

PLS and Related Methods for cutting-edge Research in Experimental Sciences *Methodological Advances and Challenging Applications*

SUPELEC (Gif-sur-Yvette, France)
10-11 May 2010 9h30-18h00

10 May 2010

Day 1

9h30 Arrival of participants: Welcome Coffee & Croissants

9h50 Welcome address

Facing the Real World: Recent Advances and Critical Issues of PLS Methods

Chair: **Vincenzo Esposito Vinzi**

10h00-10h45 Johan Trygg (Institute of Chemistry - Umeå University, Sweden)
Role of Chemometrics and PLS methods in Personalized medicine - Opportunities and methodological challenges to transform the delivery of healthcare

10h45-11h30 Gilbert Saporta (Chaire de Statistique appliquée - CEDRIC-CNAM, France)
PLS Regression for functional data

11h30-12h15 Anne Laure Boulesteix (IBE - University of Munich, Germany)
PLS for prediction with high-dimensional -omics data: overview and critical issues

12h15-14h00 **Lunch (served at the SUPELEC Cantine)**

SPARSE Partial Least Squares Regression

Chair: **Arthur Tenenhaus**

14h00-14h45 Sunduz Keles (University Of Wisconsin, USA)
Sparse Partial Least Squares: Theory and Applications

14h45-15h30 Kim-Anh Le Cao (The University of Queensland, Australia)
PLS extensions for integration and variable selection, application to high throughput biological data

15h30-16h00 Edouard Duchesnay (NEUROSPIN, CEA-Saclay Center, France)
Bridging the gap between imaging and genetics with sparse PLS

16h00-16h30 **Coffee Break**

Further Topics in Causal Networks: Categorical Data and Bayesian Networks

Chair: **Laura Trinchera**

16h30-17h10 Giorgio Russolillo (Chaire de Statistique appliquée - CEDRIC-CNAM, France)
The Non-Metric Partial Least Squares Approach

17h10-17h50 Lionel Jouffe (Bayesia, France)
Probabilistic Structural Equations with Bayesian Belief Networks - Principles and Applications



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Day 2

9h30 Arrival of participants: Welcome Coffee & Croissants

PLS Path Modeling as a General Framework for Multi-block Data Analysis

Chair: Arthur Tenenhaus

10h00-10h45 Michel Tenenhaus (HEC Paris, France)
A PLS approach to regularized generalized canonical correlation analysis

10h45-11h30 Vincenzo Esposito Vinzi (ESSEC Business School, France)
Giorgio Russolillo (Chaire de Statistique appliquée - CEDRIC-CNAM, France)
Laura Trinchera (SUPELEC, France)
An integrated PLS Regression-based approach for multidimensional blocks in PLS Path Modeling

11h30-12h15 Mohamed Hanafi (ENITIAA-INRA, France)
Some Computational Results related to PLS PM and Multiblock methods

12h15-14h00 Lunch (served at the SUPELEC Cantine)

Kernel Partial Least Squares

Chair: Michel Tenenhaus

14h00-14h45 Nicole Kramer (Weierstrass-Institute Berlin, Germany)
Conjugate Gradient Regularization - a Statistical Framework for Partial Least Squares Regression

14h45-15h30 Arthur Tenenhaus (SUPELEC, France)
Kernel Generalized Canonical Correlation Analysis

15h30-16h00 Coffee Break

16h00-16h40 Philippe Bastien (L'Oréal Research, France)
Some algorithmic aspects of PLS and Kernel PLS regression with extension to PLS Cox regression

The PLS World in the XLSTAT Data Analysis Environment

16h40-17h10 Emmanuel Jakobowicz (XLSTAT - Addinsoft, France)
Advanced topics in PLS Path Modeling using XLSTAT

17h10 Closing address and see you in 2011 for the Workshop #5!!!

