

Tabella 1: Riassunto dei modelli di distribuzione

<i>Modello</i>	<i>Parametri</i>	<i>F. di massa o di densità</i>	<i>Funzione di ripartizione</i>	<i>Valore atteso</i>	<i>Varianza</i>
Bernoulli	$X \sim B(p)$	$p^x(1-p)^{(1-x)}I_{\{0,1\}}(x)$	$(1-p)I_{[0,1)}(x) + I_{(1,+\infty)}(x)$	p	$p(1-p)$
Binomiale	$X \sim B(n, p)$	$\binom{n}{x}p^x(1-p)^{n-x}I_{\{1,\dots,n\}}(x)$	$\sum_{i=0}^{\lfloor x \rfloor} \binom{n}{i}p^i(1-p)^{n-i}I_{[0,n]}(x) + I_{(n,+\infty)}(x)$	np	$np(1-p)$
Uniforme discreto	$X \sim U(n)$	$\frac{1}{n}I_{\{1,\dots,n\}}(x)$	$\frac{\lfloor x \rfloor}{n}I_{[0,n)} + I_{[n,+\infty)}(x)$	$\frac{1}{n}\frac{n(n+1)}{2}$	$\left(\frac{n^2-1}{12}\right)^2$
Uniforme continuo	$X \sim U(a, b)$	$\frac{1}{b-a}I_{[a,b]}(x)$	$\frac{x-a}{b-a}I_{[a,b]}(x) + I_{[b,+\infty)}(x)$	$\frac{b+a}{2}$	$\frac{(b-a)^2}{12}$
Geometrico	$X \sim G(p)$	$p(1-p)^xI_{\mathbb{N} \cup \{0\}}(x)$	$(1-(1-p)^{\lfloor x \rfloor + 1})I_{\mathbb{R}^+}(x)$	$\frac{1-p}{p}$	$\frac{1-p}{p^2}$
Poisson	$X \sim P(\lambda)$	$e^{-\lambda}\frac{\lambda^x}{x!}I_{\mathbb{N} \cup \{0\}}(x)$	[non vista]	λ	λ
Ipergeometrico	$X \sim \mathcal{H}(n, M, N)$	$\frac{\binom{N}{x}\binom{M}{n-x}}{\binom{n+M}{n}}$	[non vista]	$n\frac{M}{N}$	$n\frac{K}{N}\frac{N-K}{N}\frac{N-n}{N-1}$
Esponenziale	$X \sim E(\lambda)$	$\lambda e^{-\lambda x}$	$(1-e^{-\lambda x})I_{\mathbb{R}^+}(x)$	$\frac{1}{\lambda}$	$\frac{1}{\lambda^2}$
Gauss	$X \sim G(\mu, \sigma)$	$\frac{1}{\sqrt{2\pi}\sigma}\exp\left(-\frac{(x-\mu)^2}{2\sigma^2}\right)$	$\int_{-\infty}^x \frac{1}{\sqrt{2\pi}\sigma}\exp\left(-\frac{(x-\mu)^2}{2\sigma^2}\right)$	μ	σ^2