
ADRIAN NACHMAN, University of Toronto
Imaging Obstacles In Inhomogeneous Media

We show that an obstacle inside a known inhomogeneous medium can be determined from the scattering amplitude at one frequency. Moreover, we show that if the scattering operators for two obstacles are comparable at one non-resonant frequency, then the obstacles must coincide. The proof gives a new reconstruction procedure; it is based on an extension of the factorization method, which I'll review.

This is joint work with Lassi Paivarinta and Ari Teirila.