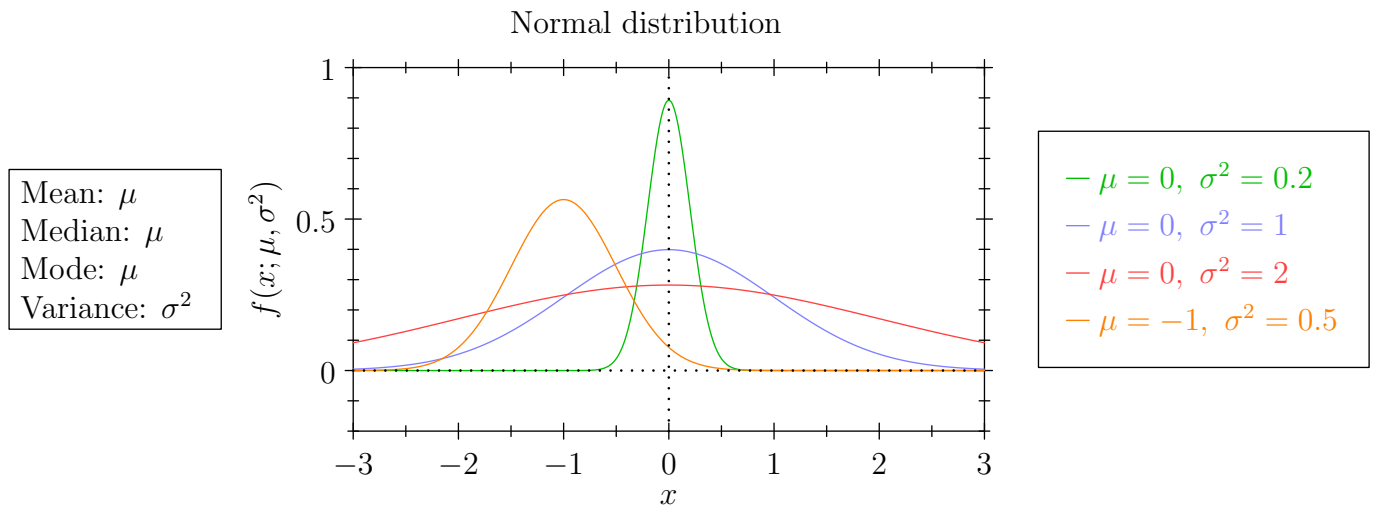
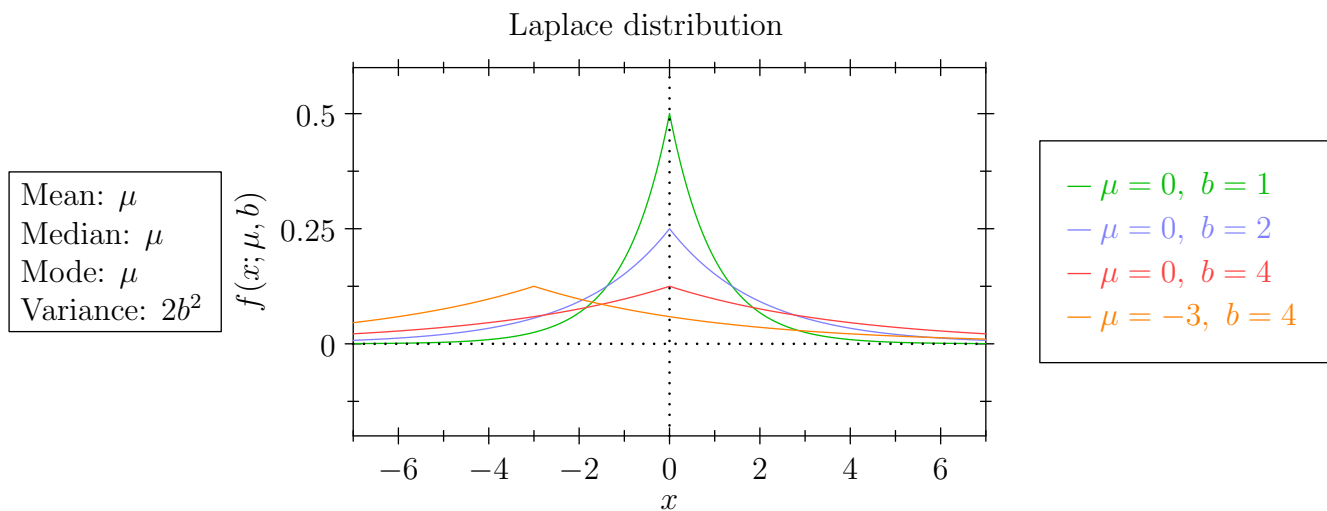


