

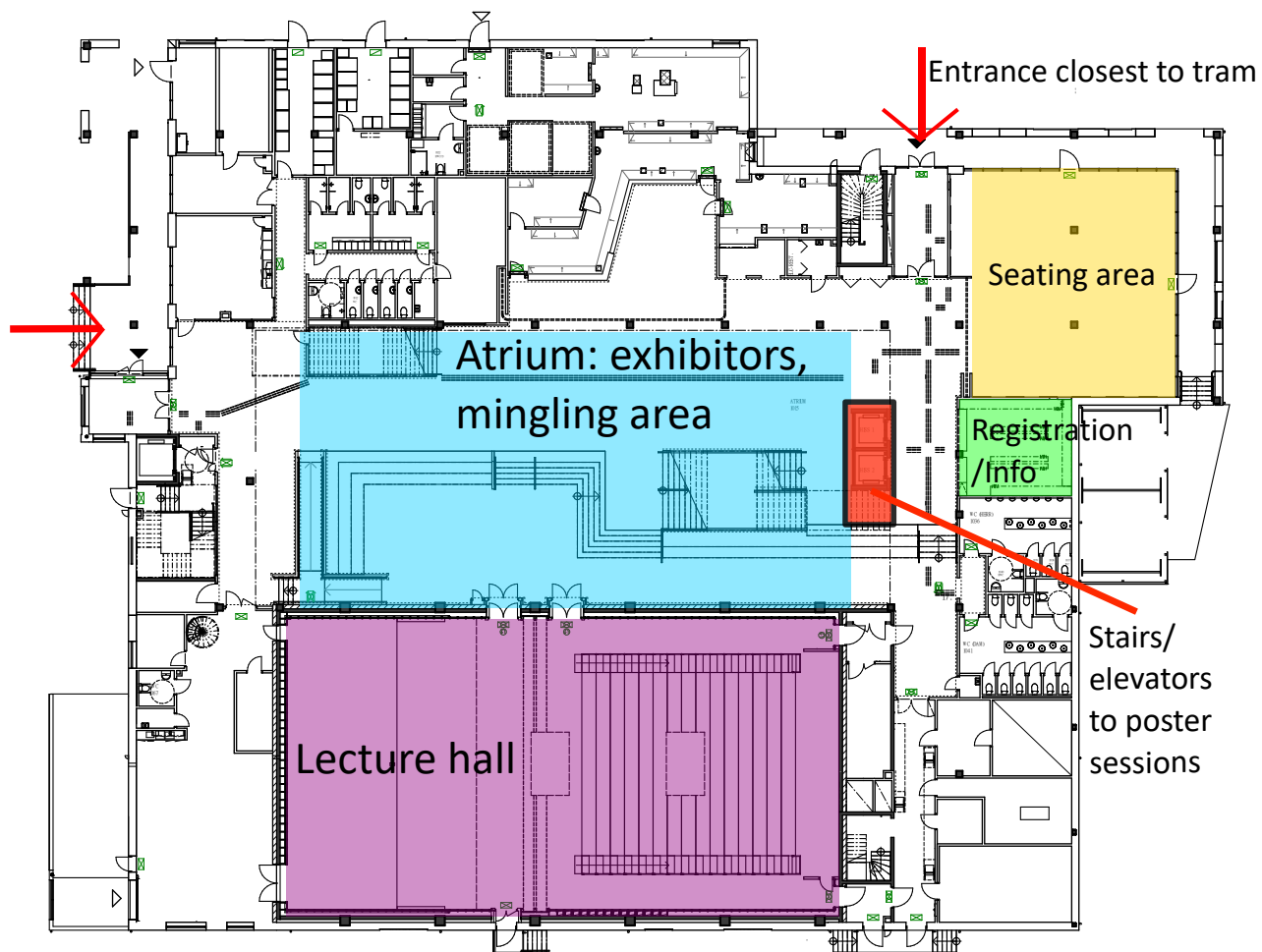
ATTO-X

10th

International Conference on Attosecond Science and Technology

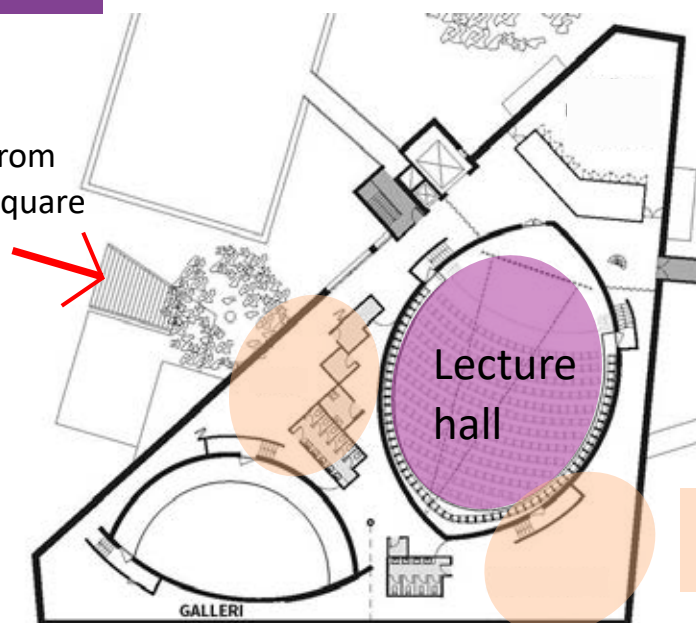
6–11 JULY 2025 | LUND, SWEDEN

FLOOR PLAN – THE LOOP



FLOOR PLAN – STADSHALLEN

Entrance from the main square



Foyer level 2 - mingling areas

ATTO-X

10th International Conference on Attosecond Science and Technology

July 6th-11th, 2025

The Loop at Science Village, Lund, Sweden

Stadshallen, Lund, Sweden

www.attox.se

PROGRAM BOOK

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LINXS INSTITUTE OF ADVANCED
NEUTRON AND X-RAY SCIENCE

WACQT

Wallenberg Centre for
Quantum Technology



CITY OF
LUND

ASML

OPTICA

PROGRAM AT A GLANCE

Sunday 6 July		Monday 7 July		Tuesday 8 July		Wednesday 9 July		Thursday 10 July		Friday 11 July	
		The Loop - Science Village						Stadshallen - City Center			
Time		Opening									
08:30		Tutorial: Marc Vrakking	Tutorial: Zenghu Chang								
08:45		Invited: Luca Argenti	Yann Pertot								
09:00		Federico Vismarra	Yusuf Vais								
09:15		Sizuo Luo	Martin Kretschmar								
09:30		Coffee	Coffee								
09:45		Invited: Yann Mairesse	Christian Brahm								
10:00		Noa Yaffe	Gaspard Beaufort								
10:15		Gergana D. Borisova	Bruno Schmidt								
10:30		Jonathan Dubois	Nikolita Kotsina								
10:45		Lunch (1st IPC meeting)	Lunch								
11:00		Poster session 1	Poster session 2								
11:15											
11:30											
11:45											
12:00											
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13:30											
13:45											
14:00											
14:15											
14:30		Invited: Emilio Pisanty	Invited: Balazs Major								
14:45		Invited: Kenichi Ishikawa	Invited: Caterina Vozzi								
15:00		Gabriel Granneau	Thierry Ruchon								
15:15		Gustav Arvidsson	Rodrigo Martín-Hernández								
15:30		Jonathan Polloth	Melvin Redon								
15:45		Coffee	Coffee								
16:00		Invited: Marcus Dahlinström	Invited: Bernd Schütte								
16:15		Invited: Hamed Merdji	Matthias Kübel								
16:30		Giulio Vampa	Pamela Bastani								
16:45		Marcelo Clappina	Miguel Angel Silva-Toledo								
17:00		Matan Even Tzur	Eric Constant								
17:15			Natalia Kuzkova								
17:30			Sponsor Night								
17:45			The origins of time-dependent theory in attosecond physics: The science of Kenneth Kulander								
18:00			Sponsor Night								
18:15											
18:30											
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22:00											



WELCOME MESSAGE

We welcome you to the 10th International Conference on Attosecond Science and Technology (ATTO X), held from July 6th to July 11th, 2025 in the city of Lund, Sweden.

ATTO is the largest and most prestigious international conference in the field of attosecond science and technology, traditionally held every two years. At ATTO, state-of-the-art research works are shared among scholars from academia, research institutes and industries from all over the world.

Lund is a student-filled city in the southern part of Sweden. The university was established in 1666 and is located in the heart of the city, but is now extending to the outskirts with major research facilities: MAX IV, the first 4th generation synchrotron radiation light source, and ESS, the new European Spallation Source.

We are excited to welcome you in the new scientific and innovation center, called Science Village, during the first four days (July 6th-9th) of the conference before moving to Stadshallen to enjoy the atmosphere of the historical city center (July 10th-11th).

Looking forward to meeting all of you at ATTO X!

Per Eng-Johnsson and Anne-Lise Viotti (chairs)
On behalf of the local organizing committee

10 EDITIONS OF ATTO CONFERENCES

ATTO stands as the most prestigious global conference in attosecond science, encompassing a wide range of topics including attosecond physics and spectroscopy, quantum science, laser technology, high-order harmonic generation sources, attosecond chemistry, attoscience in condensed matter and at Free Electron Lasers.

