



## Workshop

## **SUNOVA**

### Statistics with Unobservable Variables



## May 15, 2012 Sala Biblioteca, Faculty of Economics

Via S. Faustino, 74/b – Brescia

#### University of Brescia

Statistical methods and models assuming the existence of not directly observable variables are extensively used in every modern research area. This Workshop highlights the opportunities offered by some of the most advanced statistical approaches that make use of unobservable variables. It will include a Morning Session on presentation of selected studies, focused on both theoretical and practical problems, and an Afternoon Session targeting for more in-depth discussion.

#### 10.00-10.15 INTRODUCTION

MAURIZIO CARPITA University of Brescia

#### 10.15-13.15 MORNING SESSION - COMMUNICATIONS

#### IRT TEST EQUATING IN COMPLEX LINKAGE PLANS

MICHELA BATTAUZ University of Udine

#### MEASURING LATENT VARIABLES IN PRESENCE OF ORDINAL MANIFEST VARIABLES

GIUSEPPE BOARI, GABRIELE CANTALUPPI Università Cattolica del Sacro Cuore of Milano

#### KNOWLEDGE OF HEALTHCARE WORKERS ABOUT SUDDEN INFANT DEATH SYNDROME

GIOVANNA BOCCUZZO University of Padova

## RELIABILITY MEASUREMENT FOR POLYTOMOUS ORDINAL ITEMS:

THE EMPIRICAL POLYCHORIC ORDINAL ALPHA

ANDREA BONANOMI, SILVIA OSMETTI, MARTA NAI RUSCONE Università Cattolica del Sacro Cuore of Milano





# SELECTING A GENERALIZED MULTIDIMENSIONAL RASCH MODELS USING THE DEVIANCE STATISTIC: A CASE STUDY VALERIA CAVIEZEL, LUCIO BERTOLI-BARSOTTI, SERGIO ORTOBELLI University of Bergamo

A MULTI-GROUP SEM-GME WITH RASCH MEASURES
ENRICO CIAVOLINO, MAURIZIO CARPITA University of Salento and University of Brescia

TOPIC MODELS: HOW TO SELECT LATENT VARIABLES FROM A TEXT FRANCESCA DE BATTISTI, SILVIA SALINI University of Milano

### EXPLORING DIFFERENTIAL ITEM ANALYSIS

SILVIA GOLIA University of Brescia

NONLINEARITY IN PARALLEL MEASUREMENTS OF UNOBSERVABLE VARIABLES
MARICA MANISERA, MAURIZIO CARPITA University of Brescia

BINOMIAL FACTOR ANALYSIS WITH THE MONTE CARLO EM ALGORITHM MARCO MINOZZO, CLARISSA FERRARI University of Verona

THE INDICATOR'S DILEMMA: REFLEXIVE OR FORMATIVE APPROACH?

ANNA SIMONETTO University of Brescia

## SELF ASSESMENT OF SIDE EFFECTS IN CHEMOTHERAPY CYCLE: A LONGITUDINAL ANALYSIS USING MRM

CHIARA ZANAROTTI, LAURA PAGANI Università Cattolica del Sacro Cuore of Milano and University of Udine

VARIABLE IMPORTANCE MEASURES AS A TOOL TO EXTRACT THE UNOBSERVED ROLE OF COVARIATES FROM THE BLACK BOX OF AN ALGORITHMIC MODEL PAOLA ZUCCOLOTTO, MARIKA VEZZOLI University of Brescia

13.15-14.30 LUNCH

14.30-16.00 AFTERNOON SESSION - DISCUSSION

With the support of the Faculty of Economics of the University of Brescia.

Participation is free but registration is required:

please send an e-mail with your name and affiliation to <a href="mailto:carpita@eco.unibs.it">carpita@eco.unibs.it</a>.