## Some common PDFs and their plots

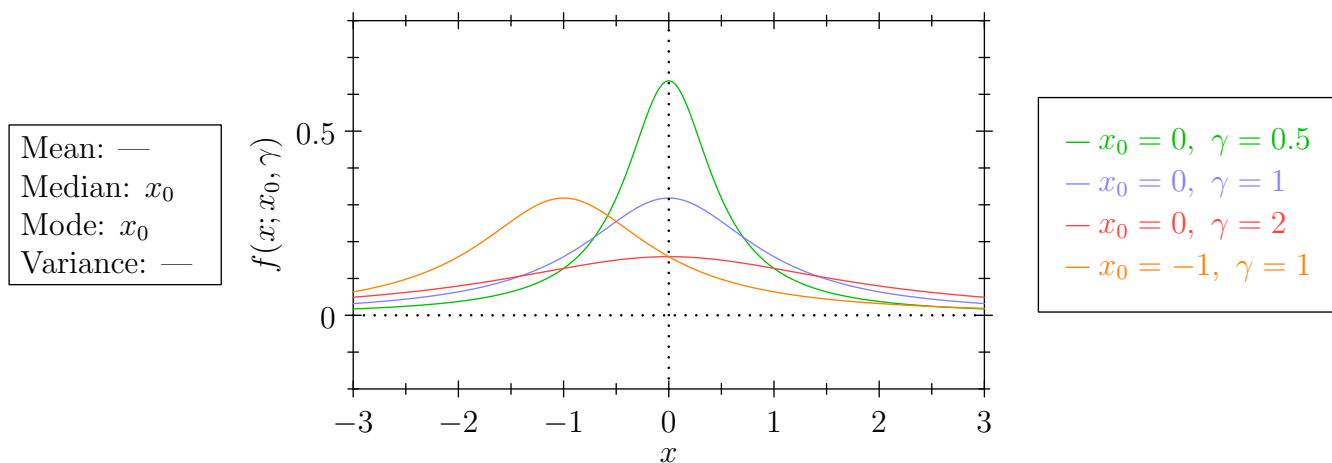


$$f(x; \mu, \sigma^2) = \frac{1}{\sqrt{2\pi\sigma^2}} \exp\left(-\frac{(x - \mu)^2}{2\sigma^2}\right), \quad x \in (-\infty, +\infty)$$



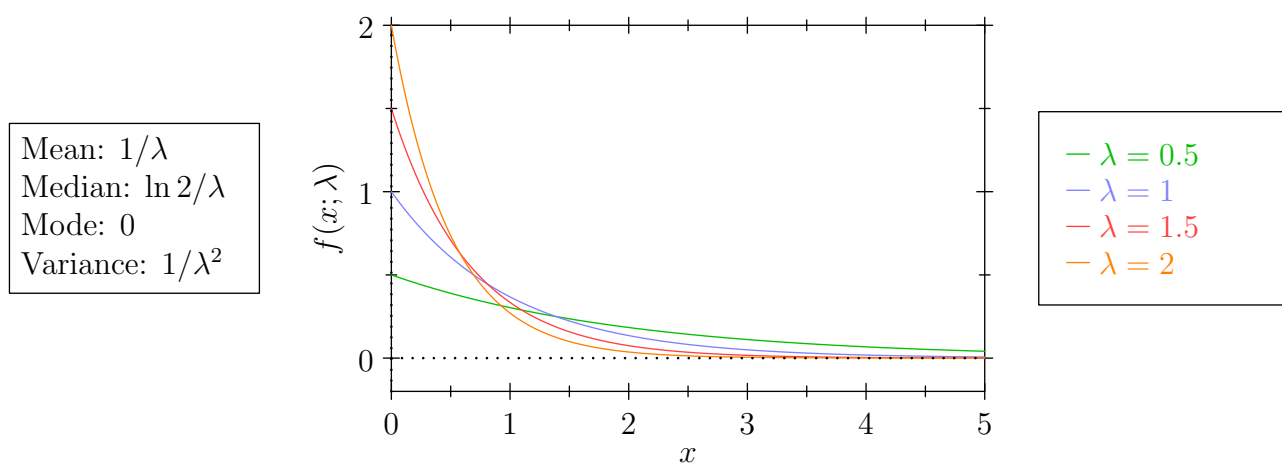
$$f(x; \mu, b) = \frac{1}{2b} \exp\left(-\frac{|x - \mu|}{b}\right), \quad x \in (-\infty, +\infty)$$

Cauchy distribution



$$f(x; x_0, \gamma) = \frac{1}{\pi\gamma\left(1 + \left(\frac{x - x_0}{\gamma}\right)^2\right)}, \quad x \in (-\infty, +\infty)$$

Exponential distribution



$$f(x; \lambda) = \lambda \exp(-\lambda x), \quad x \in [0, +\infty)$$