



Formation R - Data Science in Geneva, Zurich, Huston, San-Antonio, Dallas, Los Angeles, San Diego, New York, Washington, Chicago, San Francisco and anywhere in Switzerland, USA, Great Britain and Germany.

ID : 1052

Goal : This training introduce the major tools that can be used by any analyst or financial engineer to perform calculations and analysis of credit, valuation of financial assets, calibration, portfolio diversification, hedging risk and backtesting. The purpose of this training is to teach the different topics, avoiding as much as possible rewriting codes from scratch and maximizing the use of CRAN packages.

Audience : Market credits, regulators and liquidity risks actors, quantitative analysts of trading and

portfolios diversification, asset managers, insurance professionals.

Prerequisites : Have taken the R course on data manipulation, graph generation, parametric or nonparametric statistical analysis as well as data mining and temporal analysis or equivalent knowledge. Culture of the mathematical aspects and their limitations as well as the parameters of the financial models of Master / PhD level (no mathematics explained during the training!) and the understanding of the elementary concepts of convex optimization.

Goals :

- Introduction
- Presentation of packages useful in finance
- Compute periodic and aperiodic NPV and IRR
- Linear, arithmetic and geometric depreciation
- Post and praenumerando annuities
- Bank loans (mortgage) calculations
- Managing missing values
- Closest correlation matrix
- Retrieve manually current or deferred financial data (indices/securities/options/commodities, etc.)
- Retrieve automatically current or deferred financial data (indices/securities/options/commodities, etc.)
- Assess normality of return
- Heatmap of monthly return
- Plot of return
- Plot cumulated performance ratios
- Plot correlations relatively to an index on a window span
- Plot the average and its confidence interval on a given time span
- Plot of the ECDF and histogram of return
- Plotter écart-type ou la VaR historique/gaussienne/conditionnelle
- Candle chart
- Kernel density estimation
- ...

Pedagogical method : The training is based on small practical exercises based on the training book.

Suggested duration for presentiel training (days) : 6

Suggested duration for on-line training (days) : 7.2

Daily price in face-to-face : 725 CHF

Daily price in remote : 348 CHF

Daily price in remote for students : [contact](#) us (only if student card!)

Daily price in remote (with recording) : 3625 CHF

Prices are per day per trainee without course material, without certificate, without evaluation, without exam, without training room or computer (these are each optional and must be requested in addition in the contact form for the establishment of the quote).

Book

- **Title :** *R - La Bible en images et en couleurs*
- **Author(s) :** *Vincent Isoz*

- **Pages :** 2400
- **ISBN :**

Tags : R training, R course, R curriculum, R finance, R quantitative finance, R portfolio management, R course, R training, R advanced finance, R times series.

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