SIS
2018

49 TH SCIENTIFIC MEETING
OF THE ITALIAN
STATISTICAL SOCIETY

PALERMO 20–22 JUNE
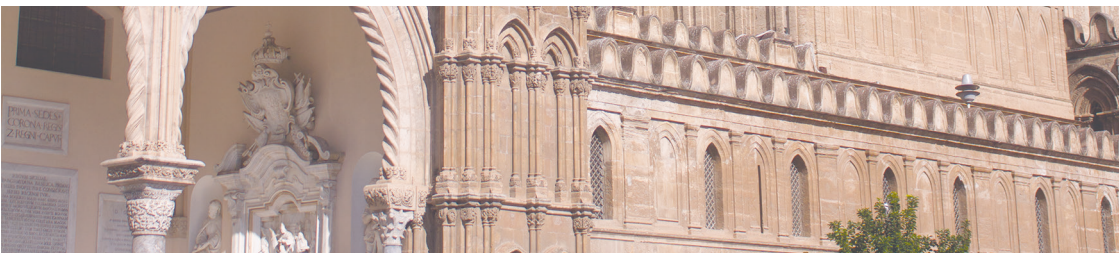
WELCOME TO SIS 2018

For the year 2018, the **49th Meeting of the Italian Statistical Society** (**SIS**) will be held in the lovely city of **Palermo** -known for its natural beauty and rich in precious monumental art-, which was elected this year **Italian Capital of Culture** and host of **Manifesta 12** (https://www.palermocapitalecultura.it/).

The **Italian Statistical Society** (**SIS**) was founded in 1939; it promotes every two years an international scientific meeting, in which both methodological and applied statistical research are considered.
Today there are about one thousand members including scholars in statistical methodology, probability, social and economic statistics, biostatistics and demography.

The 49th Meeting of the Italian Statistical Society will be hosted by the **University of Palermo** (**UNIPA**): established in 1806 by Ferdinand III of Bourbon, is to date one of the largest universities in Italy and indeed the largest in Sicily.

SCIENTIFIC PROGRAM COMMITTEE

Eugenio Brentari	*— Chair, University of Brescia*
Marcello Chiodi	*— Local organizing committee Chair, University of Palermo*
Filomena Racioppi	*— General Secretary of SIS, University of Rome*
Monica Pratesi	*— Past Chair, University of Pisa*
Anna Maria Bianchi	*— University of Bergamo*
Francesco Chelli	*— Marche Polytechnic University*
Andrea Cutillo	*— Italian National Institute of Statistics*
Alessandra De Rose	*— Sapienza University of Rome*
Daniele Durante	*— Bocconi University of Milan*
Fedele Pasquale Greco	*— University of Bologna*
Leonardo Grilli	*— University of Florence*
Piero Manfredi	*— University of Pisa*
Marica Manisera	*— University of Brescia*
Antonietta Mira	*— Università della Svizzera Italiana*
Marcella Niglio	*— University of Salerno*
Francesco Palumbo	*— Federico II University of Naples*
Elvira Romano	*— Second University of Naples*
Nicola Tedesco	*— University of Cagliari*

LOCAL PROGRAM COMMITTEE

Marcello Chiodi	*— Chair*
Maria Felice Arezzo	*— SIS tresaurer*
Antonino Abbruzzo	
Giada Adelfio	
Massimo Attanasio	
Luigi Augugliaro	
Giovanni Boscaino	
Francesca Cracolici	
Miranda Cuffaro	
Stefano De Cantis	
Francesca Di Salvo	
Ornella Giambalvo	
Gianfranco Lovison	
Angelo Mineo	
Vito Muggeo	
Giuseppe Notarstefano	
Davide Piacentino	
Antonella Plaia	
Antonella Ruggieri	
Mariangela Sciandra	
Erasmo Vassallo	
Elli Vassiliadis	

WEB MANAGERS: Luigi Augugliaro, Antonino Abbruzzo
PROGETTO GRAFICO: Laura Scopazzo

INFO

GENERAL INFO ---
All information concerning
the *49th SIS Scientific Meeting* are
available at http://meetings3.
sis-statistica.org/index.php/
sis2018/49th.

WIFI ---
EDUROAM Internet connection
is available: please be sure to bring
your EDUROAM credentials.

BOOK EXPOSITION ---
During the Conference you can visit
the book exposition of Springer and
Pearson Editors.

BREAKS ---
Lunch and Coffee Breaks will take
place in the Building 19 (University
Campus, Viale delle Scienze).

**FREE BUS SERVICE TO REACH THE
CONFERENCE ---**
A **free bus service** will be available
to reach the Conference Venue from
the city center. The number of seats
is limited.
—DAY 20/06/2018
08:00 AM › From Piazza Verdi to Viale
delle Scienze Building 19
07:30 PM › From Viale delle Scienze
Building 19 to Piazza Verdi
—DAY 21/06/2018
08:00 AM › From Piazza Verdi to Viale
delle Scienze Building 19
07:30 PM › From Viale delle Scienze
Building 19 to Piazza Verdi
—DAY 22/06/2018
08:00 AM › From Piazza Verdi to Viale
delle Scienze Building 19
05:30 PM › From Viale delle Scienze
Building 19 to Piazza Verdi

HOW TO REACH PALERMO ---
An airport taxi service is available at
the arrivals exit of Palermo airport.
You can also call the taxi service:
(Trinacria)
+39 091-225455
+39 091 6878
(Autoradio taxi)
+39 091-513311
+39 091 8481

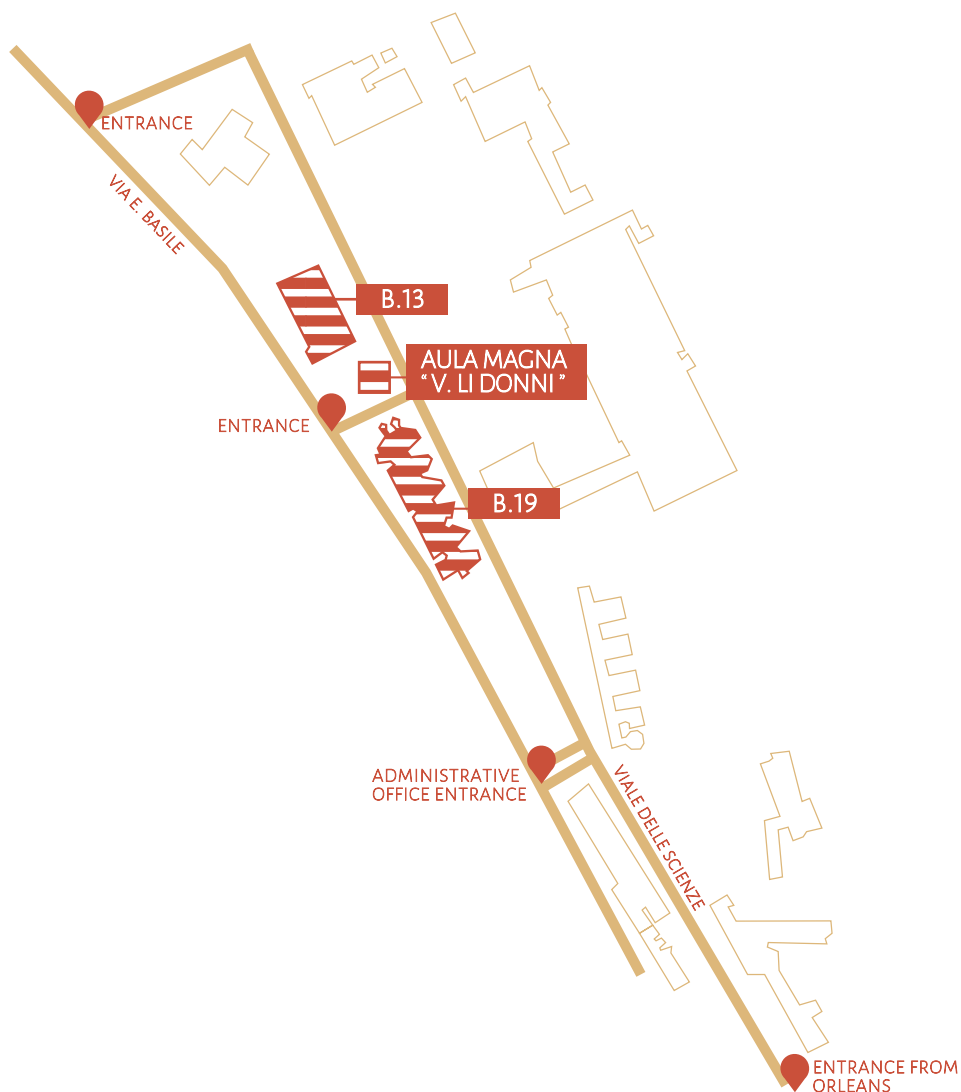For further information, please visit:
http://www.gesap.it/en/aeroporto/
arrive-at-the-airport/connections/ .

