CONFERENCE PROGRAM

Sunday, June 10th

17:00 – 19:00 Registration and welcome reception
 UMPC, Site des Cordeliers
 15 rue de l’école de médecine
 75006 Paris

Monday, June 11th

8:30 Registration
9:15 Introduction

SESSION I

(Chair : A. Klisnick)

9:30 (Invited) Three dimensional nanoscale composition mapping by soft x-ray laser ablation mass spectrometry
 Menoni Carmen (Colorado State University, USA)

10:00 (Invited) X-ray laser developments at PHELIX
 Ecker Boris (GSI Helmholtzzentrum für Schwerionenforschung, Germany)

10:30 Coffee break

SESSION II

(Chair : K. Janulewicz)

11:00 (Invited) Harmonic generation and soft-x-ray laser with LASERIX: source development, applications and advanced diagnosis
 Olivier Guilbaud (LPGP, France)

11:30 The LUNEX5 project in France
 Couprie Marie-Emmanuelle (Synchrotron SOLEIL France)
Nanoscale imaging using a laboratory source with high spectral brightness
*Stiel Holger (Berlin Laboratory for Innovative X-Ray Technologies, Germany)*

(Invited) The present status and perspectives of seeded soft-x-ray FELs
*Giannessi Luca (Elettra, Trieste, Italy)*

Lunch

**SESSION III**

(Chair: T. Kawachi)

14:00 (Invited) Production of Ultrashort intense x-ray sources from laser-driven clusters
*Chen Limin (IOP, China)*

14:30 Two-dimensional Maxwell-Bloch simulation of ultrashort pulse amplification in a swept-gain soft X-ray laser
*Larroche Olivier (CEA DIF, France)*

*Brizuela Fernando (Lund University, Sweden)*

15:20 Field equation and optical transformations for grazing incidence optics and coherent reflection imaging.
*Vinogradov Alexander (Lebedev Physical Institute, Russia)*

15:40 Temporal coherence and spectral linewidth of neon-like XUV lasers pumped in the quasi-steady state regime
*Meng Limin (Institut des Sciences Moléculaires d'Orsay, France)*

16:00 Coffee Break

**SESSION IV**

(Chair: J. Balmer)

16:30 (Invited) Time-dependant Bloch-Maxwell modelling of high harmonic seeding in gas and solid amplifier
*Philippe Zeitoun (Laboratoire d’optique Appliquée, France)*

17:00 Time Resolved Holography Scheme using a Table top Soft X-ray Laser
*Marconi Mario (Engineering Research Center for Extreme Ultraviolet Science and Technology, USA)*
17:20  (Invited) Attosecond synchrotron emission from electron nanobunches in relativistic laser plasmas

Dromey Brendan (Departement of Physics and Astronomy, Queens University Belfast, Ireland)

17:50  Enhancement of efficiency of XUV generation in atomic gases irradiated by intense laser fields

Stremoukhov Sergey (M.V. Lomonosov Moscow State University, Leninskie Gory)

Tuesday, June 12th

SESSION V  (Chair : S. Jacquemot)

9:00  (Invited) High-brightness optical-field-ionization soft x-ray laser and its applications

Lin Jiunn-Yuan (Department of Physics, National Chung Cheng University, Taiwan)

9:30  Coherent pulses from a seeded free-electron laser in the extreme ultraviolet

Allaria Enrico (Sincrotrone Trieste, Italy)

9:50  Plasma diagnoses with the soft X-ray laser backlight shadowgraph

Sun Jinren (Shanghai Institute of Laser Plasma, China)

10:10  High harmonic generation driven by non-collinear double pulse

Daboussi Sameh (LPGP, Université Paris Sud – France)

10:30  Coffee break

SESSION VI  (Chair : P.V. Nickles)

11:00  (Invited) High Repetition Rate Table-top Soft X-Ray Lasers at Shorter Wavelengths

Rocca Jorge (Colorado State University, USA)

11:30  All-optical Raman XFEL, based on the electron emission in a transverse high intensity optical lattice

