Google Doodle Project

Project 3 Google Doodle_18C.pdf 16483.5KB

Concept

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Create a Google doodle to celebrate the discovery of the Higgs
Boson particle on July 4th, 2012
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Plain Text

> *Sparking interest in physics for the everyday person*

What it is

Clarify our understanding of the Higgs Boson particle

The Higgs Boson particle is the excitation of the everywhere permeating Higgs field. The Higgs field helps explain 'Weak force' in particle theory. Weak nuclear theory was confirmed in the 1980s but until 2012, they weren't able to confirm the actual and independent existence of the Higgs Boson particle itself

- **The Standard Model**

  A mathematical equation that describes nearly everything in the observable universe. Without the consideration of the Higgs field there was no way to have the equation of the Standard model work to describe why all particles have mass.

  Explains weak nuclear force and why all particles have mass

  How the Higgs Field gives particles mass:

  Note: if a particle does not have mass, it travels at the speed of light eg. photons of light

Essentially, mass allows particles to travel at any speed below the speed of light — the amount of mass a particle has impacts how quickly it can change speeds.

Entering the Higgs field

Particles moving at the speed of light enter the Higgs Field and bounce back and forth, tighter and tighter until it appears to be still (which is only possible if the particle now has mass since particles without mass always travel at the speed of light

- **Unpacking Particle Theory**

  better understanding of the space I would be researching. Some people had used e-learning services, and since that is the main focus for this project, I decided to seek out what popular e-learning language services there were.

Brainstorming — design

- Large Hadron Collider
- Showcasing electrons + protons
- Cursor is the higgs field, boson comes off
- Slider — macroscopic to atomic level (eventually snaps to particles)