

# Lorenz Attractor

A Haskell OpenGL/GLUT implementation of a Lorenz System

## Project Time

~25 Hours

## Installation

```
# Build/Compile project
make
## Execute application
./LorenzAttractor-HW2-AdamC
```

## Key Bindings

Command	Key Binding
Close App	ESC
Rotate Right	Right Arrow
Rotate Left	Left Arrow
Rotate Down	Down Arrow
Rotate Up	Up Arrow
Zoom In	z
Zoom Out	Shift + z
Increase Sigma	s
Decrease Sigma	Shift + s
Increase Beta	b
Decrease Beta	Shift + b
Increase Rho	r
Decrease Rho	Shift + r
Increase DT	d
Decrease DT	Shift + d
Increase Steps	p
Decrease Steps	Shift + p

## Steps

Number of points or iterations of the Lorenz System

## DT

The distance of each step in the Lorenz System discrete equation.

## Sources

- Haskell OpenGL
  - [http://www.cprogramming.com/tutorial/opengl\\_projections.html](http://www.cprogramming.com/tutorial/opengl_projections.html)
  - <https://github.com/haskell-opengl/GLUT>
  - <https://github.com/haskell-opengl/GLUT/blob/master/examples/Misc/Gears.hs>
  - <https://github.com/ghorn/not-gloss-lorentz/blob/master/src/Main.hs>
- Makefile

- <https://github.com/jrahm/HaskellGL4/blob/master/Makefile>