Course and Open Seminar on

Compositional Data Analysis

Recommended background:
First semester courses in statistics, algebra and calculus; basic knowledge in multivariate statistics.
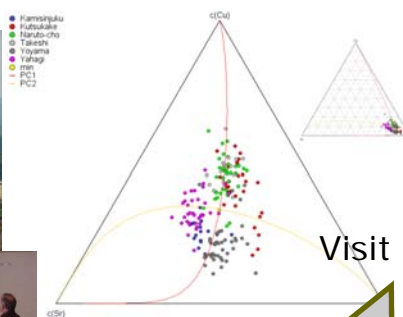
How to apply:
Register on the website:
www.compositionaldata.com,
and fill in the form there.

Class size is limited!

Special prices for students.

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A short course on compositional data analysis will be imparted at the premises of the University of Girona (UdG).

Objective: To provide an introduction to the theoretical and practical aspects of statistical analysis of compositional data, as well as an informal discussion forum on more advanced modelling topics.

Contents: 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 log-ratio approach to analyse CoDa back in the eighties. Since then, progress has been done in understanding the geometry peculiar to their sample space, the D-part simplex. This course will present the current state of the art in this field of active research and will cover the following topics:

1. Hypothesis underlying statistical data analysis (sample space, scale).

2. The Aitchison geometry of the simplex.

3. Coordinate representation; distributions on the simplex.

4. Exploratory analysis (centering, variation array, biplot, balances-dendrogram).

5. Linear processes in the simplex; regression.

6. Introduction to multivariate analysis: cluster and discriminant

The above topics will be completed with an introduction to available software and an open discussion session. Bring your own data!

Officially accredited by IAMG

Visit the web:

www.compositionaldata.com