The ATTO conference series started August 1st-5th, 2007 in Dresden, Germany, under the name of "Attosecond Physics" coordinated by Paul Corkum (National Research Council of Canada, Ottawa, Canada), Ferenc Krausz (Max Planck Institute for Quantum Optics, Garching, Germany), and Jean-Michel Rost (Max Planck Institute for the Physics of Complex Systems, Dresden, Germany).

The following 9 ATTO conferences were held as follows:

2009, July 29th-August 1st

Kansas State University, Manhattan, Kansas, USA

Co-chaired by Chii-Dong Lin and Zenghu Chang

2011, July 6th-8th

Hokkaido University, Sapporo, Japan

Co-chaired by Katsumi Midorikawa and Kaoru Yamanouchi

2013, July 8th-12th

Institut Pasteur, Paris, France

Co-chaired by Pascal Salières and Eric Constant

2015, July 5th-10th

Manoir Saint-Sauveur, Saint-Sauveur, Quebec, Canada

Co-chaired by Paul Corkum and François Légaré

2017, July 2nd-7th

Shaanxi Zhangbagou Guesthouse, Xi'an, China

Co-chaired by Zhiyi Wei and Zenghu Chang

2019, July 1st-5th

University of Szeged Congress Center, Szeged, Hungary

Co-chaired by Katalin Varjú and Dimitris Charalambidis

2022, July 11th-15th

University of Central Florida, Orlando, Florida, USA

Co-chaired by Luca Argenti and Michael Chini

2023, July 9th-14th

Booyoung Hotel and Resort, Jeju Island, Jeju, Korea

Co-chaired by Chang Hee Nam and Kyung Taec Kim

This year, the 10th edition of ATTO is taking place on July 6th-11th in Lund, Sweden. The conference has two locations: The Loop at Science Village and Stadshallen in the city center. The conference format is designed to foster extensive and open discussions. Three tutorials have been arranged and the conference features 23 invited talks, 49 contributed talks and an impressive number of 300 poster presentations. In keeping with the tradition of the ATTO conferences, there are no parallel sessions. Moreover, 21 exhibitors are present to showcase technologies and strengthen collaborations with industries and large-scale facilities.

COMMITTEES

International Program Committee

The International Program Committee is responsible for the governance and the scientific program of the ATTO conference. Its members oversee the conduction of ATTO, decide the conference program sessions and the list of invited speakers, scrutinize the abstracts submitted to the conference, select the contributed speakers, and appoint the organizers of future ATTO conferences.

Luca Argenti, University of Central Florida, USA

Andrius Baltuška, Technical University of Vienna, Austria

Dimitris Charalambidis, University of Crete, Greece

Michael Chini, Ohio State University, USA

Oren Cohen, Technion Institute of Technology, Israel

Per Eng-Johnsson, Lund University, Sweden (not active for ATTO X)

Davide Faccialà, CNR-IFN, Italy

Mette Gaarde, Louisiana State University, USA

Meng Han, Kansas State University, USA

Jiro Itatani, University of Tokyo, Japan

Kyung Taec Kim, Gwangju Institute of Science and Technology, Korea

Matthias Kling, SLAC Stanford University, USA

François Légaré, INRS, Canada

Eva Lindroth, Stockholm University, Sweden (not active for ATTO X)

José Antonio Pérez-Hernández, CLPU, Spain

Thierry Ruchon, CEA Saclay, France

Olga Smirnova, Max Born Institute, Germany

Vasily Strelkov, Russian Academy of Sciences, Russia (not active for ATTO X)

Richard Taïeb, Sorbonne University, France

John Tisch, Imperial College London, UK

Giulio Vampa, Ottawa University, Canada

Katalin Varjú, ELI-ALPS, Hungary

Hans Jakob Wörner, ETH Zurich, Switzerland

Kun Zhao, Institute of Physics, Chinese Academy of Sciences, China

Michael Zürch, University of California, USA



International Advisory Board

The Local Organizing Committee relies on the expertise and advice of all colleagues working in attosecond science to prepare an event that meets the needs of the international attosecond community at large. A selected group of researchers, representative of the various geographic regions and scientific interests of the attosecond community, has agreed to serve in an International Advisory Board on the occasion of ATTO X. The members are asked to bring to the attention of the Local Organizing Committee, and the International Program Committee, any new and relevant research trend in their region and field of interest.

Jens Biegert, ICFO, Spain

Francesca Calegari, CFEL DESY, Germany

Paul Corkum, National Research Council, Canada

Louis DiMauro, Ohio State University, USA

Nirit Dudovich, Weizmann Institute of Science, Israel

Feng He, Shanghai Jiaotong University, China

Ursula Keller, ETH Zurich, Switzerland

Igor Litvinyuk, Griffith University, Australia

Agostino Marinelli, SLAC, USA

Chang Hee Nam, Institute of Basic Science, Korea

Alicia Palacios, Universidad Autónoma de Madrid, Spain

Thomas Pfeifer, Max Planck Institute for Nuclear Physics, Germany

Françoise Remacle, University of Liège, Belgium

Pascal Salières, CEA Saclay, France

Giuseppe Sansone, Freiburg University, Germany

Caterina Vozzi, CNR-IFN, Italy

Zhiyi Wei, Chinese Academy of Sciences, China

Amelle Zaïr, King's College London, UK

Local Organizing Committee

The Local Organizing Committee is responsible for all the activities necessary for the successful conduction of the conference, as well as for facilitating and coordinating the activities of the International Program Committee.

Per Eng-Johnsson, Lund University, Sweden (chair)

Anne-Lise Viotti, Lund University, Sweden (chair)

Cord L. Arnold, Lund University, Sweden

David Busto, Lund University, Sweden

Marcus Dahlström, Lund University, Sweden

Raimund Feifel, University of Gothenburg, Sweden

Mathieu Gisselbrecht, Lund University, Sweden

Anne L'Huillier, Lund University, Sweden

Eva Lindroth, Stockholm University, Sweden

Johan Mauritsson, Lund University, Sweden

László Veisz, Umeå University, Sweden

CONFERENCE INFORMATION

Registration hours

July 6th: 15:30 ~ 21:00

July 10th: 12:00 ~ 16:00

July 7th-8th: 8:00 ~ 18:30

July 11th: 08:00 ~ 12:00

July 9th: 8:00 ~ 16:00

Certificate of attendance

If you need a certificate of attendance, please give your name at the registration desk.

Events

Welcome reception

Sunday, July 6th, 18:30 - 21:00

The Loop Atrium, Science Village

Opening ceremony

Monday, July 7th, 8:30 - 8:45

The Loop lecture hall, Science Village

Sponsors Night: Mingling with exhibitors

Tuesday, July 8th, 18:30 - 21:00

The Loop Atrium, Science Village

Special evening session

The origins of time-dependent theory in attosecond physics: The science of Kenneth Kulander

Tuesday, July 8th, 19:15 - 20:00

The Loop lecture hall, Science Village

Excursion at Kulturen

Thursday, July 10th, 9:00 - 12:00

Kulturen, Green Gate at the crossing of Adelgatan/Tegnérplatsen

Nobel session and mingle

Thursday, July 10th, 16:45 - 18:45

Stadshallen, Lund

Closing remarks

Friday, July 11th, 12:45 - 13:00

Stadshallen, Lund

Conference dinner

Thursday, July 10th, 19:00 - 22:00

Bar and music until ~24:00

AF-borgen, Sandgatan 2, Lund

Lab visits: High-Power Laser Facility

Friday, July 11th, 13:30 - 17:00

Physics department, Professorsgatan 1B, Lund



CONFERENCE PROGRAM

Tutorials



Marc Vrakking

Max Born Institute Berlin, Germany

"Attosecond science: from adolescence to adulthood"



Zenghu Chang

University of Ottawa, Canada

"Attosecond X-ray light sources driven by mid-infrared lasers"



Morgane Vacher

University of Nantes, France

"Attosecond chemistry: tutorial and theoretical perspectives"

Sunday, July 6th, The Loop

15:30 - 18:30	Registration
18:30 - 21:00	Welcome reception

Monday, July 7th, The Loop

08:30 - 08:45	Opening ceremony in the lecture hall
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08:45 - 10:30 [Mo1] Attosecond Physics and Spectroscopy (I)

Session chair: Kyung Taec Kim, Institute for Basic Science, Korea

08:45 - 09:30	Attosecond science: from adolescence to adulthood [Mo1.1 tutorial] Marc Vrakking <i>Max-Born-Institute for Nonlinear Optics and Short Pulse Spectroscopy, Max-Born-Str. 2A, 12489 Berlin, Germany</i>
09:30 - 10:00	Time-dependent close coupling on the heels of attosecond electron dynamics [Mo1.2 invited] Luca Argenti <i>University of Central Florida, Department of Physics, USA</i>
10:00 - 10:15	Laser-assisted dynamical interference of photoelectrons driven by chirped extreme-ultraviolet pulses [Mo1.3] Federico Vismarra*, Mattias Bertolino, Elisa Appi, Marius Plach, Lenard Gulyas Oldal, Timea Grosz, Gian Luca Dolso, Vénus Poulain, Daniele Mocci, Giacomo Inzani, Chinmoy Biswas, Massimo De Marco, Gabriele Zeni, Fabio Frassetto, Luca Poletto, Maurizio Reduzzi, Rocío Borrego-Varillas, Hans Jakob Wörner, Zoltan Filus, Imre Seres, Peter Jojart, Balázs Major, Tamas Csizmadia, Mauro Nisoli, Per Eng-Johnsson, Jan Marcus Dahlström, Matteo Lucchini <i>*Department of Physics, Politecnico di Milano, Italy; Institute of Photonics and Nanotechnologies, IFN-CNR, Italy; Laboratorium für Physikalische Chemie, ETH Zurich, Switzerland</i>
10:15 - 10:30	Attosecond spectroscopy reveals electron correlation in the photoionization of Argon [Mo1.4] Sizuo Luo*, Mingxuan Li, Huiyong Wang, Rezvan Tahouri, Robin Weissenbilder, Jialong Li, Wentao Wang, Jiaao Cai, Xiaochun Hong, Xiaosen Shi, Liangwen Pi, David Busto, Mathieu Gisselbrecht, Philipp. V Demekhin, Kiyoshi Ueda, Anne L'Huillier, Jan Marcus Dahlström, Eva Lindroth, Dajun Ding <i>*Institute of atomic and molecular physics, Jilin University, Changchun, 130012, China.</i>

