

# ICOMP12      Program

## Sunday, July 3, 2011

16:00-17:30    **Registration**

18:00-20:00    **Welcome reception**

## Monday, July 4, 2011

9:00-9:30    **Opening remarks** (Kaoru Yamanouchi)

### Session 1

9:30-10:00    Tetsuya Ishikawa (SPring-8 / RIKEN, Japan)    *Invited*  
                  "Spring-8 Angstrom Compact X-ray Free Electron Laser (SACLA)"

10:00-10:20    Eiji Takahashi (RIKEN, Japan)    *Contributed*  
                  "Enormous amplification of full-coherent radiation in the extreme ultraviolet  
                  region with a free-electron laser"

10:20-10:40    **Coffee break**

10:40-11:10    Joachim Ullrich (Max Planck Institute for Nuclear Physics, Germany)    *Invited*  
                  "Ultrafast Dynamics: Pump-Probe Experiments at Free Electron Lasers"

11:10-11:40    Kiyoshi Ueda (Tohoku University, Japan)    *Invited*  
                  "Multiphoton processes in atoms, molecules, and clusters by FEL pulses"

11:40-12:00    Yuhai Jiang (MPI for Nuclear Physics, Germany)    *Contributed*  
                  "XUV-pump XUV-probe Driven Molecular Dynamics and Chemical Reactions at  
                  FLASH"

12:00-13:30    **Lunch**

### Session 2

13:30-14:00    Ruxin Li (SIOM, China)    *Invited*  
                  "High order harmonic generation in an intense few-cycle mid-infrared laser field"

14:00-14:30    Henry Kapteyn and Margaret Murnane (JILA, University of Colorado, USA)    *Invited*  
                  "Strong field control of dynamics in atoms and molecules"

14:30-14:50    Yunquan Liu (Peking University, China)    *Contributed*  
                  "Steering of molecular multiple dissociative ionization with strong few-cycle  
                  laser fields"

14:50-15:10    Jonas Lerche Hansen (The Interdisciplinary Nanoscience Center, Denmark)    *Contributed*  
                  "HOLD AND SPIN and HOLD AND TWIST"

15:10-15:30 **Coffee break**

### **Session 3**

- 15:30-16:00 Jon Marangos (Imperial College, UK) *Invited*  
"Extending HHG Spectroscopy with Mid-IR and Two-Colour Fields"
- 16:00-16:20 Paula Riviere (Universidad Autonoma de Madrid, Spain) *Contributed*  
"Attosecond pulse train pump - IR probe study of electronic and nuclear dynamics in the hydrogen molecule"
- 16:20-16:40 Zsolt Diveki (CEA-Saclay, France) *Contributed*  
"Amplitude, Phase and Polarization of High-Order Harmonics Generated in Aligned N<sub>2</sub> Molecules"
- 16:40-17:10 Matthias Kling (MPI of Quantum Optics, Germany) *Invited*  
"Attosecond control and observation of electron dynamics in nanosystems in few-cycle laser fields"

## **Tuesday, July 5, 2011**

### **Session 4**

- 9:00-9:30 Hamed Merdji (CEA-Saclay, France) *Invited*  
"Ultrafast nanoscale imaging using high order harmonic generation"
- 9:30-10:00 Peter Baum (MPI of Quantum Optics, Germany) *Invited*  
"4D-Visualization of Femtosecond/Attosecond Motion by Ultrafast Single-Electron Diffraction"
- 10:00-10:20 Reika Kanya (The University of Tokyo, Japan) *Contributed*  
"Observation of laser-assisted electron scattering in femtosecond intense laser fields"
- 10:20-10:40 **Coffee break**
- 10:40-11:10 André Mysyrowicz (LOA-ENSTA, Ecole Polytechnique, France) *Invited*  
"Enhancement of Third Harmonic generation in air from an interrupted filament"
- 11:10-11:40 Hiroaki Misawa (Hokkaido University, Japan) *Invited*  
"Plasmon-Assisted Photocurrent Generation"
- 11:40-12:00 Peter Hommelhoff (MPI of Quantum Optics, Germany) *Contributed*  
"Strong-field effects and attosecond control of electrons in photoemission from a nanoscale metal tip"
- 12:00-13:30 **Lunch**

### **Session 5**

- 13:30-14:00 Hirohiko Kono (Tohoku University, Japan) *Invited*  
"Time-dependent chemical potential and multielectron dynamics"
- 14:00-14:30 André Bandrauk (University of Sherbrooke, Canada) *Invited*  
"Nuclear Motion and Attosecond Electron Dynamics in H<sub>2</sub><sup>+</sup>, H<sub>3</sub><sup>++</sup>, H<sub>3</sub><sup>+</sup> by MHOHG (Molecular High Order Harmonic Generation)"

- 14:30-14:50 Reinhard Doerner (University Frankfurt, Germany) *Contributed*  
 "Strong field ionization of the H<sub>2</sub><sup>+</sup> molecular ion – Attosecond observation of intramolecular electron dynamics"
- 14:50-15:10 Akitaka Matsuda (Nagoya University, Japan) *Contributed*  
 "Visualizing correlated dynamics of hydrogen atoms migrating in acetylene dication by time-resolved four-body Coulomb explosion imaging"
- 15:10-15:30 Stefan Roither (Photonics Institute, Vienna University of Technology, Austria) *Contributed*  
 "High energy proton ejection from hydrocarbon molecules driven by highly efficient field ionization"
- 15:30-18:00 **Poster session**
- 19:00-21:00 **Dinner at Sapporo Biergarten**

## Wednesday, July 6, 2011

- 9:00-9:20 **Opening remarks** (Katsumi Midorikawa)

### Session 6

- 9:20-9:50 Dieter Bauer (University of Rostock, Germany) *Invited* \*  
 "Attosecond strong field quantum dynamics beyond the strong field approximation"
- 9:50-10:10 Lars Bojer Madsen (Aarhus University, Denmark) *Contributed* \*  
 "Attoclock elicits physics of laser-induced tunnel ionization"
- 10:10-10:30 Dror Shafir (Weizmann Institute of Science, Israel) *Contributed*  
 "When does an electron exit a tunneling barrier?"
- 10:30-10:50 **Coffee break**
- 10:50-11:20 Joachim Burgdörfer (Vienna University of Technology, Austria) *Invited*  
 "Time-dependent electronic dynamics in atoms, molecules, and solids probed by ultrashort pulses"
- 11:20-11:40 Yusuke Furukawa (RIKEN, Japan) *Contributed*  
 "Nonlinear Fourier-transform Spectroscopy of D<sub>2</sub> using High-order Harmonic Radiation"
- 11:40-12:10 Carsten Müller (MPI for Nuclear Physics, Germany) *Invited*  
 "Electron correlation and interference effects in strong-field processes"
- 12:30-19:00 **Free discussion (Excursion to Otaru)**

\* : Speakers selected for ATTO3