



FMSP Lectures

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On the lifting of deterministic convergence results for inverse problems to the stochastic setting

August 8 (Mon) 17:30 ~ 18:30 Room 128

Abstract:

In inverse problems, the inevitable measurement noise is modelled either by a deterministic worst-case model or a stochastic one.

The development of convergence theory in both approaches appears to be rather disconnected. In this talk we seek to bridge this gap and show how deterministic result can be transferred into the stochastic setting. The talk is split into two parts. In the first part, after briefly introducing "inverse problems" and the noise models, we examine the particular problem of sparsity-promoting regularization with a Besov-space penalty term to demonstrate the lifting technique. In the second part, we present a generalization of the technique that applies to a large group of regularization methods.