10:30 - 11:00 Coffee break in Atrium

11:00 - 12:00 [Mo2] Attosecond Physics and Spectroscopy (II)

Session chair: Igor Litvinyuk, Griffith University, Australia

11:00 - 11:30

Chiral molecules in strong laser fields [Mo2.1 invited]

Yann Mairesse

Université de Bordeaux, CNRS, CEA, CELIA, UMR5107, F33405 Talence, France

11:30 - 11:45

Vectorial attosecond transient spectroscopy [Mo2.2]

Noa Yaffe*, Omer Kneller, Chen Mor, Yann Mairesse, Nirit Dudovich

**Weizmann Institute of Science, Rehovot, 7630031, Israel*

11:45 - 12:00

Attosecond XUV pump-control spectroscopy for tracking and modification of excited neutral molecules [Mo2.3]

Gergana D. Borisova*, Paula Barber Belda, Shuyuan Hu, Paul Birk, Veit Stoo, Maximilian Hartmann, Daniel Fan, Robert Moshhammer, Alejandro Saenz, Christian Ott, Thomas Pfeifer

**Max-Planck-Institut für Kernphysik, Saupfercheckweg 1, 69117 Heidelberg, Germany*

12:00 - 12:15

Clocking the tunneling time in strong-field ionization [Mo2.4]

Jonathan Dubois*, Leonardo Rico, Letizia Fede, Camille Levêque, Jeremie Caillat, Yann Mairesse, Richard Taïeb

**Sorbonne Université, CNRS, Laboratoire de Chimie Physique - Matière et Rayonnement, LCPMR, 75005 Paris, France*

12:15 - 13:00 Lunch break

13:00 - 14:30 [MoP] Poster Session (I) - 1st floor

14:30 - 16:15 [Mo3] Attosecond Quantum Science (I)

Session chair: Daniel Finkelstein-Shapiro, Uni. Nac. Aut. de Mexico, Mexico

- 14:30 - 15:00 **Quantum-orbit dynamics in strongly-polychromatic laser fields [Mo3.1 invited]**
Emilio Pisanty
Attosecond Quantum Physics Laboratory, King's College London, London WC2 R2LS, UK
- 15:00 - 15:30 **Ion-photoelectron entanglement and coherence controlled by two-color laser pulses [Mo3.2 invited]**
Kenichi Ishikawa
Department of Nuclear Engineering and Management, The University of Tokyo, Tokyo 113-8656, Japan
- 15:30 - 15:45 **Measurement of photoelectron decoherence and attosecond dynamics of unobserved ions [Mo3.3]**
Gabriel Granveau*, Morgan Berkane, David Bresteau, Rafael Menezes-Ferreira, Gabriele Crippa, Hugo Marroux, Thierry Ruchon, Camille Levêque, Richard Taïeb, Jeremie Caillat, Pascal Salières, Charles Bourassin-Bouchet
**Université Paris-Saclay, CNRS, IOGS, Laboratoire Charles Fabry, 91127 Palaiseau, France*
- 15:45 - 16:00 **Testing quantum mechanics with photoelectron interferometry [Mo3.4]**
Gustav Arvidsson*, Edoardo Alberto Boati, Robin Weissenbilder, Mattias Ammitzböll, Christoph Dittel, Richard James Squibb, Raimund Feifel, Mathieu Gisselbrecht, Cord Louis Arnold, Anne L'Huillier, David Busto
**Department of Physics, Lund University, Box 118, 221 00 Lund, Sweden*
- 16:00 - 16:15 **Strong-field dynamics of electrons photoemitted with non-classical light [Mo3.5]**
Jonathan Pöloth*, Jonas Heimerl, Andrei Rasputnyi, Francesco Tani, Maria Chekhova, Peter Hommelhoff
**Department of Physics, Friedrich-Alexander-Universität Erlangen-Nürnberg, 91058 Erlangen, Germany*

16:15 - 16:45 Coffee break in Atrium

16:45 - 18:30 [Mo4] Attosecond Quantum Science (II)

Session chair: Richard Taïeb, LCPMR-CNRS-SU, France

- 16:45 - 17:15 **Giant counter-rotating oscillations and quantum entanglement from time-dependent strong coupling in the extreme ultraviolet [Mo4.1 invited]**
Jan Marcus Dahlström
Department of Physics, Lund University, P.O. Box 118, SE-22100, Lund, Sweden
- 17:15 - 17:45 **Experimental evidence of the quantum-optical nature of high-harmonic generation in semiconductors [Mo4.2 invited]**
Hamed Merdji
Laboratoire d'Optique Appliquée, CNRS, ENSTA, Institut Polytechnique de Paris, Palaiseau, 91120, France
- 17:45 - 18:00 **Photon bunching in high-harmonic emission controlled by quantum light [Mo4.3]**
Samuel Lemieux, Sohail A Jalil, David N Porschke, Neda Boroumand, TJ Hammond, David Villeneuve, Andrei Naumov, Thomas Brabec, Giulio Vampa*
**Joint Attosecond Science Laboratory, National Research Council of Canada and University of Ottawa, Ottawa, K1N 0R6, Canada*
- 18:00 - 18:15 **Non-classical effects drive recombination in high-harmonic generation using circularly polarized fields [Mo4.4]**
Javier Rivera-Dean, Philipp Stammer, Maciej Lewenstein, Marcelo Ciappina*
**Guangdong Technion-Israel Institute of Technology, Physics Program, China; Technion - Israel Institute of Technology, Israel*
- 18:15 - 18:30 **Measuring and controlling the birth of quantum attosecond pulses [Mo4.5]**
Chen Mor, Matan Even Tzur*, Noa Yaffe, Michael Birk, Andrei Rasputnyi, Omer Kneller, Ido Nisim, Ido Kaminer, Michael Krüger, Oren Cohen, Nirit Dudovich
**Department of Physics, Technion—Israel Institute of Technology, Israel; Solid State Institute, Technion—Israel Institute of Technology, Israel; Helen Diller Quantum Center, Technion—Israel Institute of Technology, Israel*

Tuesday, July 8th, The Loop

08:45 - 10:30 [Tu1] Laser Technology for Attoscience (I)

Session chair: Lukas Gallmann, ETH Zurich, Switzerland

- 08:45 - 09:30 **Attosecond X-ray light sources driven by mid-infrared lasers [Tu1.1 tutorial]**
Zenghu Chang
University of Ottawa, Canada
- 09:30 - 09:45 **High power CEP stable Ti:Sa amplifier seeded by OPCPA [Tu1.2]**
Jingfeng Chen, Raman Maksimenka, Solene Favier, Philippe Demengeot, Yoann Pertot*
**Amplitude, 2-4 rue du Bois Chaland - CE 2926, 91029 Evry, France*
- 09:45 - 10:00 **Waveform-controlled near-single-cycle pulses at the 100 TW level for intense attosecond sources [Tu1.3]**
László Veisz*, Peter Fischer, Sajjad Vardast, Fritz Schnur, Alexander Muschet, Aitor De Andres, Sreehari Kaniyeri, Hang Li, Roushdey Salh, Karpát Ferencz, Gergely Norbert Nagy, Subhendu Kahaly
**Department of Physics, Umeå University, Linnaeus väg 24, 90187, Umeå, Sweden*
- 10:00 - 10:15 **Single-shot pulse retrieval of femtosecond bright squeezed vacuum [Tu1.4]**
Yuval Kern*, Ido Nisim, Michael Birk, Andrei Rasputnyi, Zhaopin Chen, Pavel Sidorenko, Ido Kaminer, Oren Cohen, Michael Krüger
**Department of Physics, Technion - Israel Institute of Technology, 32000 Haifa, Israel; Solid State Institute and Helen Diller Quantum Center, Technion - Israel Institute of Technology, 32000 Haifa, Israel*
- 10:15 - 10:30 **Characterization of sub-3-fs tunable VUV pulses [Tu1.5]**
Martin Kretschmar*, Jose Andrade, Rostyslav Danylo, Stefanos Carlström, Tobias Witting, Alexandre Mermillod-Blondin, Serguei Patchkovskii, Misha Ivanov, Marc Vrakking, Arnaud Rouzée, Tamas Nagy
**Max Born Institute, Max-Born-Str. 2A, 12489 Berlin, Germany*

10:30 - 11:00 Coffee break in Atrium

11:00 - 12:15 [Tu2] Laser Technology for Attoscience (II)

Session chair: Zhiyi Wei, Institute of Physics, CAS, China

11:00 - 11:30 **New ultrafast sources and science enabled by advanced nonlinear optics in hollow-core waveguides [Tu2.1 invited]**

