

TIME TABLE AND INDEX

Wednesday - June 19, 2013

9.00 – 9.30 WELCOME ADDRESS

9.30 – 10.45 CONT-M1.1 - SPATIAL DATA & SERVICES

Chairman: Luca Romagnoli

- Semiparametric estimators of dose-response functions
Bia M., Mattei A., Flores C., Flores-Lagunes A.
- Approximate likelihood inference via dimension reduction for multidimensional binary panel data
Bianconcini S., Cagnone S., Rizopoulos D.
- A LCA approach for allocation of employees to local units
Di Cecco D., Filipponi D., Rocchetti I.
- A georeferenced IRT approach for the localization of public services
Di Zio S., Fontanella L.
- An application of the Structural Equation Modelling to the evaluation of public services supply
Raiola C.

9.30 – 10.45 CONT-M1.2 - FINANCE & ECONOMICS

Chairman: Alessandra Luati

- Small and medium-sized firms and the current financial and economic crisis: a statistical perspective
Chiodini P.M., Colapinto C., Gavinelli L., Zenga M.
- The real time ability of financial and real variables in nowcasting
Frenda A., Scippacercola S., D'Ambra L.
- Survival models for credit risk estimation
Madormo F., Mecatti F., Figini S.
- A multilevel approach for repeated cross-sectional data: an application on auction prices
Modugno L., Giannerini S., Cagnone S.
- A Multivariate Latent Stochastic Volatility
Pierini A.F., Maruotti A.

9.30 – 10.45 CONT-M1.3 - ICT & ROBUSTNESS

Organizer: Rosaria Lombardo - **Chairman:** Biagio Simonetti

- Business failure prediction in manufacturing: a robust Bayesian approach to discriminant scoring
Baussola M., Bartoloni E., Corbellini A.
- Robust classification in market research
Morelli G.
- Non-Metric PLS Path Modeling: the job success of Sapienza graduates
Petrarca F.
- Structural Equation Mixture Modeling: an application to Tuenti Spanish Online Social Networking Site
López C., Apaolaza V., Hartmann P.
- Compulsive usage of Internet and mobile phone by teenagers: a new empirical evidence
Maggio S., Cappello C., Pellegrino D.ù

Chairman: Stefano Campostrini

- Modelling correlated consumers' preferences
Corduas M.
- Customer Satisfaction and Compositional Biplot
Gallo M.
- A latent growth curve analysis in banking customer satisfaction
Liberati C., Mariani P., Masserini L.
- A statistical model for the strategic quality management in the tourist harbours
Maggio S., Raffaele G.
- A new mixture model for composition and size
Ongaro A., Migliorati S.

Chairman: Enrico Ciavolino

- A New PCA Method for Intuitionistic Fuzzy Sets Based on Cross-Entropy
Fatemi A., Faroughi P., Darvishi S.
- A Generalized Maximum Entropy (GME) approach to crisp-input/fuzzy-output regression
Calcagni A.
- A fuzzy approach to measure well-being in European regions
Milioli M.A., Berzieri L., Zani S.
- A Measure of the Satisfaction by Fuzzy Set Theory
De Battisti F., Marasini D., Nicolini G.
- Never leave a job undone. Fuzzy Markov chains for Italian university students' retention
Crippa F., Mazzoleni M., Zenga M.

Organizer and Chairman: Alessandro Fassò - **Discussant:** Marco Minozzo

- Bayesian analysis of the multivariate dependence of three transitional water ecosystem classifications
Pollice A., Arima S., Jona Lasinio G., Basset A., Rosati I.
- Coherency in space of lake and river temperature and water quality records
Scott M., Miller C., Finazzi F., Haggart R.
- Tapering Space-Time Covariance Functions
Porcu E., Zastavnyi V., Bevilacqua M.

