Half-sweep iterative method for solving two-dimensional Helmholtz equations.

ABSTRACT

The main purpose of this article is to examine the effectiveness of the Half-sweep Gauss-Seidel (HSGS) in solving the sparse linear systems generated form discretization of the two-dimensional Helmholtz equations. In addition, the application and formulation of the HSGS iterative method also presented. Some illustrative examples are given to point out the efficiency of the proposed method.