Christian Brahms

School of Engineering and Physical Sciences, Heriot-Watt University, Edinburgh, EH14 4AS, United Kingdom

11:30 - 11:45 **Multi-mirror multi-pass cells for compression of energetic narrowband laser pulses into the femtosecond regime [Tu2.2]**

Gaspard Beaufort*, Nayla Jimenez, Gunnar Arisholm, Victor Hariton, Ayhan Tajalli, Ingmar Hartl, Anne-Lise Viotti, Marcus Seidel

**Deutsches Elektronen-Synchrotron DESY, Hamburg, 22607, Germany; Department of Physics, Lund University, Lund, SE-22100, Sweden*

11:45 - 12:00 **Pulse compression of 300 W, 12 mJ with 83% transmission in hollow-core fiber [Tu2.3]**

Maksym Ivanov, Etienne Doiron, Marco Scalia, Pedram Adbolghader, François Légaré, Carlos Trallero, Bruno Schmidt*

**few-cycle Inc, Varennes, J3X 1P7, Canada*

12:00 - 12:15 **Terawatt optical attosecond pulses and 100 GW-scale far-ultraviolet pulses through extreme soliton dynamics [Tu2.4]**

Nikoleta Kotsina*, Michael Heynck, Joleik Nordmann, Martin Gebhardt, Teodora Grigorova, Christian Brahms, John Travers

**School of Engineering and Physical Sciences, Heriot-Watt University, Edinburgh, EH14 4AS, United Kingdom*

12:15 - 13:00 Lunch break

13:00 - 14:30 [TuP] Poster Session (II) - 1st floor

14:30 - 16:15 [Tu3] Attosecond HHG Sources (I)

Session chair: Pascal Salières, CEA Paris-Saclay, France

- 14:30 - 15:00 **Recent developments of attosecond high-harmonic generation sources in and outside the Extreme Light Infrastructure [Tu3.1 invited]**
Balázs Major
ELI-ALPS, Hungary
- 15:00 - 15:30 **Microfluidic-based sources for efficient XUV generation and manipulation [Tu3.2 invited]**
Caterina Vozzi
Istituto di Fotonica e Nanotecnologie CNR, Italy
- 15:30 - 15:45 **High harmonic generation with two non-collinear drivers: a unique gateway to extreme nonlinear phenomena [Tu3.3]**
Martin Luttmann, Mekha Vimal, Titouan Gadeyne, Matthieu Guer, Romain Cazali, Celine Chappuis, David Bresteau, Fabien Lepetit, Olivier Tcherbako, Jean-Francois Hergott, Thierry Auguste, Thierry Ruchon*
**Université Paris-Saclay, CEA, LIDYL, 91191 Gif-sur-Yvette, France*
- 15:45 - 16:00 **High-order harmonic up-conversion of spatiotemporal and spatio-spectral optical vortices into the extreme ultraviolet [Tu3.4]**
Rodrigo Martin-Hernandez*, Guan Gui, Luis Plaja, Henry K. Kapteyn, Margaret M. Murnane, Chen-Ting Liao, Miguel Angel Porras, Carlos Hernandez-Garcia
**Grupo de Investigacion en Aplicaciones del Laser y Fotonica, Universidad de Salamanca, 37008, Salamanca, Spain; Unidad de Excelencia en Luz y Materia Estructuradas (LUMES), Universidad de Salamanca, Salamanca, Spain*
- 16:00 - 16:15 **Hollow gaussian beams for low-divergence high harmonic generation and attosecond pulse optimization [Tu3.5]**
Melvin Redon*, Rodrigo Martin-Hernandez, Ann-Kathrin Raab, Luis Plaja, Anne L'Huillier, Carlos Hernandez-Garcia, Cord Arnold
**Department of Physics, Lund University, P.O. Box 118, 22100, Lund, Sweden*

16:15 - 16:45 Coffee break in Atrium

16:45 - 18:30 [Tu4] Attosecond HHG Sources (II)

Session chair: Katalin Varjú, ELI-ALPS, Szeged, Hungary

- 16:45 - 17:15 **Table-top all-attosecond transient absorption spectroscopy [Tu4.1 invited]**
Bernd Schütte
Max-Born Institute for Nonlinear Optics and Short Pulse Spectroscopy, Berlin, 12489, Germany
- 17:15 - 17:30 **Coincidence measurements of two-photon double ionization driven by a high-harmonic generation source [Tu4.2]**
Matthias Kübel*, Sebastian Hell, Julian Späthe, Robert Klas, Jan Rothhardt, Jens Limpert, Gerhard Paulus, Morten Førre, Christian Ott, Stephan Fritzsche
**Institute of Optics and Quantum Electronics, Friedrich-Schiller University, 07743 Jena, Germany; Helmholtz Institute Jena, 07743 Jena, Germany*
- 17:30 - 17:45 **Using nanostructured dielectric surfaces for the generation of nanofocused XUV radiation [Tu4.3]**
Parnia Bastani*, Aleksey Korobenko, Vedran Jelic, David N. Purschke, Shima Gholam Mirzaeimoghadar, Md Wazedur Rahman, Mathieu de Lafontaine, Andre Staudte, Paul B. Corkum, François Légaré, Giulio Vampa
**Joint Attosecond Science Laboratory, National Research Council of Canada and University of Ottawa, Ottawa, Ontario K1N 0R6, Canada; Advanced Laser Light Source (ALLS), Centre Energie Matériaux Télécommunications, Institut National de la Recherche Scientifique (INRS-EMT), 1650 Boulevard Lionel-Boulet, Varennes, Quebec J3X 1P7, Canada*
- 17:45 - 18:00 **Efficient water-window isolated attosecond pulse generation with tailored sub-cycle fields [Tu4.4]**
Miguel Angel Silva-Toledo*, Fabian Scheiba, Maximilian Kubullek, Rafael de Q. Garcia, Roland E. Mainz, Giulio Maria Rossi, Franz X. Kärtner
**Center for Free-Electron Laser Science (CFEL), Deutsches Elektronen-Synchrotron (DESY), Notkestrasse 85, Hamburg, 22607, Germany; Physics Department and The Hamburg Centre for Ultrafast Imaging (CUI), University of Hamburg, Notkestrasse 9-11, Hamburg, 22607, Germany*
- 18:00 - 18:15 **Optimizing polarization gated generation of isolated attosecond pulses without CEP stabilization [Tu4.5]**
Corentin Picot, Lucas Perez, Emilien Prost, Franck Lepine, Eric Constant*
**Université Claude Bernard Lyon 1, CNRS, Institut Lumière Matière, UMR5306, Villeurbanne 69100, France*
- 18:15 - 18:30 **Direct measurement of the dipole phase in solid-state high-harmonic generation via XUV attosecond interferometry [Tu4.6]**
Nataliia Kuzkova*, Pieter J. van Essen, Brian de Keijzer, Roy van der Linden, Alvaro Jimenez-Galan, Rui E. F. Silva, Peter M. Kraus
**Advanced Research Center for Nanolithography, the Netherlands; Department of Physics and Astronomy, and LaserLaB, Vrije Universiteit Amsterdam, the Netherlands*

18:30 - 21:00 Sponsors Night:
Mingling with exhibitors in Atrium
Including drinks and food

19:15 - 20:00 Special Evening Session

**Memorial - The origins of time-dependent theory in attosecond physics:
The science of Kenneth Kulander**

With Kenneth Schafer, Anne L'Huillier, Louis DiMauro, ...

Wednesday, July 9th, The Loop

08:45 - 10:30 [We1] Attosecond Chemistry (I)

Session chair: Hans Jakob Wörner, ETH Zurich, Switzerland

08:45 - 09:30 **Attosecond chemistry: tutorial and theoretical perspectives [We1.1 tutorial]**

Morgane Vacher

University of Nantes, France

09:30 - 10:00 **Advances in ultrafast ultraviolet spectroscopy of molecules [We1.2 invited]**

Vincent Wanie

The Hamburg Centre for Ultrafast Imaging, Universität Hamburg, Germany; Physics Department, Universität Hamburg, Germany

10:00 - 10:15 **Probing iodine chemical environment with ionization delays [We1.3]**

Rafael Menezes Ferreira*, Gabriele Crippa, Lou Barreau, Constant Schouder, Georey Carneiro, Nicolas Gueneaux, Fabien Lepetit, Jean François Hergott, Francis Penent, Jérôme Palaudoux, Pascal Salières, Hugo Marroux

**Université Paris-Saclay, CEA, LIDYL, 91190 Gif-sur-Yvette, France*

10:15 - 10:30 **Probing the ultrafast vibronic wavepacket dynamics of ethylene with sub-4fs VUV pulses [We1.4]**

Arnab Sen*, Martin Kretschmar, Martha Jouybari, Rostyslav Danylo, Jose Andrade, Phillippe Burden, Simon Neville, Marc Vrakking, Albert Stolow, Tamas Nagy, Michael Schuurman, Arnaud Rouzée

**Max-Born Institute for Nonlinear Optics and Short Pulse Spectroscopy, Berlin, 12489, Germany*

10:30 - 11:00 Coffee break in Atrium

11:00 - 12:15 [We2] Attosecond Chemistry (II)

