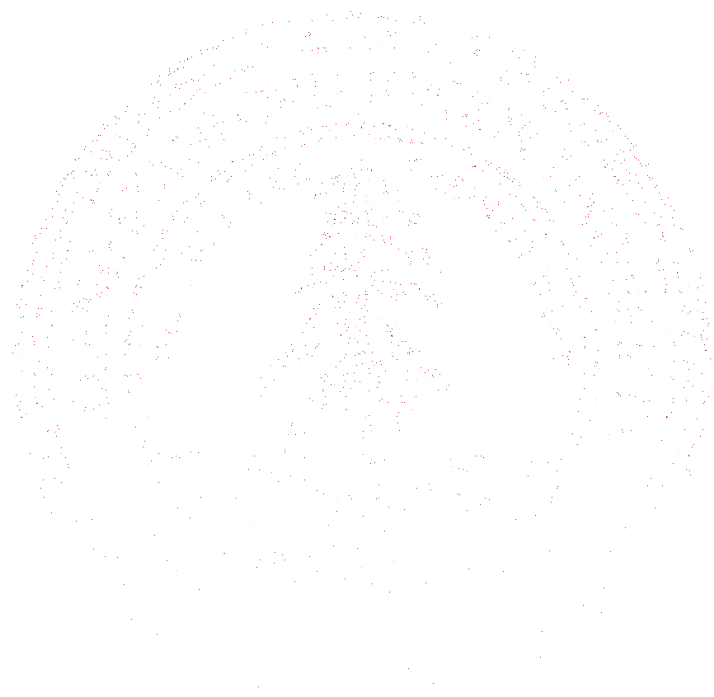# CS109 Logo

To generate the CS109 logo, we are going to throw half a million darts at a picture of the Stanford seal. We only keep the pixels that are hit by at least one dart. Each dart has it's x-pixel and y-pixel chosen at random from gaussian distributions. Let X be a random variable which represent the x-pixel, Y be a random variable which represents the y-pixel and S be a constant that equals the size of the logo (its width is equal to its height). $X \sim \mathcal{N}\left(\frac{S}{2}, \frac{S}{2}\right)$ and $Y \sim \mathcal{N}\left(\frac{S}{3}, \frac{S}{5}\right)$
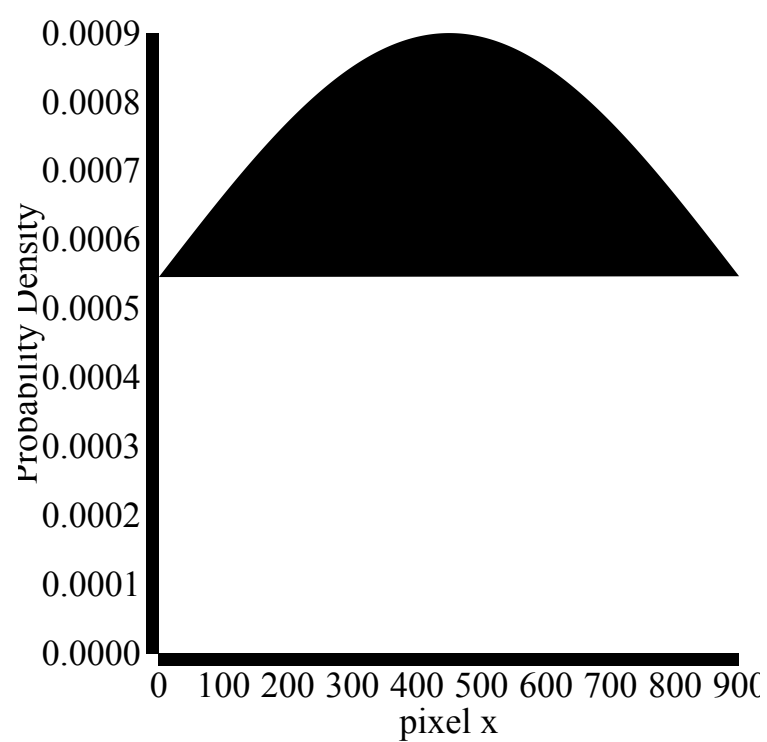
Darts thrown: 7500

Dart Results

Dart Probability Density

X Distribution

Y Distribution