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Expand the View of the X-Ray Tomograph ENCI

The portable CT device ENCI, developed by the FS-PETRA group in close collaboration with the Excellence Cluster "Understanding Written Artefacts" at the University of Hamburg, has already been successfully deployed in renowned institutions such as the Louvre and the Museum of Anatolian Civilizations. In these settings, it has revealed the hidden messages of 4000-year-old cuneiform tablets.
Now that the device has returned to DESY, the next phase of development aims to optimize the investigation of larger specimens. These objects currently pose challenges as they do not fit entirely within the Field of View (FOV). To effectively capture their details, more complex scanning methods are required, either through multiple scans or a helical scan trajectory. While initial ideas and approaches have been proposed, there remains significant potential for further development and refinement. Participants will need basic coding skills in Python to contribute effectively.
This project offers summer students a unique opportunity to contribute to the advancement of ENCI and get introduced to the topic of tomography. Due to the user-friendly interface and straightforward handling, students will have the chance to independently carry out data acquisition on clay tablet replicas or even on their own samples, making for a truly enriching experience.

Group

FS-PETRA

Project Category

A4. Development of experimental techniques

Special Qualifications

DESY Site

Hamburg

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