Session chair: Francesca Calegari, CFEL DESY, Germany

11:00 - 11:30 **Ab initio attosecond chemistry: strong electron-electron-nuclei correlations in multiphoton single and double ionization [We2.1 invited]**
Alicia Palacios
Departamento de Quimica, Universidad Autonoma de Madrid, UAM, Madrid, 28049, Spain; Condensed Matter Physics Center (IFIMAC), Universidad Autonoma de Madrid, Madrid, 28049, Spain

11:30 - 11:45 **Attosecond coherent control and measurement of the photoionization dynamics of chiral molecules [We2.2]**
Meng Han, Jia-Bao Ji*, Alexander Blech, Esteban Goetz, Corbin Allison, Loren Greenman, Christiane Koch, Hans Jakob Wörner
**ETH Zürich, Laboratorium für Physikalische Chemie, Switzerland*

11:45 - 12:00 **Control of photo-ion circular dichroism using orthogonal laser beams [We2.3]**
Jason Greenwood*, Leah Donnelly
**School of Mathematics and Physics, Queen's University Belfast, Belfast, United Kingdom*

12:00 - 12:15 **All-optical coherent control of chiral electronic transitions for highly enantioselective photochemistry using femtosecond lasers [We2.4]**
Andrés Ordóñez*, Patricia Vindel-Zandbergen, David Ayuso
**Imperial College London, Department of Physics, London, SW7 2BW, UK*

12:15 - 13:00 Lunch break

13:00 - 14:30 [WeP] Poster Session (III) - 1st floor

14:30 - 16:00 [We3] Attosecond Chemistry (III)

Session chair: Fernando Martin, Uni. Aut. de Madrid & IMDEA Nano, Spain

- 14:30 - 15:00 **Attosecond time-resolved electronic and vibrational dynamics in furan [We3.1 invited]**
Stefanie Gräfe
Friedrich-Schiller University Jena, Germany
- 15:00 - 15:30 **Attosecond dynamics in molecules: probing ultrafast charge motion with EUV/IR and UV/EUV spectroscopy [We3.2 invited]**
Mauro Nisoli
Department of Physics, Politecnico di Milano, Italy; Institute of Photonics and Nanotechnologies, IFN-CNR, Italy
- 15:30 - 15:45 **Time-resolved x-ray absorption spectroscopy in thiophene covering sulfur L and carbon K edges [We3.3]**
Tristan Kopp*, Federico Vismarra, Valentina Utrio Lanfaloni, Leonardo Redaelli, Tadas Balciunas, Emir Ardali, Hans Jakob Wörner
**Laboratory of Physical Chemistry, ETH Zurich, Zurich, Switzerland*
- 15:45 - 16:00 **Time-resolving molecular dissociation with FEL-pump and HHG-probe pulses [We3.4]**
Alexander Magunia*, Elisa Appi, Christina C. Papadopoulou, Hannes Lindenblatt, Florian Trost, Severin Meister, Thomas Ding, Michael Straub, Gergana D. Borisova, Junhee Lee, Rui Jin, Alexander von der Dellen, Christian Kaiser, Markus Braune, Stefan Düsterer, Skirmantas Alisauskas, Tino Lang, Christoph M. Heyl, Bastian Manschwetus, Sören Grunewald, Ulrike Frühling, Ayhan Tajalli, Ammar bin Wahid, Laura Silletti, Francesca Calegari, Philip Mosel, Uwe Morgner, Milutin Kovacev, Uwe Thumm, Ingmar Hartl, Rolf Treusch, Robert Moshhammer, Christian Ott, Thomas Pfeifer
**Max-Planck-Institut für Kernphysik, Germany*

16:00 - 16:30 Coffee break in Atrium

16:30 - 18:30 [We4] Attosecond Science in Condensed Materials (I)

Session chair: Amelle Zaïr, King's College London, UK

- 16:30 - 17:00 **Observation of the Berry phase via attosecond interferometry [We4.1 invited]**
Nirit Dudovich
Weizmann Institute, Israel
- 17:00 - 17:30 **Strong-field physics inside of (light-dressed) graphene and at the surface of metal needle tips [We4.2 invited]**
Peter Hommelhoff
Department of Physics, Friedrich-Alexander-Universität Erlangen-Nürnberg, 91058 Erlangen, Germany
- 17:30 - 17:45 **Subcycle band-structure videography of lightwave-driven graphene [We4.3]**
Giacomo Inzani, Vincent Eggers*, Manuel Meierhofer, Jakob Helml, Lasse Münster, Robert Wallauer, Sarah Zajusch, Suguru Ito, Leon Machtl, Hao Yin, Christian Kumpf, Francois C Bocquet, Changhua Bao, Jens Gütde, F Stefan Tautz, Rupert Huber, Ulrich Höfer
**Department of Physics and Regensburg Center for Ultrafast Nanoscopy (RUN), University of Regensburg, Regensburg, 93040, Germany*
- 17:45 - 18:00 **Discovery of a hybrid exciton state by attosecond spectroscopy [We4.4]**
Simone Bonetti, Nicola Di Palo*, Giacomo Inzani, Gian Luca Dolso, Matteo Talarico, Martin Zukerstein, Giacomo Fiorentini, Rocío Borrego-Varillas, Mauro Nisoli, Marco D'Alessandro, Nicolas Tancogne-Dejean, Umberto De Giovannini, Davide Sangalli, Matteo Lucchini
**Department of Physics, Politecnico di Milano, Milano, 20133, Italy*
- 18:00 - 18:15 **Correlations drive the attosecond response of strongly-correlated insulators [We4.5]**
Romain Cazali*, Amina Alic, Matthieu Guer, Christopher Kaplan, Fabien Lepetit, Olivier Therbako, Stephane Guizard, Angel Rubio, Nicolas Tancogne-Dejean, Gheorghe Chiuzbaian, Romain Geneaux
**Université Paris-Saclay, CEA, LIDYL, France*
- 18:15 - 18:30 **Excitonic high harmonics and attosecond time delays in GaN [We4.6]**
Zhaopin Chen*, Yu Wu, Christopher Ayala, Mark Levit, Ido Nisim, Yuanpeng Wu, Zetian Mi, Steven Cundiff, Mackillo Kira, Michael Krüger
**Department of Physics and Solid State Institute, Technion - Israel Institute of Technology, Haifa 3200003, Israel*

Thursday, July 10th, Stadshallen

09:00 - 12:00 Excursion at Kulturen

12:00 - 13:00 Lunch at Stadshallen

13:00 - 14:45 [Th1] Attosecond Science in Condensed Materials (II)

Session chair: Jan Vogelsang, Universität Oldenburg, Germany

13:00 - 13:30 **Probing ultra-fast electron dynamics in liquids and solutions using high-harmonic spectroscopy [Th1.1 invited]**

Angana Mondal

Laboratory of Physical Chemistry, ETH Zürich, Zürich, Switzerland

13:30 - 14:00 **Attomicroscopy imaging and control of electron motion in solid-state [Th1.2 invited]**

Mohammed Hassan

Arizona University, USA

14:00 - 14:15 **Attosecond spectroscopy of virtual charge dynamics [Th1.3]**

Gian Luca Dolso, ShunSuke A Sato, Giacomo Inzani, Nicola Di Palo, Bruno Moio, Rocío Borrego-Varillas, Mauro Nisoli, Matteo Lucchini*

**Department of Physics, Politecnico di Milano, Piazza Leonardo da Vinci, 20133 Milano, Italy*

14:15 - 14:30 **Two-color control of attosecond scanning tunneling microscopy [Th1.4]**

Boyang Ma*, Daniel Davidovich, Adi Goldner, Michael Krüger

**Physics Department and Solid State Institute and Helen Diller Quantum Center, Technion-Israel Institute of Technology, Israel*

14:30 - 14:45 **Attosecond electron pulses with chiral mass and charge [Th1.5]**

Yiqi Fang*, Joel Kuttru, David Nabben, Peter Baum

**Universität Konstanz, Fachbereich Physik, 78464 Konstanz, Germany*

14:45 - 15:15 Coffee break in Foyer

15:15 - 16:45 [Th2] Attosecond Science in Condensed Materials (III)

Session chair: Michael Krüger, Technion, Israel

15:15 - 15:45 **High-harmonic spectroscopy probes lattice dynamics: extension to bandgap dynamics and structural phase transitions [Th2.1 invited]**

Tran Trung Luu

Hong Kong University, Hong Kong

15:45 - 16:15 **Ultrafast control of valley physics in 2D materials [Th2.2 invited]**

Álvaro Jiménez-Galán

Instituto de Ciencia de Materiales de Madrid, Spain

16:15 - 16:30 **High harmonic generation from solutions [Th2.3]**

Mette Gaarde*, Eric Moore, Sucharita Giri, Andreas Koutsogiannis, Tahereh Alavi, Greg Mc-Cracken, Kenneth Lopata, John Herbert, Louis DiMauro

**Louisiana State University, Department of Physics and Astronomy, USA*

16:30 - 16:45 **Enhancement of harmonic generation in liquid water jet by resonant excitation in the mid-infrared pulses [Th2.4]**

Tianqi Yang, Yangyang Hua, Tomoya Mizuno, Teruto Kanai, Satoshi Ashihara, Yoshihisa Harada, Jiro Itatani*

**The Institute for Solid State Physics, The University of Tokyo, Japan*

16:45 - 17:45 Mingle with drinks in Foyer

17:45 - 18:45 Nobel Session

Moderator: Mikhail Ivanov

Max-Born-Institut, Berlin, Germany

Panelists: Anne L'Huillier and Pierre Agostini

Lund University, Sweden and Ohio State University, USA

Live Q&A - Ask your question(s)!

