

Rapport d'activité /Activity Report

Titre/Title: Atelier sur les modèles de variables latentes et les données d'enquêtes en sciences sociales et en santé/ *Workshop on Latent Variable Models and Survey Data for Social and Health Sciences Research*

Date: 4 au 6 mai 2005/ May 4-6, 2005

Org.: Mary Thompson (Waterloo), Chris Skinner (Southampton), Paul Biemer (North Carolina), Jamie Stafford (Toronto), Milorad Kovacevic (Statistics Canada), Randy Sitter (Simon Fraser), David Bellhouse (Western Ontario), Roland Thomas (Carleton)

Commanditaires/Sponsors : Centre de recherches mathématiques, NPCDS, SAMSI, Statistique Canada/*Centre de recherches mathématiques, NPCDS, SAMSI, Statistics Canada.*

Conférenciers/Speakers: Hideki Ariizumi (Wilfrid Laurier), Tihomir Asparouhov (MUTHEN & MUTHEN), Kenneth A. Bollen (North Carolina), Brault (poster), Adam Carle (U.S. Census Bureau), Kim Chantala (North Carolina at Chapel Hill), Sharon Christ (North Carolina), André Cyr (Statistics Canada), Alexander Davies (Statistics Canada) (poster), Milorad Kovacevic (Statistics Canada), Brian Meekins (), Bengt Muthén (UCLA), Joseph Olsen (Brigham Young), Marty Paterson (Sherbrooke) (poster), Sophia Rabe-Hesketh (California Berkeley), Jonnagadda N.K. Rao (Carleton), Georgia Roberts (Statistics Canada), Amanda Sacker (College London), Chris Skinner (Southampton), Anders Skrondal (London School of Economics), Richard Donovan Wiggins (City).

Nombre de participants/Number of participants: 65

Cet atelier représente une partie de la contribution du Programme national sur les structures de données complexes (PNSDC) au programme 2004-2005 sur les modèles de variables latentes en sciences sociales, organisée le Statistical and Applied Mathematical Sciences Institute (SAMSI).

Une présentation de Anders Skrondal et Sophia Rabe-Hesketh, basée sur leur plus récent livre "Generalized Latent Variable Modelling", Chapman and Hall/CRC, servira d'introduction au programme de l'atelier.

Bengt Muthén et Tihomir Asparouhov feront des présentations sur le logiciel Mplus ainsi que sur le Projet d'enquêtes complexes associé.

D'autres sessions seront consacrées à des communications invitées et libres. Des rapports et des discussions concernant les activités du groupe de travail sur les enquêtes complexes seront également présentés. Ce groupe de travail a été formé lors de l'atelier d'ouverture à SAMSI en septembre 2004. Les présentations seront publiées sur le site web du groupe de travail sur les enquêtes complexes:
<http://www.samsi.info/200405/socsci/workinggroup/lvsurvey/index.html>

Cet atelier devrait intéresser tout particulièrement les statisticiens des centres canadiens de données de recherche

This workshop is part of the contribution of the National Program on Complex Data Structures (NPCDS) to the theme year on Latent Variable Models in the Social Sciences (LVMSS) of the Statistical and Applied Mathematical Sciences Institute (SAMSI) in North Carolina.

The program will begin with a tutorial by Anders Skrondal and Sophia Rabe-Hesketh based on their recent book, "Generalized Latent Variable Modelling", Chapman and Hall/CRC.

There will be presentations by Bengt Muthén and Tihomir Asparouhov on the software Mplus and the associated Complex Surveys Project.

Other sessions will be devoted to invited and contributed talks, and will include reports and discussions of the activity of the complex surveys working group, formed at the opening workshop at SAMSI in September 2004. Talks will be published on the complex surveys working group website: www.samsi.info/200405/socsci/workinggroup/lvsurvey/index.html

It is hoped that this workshop will be of special interest to researchers at Statistics Canada Research Data Centres.

Résumé de l'activité/Activity resume:

The tutorial by Anders Skrondal and Sophia Rabe-Hesketh covered a great deal of ground, including a thorough introduction to the authors' framework for latent variable models, and a variety of interesting applications. It was very valuable for both experts and novices.

The difficulties in adapting latent variable methods to complex survey data are perhaps best appreciated in the context of multi-level models, and Chris Skinner provided an excellent overview of progress to date in this area. Papers by Chantala and Suchindran and by Kovacevic and Huang provided further insights into the performance of currently available techniques.

Bengt Muthén and Tihomir Asparouhov introduced Mplus and demonstrated its efficiency and flexibility for latent variable models. The software is being developed in conjunction with leading edge research in social science methodology, and the complex survey project will make it even more useful. The discussions of the application papers were also greatly enhanced by the contributions of the Mplus team.

The workshop provided an opportunity for a review of the accomplishments of the SAMSI theme year on latent variable models, by its leader, Ken Bollen.

One gratifying feature of the workshop was the high quality of the presentations, and of the analyses put forward. It is very good for statisticians and social scientists each to see the something of the best of what the other has to offer.