

International Symposia on (e,2e), Double Photo-ionization and Related Topics & Polarization and Correlation in Electronic and Atomic Collisions

FINAL SCIENTIFIC PROGRAM

OPENING

Thursday July 30th

8.45h-9.00h: Welcome

PLENARY TALKS

Thursday July 30th

Chairman: Ricardo Díez Muiño

9.00h-9.45h: P1.- Lorenz S. Cederbaum (University of Heidelberg, Germany)

Interatomic (Intermolecular) Coulombic Decay and its Exploration by Free-Electron-Lasers

Friday July 31st

Chairman: Nikolay Kabachnik

9.00h-9.45h: P2.- Anatoli Kheifets (Australian National University, Canberra, Australia)

Strong field atomic ionization with linear/circular polarized light: Spectra, Cusps and Time delay

Saturday August 1st

Chairman: Don Madison

9.00h-9.45h: P3.- Giovanni Stefani (Università Roma Tre, Rome, Italy)

Direct and resonant double photoionization in solids

PARALLEL SESSION: ELECTRONS/IONS

Thursday July 30th

Chairman: Klaus Bartschat

10.00h-10.30h: I1.- Daniel Fischer (Missouri S&T, Rolla MO, USA)

Collision dynamics studied with a polarized MOT target

10.30h-11.00h: I2.- Leigh R. Hargreaves (California State University, Fullerton CA, USA),

Unusual angular momentum transfer in electron-impact excitation of atoms and molecules

COFFEE BREAK

Chairman: James Colgan

11.30h-12.00h: I3.- Klaus Bartschat (Drake University, Des Moines IA, USA)

Non-perturbative calculations for electron-impact ionization of complex atoms

12.00h-12.20h: O1.- Xueguang Ren (Physikalisch-Technische Bundes., Braunschweig, Germany)

Low-energy (67 eV) electron-impact induced interatomic coulombic decay of argon dimer

12.20h-12.40h: O2.- Baoren Wei (Fudan University, Shanghai, China)

Fragmentation mechanisms for Methane induced by 55 eV, 75 eV and 100 eV electron impact

12.40h-13.00h: O3.- Stanislav Tashenov (University of Heidelberg, Germany)

First observation of coherence in a highly charged ion

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Chairman: Xiangjun Chen

15.15h-15.45h: I4.- Béla Paripás (University of Miskolc, Hungary)

Angle-dependent (e,2e) study of state-to-state interference between autoionizing states of He

15.45h-16.15h: I5.- Nicholas Martin (University of Kentucky, Lexington KY, USA)

Out-of-plane (e,2e) experiments on He autoionization levels

16.15h-16.35h: O4.- Peter Koval (Donostia International Physics Center, San Sebastian, Spain)

Iterative calculation of electron energy loss spectra

16.35h-16.55h: O5.- Filippo Morini (Hasselt University, Diepenbeek, Belgium)

The ground state nuclear dynamics of dimethyl ether in momentum space

COFFEE BREAK

Chairman: Béla Paripás

17.30h-18.00h: I6.- James Colgan (Los Alamos National Laboratory, Los Alamos NM, USA)

Triple differential cross sections for the electron-impact ionization of laser-excited Mg: the perpendicular plane cross section

18.00h-18.30h: I7.- Lorenzo Ugo Ancarani (Université de Lorraine, Metz, France)

Sturmian approach for ionization processes: applications and perspectives

Friday July 31st

Chairman: Alexander Dorn

10.00h-10.30h: I8.- Michael Schulz (Missouri S&T, Rolla MO, USA)

Fully differential study of coherence and interference effects in ionization of H₂ by proton impact

10.30h-11.00h: I9.- Shaofeng Zhang (Institute of Modern Physics, Lanzhou, China)

"Double-slit" interferences observed in dielectronic transitions in collisions between hydrogen molecular ion and helium atom

COFFEE BREAK

Chairman: Masahiko Takahashi

11.30h-12.00h: I10.- Masakazu Yamazaki (Tohoku University, Sendai, Japan)

Towards making the molecular orbital movies by time-resolved (e,2e) electron momentum spectroscopy

12.00h-12.20h: O6.- Mariusc Piwiński (Nicolaus Copernicus University, Toruń, Poland)

Inelastic e-Cd and e-Zn collisions

12.20h-12.40h: O7.- Chenzhong Dong (Northwest Normal University, Lanzhou, China)

