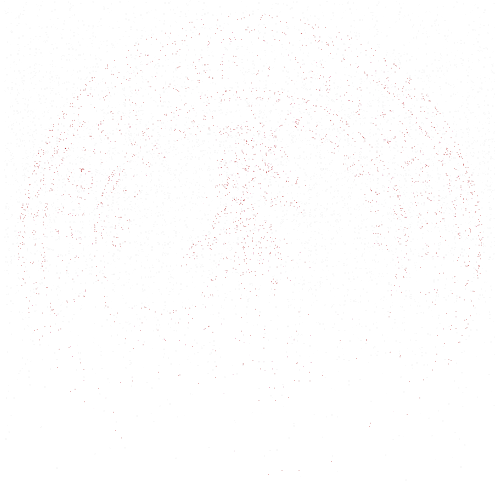


# CS109 Logo

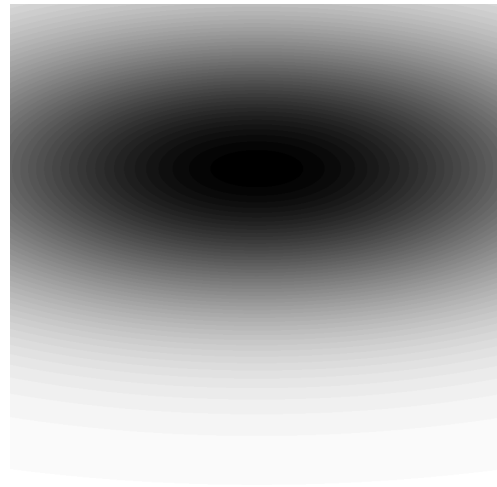
To generate the CS109 logo, we are going to throw half a million darts at a picture of the Stanford seal. We only keep the pixels that are hit by at least one dart. Each dart has its x-pixel and y-pixel chosen at random from gaussian distributions. Let  $X$  be a random variable which represents the 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).  $X \sim \mathcal{N}(\frac{S}{2}, \frac{S}{2})$  and  $Y \sim \mathcal{N}(\frac{S}{3}, \frac{S}{5})$

Darts thrown: 10000

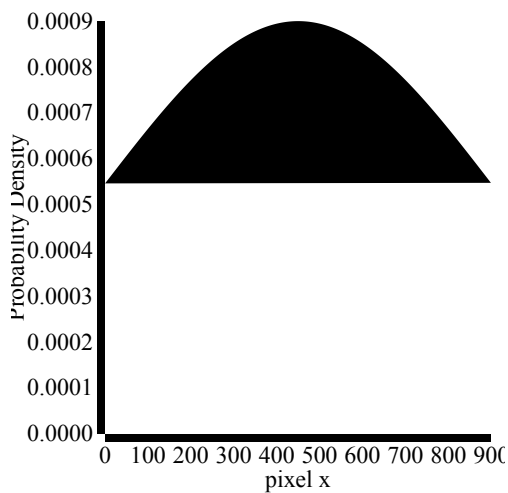
Dart Results



Dart Probability Density



X Distribution



Y Distribution

