
Graduate School in Statistics and Actuarial Sciences

Short course on "**Big data in insurance**"

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Monday 9:00-17:00, Tuesday 9:00-16:30

at ISBA, room C035, voie du Roman Pays 20
1348 Louvain-La Neuve

Abstract

In this lecture, we describe some of the evolutions caused by « Big Data » techniques in insurance. The aim is to explain in which sense the techniques used in pricing, reserving, or designing insurance products, are changing due to the amount of data available (and due to different type of data available). We also describe some basics of machine learning techniques and explain how their use changes our way to quantify risks.

- Part I : Overview of the changes that one should expect from Big Data in insurance
- Part II : General principles of machine learning
- Part III : Regression techniques in high dimension (extensions of the GLM approach)
- Part IV : A priori pricing: towards a personalized premium?
- Part V : Regression trees and random forests
- Part VI : Time-dependent phenomenon