



# Intense lasers and their utilization: the ELI perspective

<b>Date, Location</b>	December 11 <sup>th</sup> 2024 University of Belgrade - Faculty of Mechanical Engineering, Kraljice Marije 16, 11000 Belgrade, Republic of Serbia Library, 1 <sup>st</sup> floor
<b>Language</b>	English

## Agenda

<b>Registration</b>	
8:30 – 9:00	Registration
<b>Welcome speeches</b>	
9:00 – 9:30	<b>Vladimir Popović</b> , Dean of the Faculty of Mechanical Engineering <b>József Magyar</b> , Ambassador of Hungary in Belgrade <b>Ivana Vukašinić</b> , Assistant Minister, Ministry of Science, Technological Development and Innovation of the Republic of Serbia <b>Natalija Radošević</b> , Program and Project Manager, Science Fund of the Republic of Serbia
<b>First Panel</b> <i>Chaired by Đorđe Čantrak, University of Belgrade, Faculty of Mechanical Engineering</i>	
9:30 – 10:00	<b>Allen Weeks</b> , Director General, ELI ERIC <i>Introduction to ELI ERIC</i>
10:00 – 10:30	<b>Gábor Szabó</b> , Managing Director, ELI-ALPS <i>Experimental possibilities at ELI ALPS</i>
10:30 – 11:00	<b>Miroslav Kloz</b> , Senior researcher, ELI Beamlines facility <i>Experimental possibilities at ELI Beamlines</i>

11:00 – 11:30	<b>Predrag Ranitović</b> , University of Belgrade, Faculty of Physics, Belgrade, Republic of Serbia <i>Attosecond Science and Opportunities of Using ELI Infrastructure</i>
11:30 – 12:00	<b>Labs visit</b>
12:00 – 13:00	<b>Lunch break</b>
<b>Second Panel</b> <i>Chaired by Zsolt Fülöp, ELI-ERIC</i>	
13:00 – 13:20	<b>Péter Dombi</b> , Head of Ultrafast Science & Applications Division, ELI ALPS <i>Ultrafast condensed matter science at ELI ALPS</i>
13:20 – 13:40	<b>Đorđe Čantrak<sup>1</sup>, Novica Janković<sup>1</sup>, Dejan Ilić<sup>1</sup>, Slobodan Tašin<sup>2,1</sup></b> University of Belgrade, Faculty of Mechanical Engineering, Belgrade, Republic of Serbia, <sup>2</sup> University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Republic of Serbia <i>Lasers in fluid mechanics</i>
13:40 – 14:00	<b>Tamás Csizmadia</b> , Research Fellow, HR Attosources Group, ELI ALPS <i>XUV femto- and attopulses for high-repetition-rate photoelectron spectroscopy</i>
14:00 – 14:20	<b>Mileša Srećković<sup>1</sup>, Radovan Radovanović<sup>2</sup>, Snežana Stojičić<sup>3</sup>, Radovan Gospavić<sup>4</sup>, Milan Jovanović<sup>2</sup></b> , <sup>1</sup> School of Electrical Engineering, University of Belgrade, <sup>2</sup> University of Criminal Investigation and Police Studies, <sup>3</sup> Faculty of Civil Engineering, University of Belgrade, <sup>4</sup> Ministry of Interior Affairs, Republic of Serbia <i>Interactions of quantum generators with materials in activities and problems of today - energy (energetics), ecology and technology</i>
14:20 – 14:40	<b>Živojin Stamenković</b> , University of Niš, Faculty of Mechanical Engineering, Niš, Republic of Serbia <i>Lasers in laser Doppler Anemometry</i>
14:40 – 15:00	<b>Viktor Pajer</b> , Research Fellow, High Field Laser Group, ELI ALPS <i>Overview and the operational challenges of laser systems at ELI ALPS</i>
15:00 – 15:20	<b>Marko Krstić</b> , University of Belgrade - Faculty of Electrical Engineering, Belgrade, Republic of Serbia <i>Methods of generation and optimization of optical frequency combs for applications in telecommunications and sensing</i>
15:20 – 15:40	<b>Coffee break</b>

<b>Third Panel</b> <i>Chaired by Predrag Ranitović, University of Belgrade, Faculty of Physics</i>	
15:40 – 16:00	<b>Zsolt Divéki</b> , SYLOS Gas Attosources Group leader, ELI ALPS <i>Attosecond Experiments on the Sylos GHHG beamlines at ELI-ALPS</i>
16:00 – 16:20	<b>Jovan Ciganović</b> , University of Belgrade, Vinča Institute of Nuclear Sciences, Department of Physical Chemistry, National Institute of the Republic of Serbia, Belgrade, Republic of Serbia <i>Application of nanosecond, picosecond and femtosecond pulsed lasers for controlled material modification at Vinča Institute</i>
16:20 – 16:40	<b>Siniša Bikić<sup>1</sup>, Milivoj Radojčin<sup>1</sup>, Ivan Pavkov<sup>1</sup>, Rafat Al Afif<sup>2</sup></b> , <sup>1</sup> University of Novi Sad, Faculty of Agriculture, Novi Sad, Republic of Serbia, <sup>2</sup> University of Natural Resources and Life Sciences, Vienna, Institute of Chemical and Energy Engineering, Vienna, Austria <i>Application of laser for the detection of natural gas leaks</i>
16:40 – 17:00	<b>Katalin Hideghéty</b> , Biomedical Applications Group leader, ELI ALPS <i>Radiation Biology Experiments at ELI Facilities</i>
17:00 – 17:20	<b>Danica Bajić, Bojana Fidanovski</b> , Military Technical Institute, Belgrade, Republic of Serbia <i>Characterization of explosives and explosion processes: application of lasers</i>
17:20 – 18:00	<b>DISCUSSION</b> - Outcomes and next steps

**Organizers:**

- Embassy of Hungary in Belgrade
- Đorđe Čantrak, University of Belgrade, Faculty of Mechanical Engineering
- Nad'a Witzanyová, ELI-ERIC
- Predrag Ranitović, University of Belgrade, Faculty of Physics
- Zsolt Fülöp, ELI-ERIC