

# Optimal Waveform Design for Array Imaging

Liliana Borcea

Computational and Applied Mathematics, Rice University

borcea@caam.rice.edu

## **Abstract**

This talk is concerned with an inverse problem for the wave equation. More specifically, it considers coherent imaging of reflectors from measurements of the echoes at a remote array of transducers. The main question raised is how to design optimally the waveform used by the array to illuminate the reflectors, so that the image has the best resolution.