Influence of the higher order effects on the polarization and angular distribution of the radiation following electron-impact excitation process

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Chairman: Allen Landers

15.15h-15.45h: I11.- Allan Stauffer (York University, Toronto, Canada)

Ionization of laser-excited atoms: the shape of the cross sections

15.45h-16.15h: I12.- Andrey Surzhikov (Helmholtz-Institut, Jena, Germany)

Interaction of twisted light with atomic and molecular targets

16.15h-16.35h: O8.- Ladislau Nagy (Babeş-Bolyai University, Cluj, Romania)

Projectile coherence -- the transition between the semiclassical and the quantum method

16.35h-16.55h: O9.- Yew Kam Ho (Academia Sinica, Taipei, Taiwan)

Electron-electron orbital entanglement in two-electron ions around the critical charge region

COFFEE BREAK

Chairman: Allan Stauffer

17.30h-18.00h: I13.- Allen Landers (Auburn University AL, USA),

Imaging Correlated Molecular Dynamics

18.00h-18.30h: I14.- Omar Ariel Fojón (Instituto de Física de Rosario, Argentina)

Coherent emission from diatomic molecules: from femto- to atto-seconds

Saturday August 1st

Chairman: Michael Schulz

10.00h-10.30h: I15.- Don Madison (Missouri S&T, Rolla MO, USA)

Accuracy of theory for calculating 3-Body and 4-Body fully differential cross sections for electron-impact ionization of atoms and molecules

10.30h-11.00h: I16.- Xiangjun Chen (University of Science and Technology, Hefei, Anhui, China)

Three-body fragmentation of simple molecules induced by electron impact multiple ionizations

COFFEE BREAK

Chairman: Lorenzo Ugo Ancarani

11.30h-12.00h: I17.- Alexander Dorn (Max Planck Inst. for Nuclear Physics, Heidelberg, Germany)

A thorough study of Young-type interferences in (e,2e) on H₂ molecules with known spatial alignment

12.00h-12.20h: O10.- Juana L. Gervasoni (Centro Atómico Bariloche, Argentina)

Effects of the sudden electron-hole pair creation and of the life time of the residual hole on plasmon excitations in surfaces

12.20h-12.40h: O11.- Károly Tőkési (Institute for Nuclear Research, Debrecen, Hungary)

Optical constants of iron derived from reflection electron energy-loss spectra

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PARALLEL SESSIONS: PHOTONS

Thursday July 30th

Chairman: Maria Novella Piancastelli

10.00h-10.30h: I1.- Emma Sokell (University College Dublin, Ireland)

Coincidence photoelectron measurements following 2p photoionization in Mg

10.30h-11.00h: I2.- Kiyoshi Ueda (Tohoku University, Sendai, Japan)

XFEL-induced ultrafast electron and molecular dynamics

COFFEE BREAK

Chairman: Emma Sokell

11.30h-12.00h: I3.- John Furst (University of Newcastle, Ourimbah, Australia)

Alignment and Orientation of N_2^+

12.00h-12.20h: O1.- Miron Ya. Amusia (The Hebrew University, Jerusalem, Israel)

One photon-two electron ionization in atoms and endohedrals – simplicity and complexity

12.20h-12.40h: O2.- Armin Scrinzi (Ludwig Maximilians University, Munich, Germany)

Single- and double emission from multi-electron systems: How to compute IR double emission and solve the CO₂ mystery

12.40h-13.00h: O3.- Yuri V. Popov (Moscow State University, Moscow, Russia)

New look at the strong field approximation in laser-matter interactions

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Chairman: Kiyoshi Ueda

15.15h-15.45h: I4.- Alicia Palacios (Universidad Autónoma de Madrid, Spain)

Decoding attosecond electron-nuclear dynamics in molecules by means of XUV-IR and XUV-XUV pump-probe schemes

15.45h-16.15h: I5.- Kirsten Schnorr (MPI für Kernphysik, Heidelberg, Germany)

Electron Rearrangement Dynamics in Dissociating Iodine Molecules

16.15h-16.35h: O4.- Oksana Travnikova (Lab. Chimie Physique-Matière et Rayonn., Paris, France)

Multi-step ultrafast fragmentation of the third row hydrides following K-shell excitation and ionisation

16.35h-16.55h: O5.- David Ayuso (Universidad Autónoma de Madrid, Spain)