19:00 - 22:00 Conference Dinner at AF-borgen

Bar and Music from 22:00!

09:00 - 10:45 [Fr1] Attosecond Science at FELs (I)

Session chair: Louis DiMauro, Ohio State University, USA

09:00 - 09:30 **Nonlinear science with multi-harmonic FEL at sub-femtosecond resolution**

[Fr1.1 invited]

Carlo Callegari

FERMI ELETTRA, Italy

09:30 - 10:00 **Dephasing in attosecond science and the collective nature of structural quantum fluctuations [Fr1.2 invited]**

Robin Santra

Center for Free-Electron Laser Science, Deutsches Elektronen-Synchrotron DESY, Hamburg, Germany

10:00 - 10:15 **Double-blind holography of ultrashort free-electron laser pulses [Fr1.3]**

Agata Azzolin*, O. Cannelli, K. F. Wong, E. P. Månsson, M. Seitz, J. Hahne, A. Bin Wahid, A. Magunia, C. Papadopoulos, E. Appi, U. Fröhling, V. J. Yallapragada, P. Biesterfeld, P. Mosel, S. Fröhlich, M. Braune, S. Schulz, S. Düsterer, M. Kovacev, U. Morgner, R. Moshhammer, T. Lang, C. M. Heyl, O. Raz, D. Oron, N. Dudovich, C. Ott, T. Pfeifer, E. Schneidmiller, V. Wanie, A. Trabattoni, F. Calegari

**Physics Department, University of Hamburg; CFEL Laser Science, DESY; The Hamburg Centre for Ultrafast Imaging, Universität Hamburg, Germany*

10:15 - 10:30 **Complex attosecond waveform synthesis using regular- and irregularly-spaced harmonic combs at seeded free-electron laser FERMI [Fr1.4]**

Praveen Kumar Maroju*, Miguel Benito de Lama, Michele Di Fraia, Oksana Plekan, Matteo Bonanomi, Barbara Merzuk, David Busto, Ioannis Makos, Marvin Schmoll, Ronak Shah, Primož R Ribič, Luca Giannessi, Enrico Allaria, Giovanni De Ninno, Carlo Spezzani, Giuseppe Penco, Alexander Demidovich, Miltcho Danailov, Marcello Coreno, Marco Zangrando, Alberto Simoncig, Michele Manfredda, Richard J Squibb, Raimund Feifel, Samuel Bengtsson, Emma R Simpson, Tamás Csizmadia, Mathieu Dumergue, Sergei Kühn, Kiyoshi Ueda, Jianxiong Li, Kenneth J Schafer, Fabio Frassetto, Luca Poletto, Kevin C Prince, Johan Mauritsson, Johannes Feist, Alicia Palacios, Carlo Callegari, Giuseppe Sansone

**Physikalisches Institut, University of Freiburg, Hermann-Herder-Straße 3, 79104 Freiburg, Germany; Department of Physics, Lund University, PO Box 118, SE-221 00 Lund, Sweden*

10:30 - 10:45 **Magnetization dynamics probed with helicoidal dichroism [Fr1.5]**

Mauro Fanciulli, Matteo Pancaldi, Anda-Elena Stanciu, Matthieu Guer*, Emanuele Pedersoli, Dario De Angelis, Primož Rebernic-Ribic, David Breteau, Martin Luttmann, Pietro Carrara, Arun Ravindran, Benedikt Rösner, Christian David, Carlo Spezzani, Michele Manfredda, Ricardo Sousa, Laurent Vila, Ioan Lucian Prejbeanu, Liliana D. Buda-Prejbeanu, Bernard Dieny, Giovanni De Ninno, Flavio Capotondi, Thierry Ruchon, Maurizio Sacchi

**Université Paris-Saclay, CEA, LIDYL, Gif-sur-Yvette, 91191, France*

10:45 - 11:15 Coffee break in Foyer

11:15 - 12:45 [Fr2] Attosecond Science at FELs (II)

Session chair: Arnaud Rouzée, Max Born Institute, Germany

11:15 - 11:45 **Ultrafast electron motion probed with attosecond X-ray Free Electron Lasers [Fr2.1 invited]**

James Cryan

SLAC National Accelerator Laboratory, USA

11:45 - 12:00 **Characterization of polarized attosecond soft X-ray pulses at Eu-XFEL [Fr2.2]**

Juliette Leroux*, Sadia Bari, Thomas Baumann, Rebecca Boll, Francesca Calegari, Alberto De Fanis, Filippa Dudda, Danilo Enoque Ferreira de Lima, Lars Funke, Andreas Galler, Gianluca Geloni, Wolfram Helml, Akhila Jose, Alice Judt, Tommaso Mazza, Moritz Mogilowski, Terry Mullins, Thorsten Otto, Yevheniy Ovcharenko, Gunnar Peterson, Dirk Raiser, Johan Ribbing, Matthew Robinson, Sara Savio, Philipp Schmidt, Bjorn Senftleben, Svitozar Serkez, Sergey Usenko, Vincent Wanie, Niclas Wieland, Lasse Wulng, Michael Meyer, Markus Ilchen

**Department of Physics, University of Hamburg, 22607 Hamburg, Germany*

12:00 - 12:15 **Redirection and reshaping of intense extreme-ultraviolet radiation [Fr2.3]**

Yu He*, Alexander Magunia, Harijyoti Mandal, Muwaffaq Ali Mourtada, Carlo Kleine, Arikta Saha, Marc Rebholz, Gergana D. Borisova, Lina Hedewig, Hannes Lindenblatt, Florian Trost, Ulrike Frühling, Christina C. Papadopoulou, Elisa Appi, Stefan Düsterer, Tino Lang, Skirmantas Alisaukas, Christoph M. Heyl, Steffen Palutke, Markus Braune, Christina Bömer, Dietrich Krebs, Doriana Vinci, Philip Mosel, Peer Biesterfeld, Ingmar Hartl, Robert Moshhammer, Milutin Kovacev, Kiyoshi Ueda, Mette B. Gaarde, Christian Ott, Thomas Pfeifer

**Max Planck Institute for Nuclear Physics, Germany*

12:15 - 12:30 **Impulsive stimulated X-ray Raman scattering in the condensed phase with attosecond X-ray Free Electron Laser pulses [Fr2.4]**

Felix Egun*, Oliver Alexander, Laura Rego, Ana M Gutierrez, Douglas Garratt, Stefan Moeller, Ming-Fu Lin, Georgi Dakovski, James P Cryan, Agostino Marinelli, Antonio Picón, Jonathan P Marangos and the LX52 Collaboration

**Department of Physics, Imperial College London, South Kensington, SW7 2AZ, United Kingdom*

12:30 - 12:45 **Single-shot measurements of soft x-ray attosecond pulses at kilohertz repetition rate [Fr2.5]**

Veronica Guo*, Kurtis Borne, Mat Britton, David Cesar, James Cryan, Taran Driver, Paris Franz, Erik Isele, Xiang Li, Ming-Fu Lin, Agostino Marinelli, Razib Obaid, River Robles, Nicholas Sudar, Emily Thierstein, Jun Wang

**Stanford University, USA; SLAC National Accelerator Laboratory, USA*

12:45 - 13:00 Closing Remarks

13:00 - 13:30 Lunch to-go & transfer to the Physics Department

13:30 - 17:00 Lab Visits - Lund High Power Laser Facility



Poster Sessions

13:00 - 14:30 [MoP] Poster Session (I) - Monday, July 7th

Poster Session sponsored by:



[MoP.1] Characterizing and controlling lifetimes of doubly-excited states directly in the time domain

Rupprecht, Patrick

[MoP.2] RABBITT-HOP: RABBITT with higher-order processes

Brown, Andrew

[MoP.3] Ultrathin liquid flat jet system for attosecond spectroscopy of solvated molecules

Rockenstein, Sabine

[MoP.4] Conditions for Mollow triplets in ultrafast absorption and dynamical fluorescence

Stenquist, Axel

[MoP.5] Absolute photoemission timing and asymmetry parameter of the I4d giant resonance of the Iodoalkanes

Forster, Maximilian

[MoP.6] Attosecond resonant Auger spectroscopy

Kimberg, Victor

[MoP.7] Attosecond partial wave meter and its application in resolving the photoemission time delays in atoms and molecules

Gong, Xiaochun

[MoP.8] Nonlocal resonance theory for electron–nuclear dynamics in molecules

Bertolino, Mattias

[MoP.9] Ultrafast time-varying nonlinearity at epsilon-near-zero

Li, Yan

[MoP.10] Symmetries, dominance and quantum interference in below-threshold nonsequential double ionization with linearly polarized two-color fields

Hashim, Sufia

[MoP.11] Attosecond Fourier transform spectroscopy

Kneller, Omer

[MoP.12] Electronic-vibrational dynamics in x-ray transient absorption of N₂⁺ induced by strong-field ionization

Zhao, Jing

[MoP.13] Photoemission timing of surface-oriented Iodoalkanes on Pt(111)

Paul, Sven-Joachim

[MoP.14] Attosecond ionization delay arising from Feshbach-resonance of N₂

Wang, W

[MoP.15] Quantifying centrifugal-potential effects: channel-resolved attosecond time delays in nondipole photoionization

Liao, Yijie

[MoP.16] Phase measurements beyond strong-field approximation in non-perturbative single-color high-harmonic spectroscopy