Organizer and Chairman: Francesca Bassi - **Discussant:** Bruno Scarpa

- Separating between- and within-group associations and effects for categorical variables
Croon M.A., Bennink M.
- A Bayesian nonparametric model for data on different scale of measure; an application to customer base management of telecommunications companies
Canale A., Dunson D.B.
- Market segmentation via mixtures of constrained factor analyzers
Greselin F., Ingrassia S.

11.15 – 12.30 SOLI-M1.1 - LATENT MODELS IN FINANCIAL RISK MANAGEMENT

Organizer: Francesca Bassi - **Chairman:** Paolo Giudici

- Robust Credit Stress Testing Through a Cointegrated Framework
Bellini T.
- Markov Switching GARCH models for Bayesian Hedging on Energy Futures Markets
Billio M., Casarin R., Osuntuyi A.
- High-frequency modeling for VWAP based trading strategies: a Generalized Autoregressive Score approach
Calvori F., Cipollini F., Gallo G.M.
- Investigating stock market behavior using a multivariate Markov-switching approach
Cavaliere G., Costa M., De Angelis L.

11.15 – 12.30 CONT-M1.6 - TEXT ANALYSIS & CONTINGENCY TABLES

Chairman: Silvia Salini

- Clustering the Corpus of Seneca. A Lexical-Based Approach
Cantaluppi G., Passarotti M.
- Non-Symmetric Three-way Correspondence Analysis to Analyse Text Data in a Food Context
Lombardo R., Beh E.J., Guerrero L.
- Mixture versus loglinear models in contingency table analysis
Rapallo F.
- Text Analytics: a Big Data Challenge
Altomonte V.

11.15 – 12.30 CONT-M1.7 - PRINCIPAL COMPONENT ANALYSIS & IMPUTATION

Organizer: Rosaria Lombardo - **Chairman:** Pasquale Sarnacchiaro

- Predictive Mean Matching with Latent Variables, an application to the Business Census Survey
Varriale R., Guarnera U.
- Sparse vs. simple structure loadings
Trendafilov N., Adachi K.
- Sparse orthogonal factor analysis
Adachi K., Trendafilov N.
- Permutation testing for validating PCA
Endrizzi I., Gasperi F., Rødbotten M., Næs T.
- Multiple TAU decomposition in mean effect and interaction term
D'Ambra A., Crisci A.

12.30 – 13.30 PLENARY M1 - FIFTY YEARS OF THREE-MODE DATA ANALYSIS: PAST, PRESENT, PROBLEMS AND PROSPECTS

Chairman: Rosaria Lombardo - **Speaker:** Pieter M. Kroonenberg

13.30 – 14.30 LUNCH

14.30 – 15.45 SPEC-A1.1 - FINITE MIXTURE MODELS FOR COMPLEX DATA STRUCTURE

Organizer and Chairman: Francesco Lagona - **Discussant:** Antonello Maruotti

- A nonparametric multidimensional latent class IRT model in a Bayesian framework
Bartolucci F., Farcomeni A., Scaccia L.
- Smooth Nonparametric Heterogeneity Estimation with an Application to Meta-Analysis
Böhning D.
- Latent drop-out hidden Markov models with random effects
Marino M.F., Alfò M.

14.30 – 15.45 SPEC-A1.2 - THE LATENT VARIABLES HIDDEN IN THE TEXTS

Organizer and Chairman: Pier Alda Ferrari - **Discussant:** Stefano Iacus

- Finding Scientific Topics Revisited
Ponweiser M., Grün B., Hornik K.
- A decade of research in Statistics: a topic model approach
De Battisti F., Ferrara A., Salini S.
- Mining the ambiguity: correspondence and network analysis for discovering word sense
Stawinoga A.E., Balbi S.

14.30 – 15.45 SPEC-A1.3 - GRAPHICAL MARKOV REPRESENTATION OF LATENT STRUCTURES

Organizer and Chairman: Alberto Roverato - **Discussant:** Luca La Rocca

- Graphical Latent Structure Tests
Evans R.
- Identification of principal causal effects using secondary outcomes
Mealli F., Pacini B., Stanghellini E.
- Bayesian Analysis of Discrete Bi-directed Graphical Models via Augmented DAG Representation
Tarantola C., Ntzoufras I.