**PALERMO ITALIAN CAPITAL OF
CULTURE 2018 ---**
The 49th Meeting of the Italian
Statistical Society (SIS) is one of the
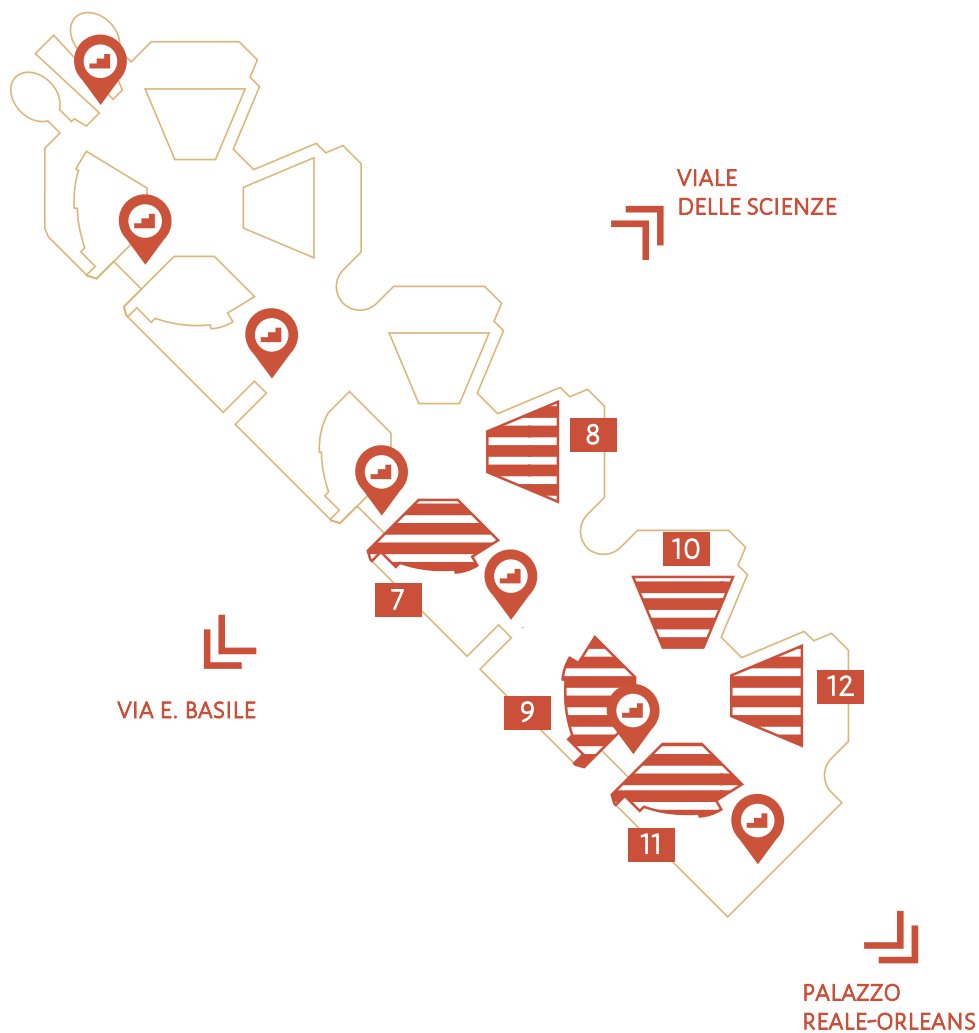events of Palermo Italian Capital of
Culture 2018.

VENUE

The **49th SIS Scientific Meeting** will take place at the **University of Palermo**, on June 20-22 2018.

UNIVERSITY CAMPUS

ENTRANCE

VIA E. BASILE

B.13

AULA MAGNA "V. LI DONNI"

ENTRANCE

B.19

ADMINISTRATIVE OFFICE ENTRANCE

VIALE DELLE SCIENZE

ENTRANCE FROM ORLEANS

M PALAZZO REALE-ORLEANS

VIALE
DELLE SCIENZE

8

10

12

7

VIA E. BASILE

9

11

PALAZZO
REALE–ORLEANS

EVENTS

WELCOME COCKTAIL

The **Welcome Cocktail** will be held at **Palazzo Steri** (also known as Palazzo Chiaramonte), **Piazza Marina 59**, at 20:30 on *Wednesday 20th*.
The **SUS**[4] Award Ceremony will take place during the cocktail at *Sala delle Capriate* (Palazzo Steri).

To reach Palazzo Steri from the University Campus (Viale delle Scienze), go to the **bus stop** located in **via Ernesto Basile** (near the Engineering Building), and take **bus n.234** -direction: Stazione Centrale. Once arrived at the Stazione Centrale, proceed trough **via Lincoln**, turn left and take **Corso dei Mille** and then go straight through **via Giuseppe Garibaldi**; when you reach the roundabout, take **via Schiavuzzo** until you arrive at **via Castrofilippo**, through which you'll reach **via Lungarini**; go straight until you arrive in **Piazza Marina**, where Palazzo Steri is.

SOCIAL DINNER

The **Social Dinner** will be held at the **Orto Botanico** of the University of Palermo, **Via Lincoln 2**, at 21:00 on *Thursday 21th*.

To reach the Orto Botanico from the University Campus (Viale delle Scienze), go to the **bus stop** located in **via Ernesto Basile** (near the Engineering Building); from here, you can either take **bus n. 234** (direction: Stazione Centrale) or **bus n.109** (direction Stazione Centrale). Once you arrive at the **Stazione Centrale**, go straight through via Lincoln until you arrive at the **Orto Botanico**.

ISTAT ANNUAL REPORT

The **Annual Report of the ISTAT** will be held by **President Giorgio Alleva** at Building 13 (Aula Magna "V. Li Donni") on Friday 22 June.
This event will be open to anyone who is interested -you do not need to be registered to attend.

SATELLITE MEETINGS

This year there will be two Satellite Meetings: **Stats under the Stars**[4] (**SuS**[4]) and **Start Up Research (Follow Up)**.

—STATS UNDER THE STARS[4]

Stats Under the Stars is an event that aims to build a bridge between youth and statistics; in this occasion, the utility of statistics as fundamental instrument from the point of view of decisions will emerge.
The fourth edition of **Stats Under the Stars** (https://www.unipa.it/dipartimenti/seas/sus4/) will be held in Palermo during the *night between 19 and 20 June* (starting at 19:00) at the courtyard of the "School of Law and Socio-Economic Studies" and at the "Law Department" (located in via Maqueda 172, former "Monastero dei Teatini"), where the participant teams will challenge in the analysis of a dataset.

—START UP RESEARCH (FOLLOW UP)

Start Up Research 2017 was a 2-day meeting where small research groups of young scholars, advised by senior researchers with a well-established experience in different areas of Statistics, were asked to develop innovative methods and models to analyze a common dataset from the Neurosciences.
This year, the groups will present and discuss the scientific output of their works after one year of research. This follow-up will be also an occasion to announce additional positive results obtained by Start Up Research.
The **follow-up** (http://www.congressi.unisi.it/startupresearch/sur2018/) will be held at the "Aula Chiazzese" of the Law Department, on *June 19.*

GENERAL PROGRAM

WEDNESDAY 20 JUNE

8:30 - 9:30 —B.19
REGISTRATION

9:00 - 10:00 —B.13
AULA MAGNA "V. LI DONNI"
WELCOME ADDRESS

10:00 - 11:00 —B.13
PLENARY SESSION

AULA MAGNA "V. LI DONNI" | **PL1** A New Paradigm for Rating Data Models

11:00 - 11:30 —B.19
COFFEE BREAK

11:30 - 13:00 —B.19
SPECIALIZED SESSIONS

ROOM 07 | **SP1.1** Being Young and Becoming Adult in the Third Millennium: Definition Issues and Processes Analysis

ROOM 08 | **SP1.2** Young Contributions to Statistical Learning

ROOM 09 | **SP1.3** Forensic Statistics

ROOM 10 | **SP1.4** New Perspectives in Time Series Analysis

ROOM 11 | **SP1.5** Emerging and re-Emerging Threats from Infections: Global Diffusion Models and Policy Perspectives

13:00 - 13:30 —B.19
POSTER SESSION

ROOM 12
SPEED PRESENTATION 1

13:30 - 14:30 —B.19
LUNCH

14:30 - 15:40 —B.19
SOLICITED SESSIONS

ROOM 07 | **SO1.1** Statistical Models for Sports Data

ROOM 08 | **SO1.2** Network Data Analysis and Mining

ROOM 09 | **SO1.3** Recent Advances on Extreme Value Theory

ROOM 10 | **SO1.4** Pursuing the Sustainable Development Goals: Inequality and Territorial Distribution of Socio-Economic Well-Being and Sustainability

