## $\begin{array}{c} Homework \ 18 \\ Due \ Tuesday, \ April \ 23^{th} \ in \ class \end{array}$

## Chapter 8 of *From Eternity to Here*, by Sean Carroll (link to version on course website)

They say that "a picture is worth a thousand words". We will test that statement.

For each of these figures, write a paragraph giving your own understanding of them in the context of the reading we have posted, Sean Carroll's chapter on *Entropy and Disorder*. Use your descriptions of these figures to try to flesh out your own understanding of entropy and the idea that "entropy always increases" might provide the basis for our perception of the direction of time.

- 1. Figures 42 & 43: Evolution of 2,000 molecules in a divided box of gas and its entropy.
- 2. Figure 44: Gas in a divided box, used to drive a cylinder.
- 3. Figure 45: The process of coarse graining ...