14.30 – 15.45 SOLI-A1.1 - BAYESIAN MODELS IN ECONOMICS AND FINANCE

Organizer and Chairman: Lea Petrella

- Fundamentals and contagion in the euro area sovereign bond crisis: a Markov switching approach
Amisano G.G., Tristani O.
- Bayesian quantile regression for tail risk interdependence
Bernardi M., Gayraud G., Petrella L.
- What Makes Residential Different from Non-Residential REITs? Evidence from Multi-Factor Asset Pricing Models
Bianchi D., Guidolin M., Ravazzolo F.
- A Bayesian Stochastic Correlation Model for Exchange Rates
Casarin R., Tronzano M., Sartore D.

14.30 – 15.45 SOLI-A1.2 - SPACE AND SPACE-TIME MODELS B: METHODS AND ENVIRONMENTAL APPLICATIONS

Organizer: Alessandro Fassò - **Chairman:** Giovanna Jona Lasinio

- Functional Data Modeling in climatology
Ignaccolo R.
- The INLA approach for disease mapping and health risk assessment
Cameletti M.
- Hierarchical spatio-temporal models for short-term predictions of air pollution data
Bruno F., Paci L.
- Dynamic models for environmental variables
Valentini P., Di Battista T.

15.45 – 16.45 PLENARY A1 - ADVANCES IN ESTIMATION OF LARGE HIERARCHICAL SPATIO-TEMPORAL MODELS

Chairman: Daniela Cocchi - **Speaker:** Håvard Rue

16.45 – 17.15 COFFEE BREAK
17.15 – 18.30 SPEC-A1.4 - LATENT VARIABLES IN CAUSAL INFERENCE

Organizer: Fabrizia Mealli - **Chairman:** Carla Rampichini - **Discussant:** Elena Stanghellini

- A direct likelihood approach to principal stratification analysis
Frumento P., Mealli F., Pacini B., Rubin D.
- Bayesian Inference for Fuzzy Regression Discontinuity Designs
Li F., Mattei A., Mealli F.
- Ignoring the matching variables in cohort studies - when is it valid, and why?
Sjölander A.

17.15 – 18.30 SOLI-A1.3 - ADVANCES IN RASCH ANALYSIS

Organizer and Chairman: Silvia Golia

- The Rasch model for measurement and the role of statistical modeling
Salzberger T.
- Assessment of item correlation in Rasch models
Kreiner S., Christensen K.B.
- Visualizing Similarities in the Rasch Model response patterns with VOSviewer
Lando T.

17.15 – 18.30 SOLI-A1.4 - UNOBSERVABLE FEATURES DETECTION IN FINANCE

Organizer: Paola Zuccolotto - **Chairman:** Giovanni De Luca

- A thick modeling approach to multivariate volatility prediction
Amendola A., Storti G.
- Volatility Dependent Conditional Correlation Models
Bauwens L., Otranto E.
- Proximity-structured multivariate volatility models for systemic risk
Billio M., Caporin M., Frattarolo L., Pelizzon L.
- Likelihood inference for marked DSPPs with intensity driven by latent MPPs
Centanni S., Minozzo M.

17.15 – 18.30 SOLI-A1.5 - ADVANCES IN LONGITUDINAL DATA ANALYSIS

Organizer: Francesco Lagona - **Chairman:** Francesca Martella

- Alternative solutions to the initial conditions problem in dynamic binary panel data models with time-dependent unobserved heterogeneity
Maruotti A.
- Analysis of multivariate mixed longitudinal data: a flexible latent process approach
Proust-Lima C., Amieva H., Jacqmin-Gadda H.
- Modelling longitudinal data through matrix-variate normal mixtures
Viroli C., Anderlucci L.
- Sparse Nonparametric Graphical Models for Random Effect Distribution in GLMMs
Viviani S., Alfò M., Brutti P.

