

Tuesday - August 29, 2023

08:30 | Bus departure (for registered students accommodated at Masarykova kolej)

09:00 - 10:00 | **Registration on site**

Presentation of ELI-ERIC

Chair : A. Zymaková

10:00 - 10:20 | **A. Weeks (ELI ERIC), A. Zymaková (ELI Beamlines, CZ), F. Condamine (ELI Beamlines, CZ) - Introduction to the ELISS**

10:20 - 10:50 | **A. Harrison (ELI ERIC) - Introduction to ELI ERIC and the development of large-scale laser facilities**

10:50 - 11:10 | Coffee break

11:10 - 11:40 | **D. Margarone (ELI Beamlines Facility, CZ) - ELI Beamlines: the high-energy, high-average power pillar of the Extreme Light Infrastructure**

11:40 - 12:10 | **K. Varju (ELI ALPS, HU) - Status and user access at the ELI-ALPS Research Institute**

12:10 - 12:40 | **D. Doria (ELI NP, RO) - Overview of the Extreme Light Infrastructure - Nuclear Physics status and future perspectives**

12:40 - 13:30 | Lunch

High-Power Laser Technology

Chair: F. Condamine

13:30 - 14:10 | **R. Antipenkov (ELI Beamlines Facility, CZ) - From first laser light to large-scale facilities**

14:10 - 14:50 | **E. Cormier (ELI ALPS, HU) - Short pulse (fs) technology**

14:50 - 15:30 | **A-L. Viotti (Lund University, SE) - Attosecond pulse generation : strong laser fields and extreme non-linear optics**

15:30 - 16:00 | Coffee break

15:45 - 17:30 | Laboratory tours

18:00 | Bus departure (ELI Beamlines Facility → Masarykova kolej)

Wednesday - August 30, 2023

08:15 | Bus departure (for registered students accommodated at Masarykova kolej)

Long-pulse laser-matter interaction

Chair : F. Condamine

09:00 - 09:30 | **M. Kucharik** (CTU Prague, CZ) - Hydrodynamic simulations of laser-produced plasmas

09:30 - 10:00 | **B. Heuser** (University of Rostock, DE)- Laboratory astrophysics: Studying planetary interior conditions by laser-driven shock compression

10:00 - 10:45 | **V. Tikhonchuk** (ELI Beamlines Facility, CZ & CELIA, FR) - Inertial Confinement Fusion

10:45 - 11:00 | Coffee break

Laser-driven electron sources and applications

Chair : U.Chaulagain

11:00 - 11:30 | **K. Poder** (DESY, DE) - Introduction to Laser-plasma-accelerator-driven electron sources

11:30 - 12:00 | **C. Armstrong** (RAL-CLF, UK) - Laser driven x-ray sources – Generation and Characterisation

12:00 - 12:30 | **S. Cipiccia** (UCL, UK) - X-ray imaging techniques

12:30 - 13:30 | Lunch

Laser-driven ion and electron sources + Atomic, Molecular and Optical physics

Chairs : L. Giuffrida & TBA

13:30 - 14:10 | **M. Borghesi** (Queen's University Belfast, Northern Ireland) - Laser-driven ion acceleration: mechanisms and state-of-the-art

14:10 - 14:50 | **S. Kahaly** (ELI ALPS, HU) - High-Harmonic Generation

14:50 - 15:10 | Coffee break

15:10 - 15:50 | **A. Hult Roos** (ELI Beamlines Facility, CZ) - AMO science at ELI Beamlines

15:50 - 16:30 | **B. Yorke** (University of Leeds, UK) - The Hadamard Transform for Time-Resolved Studies

16:30 - 17:00 | Break / Poster installation (ELI Barn)

17:00 - 19:00 | **Poster session** (ELI Beamlines Barn)

19:30 | Bus departure (ELI Beamlines Facility → Masarykova kolej)

Thursday - August 31, 2023

08:15 | Bus departure (for registered students accommodated at Masarykova kolej)

Ultra-High-Intensity laser interaction + Nuclear Physics

Chair : E. Gelfer

09:00 - 09:40 | **F. Perez** (LULI, FR) - Electromagnetic Particle-In-Cell simulations

09:40 - 10:20 | **M. Formánek** (Eli Beamlines Facility) - Strong field processes in ultra-intense laser fields

10:20 - 10:40 | Coffee break

10:40 - 11:20 | **K. Spohr** (ELI NP, RO) - Nuclear Physics with the ELI-NP high-power laser systems

11:20 - 12:00 | **A. Arefiev** (University of California San Diego, USA)- Gamma-ray generation techniques

12:00 - 13:00 | Lunch

Technology / End-stations at ELI-Beamlines Facility

Chairs: D. Khaghani & A. Zymaková

13:00 - 13:40 | **J. Andreasson** (ELI Beamlines Facility, CZ) - E1 technology and applications

13:40 - 14:10 | **U. Chaulagain** (ELI Beamlines Facility, CZ) - E2 technology and applications

14:10 - 14:40 | **F. Condamine** (ELI Beamlines Facility, CZ) - E3 technology and applications

14:40 - 15:10 | Coffee break

15:10 - 15:40 | **L. Giuffrida** (ELI Beamlines Facility, CZ) - E4 technology and applications

15:40 - 16:10 | **G. Grittani** (ELI Beamlines Facility, CZ) - E5 technology and applications

16:10 - 18:00 | **Laboratory tours**

18:00 | Bus departure - Transfer to dinner

18:45 - 21:30 | **Dinner & Poster Award Ceremony** (Café Vítkov, Prague)

Friday - September 1, 2023

08:15 | Bus departure (for registered students accommodated at Masarykova kolej)

Technology / End-stations at ELI-ALPS / ELI-NP / XFELs

Chair: J. Andreasson

09:00 - 09:30	P. Tzallas (FORTH, GR & ELI ALPS, HU) - ALPS technology and applications: Strong laser-field physics, non—classical light states and quantum information science
09:30 - 10:00	M. Jansen (Goettingen University, DE) - Probing Excitons in Time, Energy, Momentum, and Space by Photoelectron Momentum Microscopy
10:00 - 10:30	M. Upadhyay Kahaly (ELI ALPS, HU) - Ultrafast function-property-structure relationships in materials: simulation insights
10:30 - 11:00	Coffee break
11:00 - 11:30	M. Cernaianu (ELI NP, RO) - ELI-NP technology and applications
11:30 - 12:00	D. Khaghani (SLAC, USA)- From XFEL basics to advanced synergy: Integrating ELI-class lasers with a cutting-edge x-ray source
12:00 - 13:00	Lunch

Hands-On Activities

13:00 - 13:45	Z. Varadi (ELI ERIC) - ELI User Office - Introduction to user applications and preparing a scientific proposal for a large-scale facility
13:45 - 17:00	Hands-On activities (Refer to the ELISS website, registration necessary)

Interferometric characterization of gas nozzles.
THz generation in plasma by fs laser
Fiber splicing workshop
Superfluid Helium nanodroplets at MAC user end-station
Principles of time-resolved interferometry for laser driven shock propagation (VISAR)
Simulations for High Harmonic Generation
Steady state optical spectroscopy: absorption and emission
Nonlinear optical processes: second harmonic generation and supercontinuum generation
High-repetition rate solid targets for PW-class experiment

17:15 | Bus departure (ELI Beamlines Facility → Prague Airport)

17:15 | Bus departure (ELI Beamlines Facility → Main railway Station = city centre)