ROOM 11 | **SO1.5** Environmental Processes, Human Activities and Their Interactions

ROOM 12 | **SO1.6** New Sources, Data Integration and Measurement Challenges for Estimates on Labour Market Dynamics

15:40 - 17:00—B.19
SPECIALIZED SESSIONS

ROOM 07 | **SP1.6** BDsports – Statistics in Sports

ROOM 08 | **SP1.7** Bayesian Nonparametric Learning

ROOM 09 | **SP1.8** Integration Surveys and Register Based Statistics: Past, Present and Future

ROOM 10 | **SP1.9** Economic Statistics and Big Data

ROOM 11 | **SP1.10** Quality of Life: Definition, Measures and Policy Implications

17:00 - 17:20 —B.19
COFFEE BREAK

17:20 - 18:30 —B.19
SOLICITED SESSIONS

ROOM 07 | **SO1.7** Quantile and Generalized Quantile Methods

ROOM 08 | **SO1.8** Statistical Models for Service Quality

ROOM 09 | **SO1.9** New Perspectives in Supervised and Unsupervised Classification

ROOM 10 | **SO1.10** Spatial Economic Data Analysis

ROOM 11 | **SO1.11** The Second Generation at School

ROOM 12 | **SO1.12** Tourism: Destinations, Household, Firms

18:30 - 19:30 —B.19
CONTRIBUTED SESSIONS

ROOM 07 | **CO1.1** Statistical Analysis of Energy Markets

ROOM 08 | **CO1.2** Statistics for Financial Risks

ROOM 09 | **CO1.3** Tourism & Cultural Participation

ROOM 10 | **CO1.4** Recent Developments in Bayesian Inference

ROOM 11 | **CO1.5** Well-Being & Quality of Life

20:30 —PALAZZO STERI
WELCOME COCKTAIL
SUS AWARD CEREMONY - SALA DELLE CAPRIATE

THURSDAY 21 JUNE

8:30 - 9:30 —B.19
CONTRIBUTED SESSIONS

ROOM 07 | CO2.1 Population Dynamics

ROOM 08 | CO2.2 Environment

ROOM 09 | CO2.3 Data Management

ROOM 10 | CO2.4 Advances in Clustering Techniques

ROOM 11 | CO2.5 Statistical Inference and Testing Procedures

9:30 - 10:50 —B.19
SPECIALIZED SESSIONS

ROOM 07 | SP2.1 Missing Data Handling in Complex Models

ROOM 08 | SP2.2 Monitoring Education Systems. Insights from Large Scale Assessment Surveys

ROOM 09 | SP2.3 Some Topics in Statistics and Data Science

ROOM 10 | SP2.4 Recent Advances in Model-Based Clustering

ROOM 11 | SP2.5 Financial Time Series Analysis

09:30 - 10:50 —B.19
SOLICITED SESSIONS

ROOM 12 | SO2.1 What's Happening in Africa?

10:50 - 11:10 —B.19
COFFEE BREAK

11:10 - 11:40 —B.13

AULA MAGNA "V. LI DONNI"
PHD THESIS PRESENTATION

11:40 - 13:00 —B.13
PLENARY SESSION

AULA MAGNA "V. LI DONNI" | PL2 The Role of Statisticians in Understanding Global Climate Dynamics

13:00 - 13:30 —B.13
POSTER SESSION

AULA MAGNA "V. LI DONNI"
SPEED PRESENTATION 2

13:30 - 14:30 —B.19
LUNCH

14:30 - 15:30—B.19
CONTRIBUTED SESSIONS

ROOM 07 | CO2.6 Medicine

ROOM 08 | CO2.7 Educational World

ROOM 09 | CO2.8 Socio-Economic Statistics

ROOM 10 | CO2.9 Advances in Time Series

ROOM 11 | CO2.10 Recent Developments in Statisical Modelling

ROOM 12 | CO2.11 Statistics for Earthquakes

15:30 - 16:40 —B.19
SOLICITED SESSIONS

ROOM 07 | SO2.2 New Challenges in The Measurement of Economic Insecurity, Inequality and Poverty

ROOM 08 | SO2.3 Dimensional Reduction Techniques for Big Data Analysis

ROOM 09 | SO2.4 Complex Spatio-Temporal Processes and Functional Data

ROOM 10 | SO2.5 Innovations in Census and in Social Surveys

ROOM 11 | SO2.6 Aging and Elderly People

ROOM 12 | SO2.7 New Methods and Models for Ordinal Data

16:40 - 17:00 —B.19
COFFEE BREAK

17:00 - 18:00 —B.19
CONTRIBUTED SESSIONS

ROOM 07 | CO2.12 Health and Clinical Data

ROOM 08 | CO2.13 Family & Economic Issues

ROOM 09 | CO2.14 Social Indicators

ROOM 10 | CO2.15 Finance & Insurance

ROOM 11 | CO2.16 Developments in Graphical Models

ROOM 12 | CO2.17 Advances in Statistical Models

18:00 - 19:30 —B.13

AULA MAGNA "V. LI DONNI"
SIS GENERAL ASSEMBLY

21:00 —ORTO BOTANICO
SOCIAL DINNER

FRIDAY 22 JUNE

8:30 - 9:30 —B.19
CONTRIBUTED SESSIONS

ROOM 07 | CO3.1 Statistics for Consumer Research

ROOM 08 | CO3.2 Statistical Models for Ordinal Data

ROOM 09 | CO3.3 Recent Developments in Sampling

ROOM 10 | CO3.4 Advanced Algorithms and Computation

ROOM 11 | CO3.5 Statistical Models: New Proposals

9:40 - 10:40 —B.19
SOLICITED SESSIONS

ROOM 07 | SO3.1 Spatial Functional Data Analysis

ROOM 08 | SO3.2 Advances in Discrete Latent Variable Modelling

ROOM 09 | SO3.3 Living Conditions and a Consumption Expenditure in Time of Crises

ROOM 10 | SO3.4 Methodological Approaches to Constructing Social Composite Indicators

ROOM 11 | SO3.5 Statistical Modelling for Business Intelligence

ROOM 12 | SO3.6 Supporting Regional Policies Through Small Area Statistical Methods

10:40 - 11:30 —B.13
PLENARY SESSION

AULA MAGNA "V. LI DONNI"| PL3.A Istat Annual Report 2018

11:30 - 12:00 —B.19
COFFEE BREAK

12:00 - 13:30 —B.13
PLENARY SESSION

AULA MAGNA "V. LI DONNI"| PL3.B Advanced Models and Computational Methods for Data from Modern Biomedicine

13:30 - 14:30 —B.19
LUNCH

14:30 - 16:00—B.19
SPECIALIZED SESSIONS

ROOM 07 | SP3.1 Statistical Modelling of Big Spatial Data

ROOM 08 | SP3.2 Statistical Modelling

ROOM 09 | SP3.3 Functional Statistics for Spatiotemporal Data (in collaboration with the Royal Statistical Society)

ROOM 10 | SP3.4 Statistics and Indicators for the Analysis of the Economic Competitiveness of the Business System

ROOM 11 | SP3.5 Reproducibility in Biostatistics: from Observational Studies to Sampling Strategies

16:00 - 17:30 —B.13
ROUND TABLE

AULA MAGNA "V. LI DONNI"| The culture of work: from statistics on the job market to the job market of statisticians (SIS – AlmaLaurea)

17:30 - 17:50 —B.13

AULA MAGNA "V. LI DONNI"
CLOSING CEREMONY

DETAILED PROGRAM

WEDNESDAY 20 JUNE

08:30 - 09:30 —B.19
REGISTRATION

09:00 - 10:00 —B.13

AULA MAGNA "V. LI DONNI" | WELCOME ADDRESS

10:00 - 11:00 —B.13
PLENARY SESSION

AULA MAGNA "V. LI DONNI" | PL1 A New Paradigm for Rating Data Models

chair: **Monica Pratesi —**President of SIS

A New Paradigm for Rating Data Models ||
Domenico Piccolo —Federico II University of Naples

11:00 - 11:30 —B.19
COFFEE BREAK

11:30 - 13:00 —B.19
SPECIALIZED SESSIONS

ROOM 07 | SP1.1 Being Young and Becoming Adult in the Third Millennium: Definition Issues and Processes Analysis

chair: **Alessandro Rosina —**Sacro Cuore Catholic University of SH
discussant: **Giuseppe Gabrielli —**Federico II University of Naples

Being young and becoming adult abroad: the second generation in Italy and the young Italian emigrants || *Cinzia Conti, Enrico Tucci*

