D. Shulaia

I. Vekua Institute of Applied Mathematics
Tbilisi, Georgia

SOLUTION OF ONE LINEAR INTEGRAL EQUATION OF THE THIRD KIND

In the class of Hölder functions, the nonhomogeneous linear integral equation with coefficient $\cos x$ having zeros in the interval of variation of an independent variable is considered. Under certain assumptions on the kernel of the equations the necessary and sufficient condition for its solvability is given. The solution is constructed analytically via the Fredholm theory and the theory of Singular integral equations.