**Numerical solution of second kind linear Fredholm integral equations using QSGS iterative method with high-order Newton-Cotes quadrature schemes**


## Abstract

The main purpose of this paper is to examine the effectiveness of the Quarter-Sweep Gauss-Seidel (QSGS) method in solving the dense linear systems generated from the discretization of the linear Fredholm integral equations of the second kind. In addition, the applications of the various orders of closed Newton-Cotes quadrature discretization schemes will be investigated in order to form linear systems. Furthermore, the basic formulation and implementation of the proposed method are also presented. The numerical results of test examples are also included in order to verify the performance of the proposed method.