Parenthood: an advanced step in the transition to adulthood ||
Antonella Guarneri, Cinzia Castagnaro, Eleonora Meli

Do Social Media Data predict changes in young adults' employment status? Evidence from Italy || *Andrea Bonanomi*

ROOM 08 | SP1.2 Young Contributions to Statistical Learning

chair: **Federico Camerlenghi —**Bicocca University of Milan
discussant: **Alessandra Guglielmi —**Polytechnic of Milan

Introducing spatio-temporal dependence in clustering: from a parametric to a nonparametric approach || *Clara Grazian*

K-means seeding via MUS algorithm || *Leonardo Egidi, Roberta Pappadà, Francesco Pauli, Nicola Torelli*

Bayesian inference for hidden Markov models via duality and approximate filtering distributions || *Guillaume Kon Kam King, Omiros Papaspiliopoulos, Matteo Ruggiero*

ROOM 09 | SP1.3 Forensic Statistics

chair: **Julia Mortera —**University of Rome
discussant: **Paola Vicard —**University of Rome

Cause of effects: an important evaluation in Forensic Science || *Fabio Corradi, Monica Musio*

Evaluation and reporting of scientific evidence: the impact of partial probability assignments || *Silvia Bozza, Franco Taroni, Alex Biedermann*

Paternity testing and other inference about relationships from DNA mixtures || *Peter J. Green*

WEDNESDAY 20 JUNE

ROOM 10 | SP1.4 **New Perspectives in Time Series Analysis**

chair: **Cira Perna —***University of Salerno*
discussant: **Luisa Bisaglia —***University of Padua*

Generalized periodic autoregressive models for trend and seasonality varying time series || *Francesco Battaglia*

Detecting Co-Movements in Noncausal Time Series || *Gianluca Cubadda, Alain Heqa, Sean Telg*

Time dependent time series models: a review || *Guy Mélard*

ROOM 11 | SP1.5 **Emerging and re-Emerging Threats from Infections: Global Diffusion Modelsand Policy Perspectives**

chair: **Alessia Melegaro —***Bocconi University*
discussant: **Emanuele Del Fava —***University of Milan*

The contribution of local demographic conditions and vaccination policies to measles elimination || *Filippo Trentini*

Matheatical Models for Emerging and Re-emerging Mosquito-Borne Diseases || *Giorgio Guzzetta*

Refining the characterization of the Sanofi Pasteur dengue vaccine's efficacy profile using machine learning || *Ilaria Dorigatti, Christl A. Donnelly, Daniel J. Laydon, Robert Small, Nicholas Jackson, Laurent Coudeville, Neil Ferguson*

13:00 - 13:30 —B.19
POSTER SESSION

ROOM 12 | SPEED PRESENTATION 1

13:30 - 14:30 —B.19
LUNCH

14:30 - 15:40 —B.19
SOLICITED SESSIONS

ROOM 07 | SO1.1 **Statistical Models for Sports Data**

chair: **Nicola Torelli —***University of Trieste*

Big Data Analytics for Modelling Players' Movement in Basketball || *Rodolfo Metulini*

A data-mining approach to the Parkour discipline || *Paola Pasca, Enrico Ciavolino, Ryan L. Boyd*

Exploring the Kaggle European Soccer database with Bayesian Networks: the case of the Italian League Serie A || *Maurizio Carpita, Silvia Golia*

The study of relationship between financial performance and sports success in Italian Football Championship clubs through the Longitudinal generalized estimating equation models || *Pasquale Sarnacchiaro, Anna Crisci, Luigi D'Ambra*

WEDNESDAY 20 JUNE

ROOM 08 | SO1.2 Network Data Analysis and Mining

chair: **Maria Prosperina Vitale** —*University of Salerno*

Data mining and analysis of comorbidity networks from practitioner prescriptions || *Giancarlo Ragozini*

Support provided by elderly Italian people: a multilevel analysis || *Elvira Pelle, Giulia Rivellini, Susanna Zaccarin*

Stochastic network modelling of the evolutionary tree || *Ernst C. Wit*

Overlapping mixture models for network data (`manet`) with covariates adjustment || *Saverio Ranciati, Giuliano Galimberti, Ernst C. Wit, Veronica Vinciotti*

ROOM 09 | SO1.3 Recent Advances on Extreme Value Theory

chair: **Simone Padoan** —*Bocconi Universityof Milan*

Record Events of Dependent Sequences || *Amir Khorrami Chokami, Michael Falk, Simone Padoan*

Generalized Pareto Copulas: A Key to Multivariate Extremes || *Michael Falk, Simone Padoan*

Testing the multivariate regular variation model || *Chen Zhou*

Extremes of high-order IGARCH processes || *Fabrizio Laurini*

ROOM 10 | SO1.4 Pursuing the Sustainable Development Goals: Inequality and Territorial Distribution of Socio-Economic Well-Being and Sustainability

chair: **Viviana Egidi** —*Sapienza University of Rome*

No one left behind: a huge challenge for statistics and policy || *Enrico Giovannini*

Statistics and innovations for measuring Sustainable Development Goals: challenges, opportunities and progress || *Angela Ferruzza, Paola Ungaro, Barbara Baldazzi, Giovanna Tagliacozzo, Luigi Costanzo*

Sustainable Development and Territorial Differences: a Focus on Italian Regions || *Leonardo S. Alaimo*

The systemic view of the SDGs indicators through a statistical model-based approach: an application on Eu countries || *Carlo Cavicchia, Filomena Maggino, Maurizio Vichi*

ROOM 11 | SO1.5 Environmental Processes, Human Activities and Their Interactions

chair: **Daniela Cocchi** —*University of Bologna*

A multilevel hidden Markov model for space-time cylindrical data || *Francesco Lagona, Monia Ranalli*

Estimation of coral growth parameters via Bayesian hierarchical non-linear models || *Crescenza Calculli, Barbara Cafarelli, Daniela Cocchi*

A Bayesian S-FAVAR model to Estimate the Short-Term Health Effects of Air Pollution on Human Health || *Pasquale Valentini , Lara Fontanella, Luigi Ippoliti*

Estimation of entropy measures for categorical variables with spatial correlation || *Linda Altieri, Giulia Roli*

ROOM 12 | SO1.6 New Sources, Data Integration and Measurement Challenges for Estimates on Labour Market Dynamics

chair: **Rosalia Castellano** —*Parthenope University of Naples*

How effective are the regional policies in Europe? The role of European Funds || *Gennaro Punzo, Mariateresa Ciommi, Gaetano Musella*

The development of the Italian Labour register: principles, issues and perspectives || *Ciro Baldi, Claudio Ceccarelli, S. Gigante, Silvia Pacini*

Digging into Labour Market Dynamics: toward a reconciliation of Stock and Flows Short Term Indicators || *Fabio Massimo Rapiti, Ciro Baldi, Daniela Ichim, Federica Pintaldi, Maria Elena Pontecorvo, Rita Rizzi*

Labour market condition in Italy during and after the financial crises: a segmented regression analysis approach of interrupted time series || *Matilde Bini, Lucio Masserini*

15:40 - 17:00 — B.19
SPECIALIZED SESSIONS

ROOM 07 | SP1.6 BDsports – Statistics in Sports
chair: **Paola Zuccolotto** —*University of Brescia*
discussant: **Stefania Mignani** -*University of Bologna*

Analysis of the importance of on-field covariates in the German Bundesliga || *Gunther Schauberger*

Zero-inflated ordinal data models with application to sport (in)activity || *Maria Iannario, Rosaria Simone*

Are the shots predictive for the football results? || *Leonardo Egidi, Francesco Pauli, Nicola Torelli*

ROOM 08 | SP1.7 Bayesian Nonparametric Learning
chair: **Peter Green** —*Bocconi University*
discussant: **Bruno Scarpa** -*University of Padua*

A Comparative overview of Bayesian nonparametric estimation of the size of a population || *Luca Tardella, Danilo Alunni Fegatelli*

Logit stick-breaking priors for partially exchangeable count data || *Tommaso Rigon*

Bayesian nonparametric covariate driven clustering || *Alessandra Guglielmi*

ROOM 09 | SP1.8 Integration Surveys and Register Based Statistics: Past, Present and Future
chair: **Alessandra Petrucci** —*University of Florence*
discussant: **Roberto Benedetti** -*University of Chieti-Pescara*

New methods for small area estimation with linkage uncertainty || *Brunero Liseo, Andrea Tancredi, Dario Briscolini, Loredana Di Consiglio, Tiziana Tuoto*

Quality survey to dealing with frame imperfections in the next register-based Italian Census Population || *Paolo Righi*

