

## **In-vivo low dose X-ray imaging through novel image reconstruction**

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In in-vivo X-ray CT, radiation dose delivered to the object to be imaged is a major concern. An obvious way to reduce dose is by reducing the total number of acquired projections, which, however, conventionally leads to substantially reduced image quality. In this talk, we will discuss two types of image acquisition/reconstruction methods for X-ray CT that allow to reduce the dose while maintaining the image quality at a high level. The first type relates to incorporation of prior knowledge in the reconstruction algorithm. The second type relates to a recent image acquisition/reconstruction scheme based on continuous low intensity X-ray exposures.