



Beitrag ID: 157 Beitragskennung: 31

Typ: **Poster**

## KI4D4E: Artificial Intelligence for Synchrotron-radiation 4D Tomography Data

The Helmholtz-Zentrum Hereon is operating imaging beamlines for X-ray tomography (P05 IBL, P07 HEMS) for academic and industrial users at the synchrotron radiation source PETRA III at DESY in Hamburg, Germany. The high X-ray flux density and coherence of synchrotron radiation enable high-resolution in situ/operando/vivo tomography experiments. Here, large amounts of 4D data are collected from a wide variety of samples, which is challenging to reconstruct, process, and analyze. In this multi-disciplinary project - KI4D4E, we utilize modern machine learning methods for the data processing of synchrotron-radiation tomography experiments, such as segmentation, denoising, multi-modal imaging, phase retrieval, and digital volume correlation, which are applied to the data analysis of biodegradable implant materials.

### Find me @ my poster

1, 2, 3, 4

### Keywords

Artificial Intelligence  
Synchrotron-radiation

**Autor:** Dr. WONG, Tak Ming