Final Project Proposal 2

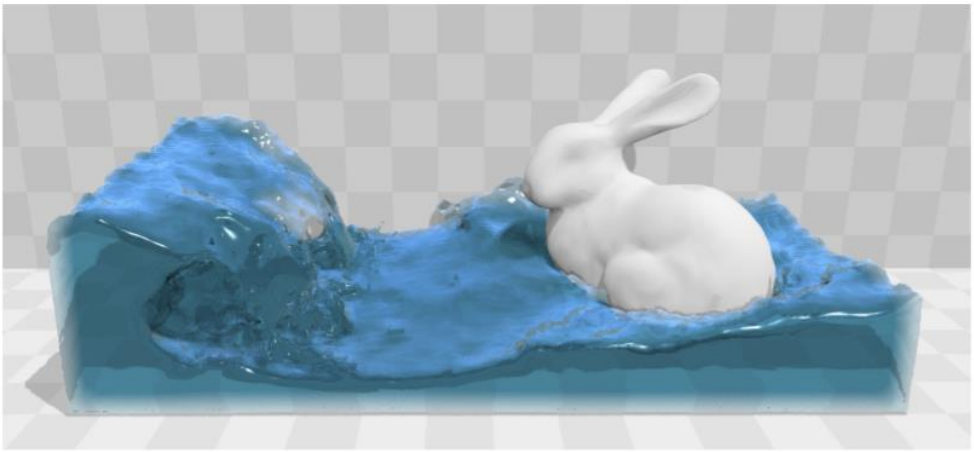
CS 6610-001 Spring 2019

Position Based Fluids

Given that all of the interactive models we have done in our projects thus far this semester have essentially been static (in the sense there was never a physical change to the pot as a result of time), I wanted to try to simulate a physical phenomenon. In this "Take 2" of my proposal, I will try something that can be rendered in real time and can be accomplished in the time available. Rather than Schrödinger's Smoke, I will try fluid simulations. My project will be based off the method described in this paper entitled Position Based Fluids.

The draw to this paper is that it appears to be implementable in what little time we have, and it simulates a pretty cool physical phenomenon. I look forward to working on it and I would hope to recreate some of the scenes from the original paper (like the bunny taking a bath, see below).

I anticipate my final results to look (loosely) like the following:



(a) *Real-time rendered fluid surface using ellipsoid splatting*