The Method of Monte Carlo

1. Introduction

2. Applications

2.1 Monte Carlo Integration

2.2 Hypothesis testing based on simulations

Steps:

Let N be the number of simulations.

1. Set $k = 1$ and $I = 0$.
2. Simulate a random sample of size n from the distribution X and compute the test statistic t.
3. If test statistic $>$ critical value, increase I by 1.
4. Repeat the process until $k = N$
5.