

Wave Simulation in a Computer Game

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Abstract

This paper presents a computer game which will be simulating 2D-wave equation. The game will solve the 2D-wave equation using finite difference method and will be run on browsers. Users can interact with the game using a camera. The hand gestures of the user will be used to generate water waves in the game. The game would be very interesting and fun to players because making water waves with hands is very entertaining and observing different waves can be very fascinating. The equation solver is built with WebCL and the graphics are displayed with WebGL. The game would be a fun way to investigate differential equations modeling physical phenomena.

References

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