

Gulbahar A.SALIMOVA

AN INVERSE BOUNDARY VALUE PROBLEM FOR
A FOURTH ORDER EVOLUTIONARY EQUATION
ARISING IN HYDROACOUSTICS OF STRATIFIED
LIQUID

Abstract

In the paper we study an inverse boundary value problem for a fourth order evolutionary equation arising in hydroacoustics of stratified liquid. At first the initial problem is reduced to an equivalent problem for which a theorem on the existence and uniqueness of the classic solution is proved. Further, using these facts, we prove the existence and uniqueness of the classic solution of the initial problem.