

ISUILS2023

List of Poster Presentations

P-1 Electron-nuclear energy sharing through low-energy inelastic recollisions in dissociative multiphoton ionization of D₂

Sebastian Hell^{1*} and Matthias Kübel¹ (¹*Institute of Optics and Quantum Electronics, University of Jena*)

P-2 Electronic, vibrational, and rotational excitation of nitrogen molecular ions in intense laser fields

Erik Lötstedt,^{1*} Youyuan Zhang,¹ and Kaoru Yamanouchi^{1,2} (¹*Department of Chemistry, School of Science, The University of Tokyo*, ²*Institute for Attosecond Laser Facility, The University of Tokyo*)

P-3 Atmospheric electric discharges controlled by high repetition rate laser filaments

Aurélien Houard¹, Pierre Walch¹, Thomas Produit², Victor Moreno^{2,*}, Benoit Mahieu¹, Antonio Sunjerga³, Clemens Herkommer⁴, Amirhossein Mostajabi³, Ugo Andral², Yves-Bernard André¹, Magali Lozano¹, Laurent Bizet¹, Malte C. Schroeder², Guillaume Schimmel², Michel Moret², Mark Stanley⁵, W. A. Rison⁵, Oliver Maurice⁶, Bruno Esmiller⁶, Knut Michel⁴, Walter Haas⁷, Thomas Metzger⁴, Marcos Rubinstein⁸, Farhad Rachidi³, Vernon Cooray⁹, André Mysyrowicz^{1,10}, Jérôme Kasparian^{2,11}, Jean-Pierre Wolf² (¹*Laboratoire d'Optique Appliquée – ENSTA Paris, Ecole Polytechnique, CNRS*, ²*Groupe de Physique Appliquée, Université de Genève*, ³*EMC Laboratory, Electrical Engineering Institute, Swiss Federal Institute of Technology*, ⁴*TRUMPF Scientific Lasers GmbH + Co. KG*, ⁵*Langmuir Laboratory for Atmospheric Research, New Mexico Institute of Mining and Technology*, ⁶*ArianeGroup*, ⁷*Swisscom Broadcast AG*, ⁸*School of Management and Engineering Vaud, University of Applied Sciences and Arts Western Switzerland*, ⁹*Department of Electrical Engineering, Uppsala University*, ¹⁰*André Mysyrowicz Consultants*, ¹¹*Institute for Environmental Sciences, Université de Genève*)

P-4 Experimental study of the laser-induced ionization of heavy metal and metalloid ions: Au⁺ and Si²⁺

B. Ying^{1,2,*}, F. Machalett^{1,2}, V. Huth¹, M. Kübel^{1,2}, A. M. Saylor³, T. Stöhlker^{1,2}, P. Wustelt^{1,2}, and G. G. Paulus^{1,2} (¹*Institute of Optic and Quantum Electronics, Friedrich-Schiller-University Jena*, ²*Helmholtz Institute Jena*, ³*Benedictine College*)

P-5 Real-space quantum dynamics simulation for NISQ devices

Kazuki Tsuoka¹, Erik Lötstedt¹, Kaoru Yamanouchi¹ (*Department of Chemistry, School of Science, The University of Tokyo*)

P-6 Quantum computing of light-induced rotational wave-packet dynamics

Kotomi Tobinaga¹, Erik Lötstedt¹, Kaoru Yamanouchi^{1,2} (¹*Department of Chemistry, School of*

Science, The University of Tokyo, ²Institute for Attosecond Laser Facility, The University of Tokyo)

P-7 Quantum computing of π -conjugated and hetero- π -conjugated molecules with error mitigation methods

Ryuhei Yoshida,¹ Erik Lötstedt,¹ Kaoru Yamanouchi^{1,2} (*¹Department of Chemistry, School of Science, The University of Tokyo, ²Institute for Attosecond Laser Facility, The University of Tokyo)*

P-8 Topological phase detection through high-harmonic spectroscopy in extended Su-Schrieffer-Heeger chains

Mohit Lal Bera,¹ Jessica O. de Almeida,¹ Marlena Dziurawiec,² Marcin Płodzień,¹ Maciej M. Maśka,² Maciej Lewenstein,^{1,3} Tobias Grass,^{4,5,1} and Utso Bhattacharya¹ (*¹ICFO - Institut de Ciències Fotòniques, The Barcelona Institute of Science and Technology, ²Institute of Theoretical Physics, Wrocław University of Science and Technology, ³ICREA, ⁴DIPC - Donostia International Physics Center, ⁵Ikerbasque - Basque Foundation for Science)*

P-9 Describing high-order harmonic generation in quantum dots using a real space tight-binding approach

Martin Thümmel¹, Alexander Croy¹, Ulf Peschel² and Stefanie Gräfe¹ (*¹Institute of Physical Chemistry, University Jena, ²Institute of Condensed Matter Theory and Optics, University Jena)*

P-10 Narrowband enhancement of even order harmonics in a monolayer TMDC

V. Korolev¹, T. Lettau³, V. Krishna², A. Croy⁴, M. Monfared³, M. Zürch^{5,6}, C. Spielmann^{1,7}, U. Peschel³, S. Gräfe⁴, G. Soavi², and D. Kartashov¹ (*¹Institute of Optics and Quantum Electronics, Friedrich-Schiller University Jena, ²Institute of Solid State Physics, Friedrich-Schiller University Jena, ³Institute of Condensed Matter Theory and Solid State Optics, Friedrich Schiller University Jena, ⁴Institute of Physical Chemistry, Friedrich Schiller University Jena, ⁵Department of Chemistry, University of California at Berkeley, ⁶Materials Sciences Division, Lawrence Berkeley National Laboratory, ⁷Helmholtz-Institut Jena)*

P-11 Wavelength dependence and ultrafast dephasing in high-order harmonic generation in solids

V. Korolev, V. Krishna, A. Croy, T. Lettau, M. Monfared, U. Peschel, S. Gräfe, G. Soavi, and D. Kartashov (*Friedrich-Schiller University Jena*)

P-12 Selective coupling of coherent optical phonons in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ with electronic transitions

Kunie Ishioka¹, Alexej Pashin², Christian Bernhard³, Hrvoje Petek⁴, Xin Yao⁵ and Jure Demsar⁶ (*¹National Institute for Materials Science, ²Helmholtz Zentrum Dresden Rossendorf, ³Department of Physics, University of Fribourg, ⁴Department of Physics and Astronomy, University of Pittsburgh, ⁵School of Physics and Astronomy, Shanghai Jiao Tong University, ⁶Institute of Physics, Johannes Gutenberg University Mainz)*

P-13 Proton acceleration and characterization with the petawatt femtosecond class Laser VEGA-3 at CLPU

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P-14 VEGA PW facility: beamline reorganization, usage statistics and management tools

C. Méndez¹, E. García, ¹M. Olivar¹, O. Varela¹, I. Hernández¹, J. D. Pisonero¹, F. Galán, ¹P. Zapatero¹, L. Roso² and M.D. Rodríguez Frías¹ (¹*Centro de Láseres Pulsados Ultracortos Ultraintensos*, ²*Applied Physics Department, University of Salamanca*)