17.15 – 18.30 SOLI-A1.6 - SPACE AND SPACE-TIME MODELS C: METHODS AND APPLICATIONS

Organizer: Alessandro Fassò - **Chairman:** Luigi Ippoliti

- The estimation of latent temporal patterns in multivariate geolocated time series
Finazzi F., Scott M.
- A latent variable approach to modelling multivariate geostatistical skew-normal data
Bagnato L., Minozzo M.
- A latent variables based-model for spatiotemporal environmental analysis
De Iaco S., Palma M., Posa D.
- A latent variable approach for clustering a spatial network
Pauli F., Torelli N., Zaccarin S.

18.30 – 20.00 POSTER SESSION

19.00 – 20.00 WELCOME COCKTAIL

Thursday - June 20, 2013

8.45 – 10.00 SPEC-M2.1 - DYNAMIC MODELS WITH LATENT VARIABLES

Organizer and Chairman: Alessandra Amendola - **Discussant:** Marcella Corduas

- Network estimation in econometrics
Barigozzi M., Brownlees C.
- Macroeconomic forecasting through regularized reduced-rank regression
Bernardini E., Cubadda G.
- Fast indirect estimation of latent factor models with conditional heteroskedasticity
Aielli G.P., Calzolari G., Fiorentini G.

8.45 – 10.00 SPEC-M2.2 - ISSUES IN ESTIMATING COMPLEX LATENT TRAIT AND LATENT CLASS MODELS

Organizer and Chairman: Stefania Mignani - **Discussant:** Fulvia Pennoni

- A classification of university courses based on students satisfaction: an application of a three-level mixture Item Response Theory (IRT) model
Bacci S., Gnaldi M.
- Bayesian Estimation of Item Response Theory Models with Power Priors
Matteucci M., Veldkamp B.P.
- A weighted pairwise likelihood estimator for a class of latent variable models
Vasdekis V., Rizopoulos D., Moustaki I.

8.45 – 10.00 SPEC-M2.3 - SENSORIAL DATA ANALYSIS

Organizer: Rosaria Lombardo - **Chairman:** Walter Maffenini - **Discussant:** Marica Manisera

- Identification of clusters and underlying latent components in sensory analysis
Vigneau E.
- Hedonic Price for Italian wine
Levaggi R., Zuccolotto P.
- A proposal for handling ordinal categorical variables in Co-Inertia Analysis
Amenta P., Lucadamo A.

8.45 – 10.00 SOLI-M2.1 - MEASURES OF HIGHER EDUCATION HUMAN CAPITAL

Organizer and Chairman: Luigi Fabbris

- What employers prefer in graduates' attributes and skills
van der Velden R., Humburg M.
- Evaluation of human capital in education-based perspective
Zavarrone E., Simonetto A.
- Measuring Human Capital in Higher Education
Lovaglio P.G., Vacca S., Verzillo S.
- Educational investments to guarantee graduates' human capital effectiveness
Martini M.

8.45 – 10.00 CONT-M2.1 - MEDICINE

Chairman: Paola Zuccolotto

- Cognitive deterioration in cancer patients using logistic quantile regression
Columbu S., Bottai M.
- On Latent Conditional Distributions as Elicited from Medical Experts
Magrini A., Luciani D., Stefanini F.M.
- The study of length of stay of patients in the geriatric ward using the Coxian phase-type distribution: the Emilia Romagna example
Marshall A.H., Mitchell H., Zenga M.
- Uses of Structural Equation Models to downstream analysis of comparative microarray data
Pepe D., Guido D., Grassi M.

