



Formation R - Regression Techniques 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 :** 1021

**Goal :** The goal of this course is to practice with R Bachelor and Master level statistical tools for non-parametric and robust inferential analysis on uni/multivariate data for all areas in the services, industry, R&D and sensory analysis. No maths will be done or explained during this course (you can request the corresponding theoretical course).

**Audience :** Engineers, mathematicians, physicists, chemists, biologists, financial analysts,

logisticians, managers, statisticians or other profile having to do statistical analyzes as part of their work and wishing to avoid creating formulas or macros in a spreadsheet software.

**Prerequisites :** Have followed the course R on foundations, charts and parametric statistics or have equivalent knowledge (+strong theoretical knowledge in statistics). The trainee must also have the ability to represent mentally simple and complex mechanisms process. Since the course includes demonstration and hands-on use of a software, participants should master file management in MS Windows/Linux/Mac based personal computer.

### **Goals :**

- Introduction
- Reminders about the taxonomy of the 220 non-parametric tests
- M-estimators
- Kernel Smoothing
- Robusts statistics
- Jackknife
- Bootstrap
- Chi-2 independence test for a contingency table
- Exact Fisher's test
- McNemar's test
- Chi-2 adequation test with Yates correction
- Association reliability tests and indicators
- Kendall's rank correlation coefficient
- Cronbach's alpha coherence study
- Cramer's V association measurement
- Median confidence interval (with on sample Sign test)
- Binomial sign test (ie. Median's test for two paired samples)
- Mood's test (Median's test)
- Wilcoxon's signed ranked sum test for one sample
- (Wilcoxon's)Mann-Withney signed ranked sum test for two independent samples
- ...

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

**Suggested duration for presentiel training (days) : 1**

**Suggested duration for on-line training (days) : 1.2**

**Daily price in face-to-face : 625 CHF**

**Daily price in remote : 300 CHF**

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

**Daily price in remote (with recording) : 3125 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 nonparametric statistics course, R nonparametric training, m-estimators, fisher test, mcnemar test, chi-2 test, median test, wilcoxon test, mann-withney test, grubbs test, dixon test.

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