

ELI Beamlines research centre in Dolní Břežany is part of pan-European infrastructure ELI (Extreme Light Infrastructure) representing a unique tool of support of scientific excellence in Europe by making available its capacities to the best scientific teams across the world. The aim of ELI Beamlines is to establish the most intensive laser system in the world and to operate it on a long-term basis. Due to ultra-high performances of 10 PW (1 petawatt = 1,000,000,000,000,000 watts) and concentrated intensities of up to  $10^{24}$  W/cm<sup>2</sup>, we can offer our users a unique source of radiation and beams of accelerated particles. The so called beamlines will enable ground-breaking research in the area of physics and science dealing with materials, but also in biomedicine and laboratory astrophysics and many other fields. ELI Beamlines is part of the Institute of Physics of the Czech Academy of Sciences, and it was open in 2015.

The Institute of Physics of the Czech Academy of Sciences is a holder of the HR Excellence in Research Award. It is awarded by the European Commission to institutions which put significant effort into improving their HR strategy and ensuring professional and ethical working conditions.

The Department 86 of ELI Beamlines is a combination of four teams (ELBA, LUIS, X-ray, HiFI/ERT), dedicated to the laser wake-field electron beam acceleration and generation of the various types of X-ray sources. The LUIS team of Dept. 86 at the ELI Beamlines develops experimental setups to be used for acceleration of the electron beam with unique parameters, suitable for the incoherent/coherent undulator-photon radiation. This development aims at using a compact Laser Wake Field Accelerator as a driver for the table-top Free Electron Laser. Detailed information about the LUIS development and the research activity is available at the website: <https://www.eli-beams.eu/facility/experimental-halls/e5-electron-acceleration-laser-undulator-x-ray-source/lux-beamline/>

In the LUIS team we have a full-time position available:

## Senior Researcher - Photon beam and FEL physics (IV-57)

**The candidate is supposed to conduct the following research activity related to the LUIS development program:**

- leading research activity and development of the photon beam transport for incoherent/coherent regimes with relevant photon beam diagnostics
- leading research activity to model the incoherent/coherent photon beam regimes for the laser-driven case

- active participation in the LUIS experimental program to optimize parameters for incoherent/coherent undulator photon radiation to users
- conduct research program aiming development of a laser-driven compact hard X-ray free electron laser

**Requirements:**

- PhD in photon beam physics, including FEL physics
- minimum 7 years of experience in research/development of the photon beamlines and FEL physics
- good knowledge of spoken and written English is necessary
- team player with good communication skills

**Job conditions:**

- the opportunity to participate in this unique scientific project
- intensity international collaboration with different research centers and universities.
- career growth
- competitive and motivating salary
- meal allowance, pension contribution and 6 days of personal leave
- 5 weeks of holiday and other employee benefits

Applications, containing CV, cover letter, contacts of references, and any other material the candidate considers relevant, should be sent to Mrs. Jana Ženíšková, HR specialist ([jana.zeniskova@eli-beams.eu](mailto:jana.zeniskova@eli-beams.eu), +420 - 601560322).

Information regarding the personal data processing and access to the personal data at the Institute of Physics of the Czech Academy of Sciences can be found on: <https://www.fzu.cz/en/processing-of-personal-data>