Estimation of wealth on spatially disaggregated levels in Germany based on the Household Finance and Consumption Survey (HFCS) || *Timo Schmid, Ann-Kristin Kreutzmann, Philipp Marek, Nicola Salvati*

ROOM 10 | SP1.9 Economic Statistics and Big Data
chair: **Luigi Biggeri** —*University of Florence*
discussant: **Giuseppe Arbia** -*Catholic University of SH*

Improvements in Italian CPI/HICP deriving from the use of scanner data || *Alessandro Brunetti*

Big data and spatial price comparisons of consumer prices || *Tiziana Laureti*

Scoring models for roboadvisory platforms: a network approach || *Paolo Giudici, Gloria Polinesi*

WEDNESDAY 20 JUNE

15:40 - 17:00 —B.19
SPECIALIZED SESSIONS

ROOM 11 | SP1.10 **Quality of Life: Definition, Measures and Policy Implications**

chair: **Giovanna Boccuzzo**—*University of Padua*
discussant: **Viviana Egidi** —*Sapienza University of Rome*

Quality of life and gender inequalities after the economic crisis: which priorities for the policy maker? || *Linda Laura Sabbadini*

Challenges, needs and risks in defining wellbeing indicators || *Filomena Maggino*

An empirical measure of social progress for the European regions: challenges and solutions || *Paola Annoni*

17:00 - 17:20 —B.19
COFFEE BREAK

17:20 - 18:30 —B.19
SOLICITED SESSIONS

ROOM 07 | SO1.7 **Quantile and Generalized Quantile Methods**

chair: **Domenico Vistocco** —*University of Cassino*

Modelling the effect of Traffic and Meteorology on Air Pollution with Finite Mixtures of M-quantile Regression Models || *Simone Del Sarto, Maria Francesca Marino, Maria Giovanna Ranalli, Nicola Salvati*

Three-level M-quantile model for small area poverty mapping || *Nicola Salvati, Stefano Marchetti*

Multiple Quantile Regression for Risk Assessment || *Lea Petrella, Valentina Raponi*

Parametric Modeling of Quantile Regression Coefficient Functions || *Paolo Frumento, Matteo Bottai*

ROOM 08 | SO1.8 **Statistical Models for Service Quality**

chair: **Maurizio Carpita** —*University of Brescia*

Finding the best paths in university curricula of graduates to improve academic guidance services || *Silvia Bacci, Bruno Bertaccini*

A robust multinomial logit model for improving service quality || *Ida Camminatiello, Antonio Lucadamo*

Complex contingency tables and Pearson's chi-squared partitions || *Eric J Beh, Rosaria Lombardo, Yoshio Takane*

Cumulative chi-squared statistics for the service quality improvement. New properties and tools for its evaluation || *Antonello D'Ambra, Antonio Lucadamo, Pietro Amenta, Luigi D'Ambra*

ROOM 09 | SO1.9 **New Perspectives in Supervised and Unsupervised Classification**

chair: **Mariangela Sciandra** —*University of Palermo*

Robust Updating Classification Rule with applications in Food Authenticity Studies || *Francesca Greselin*

A robust clustering procedure with unknown number of clusters || *Francesco Dotto*

Issues in joint dimension reduction and clustering methods || *Michel van de Velden, Alfonso Iodice D'Enza, Angelos Markos*

Some remarks on the DESPOTA algorithm for detecting a partition on a dendrogram || *Dario Bruzzese, Domenico Vistocco*

Tree-based Semi-supervised Clustering || *Claudio Conversano, Giulia Contu, Luca Frigau, Francesco Mola*

ROOM 10 | SO1.10 Spatial Economic Data Analysis
chair: **Davide Piacentino**—*University of Palermo*

Estimating models with network interactions and unobserved heterogeneity || *Luisa Corrado, Salvatore Di Novo*

Tourism Firms Survival in Italian Insular Regions || *Maria Francesca Cracolici, Giuseppe Espa, Diego Giuliani, Davide Piacentino*

Spatial Weights Matrix Specification: A Fuzzy Logic Exploration || *Nooshin Mahmoodi, Roberto Patuelli*

Spatial heterogeneity in principal component analysis: a study of deprivation index on Italian provinces || *Paolo Postiglione, M. Simona Andreano, Roberto Benedetti, Alfredo Cartone*

ROOM 11 | SO1.11 The Second Generation at School
chair: **Salvatore Strozza** —*Federico II University of Naples*

Resilient students with migratory background || *Anna Di Bartolomeo, Giuseppe Gabrielli*

Understanding the sources of children of immigrants' penalty in academic performance: Evidence from Italian compulsory education || *Moris Triventi, Eleonora Vlach*

From school to ... future: strategies, paths and perspectives of immigrant immediate descendants in Naples || *Giustina Orientale Caputo, Giuseppe Gargiulo*

Residential Proximity to Attended Schools among Immigrant-Origin Youths in Bologna || *Federica Santangelo, Debora Mantovani, Giancarlo Gasperoni*

Short and medium term labour market returns of college graduates with a migration background || *Jim Allen, Barbara Belfi, Babs Jacobs, Mark Levels, Kars van Oosterhout*

ROOM 12 | SO1.12 Tourism: Destinations, Household, Firms
chair: **Laura Grassini** —*University of Florence*

The Migration-Led-Tourism Hypothesis for Italy: A Survey || *Carla Massidda, Romano Piras, Ivan Etzo*

The Pricing Behaviour of Firms in the On-line Accommodation Market: Evidence from a Metropolitan City || *Andrea Guizzardi, Flavio Maria Emanuele Pons*

Tourism attractiveness in Italy. Some empirical evidence comparing origin-destination flows || *Francesca Giambona, Emanuela Dreassi, Alessandro Magrini*

Tourism Statistics: development and potential uses || *Fabrizio Antolini*

18:30 - 19:30 —B.19
CONTRIBUTED SESSIONS

ROOM 07 | CO1.1 Statistical Analysis of Energy Markets
chair: **Matteo Pelagatti** —*Bicocca University of Milan*

Bias Reduction in a Matching Estimation of Treatment Effect || *Maria Gabriella Campolo, Antonino Di Pino, Edoardo Otranto*

Forecasting Value-at-Risk for Model Risk Analysis in Energy Markets || *Angelica Gianfreda, Giacomo Scandolo*

Prediction interval of electricity prices by robust nonlinear models || *Luigi Grossi*

Investment-Uncertainty Relationship in the Oil and Gas Industry || *Matteo Manera, Maryam Ahmadi, Mehedi Sadeghzadeh*

Quantile merit order and network upgrade effects: evidence on Italian wholesale power prices || *Alessandro Sapio*

WEDNESDAY 20 JUNE

CONTRIBUTED SESSIONS

ROOM 08 | CO1.2 **Statistics for Financial Risks**

chair: **Massimiliano Caporin** —*University of Padua*

Bayesian Quantile Regression Treed || *Mauro Bernardi, Paola Stolfi*

Systemic events and diffusion of jumps || *Giovanni Bonaccolto, Nancy Zambon, Massimiliano Caporin*

Model Selection in Weighted Stochastic Block models || *Michele Costola*

Conditional Value-at-Risk: a comparison between quantile regression and copula functions || *Giovanni De Luca, Giorgia Rivieccio*

Traffic Lights for Systemic Risk Detection || *Juan-Angel Jimenez-Martin*

Forecasting Optimal Portfolio Weights Using High-Frequency Data || *Alessandro Palandri*

ROOM 09 | CO1.3 **Tourism & Cultural Participation**

chair: **Mariangela Zenga** —*Biccocca University of Milan*

A New Proposal of Spatial Shift Share Analysis: an Application to Tourism || *Salvatore Costantino, Maria Francesca Cracolici, Davide Piacentino*

The determinants of tourism destination competitiveness in 2006-2016: a partial least square path modelling approach || *Alessandro Magrini, Laura Grassini*

Posterior Predictive Assessment for Item Response Theory Models: A Proposal Based on the Hellinger Distance || *Mariagiulia Matteucci, Stefania Mignani*

Cultural Participation in the digital Age in Europe: a multilevel cross-national analysis || *Isabella Mingo, Laura Bocci*

Tourist flows and museum admissions in Italy: an integrated analysis || *Francesca Petrei, Lorenzo Cavallo, Maria Teresa Santoro*

Participation in tourism of Italian residents in the years of the economic recession || *Emilia Rocco, Chiara Bocci, Laura Grassini*

ROOM 10 | CO1.4 **Recent Developments in Bayesian Inference**

chair: **Antonietta Mira** —*Università della Svizzera Italiana*

A predictive measure of the additional loss of a non-optimal action under multiple priors || *Fulvio De Santis, Stefania Gubbiotti*

Bayesian estimation of number and position of knots in regression splines || *Gioia Di Credico*

