Program LAP2012

Monday, 4 June

13:00 – 13:30 : Welcome

Session 1
Chair: tba
13:30 – 14:10 : Agnes Pailloux (Invited speaker)
Trace gas measurement by Cavity Ring Down Spectroscopy for nuclear applications

14:10 – 14:35 : Patrick Ehlers
NICE-OHMS – A Laser-based Spectroscopic Technique for Ultrasensitive Detection of Gases

14:35 – 15:00 : Sven Richter
First On-line Application of the Laser Ion Source and Trap (LIST) and resulting Implications

15:00 – 15:30 : Coffee Break

Session 2
Chair: tba
15:30 – 16:10 : Mark Huyse (Invited speaker)
Nuclear Spectroscopy & Production using laser gas cells and jets

16:10 – 16:35 : Andrea Teigelhoefer
Off-Line Excitation Scheme Development for Resonant Ionization Laser Ion Sources

16:35 – 17:00 : Sebastian Raeder
Resonance Ionization Spectroscopy on Neutral Actinium

17:00 – 17:25 : Volker Sonnenschein
Resonance Ionization Spectroscopy of the ground-state hyperfine structure of neutral 229Th

17:25 – 17:50 : Thomas Cocolios
Investigating shape coexistence in the lead region with in-source laser spectroscopy at ISOLDE-RILIS

18:00 Welcome Cocktail
Tuesday, 5 June

**Session 3**  
Chair: tba  
9:00 – 9:40: Sergey Kudryashov (Invited speaker)  
Understanding and monitoring ultrafast laser-solid interaction  

9:40 – 10:05: Kazuhiro Yabana  
Ab-initio theory for intense laser pulses in solids  

10:05 – 10:30: Yasushi Shinohara  
First-principles calculation for coherent phonon generation in solids  

10:30 – 11:00: Coffee Break

**Session 4**  
Chair: tba  
11:00 – 11:40: Lukas Gallmann (Invited speaker)  
All-optical ultrafast spectroscopy in the attosecond domain  

11:40 – 12:05: Wolfgang Husinsky  
Femtosecond laser-induced subwavelength structures on metals, dielectrics and semiconductors  

12:05 – 14:30: Lunch Break

**Session 5**  
Chair: tba  
14:30 – 15:10: Wei Jiang (Invited speaker)  
Ar-39 Detection at the 10^{-16} Isotopic Abundance Level with atom trap trace analysis  

15:10 – 15:35: Amin Hakimi  
High-Resolution Resonance Ionization Mass Spectrometry on Uranium Isotopes for Ultra-Trace Analysis  

15:35 – 16:00: Takaaki Takatsuka  
Development of Gas-jet Atomic Source for Trace Analysis of 93mNb by Resonance Ionization Mass Spectrometry  

16:00 – 16:25: Pascal Schönberg  
Application of RIMS for Ultratrace Analysis of 99gTc  

16:30 – 18:30: Coffee Break and Poster Session
Wednesday, 6 June

**Session 6**
Chair: tba
9:00 – 9:40 : Haruka Maeda (Invited speaker)
Coherent control of rydberg atoms (Non-dispersing Bohr wave packets)

9:40 – 10:05 : Thomas Godin
Highly sensitive laser probing of weak optical nonlinearities

10:05 – 10:30 : Shuichi Hasegawa
Laser cooling spectroscopy of trapped ions injected from Inductively Coupled Plasma Mass Spectrometer

10:30 – 11:00 : Coffee Break

**Session 7**
Chair: tba
11:00 – 11:40 : Masaki Hori (Invited speaker)
Determining the antiproton-to-electron mass ratio by sub-Doppler two-photon laser spectroscopy of antiprotonic helium

11:40 – 12:05 : Jonas Westberg
Quantum cascade laser-based Faraday rotation spectrometer with sub-second response time

