

ENTROPY

To creat a scene of entropy of energy and human society

Description

Entropy and Heat Death

Entropy is the measure of the disorder of a system. The second law of thermodynamics states the total entropy of a closed system cannot decrease. Entropy is also one of the few quantities in the physical sciences that require a particular direction for time, sometimes called an arrow of time. As one goes “forward” in time, the second law of thermodynamics says, the entropy of an isolated system can increase, but not decrease. Thus, entropy measurement is a way of distinguishing the past from the future.

Heat Death is an ultimate state of thermal equilibrium implying conditions of maximum entropy and zero available energy that according to the laws of thermodynamics the material universe is apparently approaching.

Concept

This project aims to create an abstract enclosed system that entropy will increase along the “forward” in time with VR typography, using the relationship of free energy and human society as example. The scene will start from its most ordered form to the maximum level of entropy within an enclosed system, which is the heat death of that world. The concept of this project is to understand social entropy by exploring how entropy increasing will affect human society and the natural environment.

Description

Scene

A box that composed with texts about energy and human society development, will be set up in the center of invisible spheres (manifest the system). There is a timer out side the box. The timer has a tick tock sound. There is also a outer-space-like sound play constantly. Many text particles will begin to disperse randomly once the player get into the system (the chaotic increase). There is also a blop sound when collide with the sphere. All the particles disperse within the invisible sphere and the invisible sphere will be visible. When the time reach out to 1 minute, the system arrives the end. All the particles will pause. When player adjust the time backward, the particles will emit again.

Interaction

First, the player will be able to be move freely inward and outward the enclosed world with a rigid body controller. Second and third, When each time the player collide with the invisible spheres, the particle systems will emit and a blop sound effect will play. There are three layers of the sphere. Fourth, The player can also use left and right mouse buttons to control the direction of time.

The End



Reference

<https://www.britannica.com/science/thermodynamics/Entropy-and-heat-death>

[https://en.wikipedia.org/wiki/Entropy_\(arrow_of_time\)](https://en.wikipedia.org/wiki/Entropy_(arrow_of_time))

<https://hydrogen.wsu.edu/2017/08/24/social-thermodynamics-gibbs-and-the-energy-for-change/>