Chairman: Giuseppe Bove - **Speaker:** Renato Coppi

11.00 – 11.30 COFFEE BREAK
11.30 – 12.45 SPEC-M2.5 - ESSAYS IN ANCHORING VIGNETTES

Organizer: Francesca Bassi - **Chairman:** Omar Paccagnella - **Discussant:** Silvia Salini

- Changes in disability reporting in the US and the Netherlands
Bago D'Uva T., Kapteyn A., van Doorslaer E., van Soest A.
- Alternative weighting structures for multidimensional poverty assessment
Cavapozzi D., Han W., Miniaci R.
- A comparison of parametric and non-parametric adjustments using vignettes for self-reported data
Jones A.M., Rice N., Robone S.

11.30 – 12.45 SOLI-M2.2 - LATENT VARIABLES IN MEDICINE

Organizer: Pier Alda Ferrari - **Chairman:** John Thompson

- Regression to the mean
Biggeri A., Catelan D., Baccini M.
- Process evaluation using latent variables: applications and extensions of finite mixture models
Emsley R.A., Dunn G.
- Three-step estimation of latent Markov models with covariates and possible dropout
Bartolucci F., Montanari G.E., Pandolfi S.
- Identification of dietary patterns using partial least square regression
De Carli A., Rosato V., Edefonti V., Ferraroni M.

11.30 – 12.45 SOLI-M2.3 - ADVANCES IN SPATIAL ECONOMETRICS

Organizer and Chairman: Paolo Postiglione

- Methods for the identification of spatial latent regimes
Andreano M.S., Benedetti R.
- Measuring spatial clustering of firms while controlling for latent spatial heterogeneity. An approach based on micro-geographic data
Giuliani D., Dickson M.M., Espa G.
- Gaussian state-space models of housing prices in the US
Nissi E., Rapposelli A., Valentini P.
- Developing a Composite Index by using Spatial Latent Modelling based on IT estimation
Bernardini Papalia R., Ciavolino E.

11.30 – 12.45 SOLI-M2.4 - SENSORY ANALYSIS IN ACTION

Organizer: Eugenio Brentari - **Chairman:** Mario Fregoni

- Sensory evaluation of wine in Italy and statistical analysis
Odello L.
- A statistical analysis on sensory data: the Italian espresso case study
Iannario M., Manisera M.
- Evaluating the Italian wine quality with the CRAGGING approach
Vezzoli M.
- Sensory Analysis and Statisticians: a summary of a sensory event
Lussignoli M.

11.30 – 12.45 INVI-M2.1 – LATENT MODELS

Organizer: Federation of European National Statistical Societies - **Chairman:** Maurizio Vichi

- Composite likelihood inference for a class of latent variable models for two factor clustering
Bartolucci F., Chiaromonte F., Kuruppumullage P., Lindsay B.G.
- How useful Bayesian inference could be in Model-based clustering?
Celeux G.
- Simplifying complex latent class modeling using bias corrected three-step approaches
Vermunt J.
- Latent Variables Models with Simple Structure for Clustering and Data Reduction
Vichi M.

12.45 – 14.00 LUNCH

14.00 – 15.15 SSPEC-A2.1 - FACTOR MODELS FOR MULTIVARIATE TIME SERIES ANALYSIS

Chairman: Angela Montanari - **Discussant:** Tommaso Proietti - **Speakers:** Daniel Peña and Marco Lippi

14.00 – 15.15 SSPEC-A2.2 - UNCOVERING THE LATENT STRUCTURE IN SENSORY DATA

Chairman: Pietro Amenta - **Speaker:** El Mostafa Qannari

15.15 – 16.30 SPEC-A2.1 - LATENT VARIABLES AND CAUSAL INFERENCE IN GENETICS

Organizer: Paola Zuccolotto - **Chairman:** Mario Pezzotti - **Discussant:** Cosetta Minelli

- Genetic Consortia, Risk Scores and Mendelian Randomization
Thompson J.
- Investigation of pleiotropy in Mendelian randomisation studies with continuous outcome using aggregate genetic data
Del Greco F.M., Jones E., Pramstaller P., Sheehan N., Thompson J.

