

DISTRIBUIÇÕES CONTÍNUAS

Distribuição	Função densidade	Espaço dos parâmetros	Valor médio	Variância	Função geradora de momentos
Uniforme	$\begin{cases} \frac{1}{b-a} & a < x < b \\ 0 & \text{o.v.} \end{cases}$	$+\infty < a < b < +\infty$	$\frac{a+b}{2}$	$\frac{(b-a)^2}{12}$	$\frac{e^{bt} - e^{at}}{(b-a)t}$ $t \neq 0$
Normal	$\frac{1}{\sigma \sqrt{2\pi}} \exp \left[-\frac{1}{2} \left(\frac{x - \mu}{\sigma} \right)^2 \right]$ $-\infty < x < +\infty$	$-\infty < \mu < +\infty$ $\sigma > 0$	μ	σ^2	$e^{\mu t + \frac{1}{2} \sigma^2 t^2}$
Gama	$\begin{cases} \frac{1}{\beta^\alpha \Gamma(\alpha)} x^{\alpha-1} e^{-x/\beta} & x > 0 \\ 0 & x \leq 0 \end{cases}$	$\beta > 0$ $\alpha > 0$	$\alpha\beta$	$\alpha\beta^2$	$\left(\frac{1}{1 - \beta t} \right)^\alpha$ $t < 1/\beta$
Exponencial	$\begin{cases} \frac{1}{\beta} e^{-x/\beta} & x > 0 \\ 0 & x \leq 0 \end{cases}$	$\beta > 0$	β	β^2	$\frac{1}{1 - \beta t}$ $t < 1/\beta$
χ^2	$\begin{cases} \frac{x^{n/2-1} e^{-x/2}}{2^{n/2} \Gamma(n/2)} & x > 0 \\ 0 & x \leq 0 \end{cases}$	$n = 1, 2, \dots$	n	$2n$	$\frac{1}{(1 - 2t)^{n/2}}$ $t < 1/2$
t	$\frac{\Gamma(\frac{n+1}{2})}{\sqrt{n\pi} \Gamma(\frac{n}{2})} \left(1 + \frac{x^2}{n} \right)^{-(\frac{n+1}{2})}$ $-\infty < x < +\infty$	$n > 0$	0 $(n > 1)$	$\frac{n}{n-2}$ $(n > 2)$	não existe
F	$\frac{\Gamma(\frac{m+n}{2}) \Gamma(\frac{m}{2})}{\Gamma(\frac{m}{2}) \Gamma(\frac{n}{2})} \frac{x^{(m/2)-1}}{\left(1 + \frac{mx}{n} \right)^{\frac{m+n}{2}}}$ $x > 0$	$m, n = 1, 2, \dots$	$\frac{n}{n-2}$ $(n > 2)$	$\frac{2n^2(m+n-2)}{m(n-2)^2(n-4)}$ $(n > 4)$	não existe