

**The 5th International Symposium on Intense Short Wavelength
Processes in Atoms and Molecules (ISWAMP)**
Paris, France, July 20-22, 2019

Programme

Saturday, July 20th

11:00 – 13:50 Welcome registration, coffee

13:50 – 14:00 Opening

Chair: **Kiyoshi Ueda**

14:00 – 14:40 Plenary talk
Attosecond measurements with ultrafast X-rays: The present and future prospects
Jonathan Marangos - Imperial College, London, UK

14:40 – 15:10 Invited talk
Self-referenced attosecond streaking
Daniel Haynes - Max-Planck Institute for the Structure and Dynamics of Matter, Hamburg, Germany

15:10 – 15:30 Attosecond Pulse Shaping at FERMI FEL
Praveen Kumar Maroju – Albert Ludwigs Universität, Freiburg, Germany

15:30 – 16:00 Coffee break

Chair: **Igor Litvinyuk**

16:00 – 16:30 Invited talk
Coherent X-ray diffraction nanoscale imaging with single attosecond-short FEL pulses
Tais Gorkhover - Pulse Institute, SLAC, Menlo Park, USA

16:30 – 17:00 Invited talk
Crystalline defects in single Xe clusters probed by single-shot X-ray diffraction
Akinobu Niozu - Kyoto University, Kyoto, Japan

17:00 – 17:30 Invited talk
Measuring the atomic recoil to study stimulated X-ray emission in Ne
Ulli Eichmann - Max-Born Institute, Berlin, Germany

17:30 – 18:00 Invited talk
Tracing fragmentation dynamics upon absorption of very intense X-ray pulses
Rebecca Boll - European XFEL, Hamburg, Germany

Sunday, July 21st

Chair: **Robert Moshhammer**

- 09:00 – 09:40 Plenary talk
Attosecond soft-X-ray spectroscopy in the gas and liquid phases
Hans Jakob Wörner - *ETH Zürich, Zürich, Switzerland*
- 09:40 – 10:10 Invited talk
Exotic dense-matter states pumped by ultra-Intense X-ray radiation of relativistic laser plasma
Sergey Pikuz - *Joint Institute for High Temperatures, Moscow, Russian Federation*
- 10:10 – 10:40 Coffee break

Chair: **Alexei Grum-Grzhimailo**

- 10:40 – 11:10 Invited talk
Time-dependent wavefunction-based methods for intense laser-driven multielectron dynamics
Takeshi Sato - *University of Tokyo, Tokyo, Japan*
- 11:10 – 11:40 Invited talk
Analytic description of high-order harmonic generation in the adiabatic limit
Mikhail V. Frolov - *Voronezh State University, Voronezh, Russian Federation*
- 11:40 – 12:00 Attoclock on atomic and molecular hydrogen
Anatoli Kheifets - *Australian National University, Canberra, Australia*
- 12:00 – 12:20 A semiclassical study of the holographic interference in atomic photoionization
Diego German Arbó - *Institute for Astronomy and Space Physics IAFE, Buenos Aires, Argentina*
- 12:20 – 14:00 Lunch

Chair: **John Costello**

- 14:00 – 14:40 Plenary talk
Attosecond Science: Past, Present and Future
Marc Vrakking - *Max-Born Institute, Berlin, Germany*
- 14:40 – 15:10 Invited talk
Strong-field physics in the molecular frame: imaging with short-wavelength electrons
Jochen Küpper - *DESY, CFEL and Universität Hamburg, Hamburg, Germany*
- 15:10 – 15:30 Autoionizing Rydberg states of H₂ molecules in strong laser field
Yonghao Mi - *Max-Planck Institute for Nuclear Physics, Heidelberg, Germany*
- 15:30 – 16:00 Coffee break

Chair: **Dajun Ding**

- 16:00 – 16:30 Invited talk
Circularly polarized X-rays via high order harmonics
André D. Bandrauk – *Université de Sherbrooke, Sherbrooke, Canada*
- 16:30 – 17:00 Invited talk
Probing Rydberg-Rydberg interactions in N₂ by ultrafast EUV-NIR photoelectron spectroscopy
Akiyoshi Hishikawa - *Nagoya University, Nagoya, Japan*
- 17:00 – 17:30 Invited Talk
Nonlinear emphasizing of electron spin polarization caused by two-pathway interference in VUV photoionization
Elena V. Gryzlova - *Lomonosov Moscow State University, Moscow, Russian Federation*
- 17:30 – 19:00 Posters Session
- 19:30 – 21:30 Conference dinner at La Coupole, 102 Boulevard du Montparnasse, 75014 Paris

Monday, July 22th

Chair: **Carlo Callegari**

- 09:00 – 09:40 Plenary talk
New science opportunities at the Small Quantum Systems (SQS) Instrument at the European XFEL
Michael Meyer - *European XFEL, Schenefeld, Germany*
- 09:40 – 10:10 Invited talk
The Maloja endstation for atomic, molecular and non-linear science at SwissFEL
Kirsten Schnorr - *Paul Scherrer Institut, Villigen, Switzerland*
- 10:10 – 10:40 Coffee break

Chair: **Oksana Travnikova**

- 10:40 – 11:10 Invited talk
Status and perspective of X-ray Free Electron Lasers in China
Zhentan Zhao - *Shanghai Advanced Research Institute, Chinese Academy of Sciences, Shanghai, China*
- 11:10 – 11:40 Invited talk
The TMO instrument: Opportunities and plans for time-resolved atomic, molecular and optical science at LCLS-II
Peter Walter - *LCLS, SLAC, Menlo Park, USA*
- 11:40 – 12:10 Invited talk
Echo enabled harmonic generation at the FERMI Free-Electron Laser
Carlo Spezzani – *Elettra Sincrotrone Trieste, Trieste, Italy*

12:10 – 14:00 *Lunch*

Chair: **Marc Simon**

- Invited talk
14:00 – 14:30 Time-resolved photoionization and fragmentation dynamics of fullerenes studied with FELs
Nora Berrah - *University of Connecticut, Storrs, USA*
- 14:30 – 14:50 Ultrafast buildup of magneto-electric excitations by polarization-structured laser pulses
Jamal Berakdar - *Martin-Luther University, Halle-Wittenberg, Halle, Germany*

14:50 – 15:20 *Coffee break*

Chair: **John Bozek**

- Invited talk
15:20 – 15:50 Complete reconstruction of bound and unbound electronic wavefunctions in two-photon double ionization
Paolo Antonio Carpeggiani - *Technische Universität Wien, Wien, Austria*
- 15:50 – 16:10 Nonsequential two-photon ionization of inner-shell electrons in neutral atoms
Andrey V. Volotka - *Helmholtz-Institut Jena, Jena, Germany*

16:10 – 16:20 *Conclusion*