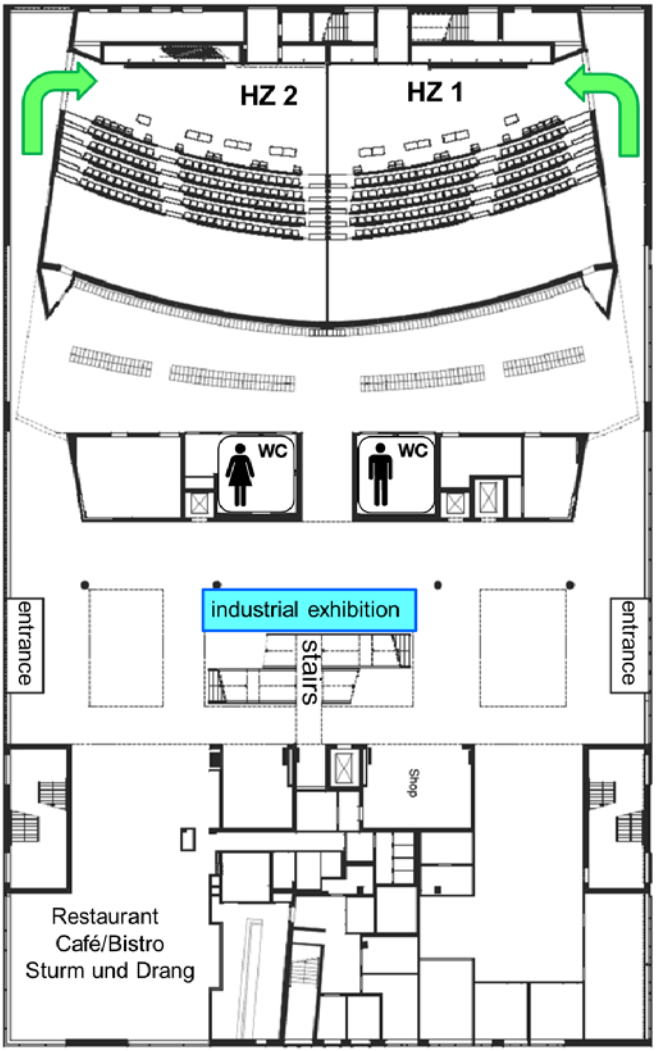
- P Parking Lot (no public parking!)
- H Bus Stop
- U Metro Station
  (Lines: **U1,U2,U3,U8**)

The **scientific part** of the conference is held at the **"HSZ"** (designated as **"Hörsaalzentrum"** on the campus map) located in the middle of the Westend-Campus of Frankfurt University.

Site plan

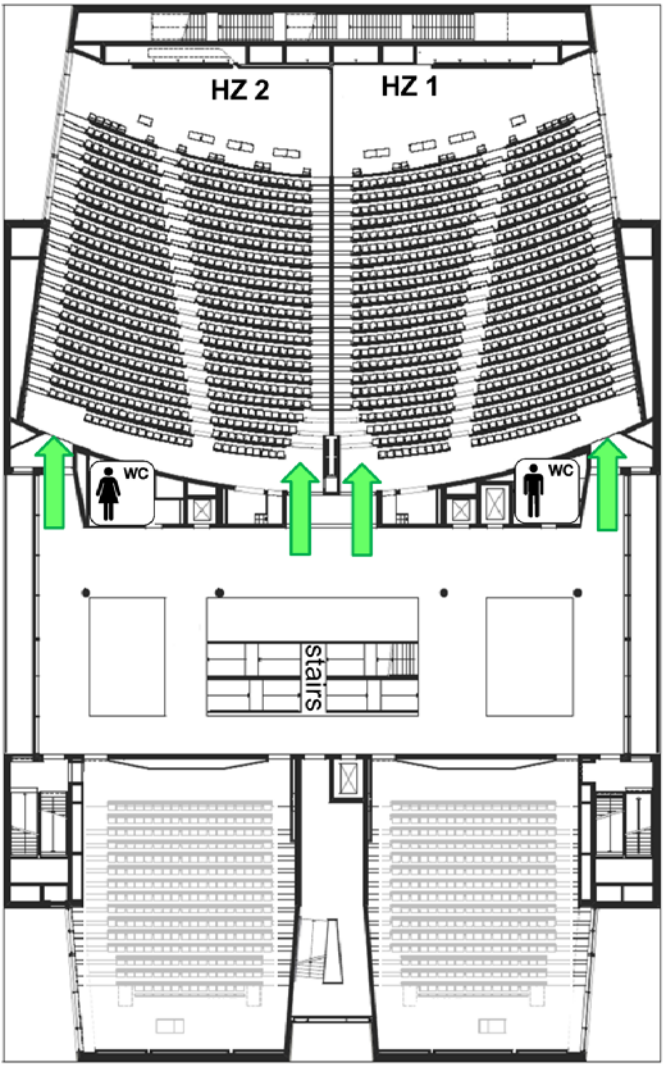
HSZ Ground floor

➔ entrance to lecture halls, industrial exhibition and registration (Sunday and Monday)



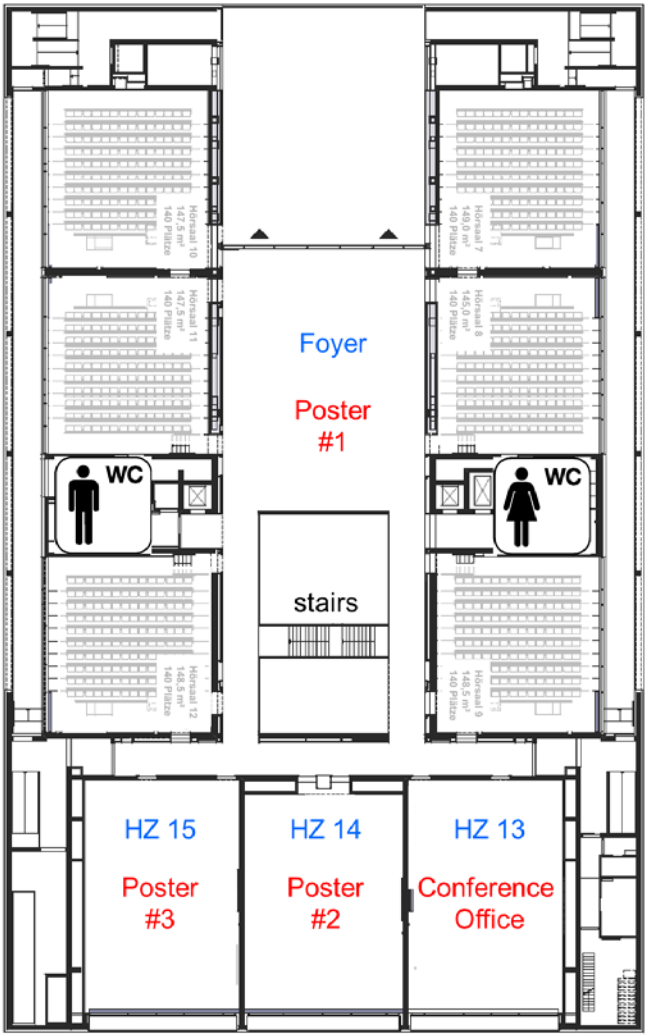
HSZ 1st floor

➔ entrance to lecture halls



HSZ 3rd floor

➔ conference office and poster sessions



Talks

Talks will be held at the HSZ in the lecture halls HZ1 and HZ2. Duration of talks + discussion:

Plenary talks:	**50** + 10 minutes
Progress reports:	**25** + 5 minutes
Hot topics:	**12** + 3 minutes

Please make sure to upload / test your presentation during the break prior to your talk. The ECAMP staff provides technical assistance.

Extended Abstracts

The extended abstracts (150 MB) can be downloaded on the ECAMP-website (Scientific Program).

The EPS Young Scientist Prize, 2016

Dr. Christian Brand from the University of Vienna has been awarded with the EPS Young Scientist Prize in Atomic, Molecular and Optical Physics, 2016 for his contribution "An Atomically Thin Matter-Wave Beam Splitter".

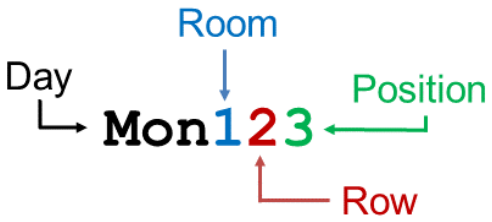
The Prize consist of a certificate, a hot topic talk (Friday, 13:00) at ECAMP12 and a 1,500 € award[1]. The EPS AMOPD Young Scientific Prize will be also officially presented at the award ceremony, just before the ECAMP General Assembly.

[1] The award is sponsored by Roentdek Handels GmbH

Poster Sessions

All poster sessions take place on the **3rd floor** of the **HSZ**.

How to decode your poster number:



#1 Foyer, 3rd floor (111 to 169)

- Surface reaction dynamics and self-assembly (Monday)
- Molecular reaction dynamics (Tuesday)
- Atomic and molecular astrophysics (Wednesday)
- Atom interferometry and atomic clocks (Thursday)
- Photon induced processes, strong fields
- Ultrafast dynamics and attosecond physics
- Fundamental physics, precision measurements and metrology

#2 Room HZ 14, 3rd floor (211 to 269)

- Atomic and molecular spectroscopy
- Cold ions, atoms and molecules
- Coherent control (Monday + Tuesday)
- Rydberg atoms and ultra-cold plasmas (Monday + Tuesday)
- Quantum information and cavity QED (Wednesday + Thursday)
- Degenerate quantum gases (Wednesday + Thursday)

#3 Room HZ 15, 3rd floor (311 to 369)

- Atomic and molecular collisions**,** electron collisions
- Highly charged ions
- Biomolecules, clusters and nanoparticles

The poster boards have the following dimensions: 1.2 m width, 1.5 m height. Pins will be provided. Please remove your poster from the board at the end of the day of the presentation but please do not remove the board number.

Poster awards

Every day you have the opportunity to vote for the best poster. The winner will receive a 50 € gift voucher and a traditional hand craftet Frankfurt souvenir, called "Bembel". Please use your ballot paper, provided in your conference bag.

Useful information

Internet Access (WiFi)

Eduroam is available on campus. Alternatively, a personal WiFi-account is available at the conference office. A few desktop computers with internet access are located at the conference office for public use, as well. Printing is also possible.

Registration

Registration desk (HSZ, ground level):

- Sunday September 4th, 17:00 – 19:00
- Monday September 5th, 07:30 – 13:30
- Afterwards, please see the Conference Office

Conference Office

For all administrative concerns and special requests please visit the conference office in the HSZ building, 3rd level, room HZ13:

- Monday September 5th, 07:30 – 19:00
- Tuesday September 6th, 07:30 – 19:00
- Wednesday September 7th, 07:30 – 19:00
- Thursday September 8th, 07:30 – 19:00
- Friday September 9th, 07:30 – 19:00

Cloakroom and Locker

A cloakroom and free of charge lockers for conference participants are located on the ground floor of the HSZ.

Transportation

Public transportation:
Please consult

http://ecamp2016.org/location.htm

for information on public transportation. **A ticket for public transportation valid for the duration of the conference is included in your conference fee.** Further information on the can be obtained at the conference office.

Parking:
There is no public parking on campus. The use of public transportation is recommended.

Taxi:
A taxi can be ordered on the participant's expense at the conference office (HSZ, HZ13) or directly by phone: +49 (0)69 230001.

Lunch

The restaurant "*Sturm und Drang* is located inside HSZ on the ground level near the main entrance. Additional canteens can be found across the central square of the campus. They offer food at regular prices for all conference participants and provide price reductions for registered students.

Social program

Monday: Welcome reception

Monday, 19:00, Casino building. You are all invited for snacks, drinks, discussions and live music.

Tuesday: Guided city walking tour

Tuesday, 18:30, meeting point: **front of HSZ**, duration: 2 hours; please sign up at the registration desk early, as slots are limited. We have two tours, "Frankfurt today" and "Frankfurt past". The tours are free of charge.

