

## Theory and Simulation of Photon-Matter Interaction 01 - 05 July 2018

Venue: ELI-ALPS Auditorium  
ELI-ALPS, Budapesti út 5, 6728 Szeged, Hungary

### Sunday 01 July 2018

Time	Programme
18:00 – 20:00	Welcome Reception at Art Hotel Szeged – (Somogyi u. 16, Szeged)

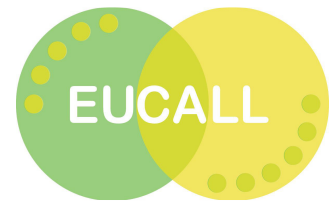
### Monday 02 July 2018

Time	Programme
07:45	Bus departure from Novotel Hotel to ELI-ALPS
08:30	<i>Welcome and scope of workshop</i> – C. Fortmann-Grote / European XFEL
08:40	<i>Introduction to ELI-ALPS, and in-house simulation efforts on Photon-matter interaction</i> – M. Upadhyay-Kahaly / ELI-ALPS

### Atoms, Molecules, and Clusters

09:00	<i>Controlling and imaging ultrafast electron dynamics in clusters</i> – T. Fennel / University of Rostock
10:30	Coffee Break
11:00	<i>Local structure analysis and luminescent study of SrZnO<sub>2</sub> nanoparticles</i> – Manju / Punjabi University, Patiala
11:30	<i>Ab initio calculation of electron impact ionization cross sections for ions in exotic electron configurations</i> – J. Bekx / CFEL-DESY
12:00	<i>Simulations of intense hard x-ray induced dynamics in matter</i> – Z. Jurek / CFEL-DESY
12:30	<i>Elliptical dichroism in non-linear atomic ionization</i> – J. Hofbrucker / Helmholtz Institute Jena
13:00	Lunch Break

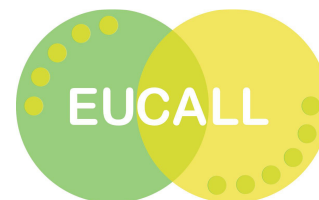




## Warm Dense Matter

14:30	<i>X-ray diagnostics of warm dense matter</i> – R. Redmer / University of Rostock
16:00	Coffee Break
16:30	<i>Compact High-Brightness X-ray sources for ultrafast probing of explosively driven solid-density materials by Travelling-Wave Thomson-Scattering</i> – K. Steiniger / HZDR
17:00	<i>X-ray Thomson scattering in non-equilibrium</i> – J. Vorberger / HZDR
17:30	<i>PIC Simulation of laser and Ta-Al multilayer interaction</i> – M. Banjafar / European XFEL
17:50	<i>Advances at EUCALL RIs</i> – G. Appleby / European XFEL
18:10	End of session
18:45	Bus departure from ELI-ALPS to Novotel Hotel

