

# November 15th

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## What is entanglement?

Schrodinger's Cat Entanglement would say that if there were two cats in boxes, one would always be dead and one would always be alive. Entanglement is when two particles obey the law, but when you measure it is when it becomes defined, but until you measure it, until you check if the cat is dead or alive, it's state would be unknown.

## How is Einstein connected to Entanglement?

Einstein proposed hidden variables that it was how particles could determine the difference, it was later labeled as Bell's Inequality and was something that stood to try to actively prove or disprove Einstein's theory on if there was hidden variables or not.

## What did you find interesting

Quantum teleportation and the idea of using Quantum Entanglement to be used for long distance communication that can be basically instantaneous.

## What is string theory? This is our first impression

Takes you before the big bang; says that there is a multiverse of universes.

Insects on a soap bubble == big bang

String theory says there are many bubbles, but when bubbles collide it can create one big new universe, but they can also split into two making two new one. A worm hole is a genuine application to Einstein's theories. Wormholes could be the key to time machines.

"The laws of physics are a death warrant for all life"

## General Reflection

I need to generally shut up - Source: Logan

## Other General Reflection

I think I have a more refined idea on what I want to do for my final paper, and that would be using quantum entanglement to do large scale - long distance - instant communication.