



## APPLIED STATISTICS WORKSHOP

Sébastien DEJEAN,  
Université de Toulouse III,  
France

*"Analysing detail coefficients from a wavelet decomposition to improve the discrimination of metabolomics profiles"*

Friday, 4 December 2009

14:30

Room : **c 115 (STAT)**

### Abstract

Wavelet transform is now commonly used to deal with spectrum-shaped metabolomics data. When performing successive decomposition of the initial signal, finest details are often removed before reconstructing the true underlying signal. In this study, we demonstrate that, on the contrary, finest details may contain relevant information in order to discriminate various samples at the metabolome level. When several spectra globally have the same shape, removing scale coefficients enable to get rid of the common part of the information and so to focus on what is different among samples. An illustration is given on a data set coming from a toxicity study of phthalates in mouse.

**You are welcome to the coffee break after the seminar (room : c 105)**

Visit our page at: <http://www.uclouvain.be/72906.html>