

# Conference program

Sunday, June 24

19:00-21:00 Welcome reception & registration

Monday, June 25

8:00 Registration

## Tutorials I

*(Chair: Anders Nilsson)*

8:30	Margaret Murnane	[L] Capturing the Fastest Dynamics in Materials using High Harmonic Sources
9:15	Massimo Altarelli	Overview of X-ray Free-Electron Laser Science and Facilities

10:00 Coffee break

## Tutorials II

*(Chair: Anders Nilsson)*

10:30	Joachim Stöhr	Our Evolving View of the Nature of X-Rays
11:15	Patrick Norman	Response theory techniques to address X-ray spectroscopies

12:00 Lunch

## Opening session

13:00	Anders Nilsson, Mats Larsson, Per Johnsson, Sverker Werin	Welcome
13:10	Michele Svandrik	FELs OF EUROPE
13:20	Claes-Göran Wahlström	Laserlab Europe

## New developments

*(Chair: Wilfried Wurth)*

13:30	Matthias Kling	[L] Attosecond Technology Comes of Age
14:00	Robert Schoenlein	Recent Developments at LCLS and Science Opportunities and Plans for LCLS-II and LCLS-II-HE
14:30	Eléonore Roussel	Exotic configurations in seeded FELs for versatile FEL pulses
15:00	Robin Santra	Molecules at high x-ray intensity: Challenges for theory

15:30 Coffee break

## Clusters and nanoparticles

*(Chair: Mats Larsson)*

16:00	Henrik Stapelfeldt	[L] Aligning and imaging molecules inside helium nanodroplets with laser pulses
16:30	Thomas Fennel	New routes to imaging the classical and quantum dynamics of finite systems

17:00-19:00 Poster session

Tuesday, June 26

## Imaging and scattering I

*(Chair: Filipe Maia)*

9:00	Daniela Rupp	[L] Imaging FEL-induced dynamics in single nanoparticles
9:30	Fivos Perakis	Coherent X-rays reveal the influence of cage effects on ultrafast water dynamics
10:00	Stefan Eisebitt	How to know the x-ray fluence distribution on your sample shot-by-shot

10:30 Coffee break

## Imaging and scattering II

*(Chair: Filipe Maia)*

11:00	Joachim von Zanthier	Quantum Imaging with incoherent X-rays
-------	----------------------	--

## Condensed matter I

*(Chair: Stefano Bonetti)*

11:30	Martin Weinelt	[L] Transient electronic structure and spin polarization in lanthanide metals
12:00	Alexei Maznev	In search for the phonon mean free path with optical, EUV and x-ray time-resolved measurements

12:30 Lunch

## Condensed matter II

*(Chair: Stefano Bonetti)*

13:30	Kai Rossnagel	Time-resolved photoemission spectroscopy at free-electron lasers
14:00	Simon Gerber	Femtosecond electron-phonon lock-in in FeSe via ultrafast x-ray scattering and photoemission
14:30	Aaron Lindenberg	Ultrafast manipulation of the structure and topological properties of layered materials

15:00 Coffee break

**Chemistry**

**(Chair: Philippe Wernet)**

15:30	Markus Gühr	[L] Electronic and geometry views of molecules
16:00	Christian Bressler	Structural Dynamics Studies with Femtosecond Temporal Resolution: Scientific Instrument FXE at European XFEL
16:30	Tetsuo Katayama	Wave packet observation of Cu(I) complex by ultrafast x-ray absorption spectroscopy
17:00	Kasper Skov Kjaer	Tracking Excited State Dynamics in Photo-Excited Metal Complexes with Hard X-ray Scattering and Spectroscopy

17:30 Break

**Hot topic session**

**(Chair: Per Johnsson)**

17:40	Jaehyun Park	Poster 19: Serial Femtosecond Crystallography Program at the Pohang Accelerator Laboratory X-ray Free Electron Laser Facility
17:55	Thomas Ding	Poster 30: XUV-Pump/XUV-Probe Strong-field Transient Absorption on Neon at FLASH
18:10	Dominik Kinschel	Poster 35: Ligand dissociation and recombination of Nitrosyl-myoglobin in physiological media studied by ultrafast X-ray spectroscopy and X-ray Diffuse Scattering
18:25	Emmanuelle Jal	Poster 43: Single shot time resolved XMCD experiment at Free Electron Laser
18:40	Yevheniy Ovcharenko	Poster 47: Collective autoionization dynamics of He clusters resonantly induced by intense XUV pulses
18:55	Prize ceremony	FELs of Europe award on FEL Science and Applications

19:10 BBQ-style conference dinner

SPONSORS:



THE ROYAL SWEDISH ACADEMY OF SCIENCES

KUNGL.  
VETENSKAPS-  
AKADEMIEN



Vetenskapsrådet

**Structural Dynamics**  
co-published by AIP Publishing | ACA

WEDNESDAY, JUNE 27

**Atomic and molecular physics I**

**(Chair: Jan-Erik Rubensson)**

9:00	Giuseppe Sansone	[L] Complete temporal characterization and tailoring of attosecond pulses at FERMI
9:30	Artem Rudenko	Atomic and molecular ionization by ultraintense hard x-rays
10:00	Carlo Callegari	The Low Density Matter beamline at FERMI: recent results and future perspectives

10:30 Coffee break

**Atomic and molecular physics II**

**(Chair: Jan-Erik Rubensson)**

11:00	Linda Young	Ultrafast x-ray probes of inner- and outer-shell electron dynamics
-------	-------------	--

**Bioscience I**

**(Chair: Jonas Sellberg)**

11:30	Junko Yano	Taking Snapshots of Water Oxidation Reaction in Photosystem II at X-ray Free Electron Lasers
12:00	Adrian Mancuso	The SPB/SFX Instrument of the European XFEL: Commissioning outcomes and first user results

12:30 Lunch

**Bioscience II**

**(Chair: Jonas Sellberg)**

13:30	Minoru Kubo	Capturing reaction intermediates of enzymes by time-resolved XFEL crystallography
14:00	Gabriela Nass Kovacs	Observations of ultrafast light-induced processes in proteins using time-resolved serial femtosecond crystallography

**Matter under extreme conditions**

**(Chair: Sverker Werin)**

14:30	Emma Elizabeth McBride	Simultaneous Imaging and Diffraction from Shock Compressed Matter at the LCLS
15:00	Marion Harmand	Iron and Iron alloys under extreme conditions for geoscience application
15:30	Justin Wark	High Energy Density FEL Science

16:00 Coffee and end of the conference

*In most of the sessions one talk is specifically aimed at work with lab-scale laser-based sources. These talks are marked with [L] in the title of the talk*