Test 1 - No.2

DEDP 2017-2018

Exercises

1. Compute the probability that a random variables X, with normal distribution $\mathcal{N}(\mu, \sigma^2)$, has the value in the interval $[\mu - 3\sigma, \mu + 3\sigma]$
2. Compute the temporal variance σ_t^2 and the temporal autocorrelation function $R_{xx}[\tau]$ (only for $-3 \leq \tau \leq 3$) for the following sequence:

$$x = [0, 1, 2, 0, 1, 2, 0, 1, 2, 0, 1, 2]$$

Known:

- $F(x) = \frac{1}{2}\left(1 + \text{erf}\left(\frac{x-\mu}{\sigma\sqrt{2}}\right)\right)$