JOINT WITH MACHINE LEARNING AND STATISTICS SEMINAR

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Stability of some super-resolution problems

Abstract:

The problem of computational super-resolution asks to recover fine features of a signal from inaccurate and bandlimited data, using an a-priori model as a regularization. I will describe several situations for which sharp bounds for stable reconstruction are known, depending on signal complexity, noise/uncertainty level, and available data bandwidth. I will also discuss optimal recovery algorithms, and some open questions.