Andriyash Igor (Centre d'Etudes Lasers Intenses et Applications, France)
11:50  Ne-like Ar Soft X-ray Laser Pumped by Capillary Discharge and Si Target Ablation with Laser of 46.9 nm
Zhao Yongpeng (National Key Laboratory of Science and Technology on Tunable Laser, Harbin Institute of Technology (HIT))

Levy Anna (LULI, France)

12:40  Lunch

SESSION VII
(Chair : C. Menoni)

14:00  (Invited) High Power Gamma-Ray Flash Emission in the Ultra Intense Laser-Plasma Interaction
Esirkepov Timur (JAEA, Japan)

14:30  The European XFEL in Hamburg: current status.
Gaudin Jerome (European XFEL, Germany)

14:50  (Invited) Laser-induced ultrafast demagnetization in the presence of a nanoscale magnetic domain network
Vodungbo Boris (Laboratoire de chimie physique-matière et rayonnement, France)

15:20  Diagnosis of laser-plasmas using extreme ultra-violet laser backlighting
Tallents Greg (York Plasma Institute, U.K)

15:40  Generation and Application of Coherent Radiation in the Water Window
Dao Lap Van (Australian Research Council Centre of Excellence for Coherent X-Ray Science, Melbourne, Australia)

16:00  Coffee break

SESSION VIII
(Chair : A. Vinogradov)

16:30  (Invited) Source development of novel coherent x-ray and the applications in JAEA
Kawachi Tetsuya (Advanced Photon Research Institute, JAEA, Japan)

17:00  Interplay between laser chirp and electron beam chirp in the dynamics of a seeded free-electron laser
Mahieu Benoît (Sincrotrone Trieste, Italy)
17:20  (Invited) Speckle statistics, coherence and polarization of a collisional soft X-ray laser
Janulewicz Karol (Gwangju Institute of Science and Technology, Korea)

17:40  Ultra-fast time resolved measurement of the complex refractive index of warm dense matter
Fajardo Marta (Instituto de Plasmas e Fusão Nuclear, Lisbon, Portugal)

Wednesday, June 13th

Visit of the Château de Versailles (10 AM : 6 PM)

Information about the visit will be given during the conference
<table>
<thead>
<tr>
<th>Time</th>
<th>Session IX</th>
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<tbody>
<tr>
<td>9:00</td>
<td>(Invited) Development of coherent x-ray sources and single-shot coherent imaging</td>
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<td><em>Kim Hyung Taek (Advanced Photonics Research Institute, Korea)</em></td>
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<tr>
<td>9:30</td>
<td>Study of correlation effects on line profiles of Ni-like collisional XUV laser amplifier</td>
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<td><em>Calisti Annette (Physique des interactions ioniques et moléculaires, France)</em></td>
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<td>9:50</td>
<td>Using the X-FEL to understand X-ray Thomson scattering for partially ionized plasmas</td>
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<td><em>Nilsen Joseph (Lawrence Livermore National Laboratory, USA)</em></td>
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<td>10:10</td>
<td>Experiments to diagnose plasma with the soft x-ray laser double-frequency grating interferometry</td>
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<td><em>Wang Chen (Institute of Laser Plasma, China)</em></td>
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<td>10:30</td>
<td>Coffee break</td>
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<td>11:00</td>
<td>(Invited) Realization of photoionization and resonant Raman x-ray lasers at x-ray free-electron laser sources</td>
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<td><em>Rohringer Nina (Max Planck Advanced Study Group at CFEL, Germany)</em></td>
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<td>11:30</td>
<td>Oscillator - regenerative laser cavity frequencies tuning for efficient Soft-X-ray Laser Operation</td>
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<td><em>Delmas Olivier (LPGP, France)</em></td>
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<td>11:50</td>
<td>High density optical-field-ionization soft X-ray lasers</td>
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<td><em>Tissandier Fabien (Laboratoire d'Optique Appliquée, France)</em></td>
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<td>12:10</td>
<td>(Invited) Real-time observation of laser heated metals with high brightness monochromatic x-ray techniques at present and future prospects</td>
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<td><em>Daido Hiroyuki (Japan Atomic Energy Agency, Japan)</em></td>
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<td>12:40</td>
<td>Lunch</td>
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**SESSION X**

