

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**

Coupré Marie-Emmanuelle (Synchrotron SOLEIL France)

- 11:50** **Nanoscale imaging using a laboratory source with high spectral brightness**
Stiel Holger (Berlin Laboratory for Innovative X-Ray Technologies, Germany)
- 12:10** **(Invited) The present status and perspectives of seeded soft-x-ray FELs**
Giannessi Luca (Elettra, Trieste, Italy)
- 12:40** **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)
- 14:50** **(Invited) Enhancement of High-harmonic Generation using a double-cell scheme.**
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))
- 12:10** **(Invited) Generation and investigation of hard X-Ray Free Electron Laser heated foils**
Levy Anna (LULI, France)
- 12:40** **Lunch**

SESSION VII

(Chair : C. Menoni)

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- 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)

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- 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**

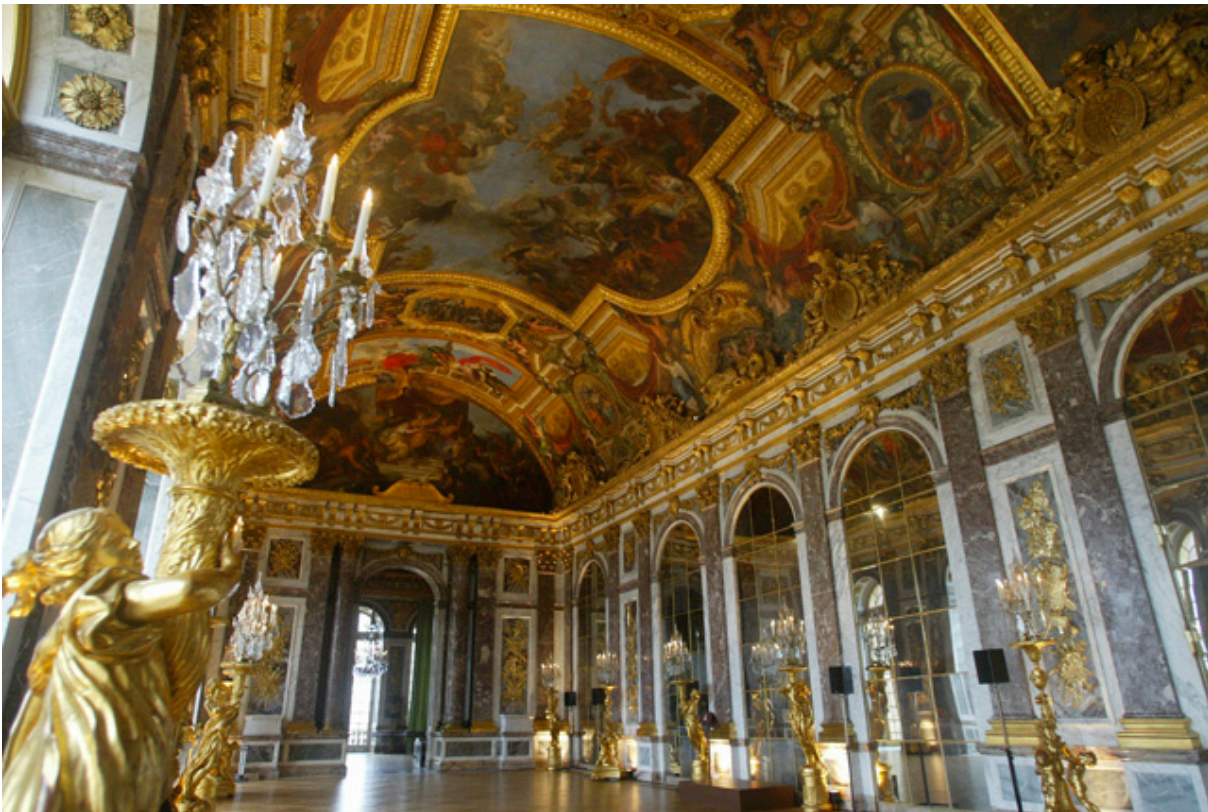
Janulewicz Karol (Gwangju Institute of Science and Technology, Korea)

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

Thursday, June 14th

SESSION IX

(Chair : H. Daido)

- 9:00** **(Invited) Development of coherent x-ray sources and single-shot coherent imaging**
Kim Hyung Taek (Advanced Photonics Research Institute, Korea)
- 9:30** **Study of correlation effects on line profiles of Ni-like collisional XUV laser amplifier**
Calisti Annette (Physique des interactions ioniques et moléculaires, France)
- 9:50** **Using the X-FEL to understand X-ray Thomson scattering for partially ionized plasmas**
Nilsen Joseph (Lawrence Livermore National Laboratory, USA)
- 10:10** **Experiments to diagnose plasma with the soft x-ray laser double-frequency grating interferometry**
Wang Chen (Institute of Laser Plasma, China)
- 10:30** **Coffee break**

SESSION X

(Chair : Lin Jiunn-Yuan)

- 11:00** **(Invited) Realization of photoionization and resonant Raman x-ray lasers at x-ray free-electron laser sources**
Rohringer Nina (Max Planck Advanced Study Group at CFEL, Germany)
- 11:30** **Oscillator - regenerative laser cavity frequencies tuning for efficient Soft-X-ray Laser Operation**
Delmas Olivier (LPGP, France)
- 11:50** **High density optical-field-ionization soft X-ray lasers**
Tissandier Fabien (Laboratoire d'Optique Appliquée, France)
- 12:10** **(Invited) Real-time observation of laser heated metals with high brightness monochromatic x-ray techniques at present and future prospects**
Daido Hiroyuki (Japan Atomic Energy Agency, Japan)
- 12:40** **Lunch**

SESSION X**(Chair : J. Rocca)**

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

Friday, June 15th

SESSION IX**(Chair : G. Tallents)**

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

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**