

# Example Random Processes

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Based on  
Probability, Random Variables and Random Signal Principles,  
P.Z. Peebles,Jr. and B. Shi

# Outline

## 1 Averages and Ergodicity

# Average

$N$  Gaussian random variables

## Definition

$$\bar{m}_x = \frac{1}{N} \sum_{i=1}^N X_i(t)$$

$$A_T[\bullet] = \frac{1}{2T} \int_{-T}^T [\bullet] dt$$