Avnery, Keren

[MoP.17] Analytical expression for continuum-continuum transition amplitude of Hydrogen-like atoms

Ji, Jia-Bao

[MoP.18] HHG-based all-attosecond transient absorption spectroscopy

Svirplys, Evaldas

[MoP.19] Hole alignment in noble gas atoms using RTDCIS method

Tahouri, Rezvan

[MoP.20] Modelling sequential ionisation within time-dependent R-Matrix Theory

Lavery, Holly

[MoP.21] SoftMeter: Ultrafast molecular imaging driven by a tunable two-color field

Ghaffari, Fatemehsadat

[MoP.22] Core ionization of positronium chloride: a numerical study

Camper, Antoine

[MoP.23] Attosecond transient absorption spectroscopy of laser-dressed dense helium: Spectral lineshape modification and weak transitions brought to light

He, Yu

[MoP.24] Observation of Bloch oscillation phenomena via high harmonic generation spectroscopy

Cahana, Noa

[MoP.25] Electron recollisional excitation on dissociative ionization of OCS in phaselocked two-color intense laser fields

Endo, Tomoyuki

[MoP.26] Ro-vibronic coupling in vibrational resolved attosecond photoelectron spectroscopy of acetylene

Li, Jialong

[MoP.27] Attosecond dynamics of direct electrons in optical near-fields

Heimerl, Jonas

[MoP.28] Influence of catastrophes and hidden dynamical symmetries on ultrafast photoelectron physics

Rook, Thomas

[MoP.29] Interference of direct and resonant two-photon ionization in helium

Weissenbilder, Robin

[MoP.30] Estimation of ZnO thickness from high harmonic spectrum using machine learning algorithms

Nagyillés, Balázs

[MoP.31] Anisotropy induced electronic coherence signal in attosecond transient absorption spectroscopy

Yuen, CH Isaac

[MoP.32] Probing the attosecond dynamics of high-energy-radiation-induced collisional ionization cascades in condensed-phase samples

Ferté, Anthony

[MoP.33] Modeling angularly resolved phase-jumps in heavy atoms

Mankov, Elisei

[MoP.34] Neural network assisted denoising in attosecond transient spectroscopy beyond correlated source noise

Hollm, Marko

[MoP.35] Multi-photon and strong-field ionization with a twist

Rajak, Debabrata

[MoP.36] From megabarns to attoseconds: How to relate the cross-section with the time delay

Kheifets, Anatoli

[MoP.37] Quantum trajectory selector: a novel method to clock attosecond dynamics within recollision physics

Raab, Ann-Kathrin

[MoP.38] Orientation-dependent production of electron spirals from multi-orbital heteronuclear diatomic molecules

Ngoko Djiokap, Jean Marcel

[MoP.39] Guiding synthetic chiral light

Loehr, Alexander

[MoP.40] Attosecond transient absorption in the water-window regime driven by self-compressed light-transient pulses

Vismarra, Federico

[MoP.41] Tuning the Fano resonance line shape in hundred zeptosecond timescale by using two attosecond pulses

Jin, Cheng

[MoP.42] Heterodyne analysis of high-order partial waves in attosecond photoionization of Helium

Han, Lulu

[MoP.43] Exciting autoionizing states with multiple photons

Majety, Vinay Pramod

[MoP.44] Imaging ultrafast structural rearrangement in ammonia molecule with high harmonic spectroscopy

He, Lixin

[MoP.45] New 1D atomic model potential for more accurate HHG spectra

Sallai, Krisztina

[MoP.46] Attosecond electron dynamics in two-color multiphoton processes in helium

Benito De Lama, Miguel

[MoP.47] Retrieving the density matrix from experimental KRAKEN data

Evensen, Andreas



[MoP.48] Partial-wave transitions in attosecond time delays

Mašín, Zdeněk

[MoP.49] Wigner vs. Smith: Time delays in anisotropic systems

Saalmann, Ulf

[MoP.50] Extreme-ultraviolet optical response of atomically thin MoS2 crystals

Di Palo, Nicola

[MoP.51] Effect of attosecond electronic coherences on conical-intersection dynamics in core-excited states

Rodriguez Cuenca, Emilio

[MoP.52] Cross-process interference in strong-field ionization: insights from CEP-dependent photoelectron spectra

Herzig, Anne

[MoP.53] All-attosecond transient absorption spectroscopy of gas-phase molecules

Chiang, Kuo-Yang

[MoP.54] Attosecond Raman time-delay in resonant transitions of ions

Zhao, Zengxiu

[MoP.55] Imaging in the water window with coherence tomography using high-harmonic generation

Fuchs, Silvio

[MoP.56] Attosecond optical orientation

Drescher, Lauren B

[MoP.57] Simulation of transient-grating high-harmonic spectroscopy from dissociating molecules

Trieu, Doan-An

[MoP.58] Probing of ultrafast nuclear vibrational and rotational dynamics with X-ray

Liu, Ji-Cai

[MoP.59] Unifying two manifestations of multielectron polarization in high harmonic generation: peak's frequency shift and odd-even intensity modulation

Phan, Ngoc-Loan

[MoP.60] State-resolved femtosecond phase control in dense-gas laser-atom interaction enabled by attosecond XUV interferometry

Hedewig, Lina

[MoP.61] Controlling the orbital angular momentum of electron in neutral atom

Hu, Hongtao

[MoP.62] Chiral Optical Tweezers - efficient enantioseparation of molecules

Jones, Robert Michael

[MoP.63] Time delays in photodetachment of atomic and molecular anions at low energies

Dvořák, Jan

[MoP.64] Ultrafast atomic physics between the perturbative and strong-field regimes

Marshallsay, Sean

[MoP.65] Multidimensional spectroscopy protocols with attosecond pulses

Finkelstein-Shapiro, Daniel



- [MoP.66] Enhancing chiral recognition in gas-phase molecules using chiral topological light**
Haram, Nida
- [MoP.67] Chiral topological light for detection of robust enantiosensitive observables**
Mayer, Nicola
- [MoP.68] Complete retrieval of photoelectron dynamics from partially-coherent measurements in entangled photoemission**
Caillat, Jérémie
- [MoP.69] Photoelectron momentum distributions using crossed linearly polarized attosecond pulses**
Kjærdsdam Telléus, Emilia M
- [MoP.70] Ultrafast photoionization dynamics in the vicinity of CO autoionizing states**
Faria, Felipe
- [MoP.71] Time-resolved Auger decay of an O₂ intruder-state**
Short, Andrew
- [MoP.72] Probing attosecond dynamics of chiral bound wave packets with an attoclock**
Ge, Peipei
- [MoP.73] Extended RPAE method solves the Argon delay-puzzle**
Lindroth, Eva
- [MoP.74] Signature of nuclear wavepacket interference in high-order harmonic generation during HCN/HNC isomerization process**
Le, Van-Hoang
- [MoP.75] Quantum path interference in high harmonic generation driven by highly bichromatic fields**
Zou, Xiaozhou
- [MoP.76] Decoherence phenomena of electron dynamics in liquid water**
Crippa, Gabriele
- [MoP.77] A general approximator for strong-field ionization rates**
Agarwal, Manoram
- [MoP.78] State- and phase-resolved vibrational wavepacket dynamics in N₂ studied using all-attosecond transient absorption spectroscopy**
Vibudh, Vibudh
- [MoP.79] Chiral measures make chiral moments**
Khokhlova, Margarita
- [MoP.80] Observing the Jahn-Teller dynamics of the propadiene cation using interferometric strong-field ionization**
Brupbacher, Katherine
- [MoP.81] Photon momentum transfer and partitioning: from one to many**
Ni, Hongcheng
- [MoP.82] Subcycle conservation law in strong-field ionization**
Ni, Hongcheng
- [MoP.83] Ultrafast spin migration in the argon dimer cation**
Carlström, Stefanos

[MoP.84] Attosecond coincidence spectroscopy in small molecules

Makos, Ioannis

[MoP.85] Investigating photoionization delays using an attosecond source synchronized with an infrared non-collinear optical parametric amplifier

Jahanzeb, Muhammad

[MoP.86] Nonlinear spectroscopic studies using intense gas high-order harmonics at the SYLOS COMPACT beam line, ELI-ALPS

Mukhopadhyay, Sourin

[MoP.87] Rotational pseudo-Doppler effect in solid-state high harmonic generation

Zuo, Zitan

[MoP.88] Quantum beating and cyclic structures in the phase-space dynamics of the Kramers-Henneberg atom

Aynul, Anika

[MoP.89] Transient extreme ultraviolet scatterometry for nanostructure morphology re-construction and probing material dynamics

Kechaoglou, Emmanouil

[MoP.90] Attosecond ionic photoionization spectroscopy

Xu, Yidan

[MoP.91] Interplay of locally chiral rotational and electronic currents in chiral molecules

