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University of Szeged
Hungary

LASERLAB USER MEETING

"From quantum electronics towards medicine and particle physics"

16-17th February 2012

University of Szeged

Location:

Building of the Hungarian Academy of Sciences (SZAB)

Somogyi u. 7. Szeged, Hungary

Organizer

Sándor Szatmári

University of Szeged, Department of Experimental Physics

Chairs

István Földes

Wigner Research Center of the HAS Institute for Particle and Nuclear Physics,
Budapest, Hungary

Oldrich Renner

Institute of Physics, v.v.i. Academy of Sciences CR, Prague, Czech Republic

THURSDAY, FEBRUARY 16th

- 08:30-12:00 **Registration**
- 09:00-09:10 **Opening by Organizer and Meeting Chairs**
- 09:10-09:20 **Welcoming by the Rector of the University of Szeged**

Session 1.
Hot dense plasma diagnosis and emission characteristics
Chair: István Földes, Budapest, Hungary

- 09:30-10:00 **Recent investigations of laser-produced plasma jet formation and laser driven macroparticle acceleration for ICF and laboratory astrophysics applications, Tomasz Chodukowski, Institute of Plasma Physics and Laser Microfusion, Poland**
- 10:00-10:30 **Diagnostic of Hot Dense Plasmas by Advanced X-ray Spectroscopy, Ingo Uschmann, Jena University, Germany**
- 10:30-11:00 **Conversion efficiency measurement of relativistic harmonics, Angéla Barna, University of Szeged, Hungary**
- 11:00-11:30 **COFFEE BREAK**
- 11:30-12:00 **Laser-driven cylindrical compression of targets for fast electron transport study in warm and dense plasmas, Luca Volpe, University of Milano Bicocca, Italy**
- 12:00-12:30 **Equilibrium charge state distribution measurement in warm dense matter, Maxence Gauthier, LULI**
- 12:30-13:00 **Femtosecond Stimulated Resonance Raman (FSRRS) spectroscopy Sophia Hayes, University of Cyprus**
- 13:00-14:30 **BUFFET LUNCH**

Session 2.
Advanced plasma applications
Chair: Oldrich Renner, Prague, Czech Republic

- 14:30-15:00 **Ultrafast, coherent dynamics of biomimetic molecular switches,** J r mie L onard, IPCMS-Universit  de Strasbourg, France
- 15:00-15:30 **Gating of high-order harmonics emission by incommensurate two-color mid-IR laser pulses,** Valer Tosa, National Institute for R&D Isotopic and Molecular Technologies, Cluj-Napoca, Romania
- 15:30-16:00 **Experimental results in shock ignition experiments at Pals: K-Alpha and shock waves generation,** Luca Antonelli, University of Rome "Tor Vergata", Italy (*presented by Luca Volpe*)
- 16:00-16:30 **Employing nonlinear imaging microscopy for characterization of microlenses produced in different biocompatible materials,** Aleksandar Krmpot, Institute of Physics, Belgrade, Serbia
- 16:30-17:00 **Overview of Laserlab Europe User training activities,** Dusan Chorvat, International Laser Centre, Slovakia
- 19:30 - **GALA DINNER**

FRIDAY, FEBRUARY 17th

- 08:00-08:30 **ELI-ALPS, the attosecond ELI facility in Szeged,** K roly Osvay, USZ, Szeged, Hungary
- 08:30-11:00 **ACCESS BOARD MEETING**

Session 3.
Particles and radiative sources
Chair: Károly Osvay, Szeged, Hungary

- 08:30-09:00 **Laser ablation produced nanoparticles for cancer diagnostics and therapy**, Alexandre (Sasha) Douplik, Erlangen University, Germany
- 09:00-09:30 **Nonlinear excitation of tailored nanostructures (NEXT)**, Frank Güell, Universitat de Barcelona, Spain
- 09:30-10:00 **Electron beam and X-ray radiation generated by laser wake field in dielectric capillary tubes**, Jinchuan Ju, Universite Paris, France
- 10:00-10:30 **Towards a laser based compact magnetic fusion device**, Stavros Moustazis, TUC
- 10:30-11:00 **COFFEE BREAK**
- 11:00-12:00 **ROUND TABLE discussion "Towards Laserlab 3"**
chaired by Didier Normand
- 12:00 **CLOSING REMARKS, END OF MEETING**
- 12:30-13:30 **OPTIONAL VISITS TO LASER LABORATORIES OF THE UNIVERSITY OF SZEGED**