Wednesday: Public lecture

Wednesday, 20:30, HZ1. Don't miss the public lecture by **Horst Schmidt-Böcking** on:

"The Stern-Gerlach-Experiment revisited".

Thursday: Conference banquet

Thursday, 19:00, Casino building. If you haven't already, you can still sign up for the conference banquet (50 €) and enjoy a dinner with good food, wine and live music.

Why ECAMP 12 is taking place in 2016 in Frankfurt?

In 2013 ECAMP 11 took place in Aarhus in commemoration of the 100th anniversary of Niels Bohr's 1913 Atomic Model as a benchmark for the development of the new quantum physics. In 1916 Arnold Sommerfeld published the Sommerfeld model to explain the Fine Structure in photon emission spectra [1]. Together with Peter Debye he proposed in 1916 the "Richtungsquantelung" (Directional Quantization) of atomic magnetic moments and angular momenta in the presence of magnetic fields [2] to explain the observations of the Zeeman effect. These contributions of Sommerfeld were fundamental milestones towards modern quantum physics. Sommerfeld's Fine Structure theory is indirectly, but closely linked to Frankfurt [3]. It was Karl Schwarzschild who helped Sommerfeld to introduce the relativistic dynamics of astrophysics (Mercury perihelion rotation) into the many-body problem of electron dynamics in atoms [3]. Karl Schwarzschild was born in 1873 in Frankfurt and died on the 11th of May 1916 in Göttingen.

From left to right: Arnold Sommerfeld[a], Karl Schwarzschild[b], Wilhelm Lenz[c]

In Sommerfeld's original publication [1] he did not realize that in his theoretical treatment a basic constant was hidden. His postdoc Wilhelm Lenz, while being a soldier in the war, was the only one, who realized by redrafting Sommerfeld's equations that a basic constant played a crucial role in the Fine structure splitting. In a letter to Sommerfeld [4] Lenz defined for the first time the so called "Fine structure constant". Wilhelm Lenz was born 1888 in Frankfurt and became, in 1921, "ordinarius for theoretical physics" at the newly founded University of Hamburg. In his group in Hamburg he had famous assistants like Wolfgang Pauli, Ernst Ising, Hans Jensen etc.

From left to right: Walther Gerlach, Lise Meitner and Otto Stern, 1927 in Zürich[d]

Last but not least Otto Stern together with Walther Gerlach in 1922 in Frankfurt provided, in the famous so-called Stern-Gerlach-Experiment, experimental evidence for directional quantization and provided first evidence that all atomic angular momenta were quantized [5].

In the first century (1914-1924) after the foundation of Frankfurt University the following physicists worked in Frankfurt: Max von Laue, Otto Stern, Max Born, Walther Gerlach, Alfred Landè and Hans Bethe.

References:

[1] Arnold Sommerfeld: *Die Feinstruktur der Wasserstoff- und der Wasserstoff-ähnlichen Linien.* Sitzungsberichte der mathematisch-physikalischen Klasse der K. B. Akademie der Wissenschaften zu München, (1915), S. 459-500 and Sommerfeld, Arnold: *Zur Quantentheorie der Spektrallinien, Ergänzungen und Erweiterungen.* Vorgetragen in der Sitzung am 4. November 1916, Sitzungsberichte der mathematisch-physikalischen Klasse der K. B. Akademie der Wissenschaften zu München, Seite 131-186, (1916)

[2] A. Sommerfeld: Physikalische Zeitschrift, Bd. 17, 491-507, (1916); P. Debye, Quantenhypothese und Zeeman-Effekt, Nachrichten von der Gesellschaft der Wissenschaften zu Göttingen, Mathematisch-Physikalische Klasse, 142-153, Band (1916)

[3] A. Sommerfeld: Die Quantentheorie den Spektrallinien und die letzte Arbeit von K. Schwarzschild, Umschau 20 (1916)

[4] Michael Eckert: *Arnold Sommerfeld, Atomphysiker und Kulturbote*, 1868–1951. Eine Biografie. Wallstein, Göttingen, (2013)

[5] O. Stern: *Ein Weg zur experimentellen Prüfung der Richtungsquantelung im Magnetfeld.* Z. Physik, 7, 249-253 (1921); W. Gerlach und O. Stern, *Der experimentelle Nachweis der Richtungsquantelung im Magnetfeld*. Z. Physik, 9, 349-352 (1922); W. Gerlach und O. Stern, *Über die Richtungsquantelung im Magnetfeld*. Ann. Physik, 74, 673-699 (1924)

[a] http://www.apprendre-math.info/history/photos/Sommerfeld_5.jpeg

[b] Fachbereich Physik, Goethe Universität Frankfurt

[c] http://www.physik.uni-rostock.de/typo3temp/pics/9ca9fcc199.png

[d] private picture collection of "Ellen Weyl-Bär"

Session 1, 9:00–10:00, HZ1
Plenary: Anton Zeilinger
Session chair: J. Burgdörfer

9:00 Plenary: *Photon Entanglement: Fundamentals*
1.1 *and Applications*
Anton Zeilinger (Austria)

Session Mon1, 10:00–12:00, Foyer
Poster

Mon111 *Sputtering of Fe surfaces by D and Ar ions*
Reinhard Stadlmayr (Austria)

Mon112 *Density Functional Theory study on the adsorption of acrylonitrile, acrylamide and acrolein on Cu(100): importance of weak interactions.*
Fernando Aguilar-Galindo (Spain)

Mon115 *Quantum interference between virtual paths in laser-dressed helium: Energetic-electron impact excitation*
hicham agueny (Norway)

Mon116 *The broadening and narrowing of the high gain parametric down conversion spectrum*
Polina Sharapova (Russia)

Mon117 *Electron Localization in Dissociating H2+ by Retroaction of a Photoelectron onto Its Source*
Markus Waitz (Germany)

Mon118 *On fullerene anions as sources of spin-polarized electrons*
Valeriy Dolmatov (USA)

Mon119 *Stepwise Contraction of the nf Rydberg Shells in the 3d Photoionization of Multiply-Charged Xenon Ions*
Stefan Schippers (Germany)

Mon122 *Dissociative ionization of H2 by 400 eV circularly polarized photons*
Anatoli Kheifets (Australia)

Mon123 *bound-free electron transitions in the H+Hˆ- quasi-molecules*
alla dadonova (Russia)

Mon124 *Laser polarization effects in laser-assisted electron-hydrogen inelastic collisions*
Gabriela Buica (Romania)

Mon125 *Photo-dissociation Dynamics of Laser-Aligned Halogenated Organic Molecules.*
Evgeny Savelyev (Germany)

Mon126 *Comparing Coulomb explosion dynamics of triply charged OCS after soft x-ray initiated direct and Auger ionization processes*
Joseph Sanderson (Canada)

Mon127 *Simulation of Level Crossing Optically Detectable Magnetic Resonance Signals in Nitrogen - Vacancy Centres in Diamond*
Marcis Auzinsh (Latvia)

Mon128 *Internal dynamics in small anionic carbon clusters*
Koushik Saha (Israel)

Mon129 *Charge transfer dynamics in halomethane molecules ionized by intense femtosecond X–ray pulses*
Rebecca Boll (Germany)

Mon131 *Strong-Field Ionisation with Tailored Two-Color Laser Fields*
Sebastian Eckart (Germany)

Mon132 *Excited State Distribution and Spin-Effects in Strong-Field Excitation of Neutral Helium*
Henri Zimmermann (Germany)

Mon133 *Electron Energy Discretization in Strong Field Double Ionization*
Kevin Henrichs (Germany)

Mon134 *Resonance-Enhanced Two-Photon Ionisation of Helium Atoms with Femtosecond Free Electron Laser Pulses*
Andrej Mihelic (Slovenia)

Mon135 *Transport of intense photon pulse through dense helium gas at 60-65 eV*
Matjaž Žitnik (Slovenia)

Mon136 *Streaking Temporal Double-Slit Interference by an Orthogonal Two-Color Laser Field*
Martin Richter (Germany)

Mon137 *Few body break-up spectra using the time dependent surface flux method*
Vinay Pramod Majety (Germany)

Mon141 *Mapping molecular nitrogen photodissociation with attosecond temporal resolution*
Andrea Trabattoni (Italy)

Mon142 *Laser-driven attosecond dynamics in hydrogenic molecules using XUV+IR schemes*
Alicia Palacios (Spain)

Mon143 *Initial phase space dependent tunnel ionization of the hydrogen atom*
Viktor Ayadi (Hungary)

Mon144 *RMT Two-Electron outer region for ab-initio modelling of Ultrafast Dynamics*
Jack Wragg (United Kingdom)

Mon145 *Carrier-Wave Rabi Flopping Signatures in HHG for Alkali Species*
Marcelo Ciappina (Germany)

Mon146 *Angular distributions of photoelectrons ejected from Neon in the presence of XUV and IR laser fields*
Rian Morgan (Ireland)

Mon147 *Towards multidimensional spectroscopy with ultrashort XUV and soft-x-ray pulses*
Thomas Ding (Germany)

Mon151 *Computation of high harmonic generation spectra using time-dependent configuration interaction*
Marie Labeye (France)

Mon152 *Ultrafast VUV-Photodissociation of H2O Isotopologues Traced by Single-shot Autocorrelation*
Arne Baumann (Germany)

Mon153 *Non-perturbative quantum-path effects in the generation of attosecond extreme-ultraviolet vortices*
Laura Rego (Spain)

Mon154 *Harmonic Spectra of Neon in Mixed Laser Pulse Schemes*
Kathryn Hamilton (United Kingdom)

Mon155 *Near-Forward Rescattering Photoelectron Holography in Strong-Field Ionization: Extraction of the Phase of the Scattering Amplitude*
Oleg I. Tolstikhin (Russia)

Mon156 *High-Order Parametric Amplification in Intense Laser Field*
Vasily Strelkov (Russia)

Mon157 *Influens of Defects in Regular Nanosystems on Interference Processes at the Reemission of Attosecond Electromagnetic Pulses*
Victor Matveev (Russia)

Mon161 *Superfluid in helical container as a sensor of metric disturbances*
Alexey Okulov (Russia)

Mon162 *Towards Measuring Parity Violation in Cold Chiral Molecules Using Vibrational Spectroscopy*
Benoît Darquié (France)

Mon163 *Precision Atomic Calculations for Clocks Based on Highly-Charged Ions and Electron-Hole Transitions*
Julian Berengut (Australia)

Mon164 *Spectroscopy of H2+ and HD+ Near Their Dissociation Thresholds: Shape and Feshbach Resonances*
Maximilian Beyer (Switzerland)

Mon165 *Fourier transform spectroscopy with resolution beyond the optical path limit*
Piotr Maslowski (Poland)

Mon166 *Continuously Tunable Mid-infrared Frequency Comb Spectrometer*
Vinicius Silva de Oliveira (Germany)

Mon167 *Nature mechanism-force origin*
sheng ming Zheng (China)

Mon168 *Searches for exotic transient signals with a Global Network of Optical Magnetometers for Exotic physics*
Szymon Pustelny (Poland)

Session Mon2, 10:00–12:00, HZ14
Poster

Mon211 *Theory of Interfering One-Photon and Resonant Two-Photon Ionization of Neon by Femtosecond XUV Pulses*
Alexei N. Grum-Grzhimailo (Russia)

Mon212 *Building an Optical Centrifuge for Spinning of Molecules Embedded in Helium Nanodroplets*
Anders Vestergaard (Denmark)

Mon213 *Quantum control of photoassociation: a comparative study of two pathways for the formation of heteronuclear molecules*
Emanuel Lima (Brazil)

Mon214 *Correction of Arbitrary Field Errors in Population Inversion of Quantum Systems by Universal Composite Pulses*
Genko T. Genov (Germany)

Mon215 *Atomic control with low frequency electromagnetic radiation: fine structure under strong bichromatic driving*
German Sinuco-Leon (United Kingdom)

Mon221 *Förster Resonances Between Cold Rydberg Atoms in a Time-Varying Electric Field and Their Applications in Quantum Information*
Igor I. Ryabtsev (Russia)