15.15 – 16.30 SPEC-A2.2 - EXPLORATORY DATA ANALYSIS OF CONTINGENCY TABLES FOR LATENT VARIABLES

Organizer and Chairman: Luigi D'Ambra - **Discussant:** Pietro Amenta

- Adjusting the Aggregate Association Index for Large Samples
Beh E.J., Cheema S.A., Tran D., Hudson I.L.
- The Simple Sum Score Statistic in Taxicab Correspondence Analysis
Choulakian V.O.
- Generalized log odds ratio analysis for the association in two-way contingency table
Sarnacchiaro P., D'Ambra L., Camminatiello I.

15.15 – 16.30 SPEC-A2.3 - STATISTICS ON MANIFOLDS

Organizer: Luigi Ippoliti - **Chairman:** Tonio Di Battista - **Discussant:** Marco Alfò

- Some remarks on the Frechet means and the shape of the means in shape spaces
Kume A.
- Graphical methods for dimensionality reduction on manifolds
Fontanella L., Fontanella S., Romagnoli L.
- Studying hemodynamic forces via spatial regression models over non-planar domains
Ettinger B., Perotto S., Sangalli L.M.

15.15 – 16.30 SPEC-A2.4 - PLS PATH MODELING ON STRUCTURED DATA

Organizer and Chairman: Natale Carlo Lauro - **Discussant:** Luigi Fabbris

- Modelling with heterogeneity
Aluja T., Lamberti G., Sanchez G.
- Regularized Generalized Canonical Correlation Analysis and PLS Path Modeling
Tenenhaus A.

15.15 – 16.30 SOLI-A2.1 - LATENT VARIABLES IN TIME SERIES

Organizer and Chairman: Cira Perna

- A Nonlinear Panel Unit Root Test under Cross Section Dependence
Cerrato M., de Peretti C., Larsson R., Sarantis N.
- Testing hypothesis in VARs with I(2) and near-I(2) latent stochastic trends
Di Iorio F., Fachin S., Lucchetti R.
- The Generalised Autocovariance Function
Proietti T., Luati A.

15.15 – 16.30 SOLI-A2.2 - JOB SATISFACTION AND QUALITY OF WORK: MEASURES AND MODELS

Organizer and Chairman: Domenico Piccolo

- Quality of Work and Health Status
Addabbo T., Fuscaldo M., Maccagnan A.
- Modelling Job Satisfaction of Italian Graduates
Capecchi S., Ghiselli S.
- Comparative models for job satisfaction
Gambacorta R.
- Modelling Growth Trajectories of Job Satisfaction with Total Pay Using the Muthén-Roy Pattern-Mixture Model Approach
Salgueiro M.F.

16.30 – 17.30 SIS GENERAL ASSEMBLY

Friday - June 21, 2013

8.45 – 10.00 BES-M3.1 - THE BES AND THE CHALLENGES OF CONSTRUCTING COMPOSITE INDICATORS DEALING WITH EQUITY AND SUSTAINABILITY

Organizer and Chairman: Filomena Maggino - **Discussant:** Elena Tosetto

- Understanding equity in work through job quality: A comparative analysis between disabled and not disabled graduates by means of a new composite indicator
Boccuzzo G., Maron L.
- Measuring multidimensional polarization with ordinal data
Fattore M., Arcagni A.
- Composite Indices Building: A Comparison of Unbalance Adjustment Methods
Mazziotta M., Pareto A.

8.45 – 10.00 SPEC-M3.1 - LATENT VARIABLES IN DEMOGRAPHIC ANALYSIS

Organizer and Chairman: Stefano Mazzucco - **Discussant:** Daniele Vignoli

- Mortality by education level at late-adult ages in Turin: a survival analysis using frailty models with period and cohort approaches
Zarulli V., Marinacci C., Costa G., Caselli G.
- The Turkish second generation in Europe: family life trajectories and independence in the transition to adulthood
Barban N., de Valk H.A.G.
- Poverty and Social Exclusion in Europe: Differences and Similarities across regions in recent years
Pirani E.

