Session Program

June 30, 2025 to July 4, 2025

ECAMP 15

Poster Session 1

Mon, June 30

3:15 PM

Poster Session 1

Poster Session | **Location:**

Light absorption and emission processes involving charge transfer states of weakly-bound molecular ions in noble gas mixture plasmas

Speaker
Dr Alexander Narits

New Spectral Features on Two-Dimensional Optical Spectra arising from Quantum System-Bath Interactions: Implications and Potential Applications

Speaker
Sachin Prasad

Combining atomic ensembles with single atoms to realize collectively enhanced detection using EIT

Speaker
Lew Schöne

Correlated Strong-Field Double Ionization

Speaker
Ms Susmita Jana

Single Photoionization of vinylcyanoacetylene and methacrylonitrile in Astrophysical Objects

Speaker
Martin Schwell

Photodesorption of CO ices: Rotational and translational energy distributions

Speaker
Antoine Hacquard

Coupled atom-cavity systems for quantum-enhanced metrology: adiabatic elimination of the cavity mode beyond the leading order

Speaker
Stefano Gregorio Giaccari

Interactions between metastable triplet-state helium dimers

Speaker
Dibyendu Sardar

Towards the Assembly of YbCaF

Speaker
Mr Benjamin Fox

Impact of a smoothing parameter in breast radiotherapy planning

Speaker
Karoly Tokesi

Multiplatform computing of oscillator strengths and transition probabilities in Os V

Speaker
Maxime Brasseur

Commissioning of the Transverse Free-Electron Target at the Heavy-Ion Storage Ring CRYRING@ESR

Speaker
Michel Döhring

Bayesian methods for quantum logic spectroscopy

Speaker
Andrea Turci

Barium Fluoride Deceleration Using Temporary Ionization

Speaker
Mr Martin Collignon

Towards the Simulation of Complex Models of Quantum Magnetism with Electromagnetic Dipoles

Speakers
Niclas Höllrigl, Marian Kreyer

Temperature Dependence of ac Stark Shift in a Vapor Cell Rb Atomic Clock

Speaker
Hyun-Gue Hong

Unconventional Phonon blockade effect in a coupled nanomechanical system quadratically coupled to a two-level system

Speaker
Bhaskar Kumar

Effect of Laser Repetition Rate on Electron Emission from Tungsten Nanotip

Speaker
HARITHA VENUGOPAL

Collective Quantum Phenomena

Speaker
Raphael Holzinger

Bloch Oscillations of a Soliton in a 1D Quantum Fluid

Speaker
Guillaume Brochier

Spin and Orbital Angular Momentum in Attosecond Pulses of Light

Speaker
Alba de las Heras

Photoionization of neutral PAHs in space - New lab data on photoelectric heating

Speaker
Helgi Rafn Hrodmarsson

Optical excitation and stabilization of ultracold field-linked tetratomic molecules

Speaker
Bijit Mukherjee

Amplification of spontaneous emission from doubly excited He atoms

Speaker
Janez Turnšek

Ultracold Coherent Control of molecular collisions at a Förster resonance

Speaker
Thibault Delarue

Electron transfer processes and the formation of solvated dielectrons by UV excitation in sodium-ammonia clusters

Speaker
Sebastian Hartweg

Resonances and dissociative dynamics of iron tetracarbonyl acrolein

Speaker
Sukanta Das

Adiabatic alignment of alkali dimers on the surface of helium nanodroplets

Speaker
Emil Hansen

Ion–molecule reactions of acetylene inside helium nanodroplets: Formation of cationic benzene and other covalently bound hydrocarbons including PAHs

Speaker
Florian Foitzik

Multi-species cold-atom interferometry for inertial measurements

Speaker
Mx Mal Landru

Dipolar Supersolids as a Platform for Tunable Josephson Junctions

Speaker
Natalia Masalaeva

Hydrogen Sticking Dynamics on Graphene

Speaker
Mukul Dhiman

Modeling weakly bound few-body systems of ultracold quantum mixtures

Speaker
Petar Stipanovic

Structure, stability and superfluidity of Bose-Bose bulk mixtures and droplets in quasi-2D confinement and optical lattices

Speaker
Leandra Vranjes Markic

High-fidelity quantum logic state detection of single trapped molecular ions

Speaker
Mikolaj Roguski

Gas phase collisions of O+ ions in ^{4}S and ^{2}D states with molecular moieties of space-relevant polymers

Speaker
Dr Cintia Aparecida Pires Da Costa

Dissociative positronium attachment in halogen gases

Speaker
Gleb Gribakin

Electron and Ion Induced Reactions with Chlorpyrifos Molecules

Speaker
NAVYA AREPALLI

Associative ionisation of $\mathrm{H}(1s)+\mathrm{H}(ns)$: a semi-classical description

Speaker
Pierre GUICHARD

Two-Photon Optical Shielding of Collisions Between Ultracold Polar Molecules

Speaker
Gohar Hovhannesyan

Structural Characterization of Interstellar Water Ice Analogues: Optical and Morphological Evolution with Deposition Conditions

