

## Formulario de Estadística

### Variabes discretas

Esperanza

$$\mu = E(x) = \sum x f(x)$$

Varianza

$$\sigma^2 = E(x^2) - [E(x)]^2$$

Distribución Híper-geométrica

$$\mu = n \left( \frac{K}{N} \right)$$

$$\sigma^2 = n \frac{K}{N} \left( 1 - \frac{K}{N} \right) \left( \frac{N-n}{N-1} \right)$$

Distribución Uniforme discreta

$$\mu = \sum_{i=1}^n \frac{X_i}{n}$$

$$\sigma^2 = \sum_{i=1}^n \frac{(X_i - \mu_x)^2}{n}$$

Distribución Geométrica

$$\mu = \frac{1}{p}$$

$$\sigma^2 = \left[ \frac{1-p}{p^2} \right]$$

Poisson

$$\mu = \lambda$$

$$\sigma^2 = \lambda$$

### Variabes Continuas

$$E(x) = \int_a^b x f(x) dx$$

$$\sigma^2 = \int (x - \mu)^2 f(x) dx$$