

Inverse Problems Network Meeting 1

Monday, 24th April 2017 - Tuesday, 25th April 2017

WX/3.14, Queens Buildings, Cardiff University

Abstract of Talk

DYNAMICAL PHOTOACOUSTIC IMAGING

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In photoacoustic imaging, as in many high resolution modalities, the major bottle neck is the acquisition time of finely spatially sampled data. In particular, imaging of dynamical processes results in incomplete data. In this talk we are going to discuss variational methods for photoacoustic imaging and their particular realisation in the framework of k-space pseudo-spectral methods. Our framework is general enough to accommodate different approaches to acceleration such as subsampling or compressed sensing which allow us to collect considerably fewer measurements while maintaining good quality of the reconstruction through suitable regularisation.