Mon222 *Excitation of high orbital angular momentum Rydberg states with twisted photons*
Joao Rodrigues (Portugal)

Mon223 *RYDBERG EXCITATION OF LASER-COOLED ATOMS IN THE AC-MOT*
John Agomuo (United Kingdom)

Mon224 *Ionization of Rydberg atoms by single-cycle THz pulses: Scaling properties*
Michaela Chovancova (Norway)

Mon225 *Microwave spectroscopy in interacting gases of polar Rydberg atoms as a probe of mean-field energy shifts*
Valentina Zhelyazkova (United Kingdom)

Mon231 *Light Shift in Three-Level Lambda System Driven by the Periodically Phase-Modulated Field*
Aleksey Taichenachev (Russia)

Mon232 *Polarizing Effects In Recoil-induced Resonances*
David Lazebny (Russia)

Mon233 *Investigation of Hyperfine Structure of Atomic Holmium*
Gönül Başar (TURKEY)

Mon234 *Ground State Hyperfine Splitting in Lithiumlike and Hydrogenlike Bismuth*
Johannes Ullmann (Germany)

Mon235 *Paschen-Back Effect and Transition Probabilities at Fields up to 7 kG in Caesium Atoms*
Marcis Auzinsh (Latvia)

Mon236 *Dynamical strong-field effects in the XFEL spectroscopy of astrophysically relevant highly charged Fe ions*
Natalia S. Oreshkina (Germany)

Mon237 *Transition Probabilities and lifetimes for Y III*
Sule Ates (Turkey)

Mon241 *Excitation of Nitrous Oxide by Electron Impact*
Marián Danko (Slovakia)

Mon242 *Thermal Mass Spectrometry of Fructose*
Anatoly Zavilopulo (Ukraine)

Mon243 *Circular dichroism in photoionization of chiral systems by laser pulses*
Anne D. Müller (Germany)

Mon244 *Theoretical ab-initio study of inner shell excited molecular ions*
Alessandra Puglisi (France)

Mon245 *Positive ion detection from multiphoton dissociation of nitromethane at 532nm and 355nm laser radiation*
Carmen Cisneros (México)

Mon246 *Spin-Orbit Coupling and Rovibrational Structure in the Iododiacetylene Cation by PFI-ZEKE Photoelectron Spectroscopy*
Katrin Dulitz (Switzerland)

Mon247 *Forbidden Electric Dipole Transitions in Hydrogen Molecule Ion*
Petar Danev (Bulgaria)

Mon248 *X-ray Photoelectron Spectroscopy Study Spectra and Electron Structure of Mono- and Binuclear Cu and Ni Complexes with "Non-Innocent" Ligands*
Tatiana Ivanova (Russia)

Mon251 *Proposal for the formation of ultracold paramagnetic polar molecules in their absolute ground state*
Olivier Dulieu (France)

Mon252 *Cold Ion-Neutral Reactions in Next-Generation Ion-Atom Hybrid Traps*
Pascal Eberle (Switzerland)

Mon253 *Towards Continuous Trap Loading of Helium in Rydberg States*
Ondrej Tkac (Switzerland)

Mon261 *A buffer gas cooled beam of Barium Monohydride for laser cooling experiments*
Geoffrey Iwata (USA)

Mon262 *Equation of state and generalized Lane-Emden models with laser cooled gases*
José-António Rodrigues (Portugal)

Mon263 *Photoassociation of $NaCa^+$ molecular ions in the electronic ground state from cold atom-ion mixtures*
Marko Gacesa (USA)

Mon264 *Rotation of quantum impurities in the presence of a many-body environment*
Mikhail Lemeshko (Austria)

Mon265 *Rotational state thermometry with OH- at the Heidelberg Cryogenic Storage Ring (CSR)*
Christian Meyer (Germany)

Session Mon3, 10:00–12:00, HZ15
Poster

Mon312 *Diffraction of polar biomolecules at nanomechanical gratings*
Christian Brand (Austria)

Mon313 *Fragmentation of Doubly Charged L-Alanine: A Comparison Among Theoretical Methods.*
MANUEL ALCAMI (Espania)

Mon314 *Unusual fragmentation mechanisms of excited doubly-positively charged amino acids in t he gas phase*
Sergio Diaz-Tendero (Spain)

Mon315 *Inelastic electron interaction with biomolecular clusters: pathways to radiation damage of DNA*
Stephan Denifl (Austria)

Mon321 *Electron-impact ionization of Xe^{24+} ions: Theory versus experiment*
Alexander Borovik (Germany)

Mon322 *Prospects for Electron-Ion Collision Studies at the Upcoming CRYRING@ESR Storage-Ring Facility*
Carsten Brandau (Germany)

Mon323 *Multipole magnetic shielding constants of the ground state of the relativistic hydrogenlike atom*
Grzegorz Łukasik (Poland)

Mon324 *Multiple Electron Processes in Helium impacted by H+, He2+ and Li3+ Ions*
Pavel Nikolaevich Terekhin (Argentina)

Mon331 *Studying plasmonic effects in diamondoid-metal hybrid systems with ion yield spectroscopy*
Tobias Zimmermann (Germany)

Mon332 *Interatomic Coulombic decay in small helium clusters: a diatomics-in-molecule approach*
Sevan Kazandjian (France)

Mon333 *The Impact of the Guest-Water Interaction on the Cage Occupation and Spectra of the sI CO2 Clathrate Hydrates*
Rita Prosmiti (Spain)

Mon334 *Production of polyanionic lead and tin clusters and study of their electron emission, dissociation and fission upon photoexcitation*
Stephan König (Germany)

Mon335 *Confinement-Induced Off-Center Displacement in Endohedral Fullerenes within the Zero-Range Potential and the Dirac "Bubble" Models*
Galina Schrange (Germany)

Mon336 *Coincidence spectroscopy of water and water-ammonia clusters upon soft X-ray absorption.*
Bart Oostenrijk (Sweden)

Mon341 *Modelling ion/atom impact on complex molecules and their clusters: prompt atom knockouts and molecular growth processes*
Giovanna D'Angelo (Sweden)

Mon342 *Theoretical Study of the 5p(5)nln'l'n"l" LSJ Autoionizing States of Ba*
Gintaras Kerevičius (Lithuania)

Mon343 *Stochastic cooling at the low-energy ion-beams storage ring DESIREE*
Gustav Eklund (Sweden)

Mon344 *Quasi-Equilibrium in Charge-State Evolution for S and C Ions after C-Foil Penetration*
Alex Imai (Japan)

Mon345 *Anion Emission from Molecular Species Following Cation Impact*
Jean-Yves Chesnel (France)

Mon346 *Electron emission mechanisms in ion-induced ionization of small molecules*
Sandor T S Kovacs (Hungary)

Mon347 *Carbon backbone stability of hydrogenated and native pyrene*
Michael Wolf (Sweden)

Mon351 *Theoretical study of laser-assisted (e, 2e) collisions on He and H_2^+ at large momentum transfer*
Andrew Bulychev (Russia)

Mon352 *Resonance Contribution to the 6s26d 2D5/2-6s26p 2Po3/2 Transition of the Pb+ Ion at Electron-Impact Excitation*
Anna Gomonai (Ukraine)

Mon353 *Two-channel model for cold collisions of metastable neon atoms*
Christian Cop (Germany)

Mon354 *Reactive collisions with conformationally controlled molecules*
Daniel Rösch (Switzerland)

Mon355 *Mutual Neutralization Studies at Subthermal Collision Energies*
Nathalie de Ruette (Belgium)

Mon356 *Suppression of spin-exchange relaxation in tilted magnetic fields within the geophysical range*
Theo Scholtes (Germany)

Mon357 *Double Differential Cross Sections of Simple Hydrocarbon Molecules at 50 and 100 eV Electron Impact*
Zehra Nur Ozer (Turkey)

Mon361 *E1-M2 interference effect on the polarization of the U91+ Lyman-$\alpha 1$,$\beta 1$ lines emission following radiative recombination*
latifa bettadj (Algeria)

Mon363 *Potential Electron Scattering by the Sb2 and Sb4 Antimony Molecules*
Shandor Demesh (Ukraine)

Mon364 *Ionization by Electron Impact of CH_4, H_2O and NH_3 : A Sturmian Approach*
Lorenzo Ugo Ancarani (France)

Mon365 *Quasi Sturmian Basis for the Two-electron Continuum*
Lorenzo Ugo Ancarani (Russia)

Mon366 *Evaluation of Cross Sections for Electron-atom Ionization Using the Quantum Flux and Bohm's Velocity Field*
Lorenzo Ugo Ancarani (Argentina)

Mon367 *Ionization-excitation of Helium by Fast Electrons Using Generalized Sturmian Functions*
Lorenzo Ugo Ancarani (Argentina)

Session 2, 13:30–15:30, HZ1
Photon induced processes
Session chair: T. Jahnke

13:30 Progress Report: *À la carte sculpted potential*
2.1 *energy surfaces based on purine and pyrimidine cores: from photostable DNA nucleobases to UVA chemotherapeutic agents*
Ines Corral (Spain)

14:00 Progress Report: *Using Picosecond*
2.2 *Photoelectron Imaging to Probe Intramolecular Dynamics in Polyatomic Molecules*
Katharine Reid (United Kingdom)

14:30 2.3 Progress Report: *Ethane, carbon tetrafluoride and 1,1-difluoroethylene illuminated via molecular frame photoelectron angular distributions following core ionization*
J.B. Williams (USA)

15:00 2.4 Progress Report: *Electron Emission Processes in Atoms, Molecules, and Clusters upon Single-Photon Interaction: The Fluorescence Spectrometry View*
Arno Ehresmann (Germany)

Session 3, 13:30–15:30, HZ2
Coherent control
Session chair: M. Wollenhaupt

13:30 3.1 Progress Report: *Light storage based on coherent population oscillations*
Fabienne Goldfarb (France)

14:00 3.2 Progress Report: *Quantum optimal control theory with realistic laser pulses*
Esa Räsänen (Finland)

14:30 3.3 Hot Topic: *Direct Excitation of Butterfly States in Rydberg Molecules*
Carsten Lippe (Germany)

14:45 3.4 Hot Topic: *Antiproton energy loss distribution in He gas*
Sándor Borbély (Romania)

15:00 3.5 Progress Report: *Quantum Cheshire Cat*
Daniel Rohrlich (Israel)

Session 4, 16:00–18:00, HZ1
Molecular processes I
Session chair: R. Wester

16:00 4.1 Progress Report: *Photon and Ion Collisions with Complex Molecular Systems*
Paola Bolognesi (Italy)

16:30 4.2 Progress Report: *Quantification of electron and photon induced DNA Damage using DNA Nanotechnology*
Ilko Bald (Germany)

17:00 4.3 Progress Report: *Electron-Induced Chemistry in Molecular Solids*
Anne Lafosse (France)

17:30 4.4 Hot Topic: *Why are leaves green? Action spectroscopy of chlorophyll molecules and dimers in vacuo.*
Mark H Stockett (Denmark)

17:45 4.5 Hot Topic: *Isomerization and Fragmentation of Retinal Chromophore Derivatives*
Yoni Toker (Israel)

Session 5, 16:00–18:00, HZ2
Quantum information & cavity QED
Session chair: K. Singer

16:00 5.1 Progress Report: *Measurement and control of a nanomechanical oscillator at the thermal decoherence rate*
Tobias J. Kippenberg (Switzerland)

16:30 5.2 Progress Report: *Chiral Quantum Optics*
Arno Rauschenbeutel (Austria)

17:00 5.3 Progress Report: *Scalable quantum computing with atomic qubit arrays*
Mark Saffman (USA)

17:30 5.4 Progress Report: *Bell correlations in a Bose-Einstein condensate*
Philipp Treutlein (Switzerland)

Session 6, 9:00–10:00, HZ1
Plenary: Wolfgang Ketterle
Session chair: H. Schmidt-Böcking