Mirahmadi, Marjan

[MoP.92] Ultrafast TACOS

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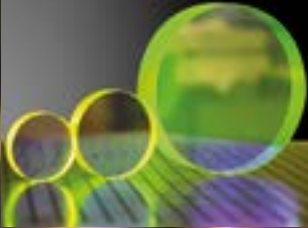
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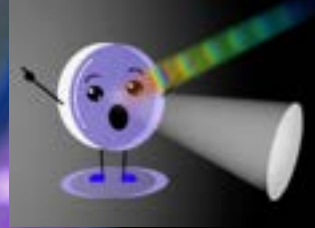
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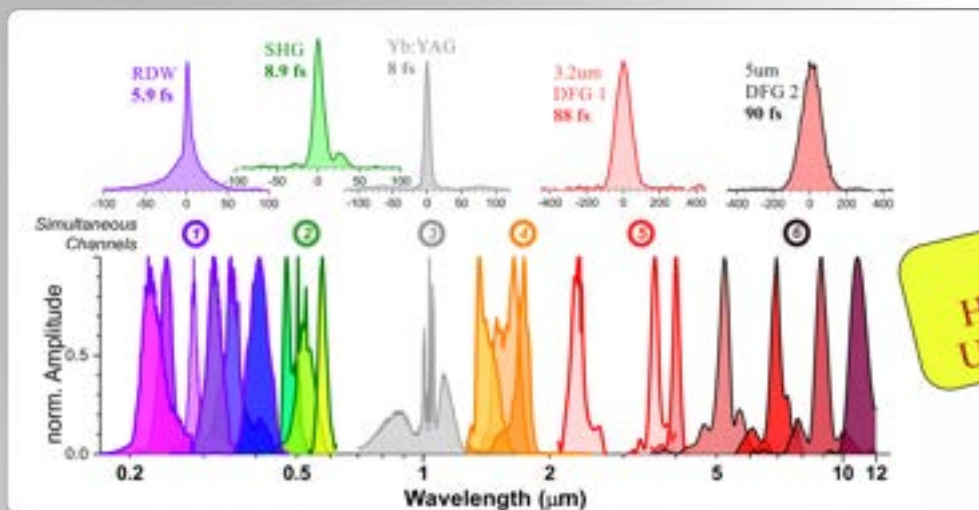
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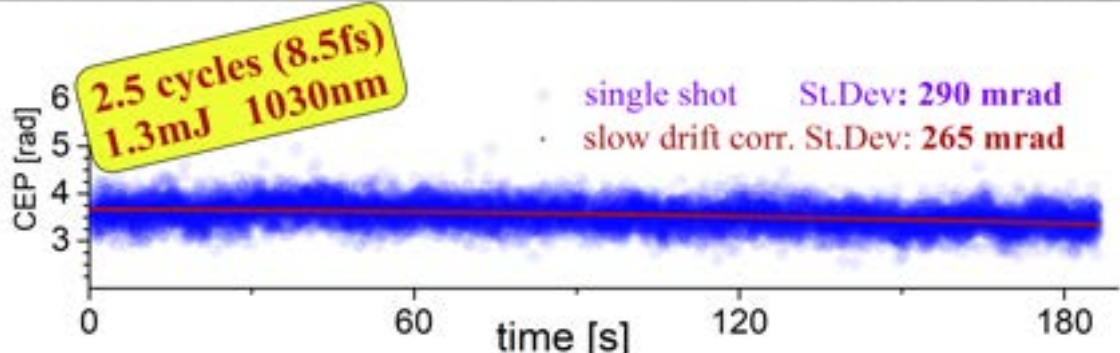
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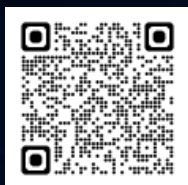
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- » Spectrometers, monochromators, reflectometers, interferometers & imaging systems
- » Exclusive EUV metrology & inspection capabilities with picometer accuracy
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APPLICATIONS

- » Time-resolved (attosecond) experiments
- » Transient absorption & reflection
- » Non-destructive EUV inspection
- » Reflectometry & scatterometry
- » Coherent (lensless) imaging
- » Spectroscopy / NEXAFS

LIGHT SOURCES

- » High-harmonic generation
- » Plasma-based sources
- » Free-electron lasers
- » Synchrotrons

CONTACT

sales@indigo-optics.com

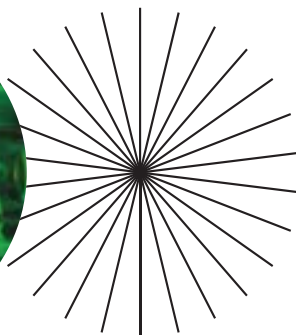
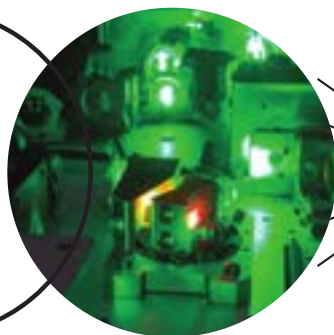
PARTNERS



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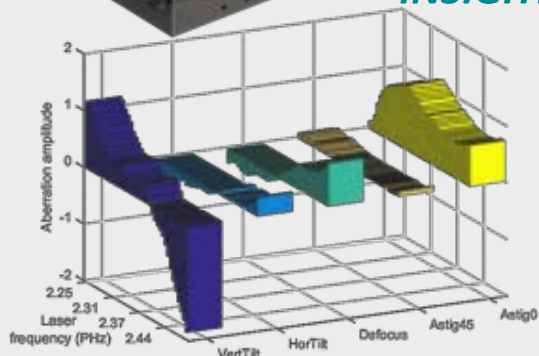


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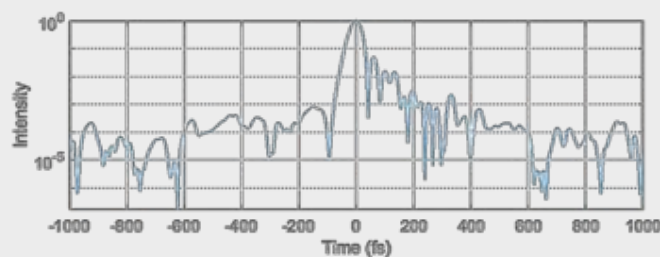
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Resolving spatio-temporal couplings over 400-1100 nm



TIPTOE



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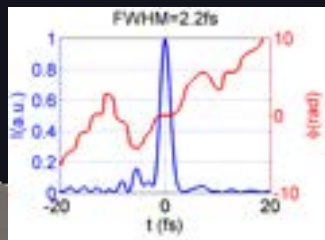
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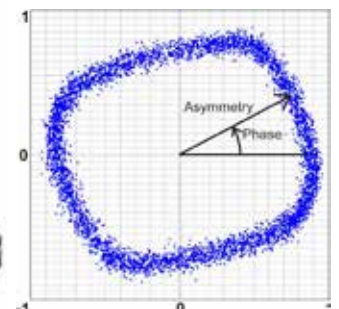
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Asymmetry graph

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THE LOOP – SCIENCE VILLAGE												
Sunday 6 July			Monday 7 July			Tuesday 8 July			Wednesday 9 July			
Time			OPENING				Tutorial: Zenghu Chang				Tutorial: Morgane Vacher	
08:30			Tutorial: Marc Vrakking				Yoann Pertot				Invited: Vincent Wanie	
08:45			Invited: Luca Argenti				Laszlo Veisz				Rafael Menezes Ferreira	
09:00			Federico Vismarra				Yuval Kern				Arnab Sen	
09:15			Sizuo Luo				Martin Kretschmar				Coffee	
09:30			Coffee				Coffee				Invited: Alicia Palacios	
09:45			Invited: Yann Mairesse				Christian Brahms				Jia-Bao Ji	
10:00			Noa Yaffe				Gaspard Beaufort				Jason Greenwood	
10:15			Gergana D. Borisova				Bruno Schmidt				Andrés Ordóñez	
10:30			Jonathan Dubois				Nikoleta Kotsina				Lunch (2nd IPC meeting)	
10:45			Lunch (1st IPC meeting)				Lunch				Poster session 3	
11:00			Poster session 1				Poster session 2					
11:15			Invited: Emilio Pisanty				Invited: Balazs Major				Invited: Stefanie Gräfe	
11:30			Invited: Kenichi Ishikawa				Invited: Caterina Vozzi				Invited: Mauro Nisoli	
11:45			Gabriel Granveau				Thierry Ruchon				Tristan Kopp	
12:00			Gustav Arvidsson				Rodrigo Martin-Hernandez				Alexander Magunia	
12:15			Jonathan Pöloth				Melvin Redon				Coffee	
12:30			Coffee				Coffee				Invited: Nirit Dudovich	
12:45			Invited: Marcus Dahlström				Invited: Bernd Schütte				Invited: Peter Hommelhoff	
13:00			Invited: Hamed Merdji				Matthias Kübel				Vincent Eggers	
13:15			Giulio Vampa				Parnia Bastani				Nicola Di Palo	
13:30			Marcelo Ciappina				Miguel Angel Silva-Toledo				Romain Cazali	
13:45			Matan Even Tzur				Eric Constant				Zhaopin Chen	
14:00							Natalia Kuzkova					
14:15												
14:30							Sponsor Night					
14:45												
15:00							The origins of time-dependent theory in attosecond physics: The science of Kenneth Kulander					
15:15							Sponsor Night					
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STADSHALLEN – CITY CENTER									
Time		Thursday 10 July				Friday 11 July			
08:30									
08:45									
09:00								Invited: Carlo Callegari	
09:15									
09:30								Invited: Robin Santra	
09:45								Agata Azzolin	
10:00								Praveen Kumar Maraju	
10:15								Matthieu Guer	
10:30								Coffee	
10:45									
11:00									
11:15								Invited: James Cryan	
11:30								Juliette Leroux	
11:45								Yu He	
12:00								Felix Egun	
12:15								Veronica Guo	
12:30								CLOSING	
12:45								Lunch to-go & transfer to the Physics Department	
13:00									
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