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itelli
innovative training and education
for large laser infrastructures

Ultrashort laser pulses

Training course

14 May – 18 May

Programme

14 May

8:30-9:00	Registration
9:00-10:40	Propagation of ultrashort laser pulses in a dispersive medium, part 1 (Z. Horvath)
10:40-11:00	Coffee break
11:00-12:40	Propagation of ultrashort laser pulses in a dispersive medium, part 2 (Z. Horvath)
12:40-13:40	Lunch
13:40-15:20	Dispersion properties of optical elements, part 1 (A. P. Kovács)
15:20-15:40	Coffee break
15:40-17:20	Dispersion properties of optical elements, part 2 (A. P. Kovács)

15 May

9:00-10:40	Ultrashort pulse generation and amplification (Á. Börzsönyi)
10:40-11:00	Coffee break
11:00-12:40	Focusing of ultrashort laser pulses (Z. Horvath)
12:40-13:40	Lunch
13:40-15:20	HHG models (K. Varjú)
15:20-15:40	Coffee break
15:40-17:20	Measurement of material and angular dispersion (Á. Börzsönyi)



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16 May

9:00-12:40 Lab work

12:40-13:40 Lunch

13:40-17:20 Lab work

17 May

9:00-12:40 Lab work

12:40-13:40 Lunch

13:40-17:20 Lab work

18 May

9:00-12:40 Evaluation, conclusions

12:40-13:40 Lunch

13:40-17:20 HHG demonstration experiment at ELI-ALPS

Hands-on training in a rotating scheme

4 laboratory exercises, duration time: 3:40 hour,

1. Dependence of the dispersion of a prism pair on the positions of the prisms (A. P. Kovacs)
2. measuring polarization mode dispersion of a photonic crystal fiber (T. Grósz)
3. Measurement of the properties of second harmonic generation (Cs. Vass)
4. INVESTIGATION OF TITANIUM-SAPPHIRE-BASED CHIRPED PULSE AMPLIFICATION (Á. Börzsönyi)

Location: Physics Building, University of Szeged

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