The importance of historical linkages in shaping population density across space || *Ilenia Epifani, Rosella Nicolini*

Posterior distributions with non explicit objective priors || *Erlis Ruli, Nicola Sartori, Laura Ventura*

Bayesian Support Vector Machine Quantile Regression || *Andrea Sottosanti, Mauro Bernardi, Emanuele Degani*

ROOM 11 | CO1.5 **Well-Being & Quality of Life**

chair: **Lisa Crosato** —*Bicocca University of Milan*

Comparing Composite Indicators to measure Quality of Life: the Italian "Sole 24 Ore" case || *Gianna Agrò, Mariantonietta Ruggieri, Erasmo Vassallo*

Quality of working life in Italy: findings from Inapp survey || *Paolo Emilio Cardone*

WEDNESDAY 20 JUNE

Well-being indices: what about Italian scenario? || *Silvia Facchinetti*

The well-being in the Italian urban areas: a local geographic variation analysis || *Eugenia Nissi, AnnaLina Sarra*

How can we compare rankings that are expected to be similar? An example based on composite well being indicators || *Silvia Terzi, Luca Moroni*

Is Structural Equation Modelling Able to Predict Well-being? || *Daniele Toninelli, Michela Cameletti*

20:30 —PALAZZO STERI

WELCOME COCKTAIL
STATS UNDER THE STARS: AWARD CEREMONY (SALA DELLE CAPRIATE)

THURSDAY 21 JUNE

08:30 - 09:30 —B.19
CONTRIBUTED SESSIONS

ROOM 07 | CO2.1 Population Dynamics

chair: **Giulia Rivellini —***Sacro Cuore Catholic University of Milan*

Economic Uncertainty and Fertility: a Meta-Analysis of European Research Findings || *Giammarco Alderotti, Daniele Vignoli, Michela Baccini*

Where the Current Age Structure is Heading || *Gustavo De Santis, Giambattista Salinari*

The impact of economic development on fertility: a complexity approach in a cross-country analysis || *Niccolò Innocenti, Daniele Vignoli, Luciana Lazzeretti*

Mortality trends in Sardinia 1992-2015: an ecological study || *Vanessa Santos Sanchez, Gabriele Ruiu, Marco Breschi, Lucia Pozzi*

A Probabilistic Cohort-Component Model for Population Forecasting – The Case of Germany || *Patrizio Vanella*

ROOM 08 | CO2.2 Environment

chair: **Giuseppe Arbia —***Sacro Cuore Catholic University of Milan*

A functional regression control chart for profile monitoring || *Fabio Centofanti, Antonio Lepore, Alessandra Menafoglio, Biagio Palumbo, Simone Vantini*

Bayesian Dynamic Tensor Regression models || *Matteo Iacopini, Monica Billio, Roberto Casarin*

Exploratory GIS Analysis via Spatially Weighted Regression Trees || *Carmela Iorio, Giuseppe Pandolfo, Michele Staiano, Roberta Siciliano*

Design-based mapping in environmental surveys || *Caterina Pisani*

Understanding pro-environmental travel behaviours in Western Europe || *Gennaro Punzo, Rosalia Castellano, Demetrio Panarello*

The climate funds for energy sustainability: a counterfactual analysis || *Giuseppe Scandurra, Alfonso Carfora, Monica Ronghi*

THURSDAY 21 JUNE

CONTRIBUTED SESSIONS

ROOM 09 | CO2.3 Data Management

chair: **Maurizio Carpita —***University of Brescia*

Data Integration in Social Sciences: the earnings intergenerational mobility problem || *Veronica Ballerini, Francesco Bloise, Dario Briscolini, Michele Raitano*

Using web scraping techniques to derive co-authorship data: insights from a case study || *Domenico De Stefano, Vittorio Fuccella, Maria Prosperina Vitale, Susanna Zaccarin*

Dealing with Data Evolution and Data Integration: An approach using Rarefaction || *Luca Del Core, Eugenio Montini, Clelia Di Serio, Andrea Calabria*

Monitoring event attendance using a combination of traditional and advanced surveying tools || *Mauro Ferrante, Amit Birenboim, Anna Maria Milito, Stefano De Cantis*

Indefinite Topological Kernels || *Tullia Padellini, Pierpaolo Brutti*

An innovative approach for the GDPR compliance in Big Data era || *Vito Santarcangelo*

ROOM 10 | CO2.4 Advances in Clustering Techniques

chair: **Tonio Di Battista —***University of Chieti-Pescara*

An INDCLUS-type model for occasion-specific complementary partitions || *Laura Bocci, Donatella Vicari*

On the choice of an appropriate bandwidth for modal clustering || *Alessandro Casa, Josè Chacón, Giovanna Menardi*

Bootstrap ClustGeo with spatial constraints || *Veronica Distefano, Valentina Mameli, Fabio Della Marra*

Robust Reduced K-Means and Factorial K-Means by trimming || *Luca Greco, Antonio Lucadamo, Pietro Amenta*

Unsupervised clustering of Italian schools via non-parametric multilevel models || *Chiara Masci, Francesca Ieva, Anna Maria Paganoni*

Dirichlet processes, posterior similarity and graph clustering || *Stefano Tonellato*

ROOM 11 | CO2.5 Statistical Inference and Testing Procedures

chair: **Francesca Greselin —***Bicocca University of Milan*

Nonparametric penalized likelihood for density estimation || *Federico Ferraccioli*

Comparison of exact and approximate simultaneous confidence regions in nonlinear regression models || *Claudia Furlan, Cinzia Mortarino*

Stochastic Dominance for Generalized Parametric Families || *Tommaso Lando, Lucio Bertoli-Barsotti*

Rethinking the Kolmogorov-Smirnov Test of Goodness of Fit in a Compositional Way || *Gianna Monti*

Tail analysis of a distribution by means of an inequality curve || *Emanuele Taufer, Flavio Santi, Giuseppe Espa, Maria Michela Dickson*

THURSDAY 21 JUNE

ROOM 07 | SP2.1 **Missing Data Handling in Complex Models**

chair: **Omar Paccagnella —**_University of Padua_
discussant: **Anna Giraldo —**_University of Padua_

Dependence and sensitivity in regression models for longitudinal responses subject to dropout || _Marco Alfò, Maria Francesca Marino_

Multilevel analysis of student ratings with missing level-two covariates: a comparison of imputation techniques || _Carla Rampichini, Maria Francesca Marino_

Multilevel Multiple Imputation in presence of interactions, non-linearities and random slopes || _Matteo Quartagno, James Carpenter_

ROOM 08 | SP2.2 **Monitoring Education Systems. Insights from Large Scale Assessment Surveys**

chair: **Isabella Sulis —**_University of Cagliari_
discussant: **Francesca Giambona —**_University of Florence_

Educational Achievement of Immigrant Students. A Cross-National Comparison Over-Time Using OECD-PISA Data || _Mariano Porcu_

Insights into survey errors of large scale educational achievement surveys || _Sylke V. Schnepf_

Investigating the role of educational systems on learning inequalities with international assessments. The case of early tracking || _Dalit Contini_

ROOM 09 | SP2.3 **Some Topics in Statistics and Data Science**

chair: **Nicola Torelli —**_University of Trieste_
discussant: **Francesco Pauli —**_University of Firenze_

Statistics in an Engineering School in the time of Data Science || _Enrico Bibbona, Mauro Gasparini_

Reconstructing the topography of multidimensional probability landscapes E || _Michele Allegra, Maria d'Errico, Elena Facco, Alessandro Laio, Alex Rodriguez_

Extreme Learning Machines for Bootstrapping Nonlinear Time Series || _Michele La Rocca, Cira Perna_

ROOM 10 | SP2.4 **Recent Advances in Model-Based Clustering**

chair: **Cinzia Viroli —**_University of Bologna_
discussant: **Laura Anderlucci —**_University of Bologna_

Covariate measurement error in generalized linear models for longitudinal data: a latent Markov approach || _Roberto Di Mari_

A Comparison of Model-Based and Fuzzy Clustering Methods || _Marco Alfò, Maria B. Ferraro, Paolo Giordani, Luca Scrucca, Alessio Serafini_

Flexible clustering methods for high-dimensional data sets || _Cristina Tortora, Paul McNicholas_

ROOM 11 | SP2.5 **Financial Time Series Analysis**

chair: **Margherita Carlucci —**_Sapienza University of Rome_
discussant: **Giovanni De Luca —** _Parthenope University of Naples_

Conditional Quantile-Located VaR || _Massimiliano Caporin, Giovanni Bonaccolto, Sandra Paterlini_

Heterogeneous Component MEM models for forecasting trading volumes || _Giuseppe Storti, Antonio Naimoli_

Regularized Estimation of High Dimensional Auto- and Cross-Covariance Matrices || _Tommaso Proietti_

