

## Thesis Topic Proposal

Institute of Physics, Czech Academy of Sciences

**ELI Beamlines laser centre**

Degree Level: Bachelor, Master, PhD

Starting date: Upon and agreement

### Evaluation of radiation levels

#### Topic Characteristics/Abstract:

ELI Beamlines hosts several sources of ionizing radiation, each with specific characteristics. The radiation fields generated by these sources need to be characterized by means of Monte Carlo simulations and measured by appropriate detectors. This means the preparation of maps of relevant quantities (e.g.: ambient dose equivalent rate) and the study of the activation of various devices located in the experimental areas. According to the results, it would then be necessary to find solutions for the shielding and for the management of activated waste. It could also be possible to study the response of radiation detectors to the generated radiation and compare experimental data with Monte Carlo simulations.

#### Scope:

Characterization of radiation fields with Monte Carlo simulation and possibly experimental data.

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Department:	96	

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#### Application:

Send your application including your CV/Resume and motivation letter describing why are you interested in this particular topic to Ms. Andrea Fürst via [andrea.furst@eli-beams.eu](mailto:andrea.furst@eli-beams.eu)