Complexity Reduction Approach with Jacobi Iterative Method for Solving Composite Trapezoidal Algebraic Equations.

Abstract

In this paper, application of the complexity reduction approach based on half- and quarter-sweep iteration concepts with Jacobi iterative method for solving composite trapezoidal (CT) algebraic equations is discussed. The performances of the methods for CT algebraic equations are comparatively studied by their application in solving linear Fredholm integral equations of the second kind. Furthermore, computational complexity analysis and numerical results for three test problems are also included in order to verify performance of the methods.