8.45 – 10.00 SPEC-M3.2 - SPECIAL SYMBOLIC DATA ANALYSIS

Organizer: Maria Gabriella Grassia - **Chairman:** Natale Carlo Lauro – **Discussant:** Massimo Aria

- Multivariate Parametric Analysis of Interval Data
Brito P., Duarte Silva A.P., Dias J.G.
- Visualization and Analysis of Large Datasets by Beanplot PCA
Drago C., Lauro N.C., Scepi G.
- Dimension reduction techniques for distributional symbolic data
Irpino A., Verde R.

8.45 – 10.00 SPEC-M3.3 - STRUCTURAL EQUATION MODELS, COVARIANCE STRUCTURE ANALYSIS AND PLS

Organizer and Chairman: Giorgio Vittadini - **Discussant:** Maurizio Vichi

- Comparing Maximum Likelihood and PLS Estimators for Structural Equation Modeling with Formative Blocks
Dolce P., Lauro N.C.
- Generalized Redundancy Analysis
Lovaglio P.G., Boselli R.
- A unified approach to multi-block and multi-group data analysis
Tenenhaus M.

Organizer and Chairman: Giuseppe Boari

- A Study of Bias for Non-Iterative Estimates of the Linear-by-Linear Association Parameter from the Ordinal Log-Linear Model
Zafar S., Cheema S.A., Beh E.J., Hudson I.L.
- Global Evaluation of Reliability for a Structural Equation Model with Latent Variables and Ordinal Observations
Zanella A., Cantaluppi G.
- The Polychoric Ordinal Alpha, measuring the reliability of a set of polytomous ordinal items
Bonanomi A., Nai Ruscone M., Osmetti S.A.
- Simple Linear Measurement Error Model estimated via Generalized Maximum Entropy for Ordinal Data
Ciavolino E

Chairman: Donata Marasini

- Do educational systems affect earnings? A comparative analysis across countries and gender
Castellano R., Punzo G.
- Literacy in mathematics and reading and its association with cultural behaviors. A LCRA application
Porcu M., Tedesco N.
- Attitudes, motivations and emotions towards university study. A latent class approach
Giraldo A., Meggiolaro S., Visentin E., Mega C.
- University Effectiveness measured through Postgraduate Employability
Toninelli D., Biffignandi S.

Chairman: Carla Rampichini - **Speaker:** Anders Skrondal

Organizer and Chairman: Saverio Gazzelloni

- Vulnerability Measures in the BES Framework
Morrone A.
- Towards measuring the sustainability of well-being
Riccardini F.
- How to look at an unequal well-being
Rondinella T.

Organizer and Chairman: Paolo Giordani - **Discussant:** Renato Coppi

- SCREAM: A novel multi-way method for regression on tensors with shifts along one mode
Marini F., Bro R.
- A general framework for modelling covariances
Smilde A.K., Timmerman M.E., Saccenti E., Jansen J.J., Hoefsloot H.C.J.
- Adjusted Modeling to Deal with Fundamental Comparability Problems in Multiway Data
Van Mechelen I., Wilderjans T., De Roover K., Ceulemans E.

11.30 – 12.45 SPEC-M3.5 - FINITE MIXTURE MODELS FOR CATEGORICAL VARIABLES

Organizer: Carla Rampichini - **Chairman:** Mariano Porcu - **Discussant:** Ruggero Bellio

- A concomitant variable mixture model for predicting freshmen gained credits
Grilli L., Rampichini C., Varriale R.
- A finite mixture distribution for modelling overdispersion
Iannario M.
- Local dependence in latent class models: application to voting in elections
Oberski D.L.