THURSDAY 21 JUNE

09:30 - 10:50 —B.19
SOLICITED SESSIONS

ROOM 12 | D2.1 **What's Happening in Africa?**

chair: **Elena Ambrosetti —***Sapienza University of Rome*

Environmental shocks and internal migration in Tanzania || *Elena Pirani, Alessandra Petrucci, Maria Francesca Marino*

Brocken trends in Maghrebian fertility || *Zahia Ouadah-Bedidi, Jacques Vallin*

Determinants and geographical disparities of BMI in African Countries: a measurement error small area approach || *Serena Arima, Silvia Polettini*

Return and circular migration between Africa and Italy || *Cinzia Castagnaro, Francesca Licari*

10:50 - 11:10 —B.19
COFFEE BREAK

11:10 - 11:40 —B.13

AULA MAGNA "V. LI DONNI" | PHD THESIS PRESENTATION

11:40 - 13:00 —B.13
PLENARY SESSION

AULA MAGNA "V. LI DONNI" | PL2 **The Role of Statisticians in Understanding Global Climate Dynamics**

chair: **Giorgio Alleva —***Istat President*

A Stochastic Generator of Global Monthly Wind Energy with Tukey g-and-h Autoregressive Processes || *Marc G. Genton —King Abdullah University of Science and Technology*

Statistical modelling of atmospheric radiosoundings || *Alessandro Fassò —University of Bergamo*

13:00 - 13:30 —B.13
POSTER SESSION

AULA MAGNA "V. LI DONNI" | SPEED PRESENTATION 2

13:30 - 14:30 —ED19
LUNCH

14:30 - 15:30 —B.19
CONTRIBUTED SESSIONS

ROOM 07 | Medicine

chair: **Vito Muggeo —***University of Palermo*

The relationship between health care expenditures and time to death: focus on myocardial infarction patients || *Luca Grassetti, Laura Rizzi*

Hidden Markov Models for disease progression || *Andrea Martino, Andrea Ghiglietti, Giuseppina Guatteri, Anna Maria Paganoni*

A multivariate extension of the joint models || *Marcella Mazzoleni, Mariangela Zenga*

Multipurpose optimal designs for hypothesis testing in normal response trials || *Marco Novelli, Maroussa Zagoraiou*

A simulation study on the use of response-adaptive randomized designs || *Anna Maria Paganoni, Andrea Ghiglietti, Maria Giovanna Scarale, Rosalba Miceli, Francesca Ieva, Luigi Mariani, Cecilia Gavazzi, Valeria Edefonti*

Additive Bayesian networks for an epidemiological analysis of swine diseases || *Marta Pittavino, Reinhard Furrer*

ROOM 08 | CO2.7 Educational World

chair: **Paolo Mariani** —*Bicocca University of Milan*

Benefits of the Erasmus mobility experience: a discrete latent variable analysis || *Silvia Bacci, Valeria Caviezel, Anna Maria Falzoni*

Testing for the Presence of Scale Drift: An Example || *Michela Battauz*

University choice and the attractiveness of the study area. Insights from an analysis based on generalized mixed-effect models || *Silvia Columbu, Mariano Porcu, Isabella Sulis*

How to improve the Quality Assurance System of the Universities: a study based on compositional analysis || *Bruno Bertaccini, Michele Gallo, Carlotta Simonacci, Tullio Menini*

The evaluation of Formative Tutoring at the University of Padova || *Anna Giraldo, Renata Clerici, Lorenza Da Re, Silvia Meggiolaro*

Evaluation of students' performance at lower secondary education. An empirical analysis using TIMSS and PISA data || *Grazia Graziosi*

ROOM 09 | CO2.8 Socio-Economic Statistics

chair: **Stefano Campostrini** —*Ca' Foscari University of Venice*

Camel or dromedary? A study of the equilibrium distribution of income in the EU countries. || *Lisa Crosato, Camilla Ferretti, Piero Ganugi*

Small Area Estimation of Inequality Measures || *Maria Rosaria Ferrante, Silvia Pacei*

Testing the Learning-by-Exporting at Micro-Level in light of influence of "Statistical Issues" and Macroeconomic Factors || *Marzia Freo, Maria Ferrante*

The mobility and the job success of the Sicilian graduates || *Ornella Giambalvo, Antonella Plaia, Sara Binassi*

The NEETs during the economic crisis in Italy, Young NEETs in Italy, Spain and Greece during the economic crisis || *Giovanni De Luca, Paolo Mazzocchi, Claudio Quintano, Antonella Rocca*

Unemployment and subsequent depression: A parametric g-formula approach combined with individual-specific fixed-effect intercepts || *Ben Wilson*

ROOM 10 | CO2.9 Advances in Time Series

chair: **Omar Paccagnella** —*University of Padua*

Filtering outliers in time series of electricity prices || *Ilaria Lucrezia Amerise*

Time-varying long-memory processes || *Luisa Bisaglia, Matteo Grigoletto*

Statistical Analysis of Markov Switching DSGE Models || *Maddalena Cavicchioli*

Forecasting energy price volatilities and comovements with fractionally integrated MGARCH models || *Malvina Marchese, Francesca Di Iorio*

Improved bootstrap simultaneous prediction limits || *Paolo Vidoni*

THURSDAY 21 JUNE

CONTRIBUTED SESSIONS

ROOM 11 | CO2.10 **Recent Developments in Statistical Modelling**

chair: **Antonio Lucadamo** —*University of Sannio*

Heterogeneous effects of subsidies on farms' performance: a spatial quantile regression analysis || *Marusca De Castris*

A note on the effects of human capital policies in Italy during the Great Recession || *Paolo Di Caro*

Simultaneous calibrated prediction intervals for time series || *Giovanni Fonseca, Federica Giummolè, Paolo Vidoni*

Reversibility and (non)linearity in time series || *Margherita Gerolimetto*

On the estimation of high-dimensional regression models with binary covariates || *Valentina Mameli, Debora Slanzi, Irene Poli*

Quantile Regression Coefficients Modeling: a Penalized Approach || *Gianluca Sottile, Paolo Frumento, Matteo Bottai*

ROOM 12 | CO2.11 **Statistics for Earthquakes**

chair: **Giada Adelfio** —*University of Palermo*

Detection of damage in civil engineering structure by PCA on environmental vibration data || *Gianna Agrò, Valentina Carlisi, Roberta Mantione*

How robust is the skill score of probabilistic earthquake forecasts? || *Alessia Caponera, Maximilian J. Werner*

On the quality of the hypocenter locations: source of errors and spatial distribution of uncertainties || *Antonino D'Alessandro, Carlo Marcocci, Salvatore Scudero*

Functional linear models for the analysis of similarity of waveforms || *Francesca Di Salvo, Renata Rotondi, Giovanni Lanzano*

SOLICITED SESSIONS

ROOM 07 | SO2.2 **New Challenges in the Measurement of Economic Insecurity, Inequality and Poverty**

chair: **Chiara Gigliarano** —*University of Insubria*

Changes in poverty concentration in U.S. urban areas || *Francesco Andreoli, Mauro Mussini*

Economic Insecurity and Individual Behaviour || *Conchita D'Ambrosio*

Social protection in mitigating economic insecurity || *Alessandra Coli*

Evaluating sustainability through an input-state-output framework: the case of the Italian provinces || *Laura Neri, Achille Lemmi, Federico Maria Pulselli*

ROOM 08 | SO2.3 **Dimensional Reduction Techniques for Big Data Analysis**

chair: **Luigi Biggeri** —*University of Florence*

A network approach to dimensionality reduction in Text Mining || *Michelangelo Misuraca, Germana Scepi, Maria Spano*

Self Organizing Maps for distributional data || *Antonio Irpino, Rosanna Verde*

Co-clustering algorithms for histogram data || *Antonio Balzanella, Francisco de A.T. De Carvalho, Rosanna Verde*

Clustering Data Streams via Functional Data Analysis: a Comparison between Hierarchical Clustering and K-means Approaches || *Tonio Di Battista*

ROOM 09 | SO2.4 Complex Spatio-Temporal Processes and Functional Data

chair: **Giada Adelfio —**University of Palermo

Spatial pattern analysis of the Italian sesimic network and seismicity || *Antonino D'Alessandro, Marianna Siino, Giada Adelfio, Luca Greco*

Clustering of spatio-temporal data based on marked variograms || *Antonio Balzanella, Rosanna Verde*

Space-time earthquake clustering: nearest-neighbor and stochastic declustering methods in comparison || *Elisa Varini, Antonella Peresan, Renata Rotondi, Stefania Gentili*

Advanced spatio-temporal point processes for the Sicily seismicity analysis || *Marianna Siino*

