

Stochastic Processes



Component
École Nationale
Supérieure
d'Électrotechnique
d'Électronique

In brief

- > **Ametys Code:** N7EM04C
- > **Open to exchange students:** No

Presentation

Objectives

The aim of the course is to introduce the concepts used to model processes in which physical quantities are random functions of time. This course focuses mainly on diffusion processes.

- Einstein's solution of Brownian motion
- Generalization using the Chapman-Kolmogorov equation based on transition probabilities.
- Introduction to the Langevin process
- Fokker-Planck equations

Description

The course is divided into two parts: a theoretical part (4 sessions) that introduces the various concepts, followed by a practical part (6 sessions) that corresponds to a digital project that students carry out in groups.