11.30 – 12.45 SOLI-M3.3 - COMPOSITIONAL ANALYSIS

Organizer: Rosaria Lombardo - **Chairman:** Michele Gallo

- Compositional latent variables, logratios and logcontrasts: underlying concepts in multivariate methods for compositional data
Martin-Fernandez J.-A.
- Exploring compositional data with the robust compositional biplot
Hron K., Filzmoser P.
- Detecting compositional outliers using Comedian Method
Di Palma M.A., Srinivasan M.R., Sajesh T.A.
- Covariance-Based Outlier Detection for Compositional Data with Structural Zeros: Application to Italian Survey of Household Income and Wealth Data
Monti G.S., Hron K., Filzmoser P., Templ M.

11.30 – 12.45 CONT-M3.2 - LATENT VARIABLES APPROACHES

Chairman: Silvia Cagnone

- Construct identification strategies of composite variables in Structural Equation Modelling: a Monte Carlo simulation study
Guido D., Pepe D., Grassi M.
- Single-Indicator SEM with Measurement Error. Case of Klein I Model
Sagan A., Pawełek B.
- A least squares approach to latent variables extraction in formative-reflective models
Fattore M., Pelagatti M.M.
- Across-Regime Correlation in a Switching Regression Model: A FIML Approach
Di Pino A., Calzolari G.
- Using SAS PROC MCMC to Estimate and Evaluate Item Response Theory Models
Stone C.

12.45 – 14.00 LUNCH

14.00 – 15.15 BES-A3.1 - THE COMMON PATH TO FACE THE CHALLENGES OF EQUITABLE AND SUSTAINABLE WELL-BEING

Chairman: Innocenzo Cipolletta - **Speakers:** Giorgio Sirilli, Mauro Agnoletti and Saverio Gazzelloni

14.00 – 15.15 SOLI-A3.1 - LATENT TRAITS FOR EDUCATIONAL MODELS

Organizer and Chairman: Giorgio Vittadini

- Measurement error modeling in regression models with IRT measures as covariates
Battaui M., Bellio R.
- Specification of random effects in multilevel models: an overview with focus on school effectiveness
Rampichini C., Grilli L.
- Studying employment pathways of graduates by a latent Markov model
Pennoni F.
- Measuring school achievement in latent groups of students defined by their compliance behavior
Roli G., Monari P.

14.00 – 15.15 CONT-A3.1 - LATENT CLASS ANALYSIS

Chairman: Cinzia Viroli

- Italian households' financial product ownership over time: a latent class Markov model for dynamic segmentation
Bassi F.
- Marginal Models for Multivariate Hidden Markov Processes
Colombi R., Giordano S.
- Purchasing in European Union: a multilevel latent class application
Dal Bianco C., Paccagnella O., Varriale R.
- Latent class Markov models for measuring longitudinal fuzzy poverty
Marano G., Betti G., Gagliardi F.

14.00 – 15.15 CONT-A3.2 - GENDER, SOCIAL AND GEOGRAPHICAL DIFFERENCES

Chairman: Letizia Mencarini

- Studying poverty over time: an analysis by gender and age in Europe
Busetta A., Mendola D.
- The Italian Couples' Division of Labour after a Birth: Do Gender Attitudes Matter?
Campolo M.G., Di Pino A., Rizzi E.L.
- Analyzing female and male conditions in labour market: where is gender discrimination?
Castellano R., Rocca A.
- How does human capital affect partnership transitions? Evidence of complex contingencies in a multi-country sample
Ferrari G., Macmillan R.
- Sub-national Differences in Leaving Lowest-low Fertility in Italy
Vitali A., Billari F.C.

15.15 – 16.45 PLENARY A3-BES - MEASURING THE PROGRESS OF SOCIETIES: A KEY TOOL TO IMPROVE POLICY MAKING AND SOCIETAL WELL-BEING

Chairman: Cristina Freguja - **Speakers:** Marleen De Smedt, Linda Laura Sabbadini, Maria Teresa Salvemini

16.45 – 17.00 CLOSING CEREMONY