

A parallel halfsweep multigrid algorithm on the shared memory multiprocessors

ABSTRACT

The halfsweep multigrid algorithm, introduced by Othman et al in 1998 for solving a linear system, is known as a fast multigrid poisson solver. In this paper, the implementation of the parallel halfsweep multigrid algorithm with several parallel strategies is discussed. The experiments were carried out on the shared memory multiprocessors computer system, Sequent S27, and the results of the test problem are included.

Keyword: Parallel halfsweep multigrid algorithm; Parallel strategy; Performance evaluation