Reconstructions of experimental and simulated discontinuous conductivities by the D-bar method for EIT

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Abstract

In this talk the theoretical implications of applying the D-bar algorithm based on A. Nachman's constructive uniqueness proof for the inverse conductivity problem [Ann. of Math. 143, 1996]) to non-smooth conductivity distributions will be explained, and aspects of numerical implementation will be presented. Reconstructions of human and simulated data will be displayed. Furthermore, a connection between the D-bar method and Calderon's linearization method will be revealed.