Conference on Laser and Synchrotron Radiation Combination Experiment

LSC'14

Wednesday, April 23

9:00-9:15 Opening Room 416+417

Opening Remarks

9:00 H. Azech, Conference Chair of LSC' 14
Institute of Laser Engineering, Osaka University, Osaka, Japan

9:15-12:30 LSC1 Room 416+417

Chair:

LSC1-1 9:15 **(Invited) X-ray Free-Electron Lasers – a bright future for structural biology**
Ilme Schlichting
Max Planck Institute for Medical Research, Germany

LSC1-2 9:45 **(Invited) Tracking the chemical reactions with combined ultrafast x-ray spectroscopies and scattering**
Simone A. Techert
European XFE, Germany

LSC1-3 10:15 **(Invited) Structural Dynamics in Chemistry Investigated by Pulsed, High Flux X-ray Radiation**
Simone A. Techert
DESY, Hamburg, Germany / MPIbpC, Germany

----- Break （10:45-11:00）-----

LSC1-4 11:00 **(Invited) SR & XFELs' Challenges to Time Resolved Structural Visualization of Optical Recording Process**
Masaki Takata
RIKEN SPring-8 Center, Japan

LSC1-5 11:30 **(Invited) Time-resolved X-ray Diffraction Experiment on Crystal Lattice Dynamics Using Optical Laser and Accelerator-based X-ray Source**
Yoshihito Tanaka
RIKEN SPring-8 Center, Japan

LSC1-6 12:00 **(Invited) Towards femtosecond time-resolved hard x-ray photoelectron spectroscopyray as a probe of transient electronic states in condensed matter**
Masaki Oura
RIKEN SPring-8 Center, Japan

----- Lunch Break （12:30-13:30）-----

13:30-18:30 LSC2 Room 416+417

Chair:

LSC2-1 13:30 **(Invited) Time-resolved X-ray spectroscopy at 3rd and 4th generation light sources**
Chris Milne
Paul Scherrer Institute, Switzerland

LSC2-2 14:00 **(Invited) EUV+IR two-color experiments at FELs**
Kiyoshi Ueda
IMRAM, Tohoku University, Japan

LSC2-3 14:30 **(Invited) Femtosecond time-resolved X-ray absorption spectroscopy using SPring-8 Angstrom Compact Free Electron laser (SACLA)**
Kazuhiko Misawa
Tokyo University of Agriculture and Technology, Japan

----- Break （15:00-15:15）-----

LSC2-4 15:15 **(Invited) Exploring Possible Pathways to Non-Thermal Sub-Picosecond Phase-Switching in the Phase Change Alloy Ge2Sb2Te5 using a Free-Electron Laser**
Paul Fons
National Institute of Advanced Industrial Science and Technology, Japan

LSC2-5 15:45 **(Invited) Picosecond Lattice Deformation in Ge2Sb2Te5 Revealed by X-ray Free-Electron Laser**
Eiichiro Matsubara
Dept. Materials Science & Engineering, Kyoto University, Japan

LSC2-6 16:15 **(Invited) Ultrafast lattice dynamics of phase change materials by coherent phonons**
Muneaki Hase
Institute of Applied Physics, University of Tsukuba, Japan

----- Break （16:45-17:00）-----

LSC2-7 17:00 **(Invited) Generation of Kilo-Tesla Magnetic Field with High-Power Laser for LSC Experiments**
Shinsuke Fujioka
Institute of Laser Engineering, Osaka University, Japan

LSC2-8 17:30 **Relaxation of the Surface Photovoltage Effect on ZnO(0001) Studied by Time-resolved Soft X-ray Photoemission Spectroscopy**
Ryu Yukawa
ISSP, the University of Tokyo, Japan

LSC2-9 17:45 **Optical properties of lanthanide-doped APLF crystals as neutron scintillators**
Melvin John F. Empizo
Institute of Laser Engineering, Osaka University, Japan

LSC2-10 18:00 **Investigation of the spatial resolution of a ZnO crystal as a EUV imaging device scintillator**
Ren Arita
Institute of Laser Engineering, Osaka University, Japan

