

[FRANCAIS] Processus de Poisson et applications



ECTS
4 crédits



Hourly volume
59h

Introducing

Description

Objectives

At the end of this module, the student should be able to:

- Analyze and exploit the structure of a system to derive its reliability from the characteristics of its components.
- Model the recursive occurrences of the failures on a system or the claim times in insurance by Poisson processes.
- Compute or approximate the ruin probability of insurance derivatives. Use machine learning techniques in actuarial sciences.
- Know the theoretical foundations of the Monte-Carlo method and be able to make use of it within the scope of its applicability and limitations.

- Identify the specific linguistic characteristics of the English used in scientific contexts, and to present their work orally and in written form following this scientific style.
- Write a scientific report in English on their project, respecting the conventions of their field.
- Present project work orally in English and dialogue on key elements of their project in a structured manner.
- Select relevant information for specific audiences.

- Explain complex scientific and technical concepts to non-specialists.
- Adapt their expression for formal and informal presentations.

Necessary prerequisites

- Markov chains and applications (MIC3)
- Inferential Statistics (MIC3)
- Statistical Modelling (ModIA S7)

Évaluation

L'évaluation des acquis d'apprentissage est réalisée en continu tout le long du semestre. En fonction des enseignements, elle peut prendre différentes formes : examen écrit, oral, compte-rendu, rapport écrit, évaluation par les pairs...

Practical info

Location(s)

Toulouse