# Evaluacion_empirica_estimadores

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## 1 Evaluación empírica de estimador

```python
In [1]: import numpy as np
        import matplotlib.pyplot as plt

In [2]: mean_estimates_1 = []
        mean_estimates_2 = []
        numSamples = 100

In [3]: for iteration in range(1000):

            # crea una muestra aleatoria de N(0,1)
            x = np.random.randn(numSamples)

            # calcula la media usando media muestral
            aHat_1 = x.mean() # or np.mean(x)

            # calcula estimador usando primera muestra
            aHat_2 = x[0]

            # agrega estimaciones a lista:
            mean_estimates_1.append(aHat_1)
            mean_estimates_2.append(aHat_2)

In [4]: fig, axes = plt.subplots(2, 1, sharex=True)

        axes[0].hist(mean_estimates_1, normed = True)
        axes[1].hist(mean_estimates_2, normed = True)

        plt.show()
```