9:00 Plenary: *Ultracold atoms as quantum*
6.1 *simulators for new materials –optical lattices, synthetic magnetic fields and topological phases*
Wolfgang Ketterle (USA)

Session Tue1, 10:00–12:00, Foyer
Poster

Tue111 *Steering and Visualizing Proton Migration using Few-Cycle Pulses*
Christian Burger (Germany)

Tue112 *A molecular movie of Interatomic Coulombic Decay*
Florian Trinter (Germany)

Tue113 *hamiltonian algorithm study of aromatic oxidative cyclization on n-methoxy-n-prenylbenzamid*
hiroyuki teramae (Japan)

Tue114 *Imaging the Complex Influence of the Leaving Group on Nucleophilic Substitution Reactions*
Jennifer Meyer (Austria)

Tue115 *Predissociation of rotationally and vibrationally excited dimer anions studied in the Heidelberg Cryogenic Storage Ring (CSR)*
Jürgen Göck (Germany)

Tue116 *Probing O_2ˆ+ potential curves with an XUV–IR pump–probe experiment*
Philipp Cörlin (Germany)

Tue117 *Theoretical Study of Sulphur Cluster Fragmentation*
Shandor Demesh (Ukraine)

Tue122 *Enhanced Ionization of Embedded Clusters by Electron Transfer Mediated Decay in Helium Nanodroplets*
Aaron LaForge (Germany)

Tue123 *Ionisation processes of Rubidium in strong electromagnetic fields*
Imre Ferenc Barna (Hungary)

Tue124 *Parametric Amplification in Metastable Helium at Room Temperature*
Chitram Banerjee (France)

Tue125 *Statistical regimes and 'extreme events' in Random Laser emission*
Federico Tommasi (Italy)

Tue126 *Single Photon Hot Electron Ionisation of Molecules*
Klavs Hansen (Italy)

Tue127 *A New Detection System for photodetachment studies of Negative Ions*
Jakob Welander (Sweden)

Tue128 *UV emission spectrum of liquid water after excitation with photons with exciting-photon energies of 530 eV to 600 eV*
Christian Ozga (Germany)

Tue129 *Spectral characterization of SASE bunch trains*
Philipp Schmidt (Germany)

Tue131 *Dynamic Interference in the Photoionization of Helium by Coherent Intense High-Frequency Laser Pulses*
Anton N Artemyev (Germany)

Tue132 *Multiphoton Ionization and High-order Harmonic Generation from Quasi-periodic Systems in the Terawatt Intensity Regime*
Henri Bachau (France)

Tue133 *Ionization of Aligned and Oriented OCS Molecules with Few-Cycle Mid-IR Laser Pulses*
Rasmus Johansen (Denmark)

Tue134 *Trapping of Neutral Atoms in Structured Light: Role of the light orbital angular momentum*
Dominik Schulze (Germany)

Tue135 *Circularly polarized high harmonics from Ne atoms*
Lukas Medišauskas (Germany)

Tue136 *Laser-sub-cycle Fragmentation Dynamics of Argon Dimers*
Sonia Erattupuzha (Austria)

Tue137 *Coincidence Spectroscopy of Strong Laser Field Induced Rydberg States*
Xinhua Xie (Austria)

Tue141 *Angular dependence of the attosecond time delay in the H2+ molecular ion*
Anatoli Kheifets (Australia)

Tue142 *Role of nuclear dynamics in ultrafast charge migration*
Alicia Palacios (Spain)

Tue143 *Measurement and control of atomic phase shifts in ultrafast laser fields – A tool for pulse characterization & quantum dynamics investigations*
Alexander Blättermann (Germany)

Tue144 *Asymmetric Wigner Time Delay in CO Photoionization*
Johanna Vos (Switzerland)

Tue145 *Double-electron Re-combination in High-Order Harmonic Generation Driven by Spatially Inhomogeneous Fields*
Marcelo Ciappina (Spain)

Tue146 *Theoretical study of time delays in* $(\omega, 2\omega)$ *above threshold ionization*
Stefan Nagele (Argentina)

Tue147 *Attosecond Interferometry with Self-Amplified Spontaneous Emission of a Free-Electron Laser*
Tim Laarmann (Germany)

Tue148 *Strong-field photoelectron holography with the two-color fields*
Yueming Zhou (China)

Tue151 *Dissociative Photoionization Dynamics of O2 at High-order Harmonics Photon Excitation Energies*
Marius Hervé (France)

Tue154 *Real tunneling time in attosecond experiments from the time-energy uncertainty relation, and time in quantum mechanics*
Ossama Kullie (Germany)

Tue155 *Ultrafast photodissociation dynamics of molecular oxygen in the vacuum ultraviolet studied with a single-color pump-probe scheme*
Arne Baumann (Germany)

Tue156 *Intense XUV Attosecond Physics at the Lund Laser Centre*
Sylvain Maclot (Sweden)

Tue158 *Femtosecond to Nanosecond Dynamics of Dipolar and Octupolar Light Harvesting Molecules Based on Benzothiazole e-Acceptors*
Kostas Seintis (Greece)

Tue161 *The Magnetic Moment of the Proton and a High-Precision Comparison of the Proton to Antiproton Charge-To-Mass Ratio*
Andreas Mooser (Japan)

Tue162 *Broadband and ultra-broadband polarisation rotators made by composite stacks of ordinary wave plates*
Emiliya Dimova (Bulgaria)

Tue163 *Precision description of the atomic structure. Example of the even configuration system of La I*
Jerzy Dembczyński (Poland)

Tue164 *Multi-Photon Entanglement in High Dimensions*
Mehul Malik (Austria)

Tue165 *Determination of Molecular Line Positions in Reference to an Optical Atomic Clock*
Piotr Maslowski (Poland)

Tue166 *High-precision spectroscopy of the 1557 nm magnetic dipole transition in a BEC of metastable helium*
Wim Vassen (Netherlands)

Session Tue2, 10:00–12:00, HZ14
Poster

Tue211 *Phase Sensitive 2DAtom Localization Via Probe Absorption measurement For Closed Loop Quantum Systems*
Hamid Reza Hamedi (Lithuania)

Tue212 *Case Studies for Coherent Control of Chaotic Molecular Systems*
Johannes Floss (Canada)

Tue213 *Stopped Light at High Storage Efficiency in a Pr:YSO Crystal*
Marcel Hain (Germany)

Tue214 *Selective Excitation of Uncorelated Sets of Adiabatic States in Non-degenerate Hyperfine Level Systems*
Teodora Kirova (Latvia)

Tue215 *Controlling spin-dependent directed transport in a bipartite lattice*
Wenhua Hai (China)

Tue221 *Direct Excitation of Butterfly States in Rydberg Molecules*
Carsten Lippe (Germany)

Tue222 *Interatomic Förster Resonance and Anomalous Low Spontaneous Decay of p-Series States in Na*
Arturs Cinins (Latvia)

Tue223 *Ionization energy of optically cooled Li7 atoms measured by using allowed and forbidden Rydberg transitions*
Boris Zelener (Russia)

Tue224 *Rydberg atoms of Ytterbium*
Henri Lehec (France)

Tue225 *Helium atoms in "circular" Rydberg states for hybrid cavity QED experiments*
Valentina Zhelyazkova (United Kingdom)

Tue226 *Electrostatic trapping Rydberg atoms above microwave transmission lines*
Stephen Hogan (United Kingdom)

Tue231 *Isotope shift of the electron affinity of carbon*
Christophe Blondel (France)

Tue232 *Laser Induced Fluorescence spectroscopy applied to metallic atoms for investigations of solid propellant flames*
Gautier Vilmart (France)

Tue233 *Lamb Shifts and Many-Body Effects in Neutral Atoms*
Jacinda Ginges (Australia)

Tue234 *Ground State Calculations for Coulomb Three-body Systems with Different Masses using Adjustable Sturmian Functions*
Lorenzo Ugo Ancarani (Argentina)

Tue235 *theoretical hyperfine structures of levels in 17O I and 19F I*
messaoud nemouchi (algeria)

Tue236 *Magnetic shielding constant for relativistic hydrogenlike atom in an arbitrary discrete energy eigenstate*
Patrycja Stefańska (Poland)

Tue237 *Calculation of Ar Photoelectron Satellites to Double Core Hole States in Hard X-ray Region*
Miron Ya. Amusia (Israel)

Tue238 *Ambiguity in determination of interatomic potential of diatomic molecule*
Tomasz Urbanczyk (Poland)

Tue241 *Why are leaves green? Action spectroscopy of chlorophyll molecules and dimers in vacuo.*
Mark H Stockett (Denmark)

Tue242 *Path integral simulation on muoniated acetone radical*
Masanori Tachikawa (Japan)

Tue243 *Structure-resolved ultrafast dynamics in complex molecules by laser induced electron diffraction*
Andrea Trabattoni (Germany)

Tue244 *Wavelength dependence of Photoelectron Circular Dichroism in Femtosecond Multiphoton Ionization*
Alexander Kastner (Germany)

Tue245 *Interatomic Coulombic Decay in Benzene dimer*
Nicolas Sisourat (France)

Tue246 *Cd2 and Hg2 interatomic potentials: a "test-bed" for theory-to-experiment agreement*
Jaroslaw Koperski (Poland)

Tue247 *Dependence of D2 Continuum Radiation on Electron Beam Energy in Electron Induced Fluorescence Experiment*
Michal Ďurian (Slovakia)

Tue248 *Circular Dichroism in the O 1s photoionization of fixed-in-space methyloxirane enantiomers*
Philipp V. Demekhin (Germany)

Tue251 *Proposal for laser-cooling of rare-earth ions*
Olivier Dulieu (France)

Tue252 *Few-body physics with ultracold potassium rubidium mixtures*
Ridha Horchani (Denmark)

Tue253 *Radiative Force to Laser-Cooled Atoms by Near Optical Reasonant Trap*
Shota Yonekawa (Japan)

Tue254 *Cooperative emission of light in optically thick strontium cold cloud*
david wilkowski (singapore)

Tue255 *Experimental realization of a single ion heat engine*
Kilian Singer (Germany)

Tue261 *ac Stark shifts for ultracold dysprosium and holmium*
Hui Li (France)

Tue262 *Long ion chain in a octupole trap: local minimas on mutipolar RF traps*
Jofre Pedregosa-Gutierrez (France)

Tue263 *Cold Reactive Collisions between Neutral Molecules and Cold, Trapped Ions*
Lorenzo Petralia (United Kingdom)

Tue264 *Lifetime measurements of bound metastable levels in the carbon-group anions: Siˆ- , Geˆ-, Snˆ-*
Odd M. Hole (Sweden)

Tue265 *Centrifuge Deceleration of Internally Cold Polyatomic Molecules from a Cryogenic Buffer-Gas Cell*
Thomas Gantner (Germany)

Session Tue3, 10:00–12:00, HZ15
Poster

Tue312 *On the VUV Emission Spectrum Excited by Electron Impact on the Gas-Phase Alanine*
Roman Tymchyk (Ukraine)

Tue313 *Stabilities of porphyrin ions*
Linda Giacomozzi (Sweden)

Tue314 *Spectroscopic Study on Interaction of Tricationic Porphyrin with poly(G)-poly(C) and poly(A)-poly(U) Polynucleotides*
Olga Ryazanova (Ukraine)

Tue315 *Isomerization and Fragmentation of Retinal Chromophore Derivatives*
Yoni Toker (Israel)

Tue321 *maXs: Micro-calorimeter Arrays for High Resolution X-Ray Spectroscopy in Atomic Physics*
Daniel Hengstler (Germany)

Tue322 *Dominant higher-order resonant contributions to Fe K-alpha x-ray line polarization in anisotropic ˜7 MK plasmas*
Chintan Shah (Germany)

Tue323 *A new setup for studying the interaction of slow highly charged ions with 2D materials*
David Melinc (Austria)

Tue324 *Compact 0.86 T room-temperature electron beam ion traps*
Peter Micke (Germany)

Tue325 *Ions collisions to suppress the thermal hysteresis in magnetocaloric thin films*
Sophie Cervera (France)

