

Live Lecture Chat Window

November 8, 2023

[We started the LL session by looking at Final Project reports from other years to get ideas.]

14:04:25 I have a book called Shader X5, are we allowed to get an idea from text books? They don't give you all the code per-se, just the idea behind how to implement an effect

Yes, that's fine [for the Final Project]. Learn from the book, but the code you use must be your own.

14:11:47 I was literally thinking about doing solar system

It *does* make a very fun and very cool project!

14:32:37 Now I want to make a Tardis so I can 3d print it.

14:33:41 Tardis would be a fun/slightly hard one because of the non-Euclidian geometry. The inside is bigger than the outside

You could make it small as seen from the outside, but present a totally larger scene when you step inside the door.

14:34:30 Ooh portal is a good idea [for the Final Project]

Yes, computer graphics means not having to apologize for violating physics 😊

15:02:06 I expected a point instead of a square [from the square pattern shader example]

That would be true if only *one* instance of the fragment shader was running. But, there are as many instances of your fragment shader running as there are pixels that make up the geometry you are drawing.

15:30:29 Does OSU have an online library of research papers? [for the CS550-only Paper Project]

A great place to look is the ACM Digital Library: <http://dl.acm.org>

OSU has a free subscription to it, but you must come into it from an oregonstate.edu machine. Using the VPN should work.

15:32:01 Is [any specific formatting of the text or citations in the CS550-only Paper Project] required?

No. I'm much more interested in what you learned by reading the paper than how you formatted it.

15:36:55 On Mac you can also hold [Option] + Slide trackpad [to emulate the middle mouse button]

Thanks. Didn't know that.

15:55:24 Can you talk a little bit more about the water project? That one is blowing my mind.

The simplest approach is superimposing 2-3 sine waves. Each sine wave has more frequency and less amplitude than the previous one. It makes it look like there are ripples on waves. Another approach is something called Gerstner waves. It uses the fact that a water particle in a wave doesn't actually "flow" – it travels in a little circle. (There is a good Wikipedia page on this.) If you want to try this, I can help you get started.