

Tabella 2: Legge, funzione di ripartizione, media, e varianza più importanti distribuzioni.

| | Densità | F. di rip. | Media | Varianza |
|---------------------------|--|---|--------------------------|--------------------------------------|
| $B(n, p)$ | $p_k = \binom{n}{k} p^k (1-p)^{n-k}$ | | np | $np(1-p)$ |
| Ipergeometrica | $p_k = \frac{\binom{r}{k} \binom{b}{n-k}}{\binom{b+r}{n}}$ | | $\frac{nr}{b+r}$ | $\frac{nr b(b+r-n)}{(b+r)^2(b+r-1)}$ |
| $P(\lambda)$ | $p_k = e^{-\lambda} \frac{\lambda^k}{k!}$ | | λ | λ |
| $G(p)$ | $p_k = p(1-p)^k$ | $1 - (1-p)^{k+1}$ | $\frac{1-p}{p}$ | $\frac{1-p}{p^2}$ |
| $Exp(\lambda)$ | $f(x) = \begin{cases} \lambda e^{-\lambda x} & x > 0 \\ 0 & x \leq 0 \end{cases}$ | $F(x) = \begin{cases} 1 - e^{-\lambda x} & x > 0 \\ 0 & x \leq 0 \end{cases}$ | $\frac{1}{\lambda}$ | $\frac{1}{\lambda^2}$ |
| $N(\mu, \sigma^2)$ | $f(x) = \frac{1}{\sqrt{2\pi}\sigma} e^{-(x-\mu)^2/(2\sigma^2)}$ | | μ | σ^2 |
| $\Gamma(\alpha, \lambda)$ | $f(x) = \begin{cases} \frac{\lambda^\alpha}{\Gamma(\alpha)} x^{\alpha-1} e^{-\lambda x} & x > 0 \\ 0 & x \leq 0 \end{cases}$ | | $\frac{\alpha}{\lambda}$ | $\frac{\alpha}{\lambda^2}$ |