Tue331 *Size determination of neon clusters by fluorescence spectrometry*
André Knie (Germany)

Tue332 *X-Ray Photoelectron Spectra and the Electron Structure of the Nanosize Nickel and Cobalt Ferrites*
Tatiana Ivanova (Russia)

Tue333 *Transverse Spin in Structured Light*
Martin Neugebauer (Germany)

Tue334 *Photoelectron spectroscopic view to the structure of binary clusters*
Kari Jänkälä (Finland)

Tue335 *Internal energy measurement of small anionic metal clusters*
Sebastian George (Germany)

Tue341 *Antiproton energy loss distribution in He gas*
Sándor Borbély (Romania)

Tue342 *Electron Impact Excitation Cross Section of the 4p(5)5s5p 4S3/2 State in Rb*
Gintaras Kerevičius (Ukraine)

Tue343 *Velocity distribution of molecules sequentially evaporated from H+(H2O)4*
Francis Berthias (France)

Tue344 *Coplanar (e, 2e) ionization of CH4 at 250 eV impact energy*
Istvan Toth (Romania)

Tue345 *Theoretical investigations on projectile coherence effects in fast ion-atom collisions*
Ferenc Járai-Szabó (Romania)

Tue346 *Experimental Evidence of the Low-Lying Triplet States of Halothane As Studied by Electron Energy Loss Spectroscopy Method*
Emanuele Lange (Portugal)

Tue347 *Merged-Beam Study of Mutual Neutralization of Li+ + D-*
Thibaut Launoy (Belgium)

Tue351 *Search for Young-Type Interferences in (e,2e) Reactions on H2 Molecules with Known Spatial Alignment*
Alexander Dorn (Germany)

Tue352 *Formation of Positron-Atom Bound States in Collisions Between Rydberg Ps and Neutral Atoms*
Andrew Swann (United Kingdom)

Tue353 *Model Approach for Theoretical Investigations of Inelastic Processes in Collisions of Heavy-Particles with Hydrogen*
Svetlana Yakovleva (Russia)

Tue354 *Signature of Concerted and sequential break up processes in ion impact fragmentation of CO2 molecular ions*
Deepankar Misra (India)

Tue355 *The Magnetic Toroidal Sector: A broad-band Electron-Positron Pair Spectrometer*
Siegbert Hagmann (Germany)

Tue356 *A Quantitative Study of Capillary Charging and Discharging During Ion Beam Guiding*
K. Tőkési (USA)

Tue357 *Interference Effects in the Electron Impact Ionization of Diatomic Molecules at Intermediate Energies*
Zehra Nur Ozer (turkey)

Tue361 *Electron-Impact Ionization of Beryllium-Like Carbon Ions*
Benjamin Ebinger (Germany)

Tue362 *PEGASUS: An Intense Spin-Polarized Electron-Beam Source*
Daniel Schury (Germany)

Tue363 *Electron interaction with Dicyclohexyl phthalate*
Michal Lacko (Slovakia)

Tue364 *Electron Impact Ionization of He(1s2s 3S)*
Matthieu Génévriez (Belgium)

Tue365 *Coherent Charge-Spin Coupled Transport in Two Dimensional Dirac Systems*
Saber Rostamzadeh (Turkey)

Tue366 *Electron-Ion Recombination of Ions with an Open 4f Shell: W19+*
Stefan Schippers (Germany)

Tue367 *Photorecombination of Berylliumlike and Boronlike Silicon Ions*
Stefan Schippers (Germany)

Session 7, 13:30–15:30, HZ1
Chiral molecules
Session chair: L. Nahon

13:30 7.1 Progress Report: *Photoelectron Cicular Dichroism Measured by Multiphoton Ionization*
Thomas Baumert (Germany)

14:00 7.2 Progress Report: *X-ray magnetic circular dichroism spectroscopy in transition metal dimer cations*
Vicente Zamudio-Bayer (Germany)

14:30 7.3 Progress Report: *Enantiomer differentiation using microwave three-wave mixing*
Melanie Schnell (Germany)

15:00 7.4 Hot Topic: *Exploring Dynamics in Chiral Systems with Free-Electron Lasers*
Markus Ilchen (Germany)

15:15 7.5 Hot Topic: *Kinetic-energy release distributions of fragment anions from collisions of potassium atoms with D-ribose and tetrahydrofuran*
Filipe Ferreira da Silva (Portugal)

Session 8, 13:30–15:30, HZ2
Fundamental physics I
Session chair: T. Stöhlker

13:30 8.1 Progress Report: *Strong field physics with highly charged ions*
Vladimir M. Shabaev (Russia)

14:00 8.2 Progress Report: *Experimental Studies of Alignment and Polarization Phenomena in Energetic Atomic Collisions*
Stanislav Tashenov (Germany)

14:30 8.3 Progress Report: *Precision Deep-UV Ramsey-Comb Spectroscopy of Kr and H2*
Kjeld S.E. Eikema (Netherlands)

15:00 8.4 Progress Report: *Molecular spectroscopy, based on laser frequency combs*
Nathalie Picqué (France)

Session 9, 16:00–18:00, HZ1
Surface reactions & self-assembly
Session chair: F. Aumayr

16:00 9.1 Progress Report: *Ab-initio molecular dynamics with electronic friction: beyond the Born-Oppenheimer approximation in gas-surface processes*
Maite Alducin (Spain)

16:30 9.2 Progress Report: *Fast Atom Diffraction : Bound State Resonances to probe the coherence of a crystal surface on the micron scale. A tribute to Otto Stern.*
philippe roncin (France)

17:00 9.3 Progress Report: *Highly charged ion interaction with graphene*
Richard A. Wilhelm (Germany)

17:30 9.4 Hot Topic: *From a loophole-free Bell test to a global quantum network*
Andreas Reiserer (Netherlands)

17:45 9.5 Hot Topic: *Laboratory study of VUV photodesorption processes of interstellar ice analogues*
Mathieu Bertin (France)

Session 10, 16:00–18:00, HZ2
Ultrafast & Attosecond I
Session chair: J. Mauritsson

16:00 10.1 Progress Report: *Molecular Response to Ultra-Intense Femtosecond X-rays: Correlated Charge and Nuclear Dynamics in Soft and Hard X-ray Regimes*
Artem Rudenko (USA)

16:30 10.2 Progress Report: *Tuneable polarization of bright high-order harmonics*
Oren Cohen (Israel)

17:00 10.3 Progress Report: *High harmonic spectroscopy of polyatomic molecules*
Yann Mairesse (France)

17:30 10.4 Progress Report: *Laser-induced alignment of molecules in He-nanodroplets: Revivals, long-time coherence and breaking-loose*
Henrik Stapelfeldt (Denmark)

Session 11, 8:30–9:30, HZ1
Plenary: Christine Joblin
Session chair: S. Tendero

8:30 Plenary: *Ion trap experiments to study the*
11.1 *photophysics and stability of interstellar polycyclic aromatic hydrocarbons*
Christine Joblin (France)

Session 12, 9:30–10:30, HZ1
Award ceremony & ECAMP, EGAS General Assembly

Young Scientist Prize Award for Christian Brand

Session Wed1, 10:30–12:30, Foyer
Poster

Wed111 *Cesium D_1 And D_2 Atomic Lines Pressure-Broadened By Ground Helium Atoms*
Alioua Kamel (Algeria)

Wed112 *Transition Probabilities of the Neutral Niobium in the Wavelength Region from 300 to 400 nm*
Ipek Kanat Ozturk (Türkiye)

Wed113 *Structure and Fragmentation of HmCnq+(n=1-5; m=1-4; q=0-3) Clusters*
Juan Pablo Sánchez (Spain)

Wed114 *Laboratory study of VUV photodesorption processes of interstellar ice analogues*
Mathieu Bertin (France)

Wed115 *PROBING PHOTOELECTRON ANGULAR DISTRIBUTIONS IN MULTIPHOTON IONIZATION OF ATOMS, MOLECULES AND CLUSTERS*
Nrisimhamurty M. (INDIA)

Wed116 *A new setup for sputtering experiments with Mercury and Moon analogues*
Paul Szabo (Austria)

Wed117 *Reaction of NH+ with molecular hydrogen at low temperatures – experimental study*
Radek Plasil (Czech Republic)

Wed118 *Gas phase PAH cations: Hydrogen attachment, abstraction and energetic processing*
Thomas Schlathölter (Netherlands)

Wed119 *Theoretical Investigation of 2D Hydrogen in Magnetic Field*
Eugene A. Koval (Russia)

Wed122 *Unambiguous Observation of Triple-Auger Decay in Near-K-Edge Multiple Photoionization of C+ Ions*
Alfred Müller (Germany)

Wed123 *Laser–Dressed Morse Potentials: An Exact Analytic Treatment*
Imre Ferenc Barna (Hungary)

Wed124 *On electric dipole-quadrupole interference in photodetachment of a fullerene anion*
Valeriy Dolmatov (USA)

Wed125 *Interatomic Coulombic decay after multiple resonant excitations*
Ghazal Jabbari (Germany)

Wed126 *Optomagnetism Based on Light Carrying Orbital Angular Momentum*
Jonas Wätzel (Germany)

Wed127 *Monitoring correlated electron dynamics by attosecond transient absorption spectroscopy*
Maximilian Hollstein (Germany)

Wed128 *Photoionization of CH_4, H_2O and NH_3: A Sturmian Approach*
Lorenzo Ugo Ancarani (France)

Wed129 *Two–photon ionization as a benchmark for scattering problems with nondecaying sources*
Lorenzo Ugo Ancarani (Argentina)

Wed131 *Subcycle resolved interference effects in self-diffraction*
Christoph Leithold (Germany)

Wed132 *Electron spin polarization in strong-field ionization of Xenon atoms*
Alexander Hartung (Germany)

Wed133 *Double-slit electron interference in strong-field ionization of neon dimer*
Pia Huber (Germany)

Wed134 *Tunneling delay time within the Coulomb-corrected strong-field approximation*
Michael Klaiber (Germany)

Wed135 *High-Order Harmonic Generation from Ultrathin Ionic Layers Supported on Metal Surfaces: NaCl/Cu(111)*
Néstor F. Aguirre (Spain)

Wed136 *Single attosecond pulse generation via nonlinear Thomson scattering*
Szabolcs Hack (Hungary)

Wed141 *Angular asymmetry of Wigner time delay in the CO molecule*
Anatoli Kheifets (Australia)

Wed142 *XUV-initiated HHG in Ar and Ne*
Andrew C Brown (United Kingdom)

Wed143 *Resonant photoionization of atoms and molecules using quantum chemistry packages: the XCHEM approach.*
Carlos Marante (Spain)

Wed144 *Time development of the cusp in lateral momentum distributions for the process of strong field ionization*
Igor Ivanov (South Korea)

Wed145 *Attosecond Multi-Dimensional Spectroscopy*
Michael Krüger (Israel)

Wed146 *Spatial and temporal interference effects in the ionization of atoms by few-cycle laser pulses*
Sándor Borbély (Romania)

Wed147 *Strong field assisted XUV lasing in atoms and molecules*
Timm Bredtmann (Germany)

Wed148 *Quenching Effect In Below-threshold High Harmonic Generation*
Xiaosong Zhu (China)

Wed151 *Exploring Dynamics in Chiral Systems with Free-Electron Lasers*
Markus Ilchen (Germany)

Wed152 *Attosecond nonlinear polarization and light-matter energy transfer in solids*
Annkatrin Sommer (Germany)

Wed153 *Coherent diffractive imaging of individual nanoparticles in free flight with intense XUV pulses from a high-order harmonic generation source*
Daniela Rupp (Germany)

Wed154 *Laser-induced Ultrafast Melting of metallic samples Investigated by X-rays*
Anna Lévy (France)

Wed155 *Femtosecond Spin Dynamics in a Molecular Magnet*
J. Olof Johansson (United Kingdom)

Wed156 *Molecular pathway control in sequential double ionization of CO2 using two-pulse sequences*
Sonia Erattupuzha (Austria)

