

UNIVERSITY OF CRETE
DEPARTMENTS OF MATHEMATICS AND APPLIED MATHEMATICS

APPLIED MATHEMATICS SEMINAR

11:15am, Wednesday, 21 June, 2017
Room A-303

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Images and sounds: How to remove blur and noise from received signals

Signals that are transmitted and received from various devices (hydrophones, MRI scanners, digital cameras) are in general contaminated by blur and noise. For all the applications that are associated with everyday life and research, from just image watching to an elaborate exploitation of the signal in inverse problems of imaging or acoustics, it is crucial that the signals are as clear as possible so that the information they contain is retrievable with reliability. In this talk we will show a statistical near-optimal method to remove blur and noise from both one dimensional (acoustic) and two dimensional signals (images). In particular, we will show examples of how the method can be applied to MRI images, everyday images (e.g. photos) and acoustical signals giving satisfactory results for the associated applications.