# NUMERICAL SOLUTION OF FREDHOLM INTEGRAL EQUATION OF THE FIRST KIND USING LEGENDRE, CHEBYSHEV AND CAS WAVELETS

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## Abstract

In this paper, we suggest an efficient method for solving Fredholm integral equation of the first kind based on wavlets basis. The continuous Legendre , CAS and Chebyshev wavelets are used on [0,1] and are utilized as a basis in Galerkin method to approximate the solution of the integral equation. Then, in some examples the mentioned wavelets are compared with each other.

**Key Words**: First kind Fredholm integral equation, Galerkin method, Legendre wavelet, CAS wavelet, Chebyshev wavelet.