Wed157 *Signatures of Intramolecular Interference in Strong-Field Ionization of Homonuclear Diatomics in a Circularly Polarized Laser Field*
Vladimir Usachenko (Uzbekistan)

Wed158 *Extreme-Scale Nonlinear Optics*
C. M. Heyl (Sweden)

Wed161 *Towards Antihydrogen Synthesis With Sympathetically Laser-Cooled Positrons*
Daniel Maxwell (United Kingdom)

Wed162 *Bound-Electron g-Factor Measurements for a Stringent Test of QED and the Determination of Fundamental Constants*
Florian Köhler-Langes (Germany)

Wed163 *Dispersion forces on extended and rotating particles*
Johannes Fiedler (Germany)

Wed164 $\alpha^6\, m$ *corrections to the ground state of* H_2
Mariusz Puchalski (Poland)

Wed165 *QED in an external Coulomb field*
Daniel Šimsa (Czech Republic)

Wed166 *Precision Test of Many-Body QED in the Be+ 2p Fine Structure Doublet Using Short-Lived Isotopes*
Wilfried Nörtershäuser (Germany)

Session Wed2, 10:30–12:30, HZ14
Poster

Wed211 *Spectral and Spatial Properties of Bright Squeezed-Vacuum States of Light*
Olga Tikhonova (Russia)

Wed212 *Quantum States with High Angular Momentum Entanglement*
Robert Fickler (Austria)

Wed213 *Superflourescent-like Behaviour of an Ensemble of Thermal Stronitum Atoms with Cavity-Enhanced Interaction*
Stefan A Schäffer (Denmark)

Wed214 *Robust Optical Fiber Interface for NV Center Nanodiamonds*
Stepan Bolshedvorskii (Russia)

Wed215 *A loophole-free violation of Bell's inequality with single atoms entangled over a large distance*
Wenjamin Rosenfeld (Germany)

Wed221 *Interaction effect on the thermodynamic parameters of rotating condensate boson*
Ahmed Hassan (Egypt)

Wed222 *One-dimensional Bose-Einstein condensation of photons in a microtube*
Alex Kruchkov (Switzerland)

Wed223 *Stable vortex solitons in microwave-coupled atomic condensates*
Guangjiong Dong (China)

Wed224 *Spinor quantum gases with narrow-line control*
Martin Robert-de-Saint-Vincent (France)

Wed225 *Coulomb-Explosion Imaging of Ultracold 6Li Molecules using Intense Laserpulses*
Niels Kurz (Germany)

Wed231 *Experimental and theoretical studies of three different EIT-type resonances formed in a nanocell containing 87Rb vapor*
Arevik AMIRYAN (France)

Wed232 *A Sharp Resonance of Collective-Effect Origin in the L-shell Photodetachment from the Negative Silicon Ion*
Galina Schrange (Germany)

Wed233 *laser induced fluorescence spectroscopy of atomic vanadium in the wavelength range of 760 nm to 840 nm*
günay başar (turkey)

Wed234 *Measurement of the pion mass from X-ray spectroscopy of exotic atoms*
Martino Trassinelli (France)

Wed235 *Relative intensities of M-x-ray satellite lines by electron impact ionization*
Takeshi Mukoyama (Hungary)

Wed236 *Cavity-enhanced frequency up-conversion in rubidium vapour*
Rachel F Offer (United Kingdom)

Wed237 *Zeeman resolved spectra of rubidium 5S-5D two-photon excitation*
Yuta Komiyama (Japan)

Wed241 *Specific Excitation at the Stereocenter of the Chiral Molecule Halothane*
Martin Pitzer (Germany)

Wed242 *Study of Selenium Molecular Beam by Electron Impact*
Anatoly Zavilopulo (Ukraine)

Wed243 *Self-referenced, accurate and sensitive optical frequency comb spectroscopy with VIPA spectrometer*
Piotr Maslowski (Poland)

Wed244 *The spectroscopy of ground and electronic excited states in chemmotology and method of identifications the atomic-molecular structure of hydrocarbons*
Alexandr Obukhov (Russia)

Wed245 *Experimental and Theoretical Studies on the Electronic State Spectroscopy of Methanol*
Emanuele Lange (Portugal)

Wed246 *Multi fragment vector correlation imaging - A search for hidden dynamical symmetries in many-particle molecular fragmentation processes*
Florian Trinter (Germany)

Wed247 *Ultrafast molecular three-electron Auger decay*
Raimund Feifel (Sweden)

Wed251 *Formation and destruction of molecular ions in cold ion-atom hybrid traps*
Olivier Dulieu (France)

Wed252 *Dynamic dipole polarizabilities of heteronuclear alkali dimers: optical response, trapping and control of ultracold molecules*
Romain Vexiau (France)

Wed253 *Observation of Atom-Surface Interaction in Evanescent Field Using Ultracold Atoms*
Yutaka Kobayashi (Japan)

Wed254 *Resonances in the rotational constants spectrum of excited molecules analysed with an improved LeRoy-Bernstein formula and a 2-channel model-comparison with the vibrational quantum defect method*
laurence pruvost (France)

Wed261 *Two-structural distribution of cold atoms in quantum regimes*
Aleksey Taichenachev (Russia)

Wed262 *Beyond the Landau-Zener model: perturbation theory for non-adiabatic losses from RF-dressed cold atom traps*
Kathryn A Burrows (United Kingdom)

Wed263 *Optoelectrical cooling of polar molecules to submillikelvin temperatures*
Martin Ibrügger (Germany)

Wed264 *Study on the Effective Rotational Temperature Dependence of the Reaction-Rate Constants between Cold Ions and Slow Polar Molecules*
Yusuke Takada (Japan)

Wed265 *The nature of anisotropic interactions and emergence of quantum chaos in ultracold Er and other lanthanide gases*
Gleb Gribakin (United Kingdom)

Session Wed3, 10:30–12:30, HZ15
Poster

Wed312 *Double Differential Electron-Emission Cross Sections of DNA constituents induced by protons at Bragg Peak Energies*
Benedikt Rudek (Germany)

Wed313 *Near edge X-ray absorption mass spectrometry of gas phase proteins: the influence of protein size*
Dmitrii Egorov (Netherlands)

Wed314 *Electron-Collision Induced Ionization and Fragmentation in Hydrated Biomolecule Clusters*
Xueguang Ren (Germany)

Wed315 *Determination of Energy-Transfer Distributions in Ionizing Ion-Molecule Collisions*
Sylvain Maclot (Sweden)

Wed321 *Spectroscopy of Highly Charged Ions with Applications for Metrology and Tests of Variation of the Fine-Structure Constant*
Hendrik Bekker (Germany)

Wed322 *Laser cooling of stored relativistic heavy ion beams*
Danyal Winters (Germany)

Wed323 *High resolution spectroscopy in HCI using high-order harmonic generation*
Janko Nauta (Germany)

Wed324 *Penning trap experiments for precision optical and microwave spectroscopy of highly charged ions*
Sadegh Ebrahimi (Germany)

Wed325 *APPA R&D - BMBF Collaborative Research at FAIR*
Stefan Schippers (Germany)

Wed326 *On the influence of the MD method on the emittance of ion beams extracted from the Frankfurt 14GHz Electron-Cyclotron-Resonance-Ion-Source*
Jan Müller (Germany)

Wed331 *Observation of the Efimov state of the helium trimer*
Maksim Kunitski (Germany)

Wed332 *Photoabsorption cross section in the frame of local plasma frequency model for semiconductor nanoparticles on example of In2O3*
Sergey Sakhno (Russia)

Wed333 *XUV atomic lasers in noble gases and clusters at the FLASH free-electron laser*
Laurent Mercadier (Germany)

Wed334 *A multi-reflection time-of-flight mass spectrometer for the investigation of atomic clusters*
Birgit Schabinger (Germany)

Wed335 *Spontaneous decay of Agn- clusters*
Emma K. Anderson (Sweden)

Wed341 *Kinetic-energy release distributions of fragment anions from collisions of potassium atoms with D-ribose and tetrahydrofuran*
Filipe Ferreira da Silva (Portugal)

Wed342 *Classification of the 4p(5)n1l1n2l2 Metastable States in Rb*
Gintaras Kerevičius (Ukraine)

Wed343 *Collision-induced dissociation of protonated water clusters*
Francis Berthias (France)

Wed344 *A Set-Up for Angle-Resolved Spectroscopy of Electron Emissions by Chiral Molecules*
Jan Dreismann (Germany)

Wed345 *Importance of inelastic processes in cold reactions involving polyatomic molecules*
Krzysztof Jachymski (Poland)

Wed346 *Collision Between Ions and Biomolecules. A Geometric Screening Model for the Calculation of Electron Removal Cross Sections within the Independent Atom Model*
Hans Jürgen Lüdde (Germany)

Wed347 *Resonances in positron-lithium system*
Muhammad Umair (Sweden)

Wed351 *The role of fullerene shell upon stuffed atom polarization potential*
Miron Amusia (Israel)

Wed352 *Positronium Collisions with Noble-gas Atoms*
Andrew Swann (United Kingdom)

Wed353 *Quantum chaos in ultracold collisions between Yb($^1S_0$) and Yb($^3P_2$)*
Dermot Green (United Kingdom)

Wed354 *Autler-Townes effect in the formation of Feshbach resonances at the collision of two atoms in laser radiation filed.*
E. Gazazyan (Armenia)

Wed355 *The influence of electrostatic field on resonance charge-exchange*
Anna Artamonova (Russia)

Wed356 *Straggling of Energy Loss at Collisions of Fast Ions with Atoms*
Dmitri Makarov (Russia)

Wed357 *Influence of renormalization plasma shielding on the electron-impact ionization in dense plasmas*
Myoung-Jae Lee (South Korea)

Wed361 *A Powerful New Electron Gun for Electron-Ion Crossed-Beams Experiments*
Benjamin Ebinger (Germany)

Wed362 *Electron-Impact Ionization Cross Section and Rate Coefficient of Se18+*
Erdi A. Bleda (Turkey)

Wed363 *Potential Electron Scattering by the Bi and Rn Atoms*
Shandor Demesh (Ukraine)

Wed364 *Non-radioactive source of electrons at atmospheric pressure*
Matus Samel (Slovakia)

Wed365 *Interactions of low energy electrons with 2,4,6-Trichloroanisole*
Michal Lacko (Slovakia)

Wed366 *Nonlocal model of vibrational dynamics of the lowest autodetachment state of water anion*
Martin Cizek (Czech Republic)

Wed367 *Unravelling interatomic coulombic decay and radiative charge transfer in electron ionization of the argon dimer*
Stephan Denifl (Germany)

Session 13, 14:00–16:00, HZ1
Cold gases I
Session chair: A. Dorn

14:00 13.1 Progress Report: *Bose-Einstein Condensate of thulium atoms*
Aleksey V. Akimov (USA)

14:30 13.2 Progress Report: *Studying two-dimensional Fermi and Bose gases in a single experiment*
Andrey V. Turlapov (Russia)

15:00 13.3 Progress Report: *Controlled formation of cold molecules in their absolute ground state*
Olivier Dulieu (France)

15:30 13.4 Progress Report: *Laser Cooling and Magneto-Optical Trapping of Diatomic Molecules*
Michael Tarbutt (United Kingdom)

Session 14, 14:00–16:00, HZ2
Ultrafast & Attosecond II
Session chair: M. Lein

14:00 14.1 Progress Report: *Ultrafast electron dynamics initiated in molecules by attosecond pulses*
Andrea Trabattoni (Italy)

14:30 14.2 Progress Report: *Real-time wavepacket dynamics through a conical intersection: the primary event of vision*
Giulio Cerullo (Italy)

15:00 14.3 Progress Report: *Extreme Ultraviolet Free Induction Decay Controlled with Strong IR Pulses*
Johan Mauritsson (Sweden)

15:30 14.4 Progress Report: *Isolated attosecond pulses with controlled polarization*
Carlos Hernández-García (USA)

