

## An Absorbing Boundary Condition with Complex Density and Dielectric Constant for the Elastic and Electromagnetic Wave Fields

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The ACROSS data carry full information on the structures even at the long distance at low frequency because of the routine operation in data acquisition. The evaluation of elastic wave field in the forwards problem for the structure inversion requires the specification of the space to work by some boundary condition. We proposed an absorbing boundary condition to eliminate reflection by introducing complex density designed to meet the ideal condition. The numerical evaluations show that it works well with a very thin thickness. This boundary condition provides us with an isolated physical system for a part of large space, so that mode approach is simplified to facilitate the use of ACROSS data for structural inversion.