

Tomographic x-ray phase contrast imaging with the edge illumination method

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The edge illumination x-ray phase contrast imaging (EI XPCi) method has been under continuous development over the past decade. EI XPCi is totally non-interferometric, and, hence, is very much suited to perform seminal imaging studies at synchrotrons as well as routine imaging tasks in standard research labs. The latest development of EI XPCi has been the combination of the method with the principles of computed tomography (CT), enabling fully volumetric imaging. This talk will briefly discuss the CT implementation of EI XPCi in terms of the experimental setup, data acquisition strategy and image reconstruction process. In addition, an overview of applications of tomographic EI XPCi that are currently under investigation within our group will be given.