Ultrafast electron dynamics in phenylalanine initiated by attosecond pulses

COFFEE BREAK

Chairman: Alicia Palacios

17.30h-18.00h: I6.- Renaud Guillemin (Université Pierre et Marie Curie, Paris, France)

Exploring deep-core photoionization: ion-electron correlation effects in the 1 to 10 keV x-ray region

18.00h-18.30h: I7.- Li Fang (University of Texas, Austin, TX USA)

Photoionization induced fragmentation of glycine molecule and endohedral fullerenes $\text{Ho}_3\text{N}@C_{80}$ molecule

Friday July 31st

Chairman: Igor Bray

10.00h-10.30h: I8.- Artem Rudenko (Kansas State University, Manhattan, KS, USA)

Electronic and nuclear dynamics triggered by ultraintense soft and hard X-rays

10.30h-11.00h: I9.- Kyo Nakajima (JASRI, Hyogo, Japan)

Photoelectron diffraction from laser-aligned molecules using an x-ray free-electron laser

COFFEE BREAK

Chairman: Tommaso Mazza

11.30h-12.00h: I10.- Olga Smirnova (Max Born Institute, Berlin, Germany)

Attosecond Spectroscopy: from measuring ionization times to time-resolving chiral response

12.00h-12.20h: O6.- Alvaro Jiménez-Galán (Universidad Autónoma de Madrid, Spain)

Time delay anisotropy in photoelectron emission from the isotropic ground state of helium

12.20h-12.40h: O7.- Ya-Wei Liu (University of Science and Technology, Hefei, China)

Optical oscillator strengths of the valence-shell excitations of molecular nitrogen measured by the dipole (γ, γ) method

12.40h-13.00h: O8.- Lin-Fan Zhu (University of Science and Technology, Hefei, China)

Squared form factors for the $A^1\Pi$ and $B^1\Sigma^+$ vibronic bands of carbon monoxide studied by high-resolution inelastic x-ray scattering

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Chairman: Alexey Grum-Grzhimaylo

15.15h-15.45h: I11.- Tommaso Mazza (European XFEL, Hamburg, Germany)

Circular dichroism in two-color multi-photon ionization of rare-gas atoms

15.45h-16.15h: I12.- Andrey K. Kazansky (Donostia Int. Physics Center, San Sebastian, Spain)

Dichroism in two-color ionization of atoms by short pulses

16.15h-16.35h: O9.- Luca Argenti (Universidad Autónoma de Madrid, Spain)

Modulation of Attosecond Beating in Resonant Two-Photon Ionization

16.35h-16.55h: O10.- Ralph Püttner(Freie Universität Berlin, Germany)

The $1s^{-1}2s^{-1}$ and $1s^{-1}2p^{-1}$ double core-hole shake-up satellites in Argon

COFFEE BREAK

Chairman: Armin Scrinzi

17.30h-18.00h: I13.- Oleg S. Vasyutinskii (Ioffe Institute, St. Petersburg, Russia)

Determination of spin-polarized H atoms produced in molecular photodissociation

18.00h-18.30h: I14.- Andreas Fischer (MPI für Kernphysik, Heidelberg, Germany),

Molecular dynamics on laser-controlled transition states

Saturday August 1st

Chairman: Paola Bolognesi

10.00h-10.30h: I15.- Lorenzo Avaldi (CNR - Istituto di Struttura della Materia, Roma, Italy)

Fragmentation of halopyrimidines and halouraciles by photoionization and ion impact

10.30h-11.00h: I16.- Laurent Nahon (Synchrotron SOLEIL, Saint Aubin, France)

Gas phase targets in interaction with Circularly-Polarized Light: Molecular polarimetry and chiroptical effects in photoionization

COFFEE BREAK

Chairman: Lorenzo Avaldi

11.30h-12.00h: I17.- Christophe Nicolas (Synchrotron SOLEIL, Saint Aubin, France)

Momentum Exchange in Molecular Systems

12.00h-12.20h: O11.- Yaroslav Pavlyukh (Martin-Luther-Universität, Halle, Germany)

Keldysh nonequilibrium Green's function vs. Feshbach projection operator approach for plasmon-assisted photoemission

12.20h-12.40h: O12.- Denis Iablonskyi (Tohoku University, Sendai, Japan)

Interatomic Coulombic Decay Processes after Multiple Valence Excitations in Ne Clusters

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