Session 15, 16:30–18:30, HZ1
Cold gases II
Session chair: G. Tino

16:30 Progress Report: *Measurement beyond the*
15.1 *Heisenberg uncertainty bound in the negative mass reference frame.*
Eugene Polzik (Denmark)

17:00 Progress Report: *Nonlinear quantum optics*
15.2 *mediated by Rydberg atoms*
Sebastian Hofferberth (Germany)

17:30 Progress Report: *Multicomponent slow light*
15.3 Gediminas Juzeliunas (Lithuania)

18:00 Progress Report: *Conical Intersections and*
15.4 *Non-Adiabatic Transitions in Ultracold Gases*
Sebastian Wüster (Germany)

Session 16, 16:30–18:30, HZ2
Strong fields & molecular frag.
Session chair: J.-P. Hansen

16:30 Progress Report: *Laser-subcycle control of*
16.1 *double-ionization and electron recapture processes*
Kitzler Markus (Austria)

17:00 Progress Report: *Classical-quantum*
16.2 *correspondence in atom ionization by mid-infrared pulses*
Christoph Lemell (Austria)

17:30 Hot Topic: *The interaction of metastable neon*
16.3 *with a few cycle laser pulse*
A.S. Kheifets (Australia)

17:45 Hot Topic: *Unraveling the Principles Governing*
16.4 *the Stability of Endohedral and Exohedral Fullerenes*
Yang Wang (Spain)

18:00 Progress Report: *Coherent Control of Bond*
16.5 *Making*
Christiane Koch (Germany)

Session 17, 9:00–10:00, HZ1
Plenary: Henry Chapman
Session chair: J.-M. Rost

9:00 Plenary: *Imaging Macromolecules with X-ray*
17.1 *Laser pulses*
Henry Chapman (Germany)

Session Thu1, 10:00–12:00, Foyer
Poster

Thu111 *An Atomically Thin Matter-Wave Beam Splitter*
Christian Brand (Austria)

Thu112 *Development of a multi species cold atom interferometer*
Clément Diboune (France)

Thu113 *Disruption of Spin Echo due to Atom Interactions*
Cyrille Solaro (France)

Thu114 *Design of a miniaturized atomic gyroscope with an inductively coupled ring trap: advantages and challenges*
German Sinuco-Leon (United Kingdom)

Thu115 *Investigation of Clock Transition at 1.14 um in Cold Thulium Atoms*
Gulnara Vishnyakova (Russia)

Thu116 *Observation of Atom-Wave Beats Using a Kerr Modulator for Atom Waves*
Matthias Büchner (France)

Thu117 *A self-interfering clock as a "which path" witness*
Yair Margalit (Israel)

Thu121 *Photoionization and photofragmentation of Lu3N@C80q+ ions (q=1,2,3)*
Stefan Schippers (Germany)

Thu122 *Multiple Ionization of Ne+ Ions by Photoabsorption Near the K Edge*
Alfred Müller (Germany)

Thu123 *The effect of cluster sizes on the probability of ICD*
Ltaief Ben Ltaief (Germany)

Thu124 *Chemical Bond Reformation Subsequent To Resonant Auger Decay*
Esko Kokkonen (Finland)

Thu125 *Molecular Double Core Hole Spectroscopy: The Role of Electronic and Nuclear Dynamics in Carbon Monoxide*
Solène Oberli (France)

Thu126 *Absolute cross sections for the one-photon detachment of O-*
Matthieu Génévriez (Belgium)

Thu127 *Collective excitations and their impact on plasmon-assisted double ionizationfrom fullerenes*
Michael Schüler (Germany)

Thu128 *Two-photon ionization of the 3p shell of Ar*
Ivan Petrov (Russia)

Thu129 *A single atom antenna*
Florian Trinter (Germany)

Thu131 *The interaction of metastable neon with a few cycle laser pulse*
R.T. Sang (Australia)

Thu132 *Enhancing high-order harmonic generation in light molecules by using chirped pulses*
Fernando Martin (Espania)

Thu133 *Real-time imaging of the tunneling process via ionization*
Johann Förster (Germany)

Thu134 *Rotation of "Rotaionless" Helium Clusters by Intense Ultrashort Laser Pulses*
Holger Maschkiwitz (Germany)

Thu135 *Coherent Control Of Atomic Ionization By Two-Color Laser Fields*
Nicolas Camus (Germany)

Thu136 *Strong Field Ionization of N_2 Molecules in Two-Colour Circularly Polarized Laser Field*
Xiao-Min Tong (Japan)

Thu141 *Time Delay in Photoionization with Light Carrying Orbital Angular Momentum*
Jonas Wätzel (Germany)

Thu142 *Ultrafast correlated electronic and nuclear motions in molecules interacting with strong laser fields*
Antoine Desrier (France)

Thu143 *Continuum extension of quantum chemistry tools: the photoionization of neon.*
Carlos Marante (Spain)

Thu144 *Stimulated Raman Excitation of Hydrogen by Short XUV Radiation Pulses*
Henri Bachau (France)

Thu145 *Selective enhancement of resonant multiphoton ionization with strong laser fields*
Min Li (China)

Thu146 *The exact single-electron picture of stong field processes*
Axel Schild (Germany)

Thu147 *Frustrated double ionization in triatomic molecules*
Agapi Emmanouilidou (United Kingdom)

Thu151 *Laser-sub-cycle Control of Sequential Double Ionization Dynamics of Helium*
Markus S. Schöffler (Austria)

Thu152 *Optical Tunneling and Quantum Entanglement*
Attila Czirják (Hungary)

Thu153 *Correlated High-Harmonic Spectra from Time-Dependent Two-Particle Reduced Density Matrix Theory*
Fabian Lackner (Austria)

Thu154 *Strong-field photoionization of H_2^+ at mid-infrared wavelength*
Max Möller (Germany)

Thu155 *Quantum Trajectory resolved high harmonic spectroscopy*
Pengfei Lan (China)

Thu156 *Intratrajectory interference in High-order Harmonic Generation*
Stefanos Carlström (Sweden)

Thu157 *Probing ultrafast dynamics of chiral molecules with photoelectron circular dichroism*
Yann Mairesse (France)

Thu158 *CEP Effects for Multiple-cycle Laser Pulses of Arbitrary Length*
Klaus Renziehausen (Germany)

Thu161 *The ALPHA Experiment: Towards 1S-2S Laser Spectroscopy of Antihydrogen Atoms*
Daniel Maxwell (Switzerland)

Thu162 *Higher-order perturbative relativistic calculations for few-electron atoms and ions*
Dmitry A. Glazov (Russia)

Thu163 *Casimir-Polder effect of atoms and molecules in the near field of a hot surface: Energy level shifts and quantum energy transfer*
Athanasios Laliotis (France)

Thu164 *Precision determination of properties of 138Ba+ ion*
Nivedya Valappol (Netherlands)

Thu165 *radiation power of a moving nanoparticle*
vahid ameri (iran)

Thu166 *Imaging the He2 quantum halo state using a free electron laser*
Stefan Zeller (Germany)

Session Thu2, 10:00–12:00, HZ14
Poster

Thu211 *From a loophole-free Bell test to a global quantum network*
Andreas Reiserer (Netherlands)

Thu212 *Storage and retrieval of a single photon emitted by a quantum memory on a highly excited Rydberg state*
Emanuele Distante (Spain)

Thu213 *Generation of single photons with highly tunable wave shape from a cold atomic quantum memory*
Georg Heinze (Spain)

Thu214 *Automated Search for new Quantum Experiments*
Mario Krenn (Austria)

Thu215 *Entanglement of Two Hybrid Optomechanical Cavity Composed of BEC Atoms Under Bell Detection*
mohammad Eghbali Arani (Iran)

Thu221 *Consequence of interaction on the moment of inertia and vortices number of a rotating condensate boson*
Ahmed Hassan (Egypt)

Thu222 *A story of geometry and fluctuations in the stage of condensates*
Arko Roy (India)

Thu223 *Efficient Technique to Evaluate the Lindhard Dielectric Function*
Lorenzo Ugo Ancarani (France)

Thu224 *Rosensweig Instability and Droplets in a Quantum Ferrofluid of Dysprosium Atoms*
Matthias Schmitt (Germany)

Thu225 *Recent experiments with dipolar quantum gases:*
Olivier Gorceix (France)

Thu231 *High-Contrast and Narrow Magneto-Optical Resonance in Rb Vapour Cell*
Alexey Taichenachev (Russia)

Thu232 *Theoretical and experimental studies of selective reflection effect in a nanocell filled with alkali vapor*
Emmanuel KLINGER (Armenia)

Thu233 *E1 transitions and lifetimes for Kr VIII*
Gultekin Celik (Turkey)

Thu234 *Bayesian Statistics for Atomic Physics*
Martino Trassinelli (France)

Thu235 *Transition probabilities abd oscillator strengths for Nitrogen like Fluorine*
murat yıldız (TURKEY)

Thu236 *Design of mechanically compensated Penning trap for the study of ions in extreme laser field*
Sugam Kumar (Germany)

Thu237 *"The Sern-Gerlach-Experiment" revisited*
Horst Schmidt-Böcking (Germany)

Thu241 *Interaction of the D0+u and β1g Ion–Pair States in Free Iodine Molecule*
Vera V. Baturo (Russia)

Thu242 *Time Resolved Spectroscopy of Excited Neutrals in Low Temperature Afterglow Plasmas*
Ábel Kálosi (Czech Republic)

Thu243 *Measurements of the second overtone P branch carbon monoxide transitions in argon by cavity ring-down and broadband comb spectroscopy*
Piotr Maslowski (Poland)

Thu244 *Controlled OCS molecules for the investigation of ultrafast dynamics in the molecular frame*
Andrea Trabattoni (Germany)

Thu245 *Spectroscopic investigation of the 31Πu state in Rb2 molecule*
Pawel Kowalczyk (Poland)

Thu246 *Mass-selective Circular Dichroism after Femtosecond Laser Ionization*
Tom Ring (Germany)

Thu247 *Sub-One Per Cent Enantiomeric Excess Sensitivity using Femtosecond Photoelectron Circular Dichroism*
Stefanie Züllighoven (Germany)

Thu248 *Dissociative Ionization of Molecules PTCDA by Electron Impact*
Anatoly Zavilopulo (Ukraine)

Thu251 *Creation of a strongly dipolar gas of ultracold ground-state 23Na87Rb molecules*
Romain Vexiau (France)

Thu252 *Using ultracold atoms to operate a deterministic ion source*
Cihan Sahin (Germany)

Thu253 *Chip-scale MOT for Microsystems Technology*
Argyrios Dellis (USA)

Thu261 *Multiparticle losses in a linear Paul trap*
Ilya Semerikov (Russia)

Thu262 *Laser cooling of thulium atoms for investigation of cold collisions*
Elena Kalganova (Russia)

Thu263 *Confinement-Induced Resonances in Ultracold Atom-Ion Systems*
vladimir melezhik (Russia)

Thu264 *Anderson localization of a one-dimensional Bose-Einstein Condensate after long-time expansion*
Stefan Donsa (Austria)

Thu265 *towards negative La laser cooling*
giovanni cerchiari (Germany)

Session Thu3, 10:00–12:00, HZ15
Poster

Thu313 *TILDA-V: A full-differential code for proton tracking in biological matter*
Christophe Champion (France)

Thu314 *Partial ionization cross sections for positive fragments produced by electron impact on biomolecules*
Peter J. M. van der Burgt (Ireland)

Thu315 *Mass-Spectrometric Studies of the Valine Molecule Fragmentation by Electron Impact*
Alexander Papp (Ukraine)

Thu321 *Schottky Diagnostics for Precision Laser Spectroscopy of Bi82+ and Bi80+ at the Storage Ring ESR*
Carsten Brandau (Germany)

Thu322 *The FISIC Project for N-body Quantum Dynamics Study in Fast Ion - Slow Ion Collisions: Status and Progress*
Vernhet D. (France)

Thu323 *Forward-angle electron spectroscopy in heavy-ion atom collisions studied at the Experimental Storage Ring*
Pierre-Michel Hillenbrand (Germany)

