

Abstract

In order to get realistic results, the simulation of cloud dynamics is accomplished by applying laws of physics to physical data. Due to its complexity, the results can not be displayed in real-time. Some solutions have to be provided.

This research presents a method to fasten the process. Texture synthesizing using Wang Cube is integrated with the Lattice Boltzmann Method to simulate the macroscopic of fluid dynamics. Kinetic energy from the Lattice Boltzmann Method is using to control the Wang Cube texture tiling for fluid appearance simulation. This methodology operates for every step of cloud dynamics simulation. Results obtained are applicable to applications emphasizing on the speed of displaying convincing results not exact physicals correct values.