Report for Monte Carlo

Rajat Kumar Panda

May 7, 2018

1 Problem: Infinite variance distributions

The given Lorentzian distribution of ξ:

$$P(\xi) = \frac{1}{\pi(1+\xi^2)}. \tag{1}$$

then we have

$$\bar{\xi} = \frac{1}{n}\sum_{i=1}^{n}\xi_i. \tag{2}$$