Thu324 *High-Precision X-ray Spectroscopy of Highly-Charged Ions at Storage Rings Using Silicon Microcalorimeters*
Saskia Kraft-Bermuth (Germany)

Thu325 *X-ray Laser Spectroscopy with Highly Charged Ions at Ultrabrilliant Light Sources*
Sven Bernitt (Germany)

Thu331 *Unraveling the Principles Governing the Stability of Endohedral and Exohedral Fullerenes*
Yang Wang (Spain)

Thu332 *Ab initio-based Potentials for Studying Ion Hydration*
Rita Prosmiti (Spain)

Thu333 *Hydrogen Beam Irradiation of Suspended Mono and Bilayer Graphene*
Xavier Urbain (Belgium)

Thu334 *Tracking Interatomic Processes in Prototypical Noble Gas Clusters Using Time- and Spectrally Resolved Luminescence Detection*
Andreas Hans (Germany)

Thu335 *Fano-CI method for the computation of decay widths of electronic resonances in medium-sized atomic and molecular systems*
Tsveta Miteva (France)

Thu342 *Two-Step Autoionization in Ejected-Electron Spectra of Ba*
Gintaras Kerevičius (Ukraine)

Thu343 *Velocity distributions of a molecule evaporated from mass-selected water nanodroplet*
Hassan Abdoul-Carime (France)

Thu344 *Associative detachment in Li- + H and Li + H- collisions*
Jan Dvořák (Czech Republic)

Thu345 *Lifetime Measurements of Excited States in Atomic Negative Ions I: Ni- and Pt-*
KC Chartkunchand (Sweden)

Thu346 *Radiative Association of Metastable Helium He(23P) with Lithium Cations*
Martina Zámečníková (Czech Republic)

Thu347 *Real time simulation of 1 MeV proton microbeam transmission through an insulating macrocapillary*
Károly Tőkési (Hungary)

Thu351 *MOCCA: a 4k-pixel molecule camera for the position and energy resolved detection of neutral molecular fragments*
Lisa Gamer (Germany)

Thu352 *Dynamics of N2 dissociative ionization by electron impact*
Baoren WEI (China)

Thu353 *Many-Body Theory of Positronium-Atom Scattering*
Dermot Green (United Kingdom)

Thu354 *Ions colliding with clusters of small hydrocarbon chains — a pathway to aromatic rings?*
Henning Zettergren (France)

Thu355 *Mass-spectrum of product ions from the collision of 450eV N2+ with hydrocarbon covered surface of tungsten*
Sunil Kumar (India)

Thu356 *Evoluation of energy-loss-spectrum profile with projectile mass in impulsive ion-molecule collisions at hyperthermal energies*
Masato NAKAMURA (Japan)

Thu361 *Electron-impact Ionization of W^{19+} Ions*
Alexander Borovik (Germany)

Thu362 *Quantum Statistical Theory of Electron Recombination in Highly Charged Ions via Chaotic Many-Electron States*
Julian Berengut (Australia)

Thu363 *Potential Electron Scattering by the Bi2 Molecule*
Shandor Demesh (Ukraine)

Thu364 *Electron Interactions with Iron Pentacarbonyl Molecules and Clusters*
Dušan Mészáros (Slovakia)

Thu365 *Insight into the effects of polarization in e + A@C60 elastic scattering*
Valeriy K. Dolmatov (Russia)

Thu366 *Trend of the properties of the Lyman-alpha1,2 emission along the H isoelectronic sequence following radiative recombination*
mohammed reda boufatah (Algeria)

Session 18, 13:30–15:30, HZ1
Molecular processes II
Session chair: A. Trabatoni

13:30 Progress Report: *Low Energy Molecular*
18.1 *Collisions in Merged Neutral Beams*
Andreas Osterwalder (Switzerland)

14:00 Progress Report: *Taming Molecular Collisions*
18.2 Sebastiaan van de Meerakker (Netherlands)

14:30 Progress Report: *Electron Induced*
18.3 *Decomposition of Thiopyrimidine Nucleobases*
Janina Kopyra (Poland)

15:00 Progress Report: *Collision Experiments with*
18.4 *Hydrogenated PAHs*
Nathalie de Ruette (Sweden)

Session 19, 13:30–15:30, HZ2
Highly charged ions
Session chair: H. Rothard

13:30 Progress Report: *Astrophysics and Chemistry*
19.1 *Induced by Ion Collisions*
Alicja Domaracka (France)

14:00 Progress Report: *Studying Ion Atom Collisions*
19.2 *Using MOTRIMS*
Daniel Fischer (Germany)

14:30 Progress Report: *Nanoparticles in proton and*
19.3 *heavy ion therapy*
Sandrine Lacombe (France)

15:00 Hot Topic: *Ions collisions to suppress the*
19.4 *thermal hysteresis in magnetocaloric thin films*
Sophie Cervera (France)

15:15 Hot Topic: *Determination of Energy-Transfer*
19.5 *Distributions in Ionizing Ion-Molecule Collisions*
Sylvain Maclot (Sweden)

Session 20, 16:00–18:00, HZ1
Strong fields II
Session chair: M. Kitzler

16:00 Progress Report: *Control and dynamic x-ray*
20.1 *imaging of ultrafast nanoplasma dynamics*
Thomas Fennel (Germany)

16:30 Progress Report: *Time-dependent two-particle*
20.2 *reduced density matrix theory: Application to high-harmonic generation*
Iva Brezinova (Austria)

17:00 Progress Report: *Slow electrons from intense*
20.3 *fields*
Jan Michael Rost (Germany)

17:30 Progress Report: *Time-dependent*
20.4 *restricted-active-space self-consistent-field theory: Formulation, application, and extension by space-partition concept*
Haruhide Miyagi (Denmark)

Session 21, 16:00–18:00, HZ2
Clusters & nano particles
Session chair: N. Sisourat

16:00 Progress Report: *Towards nanoparticle*
21.1 *enhanced radiotherapy*
Fred Currell (United Kingdom)

16:30 Progress Report: *Resonant Auger driven*
21.2 *interatomic Coulombic decay*
Kirill Gokhberg (Germany)

17:00 Progress Report: *Atomic Processes in Laser*
21.3 *Produced Plasmas for EUV Nanolithography*
Oscar Versolato (Netherlands)

17:30 Progress Report: *Structure and dynamics of*
21.4 *clusters probed by synchrotron radiation based X-ray spectroscopies*
Minna Patanen (France)

Session 22, 9:00–10:00, HZ1
Plenary: Klaus Blaum
Session chair: T. Schlathölter

9:00 22.1 Plenary: *Precision measurements of fundamental properties of atomic particles in Penning traps*
Klaus Blaum (Germany)

Session 23, 10:30–11:30, HZ1
Plenary: Fernando Martin
Session chair: D. Vernhet

10:30 23.1 Plenary: *Attosecond Molecular Dynamics*
Fernando Martin (Spain)

Session 24, 13:00–15:00, HZ1
Fundamental quantum physics
Session chair: M. Schöffler

13:00 24.1 Hot Topic: *Optoelectrical cooling of polar molecules to submillikelvin temperatures*
Martin Ibrügger (Germany)

13:15 24.2 Hot Topic: *The Magnetic Moment of the Proton and a High-Precision Comparison of the Proton to Antiproton Charge-To-Mass Ratio*
Andreas Mooser (Japan)

13:30 24.3 Progress Report: *Gravity tests and precision measurements with a cold atom gradiometer based on Raman and Bragg transitions*
Gabriele Rosi (Italy)

14:00 24.4 Progress Report: *Two Particle Interference with Cold Atoms*
Chris Westbrook (France)

14:30 24.5 Hot Topic: *Observation of the Efimov state of the helium trimer*
Maksim Kunitski (Germany)

14:45 Hot Topic: *Photoionization and*
24.6 *photofragmentation of Lu3N@C80q+ ions (q=1,2,3)*
Stefan Schippers (Germany)

Session 25, 13:00–15:00, HZ2
Fundamental physics II
Session chair: I. Ryabtsev

13:00 Hot Topic: *An Atomically Thin Matter-Wave*
25.1 *Beam Splitter*
Christian Brand (Austria)

13:15 Hot Topic: *Observation of Atom-Wave Beats*
25.2 *Using a Kerr Modulator for Atom Waves*
Matthias Büchner (France)

13:30 Progress Report: *hbar+ production from*
25.3 *Collisions between Positronium and keV Antiprotons for GBAR*
Paul-Antoine Hervieux (France)

14:00 Progress Report: *Coulomb Crystallization of*
25.4 *Highly Charged Ions*
Lisa Schmöger (Germany)

14:30 Progress Report: *New methods and*
25.5 *approaches in high-resolution spectroscopy of ultracold atoms and ions*
Alexey Taichenachev (Russia)

Session 26, 15:00–15:30, HZ1
Closing Ceremony

Closing Ceremony

List of Presenting Authors

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	Monday	Tuesday	Wednesday	Thursday	Friday
08:30 - 09:00	opening ceremony				
09:00 - 10:00	**Plenary: Anton Zeilinger** **chair: J. Burgdörfer**	**Plenary: Wolfgang Ketterle** **chair: H. Schmidt-Böcking**	**Plenary: Christine Joblin** **chair: S. Tendero** Award ceremony & Gen. Ass. (ECAMP & EGAS)	**Plenary: Henry Chapman** **chair: J.-M. Rost**	**Plenary: Klaus Blaum** **chair: T. Schlathölter**
10:00 - 12:00	Poster & Coffee	conference foto Poster & Coffee	Poster & Coffee	Poster & Coffee	Coffee break **10:30 Plenary: Fernando Martin** **chair: D. Vernhet**
12:00 - 13:30	Lunch break	Lunch break	Lunch break	Lunch break	Lunch break
13:30 - 15:30	*Photon induced processes:* chair: T. Schlathölter Corral Reid Williams Ehresmann *Coherent control:* chair: M. Vrakking Goldfarb Räsanen Lippe / Borbely Rohrlich	*Chiral molecules:* chair: U. Boesl Baumert Zamudio-Bayer Schnell Ilchen / F. da Silva *Fundamental Physics I:* chair: T. Schätz Shabaev Tashenov Eikema Picqué	*Cold gases I:* Akimov Turlapov Bouloufa Tarbutt *Ultrafast & Attosecond II:* chair: M. Lein Calegari Cerullo Mauritsson Hernández-García	*Molecular processes II:* chair: A.T. Le Osterwalder v. d. Meerakker Kopyra de Ruette *Highly charged ions:* chair: H. Bekker Domaracka Fischer Lacombe Cervera / Maclot	*Fundamental quantum phys.:* chair: M. Schöffler brügger / Mooser Rosi Westerbrook Kunitski / Schippers *Fundamental physics II:* chair: I. Ryabtsev Brand / Büchner Hervieux Schmöger Taichenachev
15:30 - 16:00	Coffee break	Coffee break	Coffee break	Coffee break	Closing Ceremony
16:00 - 18:00	*Molecular processes I:* chair: R. Wester Bolognesi Bald Lafosse Stockett / Toker *Quantum info. & cavity QED:* chair: K. Singer Kippenberg Rauschenbeutel Saffman Treutlein	*Surface reac. & self-assembly:* chair: F. Aumayr Alducin Roncin Wilhelm Reiserer / Bertin *Ultrafast & Attosecond I:* chair: J. Mauritsson Rudenko Cohen Mairesse Stapelfeldt	*Cold gases II:* chair: S. Tzur Polzik Hofferberth Juzeliunas Wüster *Strong fields & molecular frag.:* chair: J.P. Maier Karamatskou Lemell Kheifets/Wang Koch	*Strong fields II:* chair: M. Kitzler Fennel Brezinova Rost Miyagi *Clusters & nano particles:* chair: N. Sisourat Currell Gokhberg Versolato Patanen	
18:00 - 19:00		guided (walking) tour	20:30 Public Lecture: H. Schmidt-Böcking		
19:00 - …	Welcome Reception (Casino on Campus)			Conference Dinner (Casino on Campus)	