

The quarter-sweep geometric mean method for solving second kind Linear Fredholm Integral Equations

Abstract

Solving large linear systems is a fundamental problem in large scale scientific and engineering computations. In this paper, the formulation and implementation of the Quarter-Sweep Geometric Mean (QSGM) iterative method for solving large dense nonsymmetric linear systems associated with numerical solution of second kind linear Fredholm integral equations are explained. Furthermore, an analysis of computational complexity and numerical results by solving test problems are also included to verify the performance of the method.