Design and build an X-ray microscope

We are seeking a motivated summer student to join the P25 beamline team at PETRA III. The project focuses on the design and construction of an X-ray microscope that will be used for wavefront characterization at the P25 beamline of PETRA III. This microscope will serve as a high-precision diagnostic tool for evaluating X-ray optics.

The student will contribute to the design, assembly, and commissioning of the microscope, working on optical alignment, and experimental tests. Key tasks include design of the microscope framework and structural components, optical alignment, sensitivity analysis of the system, and experimental testing. The project will provide hands-on experience with synchrotron beamline instrumentation, X-ray optics, and wavefront reconstruction.

Candidates with a background in physics, engineering, or a related field, with an interest in optics, imaging, and experimental research are encouraged to apply. Prior experience with CAD software is beneficial but not required. This position offers a unique opportunity to contribute to cutting-edge synchrotron science while developing technical skills in a dynamic and diverse research environment.

Group

FS-PETRA-S

Project Category

A4. Development of experimental techniques

Special Qualifications

Candidates with a background in physics, engineering, or a related field, with an interest in optics, imaging, and experimental research are encouraged to apply. Prior experience with CAD software is beneficial but not required.

DESY Site

Hamburg

Primary authors: SAMADI, Nazanin (DESY); SPIERS, Kathryn (FS-PETRA-S (FS-PET-S Fachgruppe P25)); WILLE, Hans-Christian (FS-PETRA-S (PETRA-S))

Presenter: SAMADI, Nazanin (DESY)