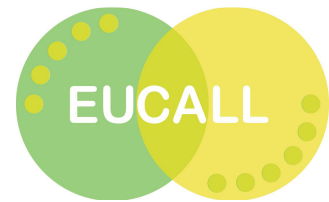




**Tuesday 03 July 2018**

Time	Programme
08:15	Bus departure from Novotel Hotel to ELI-ALPS
	<b>Nonequilibrium Dynamics I</b>
09:00	<i>Ultrafast transformations in matter induced by intense X-ray radiation</i> – B. Ziaja-Motyka / CFEL-DESY
10:30	Coffee Break
11:00	<i>Ultrafast fragmentation of N<sub>2</sub><sup>2+</sup></i> – M. Krishna / CFEL-DESY
11:30	<i>X-ray-induced Thermal And Nonthermal Transitions modelled with a hybrid approach</i> – Z. Li / MPISD
12:00	<i>Analysis of interferometry data</i> – T. Vinci / LULI
12:30	<i>Rietveld Analysis of Zinc Aluminate</i> – M. Jain / Punjabi University
13:00	Lunch Break
	<b>Nonequilibrium Dynamics II</b>
14:30	<i>Towards a simulation of ultrafast electron dynamics in correlated systems</i> – M. Bonitz / Kiel University
16:00	Coffee Break
16:30	<i>Study of Ag doped GeSbTe thin films using X-ray photoelectron spectroscopy.</i> – P. Singh / Punjabi University
17:00	<i>Perovskite oxides, spin dynamics</i> – J. Jiwuer / ELI-ALPS
17:30	<i>Superior Photo-thermionic electron Emission from Illuminated Phosphorene Surface</i> – S. Madas / ELI-ALPS
17:50	<i>SIMEX</i> – C. Fortmann-Grote / European XFEL
18:10	End of session
18:45	Bus departure from ELI-ALPS to Novotel Hotel

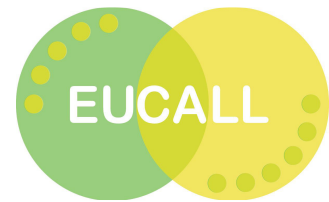




## Wednesday 04 July 2018

Time	Programme
08:15	Bus departure from Novotel Hotel to ELI-ALPS
	<b>High Energy Density Matter</b>
09:00	<i>Attosecond pulse generation and amplification in laser plasmas</i> – A. Andreev / ELI-ALPS
10:30	Coffee Break
11:00	<i>tbc</i> – T. Kluge / HZDR
11:30	<i>Investigating the influence of the picosecond leading pulse edge on ultra-intense laser heating of solids</i> – M. Garten / HZDR
12:00	<i>Quasi-phase matching of high-order harmonics using multiple gas jets under loose focusing conditions</i> – M. Dumergue / ELI-ALPS
12:30	<i>Elliptically polarized high-order harmonics generated in aligned CO<sub>2</sub> molecules</i> – A. Nayak / ELI-ALPS
13:00	Lunch Break
14:30	Tour of ELI-ALPS facility
16:30	Bus departure from ELI-ALPS to Novotel Hotel
17:00	Free time
19:00	Further discussion during workshop dinner at “Roosevelt téri Halászcsárda” Restaurant  Address: Roosevelt tér 14, 6720, Szeged <a href="http://www.sotarto-halaszcsarda.hu">www.sotarto-halaszcsarda.hu</a>





**Thursday 05 July 2018**

Time	Programme
08:15	Bus departure from Novotel Hotel to ELI-ALPS
	<b>Strong fields</b>
09:00	<i>Strong-Field Classical and Quantum Electrodynamics in Intense Laser Fields</i> – A. Di Piazza / Max Planck Institute for Nuclear Physics
10:30	Coffee Break
11:00	<i>Improved one dimensional model potentials for strong field simulations</i> – A. Czirjak / University of Szeged
11:30	<i>The application of worldline instantons technics for pair production from vacuum</i> – C. Lan / ELI-ALPS
12:00	<i>Strong Field Trident Pair Production</i> – U. Hernandez Acosta / HZDR
12:30	<i>Quantum description of relativistic charged particles interacting with a strong laser field in a plasma</i> – S. Varro / ELI-ALPS
13:00	Lunch Break
	<b>Laboratory Astrophysics</b>
14:30	<i>The Dynamic Ion-Ion Structure Factor of Warm Dense Matter</i> – G. Gregori / University of Oxford
16:00	Coffee Break
16:30	<i>Colliding laser-produced plasma (CLPP) as targets for laser-generated extreme ultraviolet sources</i> – H. al-Juboori / Uni. College Dublin
16:50	<i>tbc</i> – P. Mati / ELI-ALPS
17:10	<i>Workshop summary and closing remarks</i> – C. Fortmann-Grote / European XFEL
17:40	End of Workshop
18:45	Bus departure from ELI-ALPS to Novotel Hotel

