Contribution ID: **32** Type: **not specified**

Beam-Based THz Source for Users at the European XFEL

STERN (Superradiant THz radiation generation) is a project funded by the European XFEL to develop and provide a high-power terahertz source to enable pump-probe science with the existing high-power X-ray beam. This evasive region of the electromagnetic spectrum has a wide range of applications facilitating the exploration of life and matter science. STERN will use both diffraction targets and waveguides to generate broad- and narrowband radiation. The summer student will have several responsibilities including the production of novel high-frequency waveguides using atomic-layer deposition and the development of an experiment to characterize the waveguides. The student will have the option of working with high-power lasers and should be comfortable with some coding language like python. Furthermore, the student will assist in the assembly of the vacuum beamline for radiation transport as well as the vacuum chamber that will host the experiment itself.

Group

MXL

Project Category

B3. Research on accelerators

Special Qualifications

DESY Site

Hamburg

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