Abstract

The goal of this final project is to measure the performance of parallel schemes to simulate the surface of gravitational waves by non hydrostatic models using the MPI platform. Waves that propagate unidirectionally can be modeled into the Navier-Stokes equation. Using parallel computing with the MPI platform to simulate the surface of gravitational waves by non hydrostatic models, parallel execution time is faster than serial execution time. With the total difference between parallel and serial execution time is 5243,635 seconds and produces an average speedup 3 times faster.