



## Default price modelling

### Topic 1: Mathematical modeling of interest rate risk

- Yield curve
- · Use of Robor rates
- · The government securities market
- Practical examples

## **Topic 2: Characteristics of mortgage loans**

- Maturity of the contract
- · Principal and interest rate
- Repayment based on constant annuities
- Amortization of mortgage loans

#### **Topic 3: Interest rate models**

- Binomial tree model
- Implementation of the binomial tree
- The Vasicek model
- · Calibration of the Vasicek model
- Practical examples

#### **Topic 4: Advanced interest rate models**

- Markov models
- Generalized Vasicek model
- Trinomial tree model
- Trinomial tree calibration
- Practical examples

### Topic 5: Estimating the price of an option

- Risk neutral probability
- Arrow-Debreu prices
- The price setting algorithm

#### Topic 6: Estimation of the price for the payment option

- Modeling the payment option
- Estimation of the price of the payment option
- Sensitivity analysis



#### Why us?

Our seminars are created and updated using the extensive experience, skills and research of our trainers in the field of corporate finance, corporate analytics and risk management.

For internally organized educational programs, we work together with your organization to design, implement and evaluate such programs.

The way in which our educational programs are delivered is different and makes the difference due to our trainers that have intellectual passion for the content, academic attestation and perhaps most importantly





## Related programms

- Applied math in risk
- Programming in R
- Risk management
- Time series

# Registration and cancellations

Registration in the program can be done by filling in the form which is available in the contact area of our site (www.corpquants.ro)

Registration in the program can be canceled by means of a letter sent by post or e-mail to the address listed below received by us at least 5 calendar days before the start of the course, in which case the amount paid will be fully refunded.

The cancellation of registration in the program, received by us, less than 5 days in advance of the start date of the program is eligible to be replaced by participation in another program, but the amounts paid will not be returned.

We reserve the right to cancel or reschedule our programs at any time.