

Lista de Distribuciones

Nombre de la Distribución	Parámetros	pmf o densidad
Bernoulli	$p \in [0, 1]$	$p_X(i) = p^i(1-p)^{1-i}, i \in \{0, 1\}$
Binomial	$n \in \mathbb{N}, p \in [0, 1]$	$p_X(i) = \binom{n}{i} p^i(1-p)^{1-i}, i \in \{0, 1, \dots, n\}$
Geométrica	$p \in [0, 1]$	$p_X(i) = (1-p)^i p, i \in \{0, 1, \dots\}$ $i \in \{\max(0, n - N + m), \dots, \min(m, n)\}$
Poisson	$\lambda \in \mathbb{R}_+$	$p_X(i) = \frac{1}{i!} \lambda^i e^{-\lambda}, i \in \mathbb{N}.$
Uniforme	$a, b \in \mathbb{R}, a < b$	$f_X(x) = \frac{1}{b-a}, x \in [a, b]$
Exponencial	$\lambda \in \mathbb{R}_+$	$f_X(x) = \lambda e^{-\lambda x}, x \in [0, +\infty)$
Normal (Gauss)	$\mu, \sigma \in \mathbb{R}$	$f_X(x) = \frac{1}{\sqrt{2\pi\sigma^2}} e^{-(x-\mu)^2/2\sigma^2}, x \in \mathbb{R}$
Rayleigh	$\sigma \in \mathbb{R}$	$f_X(x) = \frac{x}{\sigma^2} e^{-x^2/2\sigma^2}, x \in [0, \infty)$
Gamma	$\lambda, p \in \mathbb{R}_+$	$f_X(x) = \frac{1}{\Gamma(p)} \lambda (\lambda x)^{p-1} e^{-\lambda x}, x \in \mathbb{R}$ $\Gamma(p) = \int_0^\infty x^{p-1} e^{-x} dx.$
χ^2	$n \in \mathbb{N}$	$f_X(x) = \frac{1}{2^{n/2} \Gamma(n/2)} x^{n/2-1} e^{-x/2}, x \in (0, +\infty)$
Cauchy	$\mu, \sigma \in \mathbb{R}, \sigma > 0$	$f_X(x) = \frac{1}{\pi \sigma (1 + \frac{1}{\sigma^2} (x - \mu)^2)}, x \in \mathbb{R}.$