

Simulating Ocean Waves

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Abstract:

Along with the rest of my final project group, we re-implemented a paper that simulates realistic ocean waves. The goal of the project was to render realistically accurate ocean waves as the paper presented and extend the paper by rendering in realtime. This extension allows for potential different applications of the water such as gaming contexts. The two main parts of our project were creating accurate waves through physics calculations and then realistically rendering them in realtime with opengl. Specifically, I helped work on the rendering aspect of the project where the goals were to render the ocean floor and light the water correctly using reflection and refraction equations.

Example Photo:

