

Numerical analysis of methods for solving inverse acoustic problems

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The one-dimensional inverse acoustic problems are considered. We apply the finite-difference scheme inversion, optimization methods (method of the steepest descent, Landweber iterations, conjugate gradients methods), Gel'fand-Levitan-Krein method and boundary control method for solving inverse acoustic problem. The discrete problem statements are considered. The theoretical and numerical results will be presented and discussed.

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