A review of probability theory foundations

ECTS : 0

Volume horaire : 15

Description du contenu de l'enseignement :

Outline : 1. Basics of measure theory and integration 2. Probability : random variables, independence 3. Convergence of random variables 4. Law of Large Numbers and Central Limit Theorem 5. Conditional expectations 6. Martingales in discrete time 7. Gaussian vectors 8. Brownian motion : definition, existence, first properties

Compétence à acquérir :

The aim of this class is to provide a quick review of the probability theory that is required to follow the 1st semester classes in MATH and MASEF. Most of the content should already be familiar to students with a M1 in Mathematics.