

Stochastic Processes: Homework 2

Martín Prado

November 2023

Universidad de los Andes – Bogotá Colombia

Exercise 1

Let $f(x) = \frac{1}{2} \sin(x) \mathbb{1}_{[0, \pi]}(x)$

1. For $n = 4$ calculate the first moment of the order statistic $X_{i:n}$ for every $i \in 1, \dots, 5$.
2. Sketch a telling drawing

Exercise 2