12:05 – 14:30 : Lunch Break

**Session 8**
Chair: tba
14:30 – 15:10 : Paul Campbell (Invited speaker)
Review on laser spectroscopy experiments

15:10 – 15:35 : Mustapha Laatiaoui
Towards laser spectroscopy of trans-fermium elements

15:35 – 16:00 : Rafael Ferrer
Laser Spectroscopy experiments with the Leuven gas cell-based Laser Ion Source

16:00 – 16:30 : Coffee Break

**Session 9**
Chair: tba
16:30 – 16:55 : Mikael Reponen
Resonance Ionization Spectroscopy at FURIOS

16:55 – 17:20 : Anatoly Barzakh
New laser setup at the IRIS facility. Magnetic moments, hyperfine structure anomaly and mean squared charge radii of neutron deficient Tl isotopes

17:20 – 17:45 : Kara Lynch
Laser assisted decay spectroscopy at the CRIS beam line at ISOLDE

17:45 – 18:10 : Kei Minamisono
Collinear laser spectroscopy studies at BECOLA facility at NSCL

Evening: IAS Meeting
Thursday, 7 June

Session 10
Chair: tba
9:00 – 9:40: Rick Russo (Invited speaker)
Laser ablation molecular isotopic spectrometry

9:40 – 10:05: Liliana Radu
Spectroscopic study of laser irradiated chromatin

10:05 – 10:30: Jose Alonso
Probing Biomolecules by Laser Ablation and Molecular Beam Fourier Transform Microwave Spectroscopy.

10:30 – 11:00: Coffee Break

Session 11
Chair: tba
11:00 – 11:40: Patrice Camy (Invited speaker)
Yb:CaF2 - a material for the new generation of High Power Lasers

11:40 – 12:05: Yoshihiro Iwata
Reliability Evaluation for Failed Fuel Identification Using Resonance Ionization Mass Spectrometry

12:05 – 14:30: Lunch Break

Session 12
Chair: tba
14:30 – 15:10: Eric Gloaguen (Invited speaker)
Laser probing of isolated biomolecules

15:10 – 15:35: Seung Min Park
Photodissociation of hydrogen-bonded aniline cluster ions

15:35 – 16:00: Richard Holt
Fast-ion-beam laser probing of ion-source energy distributions and atomic structure

16:00 – 16:30: Coffee Break

Session 13
Chair: tba
16:30 – 16:55: Anton Lindahl
Partial photodetachment cross sections in negative ions probed using resonance ionization

16:55 – 17:20: Sangkyu Kim
Role of conical intersection in the photodissociation dynamics

17:20 – 17:45: Norman Tolk
Laser probing of the spatial extent of optoelectronic modification arising from point defects

18:30: Visit and Dinner at the Orsay Museum
Friday, 8 June

Session 14
Chair: tba
9:00 – 9:40 : Dino Jaroszynski (Invited speaker)
Laser developments for optically driven accelerators

9:40 – 10:05 : Serge Franchoo
Status of the Alto laser ion source

10:05 – 10:30 : Tetsu Sonoda
The development of the gas cell-based Laser Ion Source for RIKEN PALIS

10:30 – 10:55 : Yasuhiro Miyake
Ultra Slow Muon Microscopy by Laser Resonant Ionization at J-PARC, MUSE

10:55 – 11:25 : Coffee Break

Session 15
Chair: tba
11:25 – 11:50 : Valentin Fedosseev
New development stage of the laser ion source at the ISOLDE on-line isotope separation facility: Dual dye - Ti:Sa RILIS

11:50 – 12:15 : Marica Sjödin
GISELE - A Resonant Ionisation Laser Ion Source for the production of radioactive ions at GANIL

12:15 – 12:40 : Sergey Zemlyanoy
Production and study of heavy neutron rich nuclei formed in multi-nucleon transfer reactions

12:40 – 13:00 : Young scientist award announcement

13:00 -13: 15 Closing remarks and end of the conference