Speaker
Delfina Toulouse

Full-stack neutral-atom quantum computing with 85Rb

Speaker
Yuri van der Werf

Strong electron-electron-nuclei correlations in multiphoton single and double ionization

Speaker
Alicia Palacios Cañas

Photoabsorption Spectroscpoy using adQTB Dynamics

Speaker
Mukul Dhiman

All Optical Formation of Bose-Einstein Condensate near Dielectric Surface

Speaker
Hayato Kawamura

Verifying Fano's propensity rules by interfering photelectron wavepackets of different parities

Speaker
Nedjma Ouahioune

Photo-modified birefringence of low thermal noise crystalline AlGaAs mirror coatings for ultrastable lasers

Speaker
Chun Yu Ma

Rapid and Robust Hyperfine Qudit Gates in Trapped Neutral Atoms

Speaker
Johannes K. Krondorfer

Electronically resolved excitation in proton collisions with hydrogen molecules

Speaker
Prof. Dmitry Fursa

Source of negatively charged ions for matter-antimatter interaction experiments

Speaker
Łukasz Kłosowski

Impact parameter and kinematic information for differential ionization of argon by positron and electron impacts

Speaker
Karoly Tokesi

The survival mechanisms of dipeptides to space environmental conditions

Speaker
Lorenzo Avaldi

High fidelity control of a many-body Tonks-Girardeau gas with an effective mean-field approach

Speaker
Dr Muhammad Hasan

Hot Schrödinger Cat States

Speaker
Thomas Agrenius

Anyonization of bosons

Speaker
Sudipta Dhar

From megabarns to attoseconds: How to relate the cross-section with the time delay

Speaker
Anatoli Kheifets

Airy offset of velocity imaging-based electron spectrometry

Speaker
Christophe Blondel

Role of electron-impact charge transfer excitations of molecular and quasimolecular ions in the relaxation processes in noble gas mixture plasmas

Speaker
Dr Alexander Narits

Determination of Desorption Energies in Dispersion-dominated Complexes: Role of Nitrogen Substitution and Functional Group

Speaker
MUHAMMED Shabeeb

Quantum Correlations in UV Dual-Comb Spectroscopy

Speaker
Radmir Kokoulin

Direct comparison of polarizability measurements with a dual-species ion clock

Speaker
Martin Steinel

Erosion of the lunar surface by solar wind ions

Speaker
Friedrich Aumayr

C$_{60}^+$ collisions with low-energy electrons at the Cryogenic Storage Ring

Speaker
Lucia Enzmann

Crossed-beam Scattering Dynamics of Atomic Nitrogen Ions with Carbon Dioxide Molecules

Speaker
Jerin Judy

Coherent nonlinear four X-ray photon interaction with core-shell electrons

Speaker
Ana Sofia Morillo Candas

Protecting collective qubits

Speaker
Alexei Ourjoumtsev

Vortices in a dipolar supersolid and single erbium atoms in optical tweezers

Speaker
Manfred Mark

Convergent Close-Coupling Approach to Electron-Impact Dissociative Excitation and Ionisation of H$_3^+$

Speaker
Prof. Dmitry Fursa

Collective effects in thermometry and cooling of trapped ions

Speaker
Ivan Vybornyi

Environment-Enhanced Single-Photon Absorption in a Nanoring of Dipole-Coupled Quantum Emitters

Speaker
Maria Moreno-Cardoner

Quantum Annealing for Combinatorial Optimization and Many-Body Physics: Room Scheduling and Z_2 Spin Liquid

Speaker
Krzysztof Giergiel

Utilizing the center of mass for sensing magnetic fields and gravity in a cold atom cavity QED system with magnetic trapping

Speaker
Alexandra Simon

Reconstruction of Quantum Gates using Quantum Process Tomography

Speaker
Arash Dezhang Fard

The role of dephasing in solid-state high harmonic generation

Speaker
Francisco Navarrete

Apparatus for preparing conformationally pure gas-phase biomolecular clusters

Speaker
Bendegúz Szihalmi

Reactivity of Sea Salt Cluster Ions with Atmospherically Relevant Organic Acids in the Gas Phase

Speaker
Martin Klemens Beyer

Luminescence and scintillation properties of zinc-silicate glass ceramics

Speaker
Dr Vladimir Babin

EXPERIMENTAL OSCILLATOR STRENGTHS FOR FORBIDEN LINES IN Fe II

Speaker
Dr Uldis Bērziņš

Modelling of photoionization time-delays in iodine-containing molecules with scalar relativistic effects

Speaker
Zdeněk Mašín

Photofragmentation of dAMP- in a cryogenic ion trap

Speaker
Christian Sprenger

Floquet Theory of Sequential Bragg and Bloch Oscillation Based Large Momentum Transfer

Speaker
Patrik Mönkeberg

Status of Rb Two-Photon Optical Clock with a Chip-Scale Vapor Cell at KRISS

Speaker
Dr Dai Hyuk Yu

5:00 PM