LSC2-11 18:15 **Vacuum ultraviolet (VUV) fluorescence of KMgF3 and BaLiF3 crystals for short wavelength devices**
Luong Viet Mui
Institute of Laser Engineering, Osaka University, Japan

Thursday, April 24

9:00-12:15 LSC3 Room 416+417

Chair:

LSC3-1 9:00 **(Invited) Development of an Ultrafast Pump-probe Facility with Multiple Radiations generated by an RF Photogun-based Accelerator and a Femtosecond Laser**

Young U. Jeong
WCI Center for Quantum-Beam-based Radiation Research, KAERI, Korea

LSC3-2 9:30 **(Invited) Generation of Coherent Synchrotron Radiation by using Laser and Synchrotron**
Masahiro Katoh
Institute for Molecular Science, Japan

LSC3-3 10:00 **(Invited) Nonlinear ionization of atoms in intense EUV laser fields studied by single-shot photoelectron spectroscopy**
Mizuho Fushitani
Department of Chemistry, Graduate School of Science, Nagoya University, Japan

----- Break （10:30-10:45）-----

LSC3-4 10:45 **(Invited) Capturing structural dynamics of materials by picosecond X-ray pulses**
Shin-ichi Adachi
Photon Factory, KEK, Japan

LSC3-5 11:15 **(Invited) Ultrafast X-ray science at synchrotron and XFEL facilities using laser pump X-ray probe experiments**
Shunsuke Nozawa
High Energy Accelerator Research Organization, Japan

LSC3-6 11:45 **(Invited) Single-shot time-resolved X-ray scattering measurement of structural change of amorphous material under laser-driven compression**
Kouhei Ichiyanagi
Graduate School of Frontier Sciences, The University of Tokyo, Japan

----- Lunch Break （12:15-13:15）-----

13:15-18:15 LSC4 Room 416+417
Chair:

LSC4-1 13:15 **(Invited) Ultrabright femtosecond electron diffraction**
German Sciaini
Department of Chemistry, University of Waterloo, Canada

LSC4-2 13:45 **(Invited) Femtosecond Electron Diffraction Studies**
Masaki Hada
Tokyo Institute of Technology, JST-PRESTO / Max Planck Institute for the Structure and Dynamics of Matter

LSC4-3 14:15 **(Invited) Role of Ultrafast Structural Dynamics in Photo-Functional Materials Based on Cooperative Effect**
Shin-ya Koshihara
CREST, JST and Department of Materials Science, Tokyo Institute of Technology, Japan

----- Break （14:45-15:00）-----

LSC4-4 15:00 **(Invited) Chronology of Photocarriers at Surfaces Studied by Time-Resolved Photoemission Spectroscopy**
Iwao Matsuda
The Institute for Solid State Physics, the University of Tokyo, Japan

LSC4-5 15:30 **(Invited) Synchrotron Radiation and Laser Photoemission Studies of Epitaxial Graphene on SiC**
Kazutoshi Takahashi
Synchrotron Light Application Center, Saga University, Japan

LSC4-6 16:00 **(Invited) Highly Efficient Deep UV Generation from a Newly Developed Wavelength-conversion β-BaB2O4 Device**
Ichiro Shoji
Chuo University, Japan

----- Break （16:30-16:45）-----

LSC4-7 16:45 **(Invited) Time-resolved vibrational spectroscopy for photo-functional organic materials**
Ken Onda
Tokyo Institute of Technology, PRESTO-JST, Japan

LSC4-8 17:15 **(Invited) Nondestructive 3D Imaging of Fatigue Cracks inside Engineering Materials by Synchrotron Radiation**
Yuji Sano
Toshiba Corporation, Japan

LSC4-9 17:45 **Development of measurement system for magneto-optical effect with a vacuum ultraviolet High Harmonic Generation laser**
Shingo Yamamoto
Institute for Solid State Physics, the University of Tokyo, Japan

LSC4-10 18:00 **Observing carrier dynamics in an n-type epitaxial graphene using time-resolved photoemission spectroscopy**
Takashi Someya
Institute for Solid State Physics, the University of Tokyo, Japan

18:15-18:30 Closing Room 416+417
Closing Remarks

18:15 K. Nakamura, Steering Committee Co-Chair, Tokyo Institute of Technology, and CREST-JST, Japan