Quarter-sweep iteration for first kind linear Fredholm integral equations

Abstract

The main aim of this paper is to investigate the application of the quarter-sweep iteration in solving linear Fredholm integral equations of the first kind. The effectiveness Quarter-Sweep GaussSeidel (QSGS) method is examined by solving dense linear system generated from the discretization of the first kind linear Fredholm integral equations. In addition, the formulation and implementation of the proposed method are also presented. Some numerical simulations are carried out to show that the proposed method is superior compared to the standard method