

Are you studying?



Are you interested in lasers and their applications? Do you want to work with the most powerful pulsed lasers in the world? Do you want to participate in the construction of lasers or build your own?



hilase

joinus@hilase.cz



COME TO CREATE
SUPERLASERS
FOR THE REAL
WORLD
WITH US!



WHY THE HILASE CENTRE?

The HiLASE Centre collaborates with the world's most prestigious research institutes to develop cutting-edge laser systems (e.g. STFC RAL UK, MIT USA, DESY DE, etc.). We focus on diode-pumped solid-state lasers with high average power and high energy in pulse or high repetition rate. You would not find lasers with such parameters in any other lab in the world yet. We're developing lasers for real-world applications - lasers that will make a superfast chip for a supercomputer, drill precise micro-holes in the components of modern engines, create nanomaterials, help build safer airplanes, diagnose and treat diseases, etc.

In the HiLASE Centre, you can choose your focus, design a laser from first calculation to application deployment, invent a useful application and test it in collaboration with experts in the field, or solve experimenters' problems by designing a new physical model of interactions. Both a skilled experimenter and a skilled theorist will fit in at the HiLASE Centre.



WHAT SHOULD I DO NOW AND HOW DOES IT WORK?

- Get ready: you'll need a physics background and an interest in practical applications in optics and solids.
- Apply: email us at joinus@hilase.cz.
- Profile yourself: choose a topic for your bachelor's or master's thesis with us.
- Become a team player: at the HiLASE Centre you will gain invaluable experience working in a team of local and international collaborators.



WHAT IS WAITING FOR YOU AT THE HILASE CENTRE?

- You will design and build cutting-edge laser systems - we develop special lasers from infrared to ultraviolet.
- You will be in contact with renowned scientists and engineers in the field.
- You will calculate equations for heating and deformation of laser components and simulate light propagation in a laser system.
- You will automate laser control processes and user experiments.
- You will test and measure damage thresholds of optical components and materials.
- You will solve practical problems with the design team (e.g. modification of mechanics for high intermediate powers).
- **And most importantly - you will become an expert in the promising field of laser technology, which is not a bad thing in the century of light...**

