

Half-Sweep Arithmetic Mean method with composite trapezoidal scheme for solving linear Fredholm integral equations

Abstract

The main aim of this paper is to examine the effectiveness one of the two-stage iterative method known as Half-Sweep Arithmetic Mean (HSAM) method in solving the dense linear systems generated from the discretization of the first and second kinds of linear Fredholm integral equations. In addition, the formulation and implementation of the HSAM iterative method are also presented. Some illustrative examples are given to point out the efficiency of the proposed method.