



LAMMELIS

Lasers in Medicine and Life Sciences

Advanced summer school and workshop for undergraduate and postgraduate students
of medicine and physics. 11th — 20th July 2018, Szeged

Programme.

11 Jul Wed	12 Jul Thu ELI	13 Jul Fri	14 Jul Sat	15 Jul Sun
AM ▶ 9 ⁰⁰ –10 ⁰⁰ • Registration ▶ 10 ⁰⁰ –10 ³⁰ • Opening ceremony ▶ 10 ³⁰ –12 ⁰⁰ • Katalin Varjú , <i>The ELI-ALPS infrastructure – Basics of high-energy, short- pulsed lasers</i>	▶ 9 ⁰⁰ –10 ³⁰ • Katalin Hideghéty , <i>Ionising radiation for cancer treatment</i> ▶ 11 ⁰⁰ –12 ³⁰ • Elke Beyreuther , <i>Radiobiology of pulsed particle beams</i>	▶ 9 ⁰⁰ –10 ³⁰ • Péter Maróti , <i>Lasers in biophysics: why is laser light unique?</i> ▶ 11 ⁰⁰ –12 ³⁰ • Petar Lambrev , <i>Ultrafast two-dimensional spectroscopy of photosynthetic light harvesting complexes</i>	▶ 9 ⁰⁰ –9 ⁴⁵ • Zsolt Geretovszky , <i>3D printing revolutionises medical treatments</i> ▶ 10 ⁰⁰ –10 ⁴⁵ • Endre Varga , <i>Possibil- ities of 3D printing in traumatology</i> ▶ 11 ¹⁵ –12 ⁰⁰ • Péter Szabó , <i>Personalised medicine with affordable desktop 3D solutions</i> ▶ 12 ¹⁵ –13 ⁰⁰ • Péter Varga , <i>3D printing and visualisation applications in healthcare</i>	▶ Excursion: Ópusztaszer Heritage Park
Break ▶ 13 ⁰⁰ –14 ⁰⁰ • Lunch	▶ 13 ⁰⁰ –14 ⁰⁰ • Lunch	▶ 13 ⁰⁰ –14 ⁰⁰ • Lunch	▶ 13 ⁰⁰ –14 ⁰⁰ • Lunch	
PM ▶ 14 ⁰⁰ –15 ³⁰ • Péter Makra , <i>Introduction to Fourier analysis</i> ▶ 16 ⁰⁰ –17 ³⁰ • Adrian Podoleanu , <i>Optical coherence tomography</i> ▶ 19 ⁰⁰ –22 ⁰⁰ • Welcome party	▶ 14 ⁰⁰ –15 ³⁰ • Jörg Pawelke , <i>Radiotherapy with laser-driven particle beams</i> ▶ 16 ⁰⁰ –17 ³⁰ • ELI tour	▶ 14 ⁰⁰ –14 ⁴⁵ • Sándor Szatmári , <i>Laserlab access opportunities</i> ▶ 15 ⁰⁰ –15 ⁴⁵ • Laboratory visit: High-intensity Laser Laboratory (HILL)	▶ Free period	▶ Excursion: Ópusztaszer Heritage Park
16 Jul Mon	17 Jul Tue	18 Jul Wed	19 Jul Thu	20 Jul Fri WORKSHOP
AM ▶ 9 ⁰⁰ –10 ³⁰ • Ferenc Bari , <i>What did we learn about microcirculation using lasers?</i> ▶ 11 ⁰⁰ –12 ³⁰ • Martin Leahy , <i>Microcirculation imaging with light and sound</i>	▶ 9 ⁰⁰ –12 ⁰⁰ • Laboratory visits in the Biological Research Centre	▶ 9 ⁰⁰ –10 ³⁰ • Justin Molloy , <i>Single-molecule experiments using optical tweezers</i> ▶ 11 ⁰⁰ –12 ³⁰ • Laboratory visit: super-resolution microscopy	▶ 9 ⁰⁰ –10 ³⁰ • Zsolt Tóth , <i>Lasers for dental applications</i> ▶ 11 ⁰⁰ –12 ³⁰ • Genc Demjaha , <i>Lasers in dentistry</i>	▶ 9 ⁰⁰ –9 ⁴⁵ • Tibor Juhász , <i>Development of high-precision femtosecond laser technology for ophthalmic surgery</i> ▶ 10 ⁰⁰ –10 ⁴⁵ • Péter Simon , <i>Light as a tool: nanoscale photonics for production technology and life science applications</i> ▶ 11 ⁰⁰ –13 ⁰⁰ • Workshop presentations
Break ▶ 13 ⁰⁰ –14 ⁰⁰ • Lunch	▶ 13 ⁰⁰ –14 ⁰⁰ • Lunch	▶ 13 ⁰⁰ –14 ⁰⁰ • Lunch	▶ 13 ⁰⁰ –14 ⁰⁰ • Lunch	▶ 13 ⁰⁰ –14 ⁰⁰ • Lunch
PM ▶ 14 ⁰⁰ –15 ³⁰ • Magdolna Gaál , <i>Lasers in dermatology</i> ▶ 16 ⁰⁰ –17 ³⁰ • Laboratory visit: lasers in dermatology	▶ 14 ⁰⁰ –14 ⁵⁰ • István Papos , <i>Application of lasers in urology</i> ▶ 15 ¹⁵ –16 ⁴⁵ • Tomáš Čížmár , <i>Holographic micro-endoscopy based on multimode waveguides</i>	▶ 14 ⁰⁰ –15 ⁰⁰ • Rózsa Dégi , <i>Lasers in ophthalmology</i> ▶ 15 ³⁰ –16 ³⁰ • Laboratory visit: lasers in ophthalmology	▶ 14 ⁰⁰ –15 ³⁰ • András Lukács , <i>Transient absorption and fluorescence spectroscopy</i> ▶ 16 ⁰⁰ –17 ³⁰ • Beáta Bugyi , <i>Total internal reflection fluorescence microscopy in life sciences</i>	▶ 14 ⁰⁰ –16 ¹⁵ • Workshop presentations ▶ 16 ¹⁵ –17 ³⁰ • Workshop poster session ▶ 19 ⁰⁰ –22 ⁰⁰ • Farewell party