

## ESTANDARIZAR

$$\text{Media}(x) = M$$

$$\text{Media}(\text{constante}) = \text{constante}$$

$$\text{Media}(a x) = a M$$

$$\text{Media}(x + y) = M_x + M_y$$

$$\text{Varianza}(x) = V = \sigma^2$$

$$\text{Varianza}(\text{constante}) = 0$$

$$\text{Varianza}(a x) = a^2 V$$

$$\text{Varianza}(x + \text{constante}) = \text{Varianza}(x) = V$$

$$z = (x - M) / \sigma$$

$$\text{Media}(z) = \text{Media}((x-M)/\sigma) =$$

$$\text{Media}(x/\sigma) - \text{Media}(M/\sigma) =$$

$$1/\sigma \times \text{Media}(x) - 1/\sigma \times \text{Media}(M) =$$

$$1/\sigma \times M - 1/\sigma \times M = 0$$

$$\text{Varianza}(z) = \text{Varianza}((x-M)/\sigma) =$$

$$1/\sigma^2 \times \text{Varianza}(x-M) =$$

$$1/V \times \text{Varianza}(x) = 1/V \times V = 1$$

## ESCALAR

$$t = x - \text{MIN} / (\text{MAX} - \text{MIN})$$

$$\min(t) = \min(x) - \text{MIN} / \text{RANGO} = (\text{MIN} - \text{MIN}) / \text{RANGO} = 0 \rightarrow \text{mínimo en } 0$$

$$\max(t) = \max(x) - \text{MIN} / \text{RANGO} = (\text{MAX} - \text{MIN}) / \text{RANGO} = 1 \rightarrow \text{máximo en } 1$$