

**PROGRAMA DE VERÃO 2024 - 709**

**ESCOLA DE MATEMÁTICA APLICADA FGV EMap**

**DISCIPLINA:** Introduction to Derivative Pricing

**PROFESSOR:** Sebastian Jaimungal

**CARGA HORÁRIA:** 06

**PRÉ-REQUISITO:**

**PERÍODO:** 31/01 a 02/02/2024 (Quartas, quintas e sextas-feiras)

**HORÁRIO:** 14h às 62h

## PLANO DE ENSINO

### 1. Ementa

This course will introduce dynamic hedging in continuous time, and how the principle of no-arbitrage forces option pricing functions to satisfy a certain partial differential equation (PDE). We will also investigate how the Feynman-Kac formula and Girsanov's Theorem may be used to solve this PDE. Time permitting, students will be exposed to numerical implementations of delta-gamma hedging strategies.

### 2. Procedimentos de avaliação

Não será aplicado avaliação durante o curso.

### 3. Mini Currículo

I am a full professor of mathematical finance in the Department of Statistical Sciences. I am the former Chair for the SIAM activity group in Financial Mathematics and Engineering ([SIAG/FM&E](#)), and a Managing Editor of [Quantitative Finance](#), an Associate Editor for the [SIAM Journal on Financial Mathematics](#) (SIFIN), [Frontiers of Mathematical Finance](#), [Journal of Dynamics and Games](#), the [International Journal of Theoretical and Applied Finance](#) (IJTAF), and [Journal of Risks](#). As well, I am a fellow of the Fields Institute for Mathematical Sciences and a member of the Oxford-Man Institute. I was a founding board member of the [Commodities and Energy Markets Association](#) and now serve on its advisory board. My research interest span stochastic control and games, reinforcement learning, machine learning, clean energy, and algorithmic trading.