Exotic options and structured products

ECTS : 3

Langue du cours : Français

Volume horaire : 24

Description du contenu de l'enseignement :

Class focuses on the pricing of exotic options and equity derivatives structured products with complex pay-offs. It is divided into 6 sessions of three hours each. Class alternates the teaching of the theory and practical applications. Monte- Carlo simulations are performed using Microsoft Excel. Local and stochastic volatility concepts are introduced, then applied practically. Impact of hedging techniques for such instruments are discussed. At the end, students are capable of building from scratch, pricing models for any complex equity derivative instrument.

Compétences à acquérir :

The class aims at giving students the fundamentals of quantitative pricing for complex Equity derivatives products.

Pré-requis obligatoires

Probability Theory.

Pré-requis recommandés

Common knowledge of probability theory. Ability to complete Python programing

Mode de contrôle des connaissances :

The exam consists of a final project where each student has to perform the pricing of a specific equity derivative instrument using Monte-Carlo simulation. Attendance to the course, is taken into account for final grading.

Coefficient : 1.00

Bibliographie, lectures recommandées :

Quantitative Finance- Paul Willmott-WILEY