(Chair : J. Rocca)

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<tr>
<td>14:00</td>
<td>(Invited) Multilayer X-ray optics for Free Electron Lasers</td>
<td>Bajt Sasa <em>(Deutsches Elektronen-Synchrotron, Germany)</em></td>
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<tr>
<td>14:30</td>
<td>Bridging the Gap Between “Proof-of-principle” and “Enabling-tool” for XUV Laser Sources.</td>
<td>Bleiner Davide <em>(IAP, Uni Bern, Berne, Switzerland)</em></td>
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<tr>
<td>14:50</td>
<td>(Invited) Characterization of Zn X-ray laser at PALS Centre, its applications in dense plasma probing and astrophysics</td>
<td>Kozlova Michaela <em>(IOP, PALS Center, Czech Republic)</em></td>
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<tr>
<td>15:20</td>
<td>Superfluorescence observed following EUV-FEL excitation of helium gas</td>
<td>Harries James <em>(Spring8, Japan Atomic Energy Agency, Japan)</em></td>
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<td>15:40</td>
<td>Coffe break + Poster Session</td>
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<td>19:30</td>
<td>Conference Dinner</td>
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**Friday, June 15th**

**SESSION IX**

(Chair : G. Tallents)

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<td>9:00</td>
<td>(Invited) Soft-X-Ray lasing down to 6.85 nm in Ni-like samarium</td>
<td>Balmer Jürg <em>(University of Bern, Switzerland)</em></td>
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<tr>
<td>9:30</td>
<td>Design, deposition and characterization of multilayer mirrors for sub-50-attosecond pulses</td>
<td>Delmotte Franck <em>(Laboratoire Charles Fabry, Palaiseau, France)</em></td>
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<tr>
<td>9:50</td>
<td>Ag X-Ray Laser Pumped with One Long and Two Short Pulses</td>
<td>Ursescu Daniel <em>(Institutul National de Fizica Laserilor, Plasmei si Radiatiei, Roumania)</em></td>
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<tr>
<td>10:10</td>
<td>Time-dependent simulation of carbon illuminated by a high intensity X-ray laser</td>
<td>Garcia Alberto <em>(Instituto de Fusión Nuclear, Madrid, Spain)</em></td>
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<td>10:30</td>
<td>Coffee break</td>
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SESSION IX
(Chair : H.T. Kim)

11:00  (Invited) Attosecond lighthouses: A new tool for ultrafast science and metrology
       Quéré Fabien (Commissariat à l’Energie Atomique, France)
11:30  0.2 GW soft X-ray pulse using a plasma-based amplification chain
       Oliva Eduardo (Laboratoire d’Optique Appliquée, France)
11:50  Visualization of rapid dynamic interactions by flash soft x-ray laser microscopy
       Menoni Carmen (NSF ERC for Extreme Ultraviolet Science and Technology, USA)
12:10  (Invited) Imaging in nanoscale using a compact laser plasma source of extreme ultraviolet (EUV)
       Wachulak Przemyslaw (MUT IOE, Poland)
12:40  Lunch

SESSION IX
(Chair : N. Rohringer)

14:00  (Invited) Laser driven femtosecond x-ray and gamma-ray sources: Betatron radiation and Compton scattering
       Ta Phuoc Kim (Laboratoire d’Optique Appliquée, France)
14:30  The Generation of Isolated attosecond pulses in the water window due to the nuclear motion of molecules in a multicycle midinfrared laser field
       Zheng Yinghui (State Key Laboratory of High Field Laser Physics, Shanghai, China)
14:50  (Invited) Overview of laser technologies in ELI-Beamlines facility
       Pavel Bakule (Institute of Physics, Czech Republic)
15:20  Attosecond lighthouses from plasma mirrors
       Lopez-Martens Rodrigo (Laboratoire d’Optique Appliquée, France)
15:40  Closing remarks