## Course and Open Seminar on **Compositional Data Analysis** (CoDaCourse)

4-8 July 2016

Universitat de Girona



Organized by: Dpt. Computer Science, **Applied Mathematics** and Statistics **University of Girona** Campus Montilivi, P4 E-17071 Girona (Spain) Coord: 41°57'46.5"N 2°49'53"E

> Class size limited!!

Special prices for students!!

Recommended background: First semester courses in statistics and basic knowledge in multivariate statistics.

> This course is officially accredited by the **IAMG**



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A 5-day course on compositional data analysis will be imparted at the University of Girona (UdG) by members of the Research Group on Compositional Data Analysis.

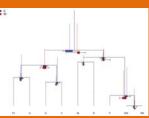
Compositional data are vectors which components show the relative importance of some parts of a whole. Typical examples are data presented in percentages, ppm, ppb, or the like. Aitchison introduced the logratio approach to analyse compositional data back in the eighties. Since then, progress has been done in understanding the geometry peculiar to their sample space, the D-part simplex.

This CoDaCourse provides an introduction to theoretical and practical aspects of the statistical analysis of compositional data, as well as an informal discussion forum on more advances topics. In the theoretical sessions, the current state of the art in this field will be presented. In the practical sessions, coda techniques are applied using the available software CoDaPack and some R packages. An open discussion session is also planned. We encourage you to bring your own data!!!

The following topics will be cover:

- Hypothesis underlying statistical analysis (sample space, scale).
- The Aitchison geometry on the simplex.
- Coordinate representation; distributions on the simplex.
- Exploratory analysis (centering, variation array, balances-dendrogram).
- Irregular data: zero values, outliers and missing data.
- Introduction to multivariate analysis: regression, manova, cluster and discriminant.







Visit our web:

How to apply: register on the website www.compositionaldata.com and fill in the form at the CoDaCourses menu