ROOM 10 | SO2.5 Innovations in Census and in Social Surveys

chair: **Vittoria Buratta —**Istat

The New Population Census Strategy: from Tradition to Innovation || *Matteo Mazziotta, Stefano Falorsi*

Towards more timely census statistics: the new Italian multiannual dissemination programme || *Simona Mastroluca, Mariangela Verrascina*

A micro-based approach to ensure consistency among administrative data sources and to improve population statistics || *Gianni Corsetti, Sabrina Prati, Enrico Tucci*

Demographic changes, research questions and data needs: issues about migrations || *Salvatore Strozza, Giuseppe Gabrielli*

ROOM 11 | SO2.6 Aging and Elderly People

chair: **Cecilia Tomassini —**University of Molise

Health and mortality: new insights from longitudinal data || *Elena Demuru, Viviana Egidi*

Living condition and mortality at home and in institution: addressing the bias introduced by the selection of institutionalized population || *Cristina Giudici*

Looking beyond averages: quantile regression approach to model older-adult Europeans' quality of life || *Elisa Cisotto, Giulia Cavrini*

Estimation of neighborhood effect on mental health in the elderly using propensity score techniques || *Giovanna Boccuzzo, Chiara Papaccio, Margherita Silan, Morena Stroscia*

ROOM 12 | SO2.7 New Methods and Models for Ordinal Data

chair: **Carmela Cappelli —**Federico II University of Naples

Clustering of preference rankings: a non-parametric soft-clustering approach || *Antonio D'Ambrosio, Willem J Heiser*

A prototype for the analysis of time use in Italy || *Stefania Capecchi, Manuela Michelini*

Constrained Extended Plackett-Luce model for the analysis of preference rankings || *Cristina Mollica, Luca Tardella*

A dissimilarity-based splitting criterion for CUBREMOT || *Carmela Cappelli, Rosaria Simone, Francesca Di Iorio*

Weighted vs unweighted distance based decision trees for ranking data || *Antonella Plaia, Simona Buscemi, Mariangela Sciandra*

16:40 - 17:00 —B. 19

COFFEE BREAK

17:00 - 18:00 —B.19
CONTRIBUTED SESSIONS

ROOM 07 | CO2.12 **Health and Clinical Data**

chair: **Rosanna Verde** —*University of Campania*

Apulian health refurbishment: evaluation of performance and customer satisfaction through "Sentiment Analysis" || *Margaret Antonicelli, Francesco Albergo, Alessandra Ricciardelli*

Multi-State model with nonparametric discrete frailty || *Francesca Gasperoni, Francesca Ieva, Anna Maria Paganoni, Chris Jackson, Linda Sharples*

Assessment of the INLA approach on gerarchic bayesian models for the spatial disease distribution: a real data application || *Paolo Girardi, Emanuela Bovo, Carmen Stocco, Susanna Baracco, Alberto Rosano, Daniele Monetti, Silvia Rizzato, Sara Zamberlan, Enrico Chinellato, Ugo Fedeli, Massimo Rugge*

Is retirement bad for health? A matching approach || *Elena Pirani, Marina Ballerini, Alessandra Mattei, Gustavo De Santis*

A Functional Urn Model for CARA Designs || *William Rosenberger*

The emergency department utilisation among the immigrant population resident in Rome from 2005 to 2015 || *Eleonora Trappolini, Laura Cacciani, Claudia Marino, Cristina Giudici, Nera Agabiti, Marina Davoli*

ROOM 08 | CO2.13 **Family & Economic Issues**

chair: **Leonardo Grilli** —*University of Florence*

Fertility Drain or Fertility Gain? The Effect of Emigration on Fertility in Italian Municipalities during the Great Recession || *Nicoletta Balbo*

Measuring Economic Uncertainty: Longitudinal Evidence Using a Latent Transition Model || *Francesca Giambona, Laura Grassini, Daniele Vignoli*

Does increasing female age at marriage lead to more age hypogamy? A study of Italian marriages, 1920-2015 || *Giuliana Giuliani*

Intentions to leave Italy or to stay among foreigners: what factors for different migration projects? || *Paola Muccitelli, Ginevra Di Giorgio, Francesca Dota, Daniele Spizzichino*

Wages differentials in association with individuals, enterprises and territorial characteristics || *Nicoletta Pannuzi*

The Transition to Motherhood among British Young Women: does housing tenure play a role? || *Valentina Tocchioni, Ann Berrington, Daniele Vignoli, Agnese Vitali*

ROOM 09 | CO2.14 **Social Indicators**

chair: **Francesca Bassi** —*University of Padua*

Knowledge Flows and Innovative Performance: Evidence from Italian firms || *Martina Aronica,Giuseppe De Luca,Giorgio Fazio,Davide Piacentino*

Can a neighbour region influence poverty? A fuzzy and longitudinal approach || *Gianni Betti*

Weight-based discrimination in the Italian Labor Market: how do ethnicity and gender interact? || *Giovanni Busetta, Maria Gabriella Campolo, Demetrio Panarello*

A gender inequality assessment by means of the Gini index decomposition || *Michele Costa*

The Total Factor Productivity Index as a Ratio of Price Indexes || *Lisa Crosato, Biancamaria Zavanella*

Monetary poverty indicators at local level: evaluating the impact of different poverty thresholds || *Luigi Biggeri, Caterina Giusti, Stefano Marchetti*

ROOM 10 | CO2.15 Finance & Insurance

chair: **Nicola Torelli —***University of Trieste*

Robust statistical methods for credit risk || *Aldo Corbellini, Alessandro Ghiretti, Gianluca Morelli, Andrea Talignani*

Exploiting information network model based for financial forecasting || *Giancarlo Nicola, Paola Cerchiello, Tomaso Aste*

Depth-based portfolio selection || *Giuseppe Pandolfo, Carmela Iorio, Antonio D'Ambrosio*

Estimating large-scale multivariate local level models with application to stochastic volatility || *Matteo Maria Pelagatti*

Modelling insurance losses via contaminated unimodal distributions || *Salvatore Daniele Tomarchio*

ROOM 11 | CO2.16 Developments in Graphical Models

chair: **Silvia Golia —***University of Brescia*

An extension of the glasso estimator to multivariate censored data || *Antonino Abbruzzo, Luigi Augugliaro, Angelo Mineo*

Non-communicable diseases, socio-economic status, lifestyle and well-being in Italy: an additive Bayesian network model || *Laura Maniscalco, Domenica Matranga*

Using Almost-Dynamic Bayesian Networks to Represent Uncertainty in Complex Epidemiological Models: a Proposal || *Sabina Marchetti*

Statistical matching by Bayesian Networks || *Daniela Marella, Paola Vicard, Vincenzina Vitale*

Sparse Nonparametric Dynamic Graphical Models || *Mauro Bernardi, Fabrizio Poggioni, Lea Petrella*

Bayesian Estimation of Graphical Log-Linear Marginal Models || *Claudia Tarantola*

ROOM 12 | CO2.17 Advances in Statistical Models

chair: **Fulvia Mecatti—***University of Milan*

dgLARS method for relative risk regression models || *Luigi Augugliaro, Angelo Mineo*

A longitudinal analysis of the degree of accomplishment of anti-corruption measures by Italian municipalities: a latent Markov approach || *Simone Del Sarto, Michela Gnald, Francesco Bartolucci*

Analysis of dropout in engineering BSc using logistic mixed-effect models || *Luca Fontana, Anna Maria Paganoni*

A Latent Class Conjoint Analysis for analysing graduates' profiles || *Andrea Marletta, Paolo Mariani, Lucio Masserini, Mariangela Zenga*

Regression modeling via latent predictors || *Francesca Martella, Donatella Vicari*

Modelling the effect of covariates for unbiased estimates in ecological inference methods || *Venera Tomaselli*

THURSDAY 21 JUNE

18:00 - 19:30 —B.13

AULA MAGNA "V. LI DONNI" | SIS GENERAL ASSEMBLY

21:00 —ORTO BOTANICO
SOCIAL DINNER

FRIDAY 22 JUNE

08:30 - 09:30 —B.19
CONTRIBUTED SESSIONS

ROOM 07 | CO3.1 Statistics for Consumer Research

chair: **Francesca Cracolici** —*University of Palermo*

Post-sampling crowdsourced data for reliable statistical inference: the case of market price index in Nigeria || *Giuseppe Arbia*

Consumers' Preferences for Coffee Consumption: a Choice Experiment Including Organoleptic Characteristics and Chemical Analyses || *Rossella Berni, Nedka Dechkova Nikiforova, Patrizia Pinelli*

A Bayesian Mixed Multinomial Logit Model for Partially Microsimulated Data on Labor Supply || *Cinzia Carota, Consuelo R. Nava*

Simultaneous unsupervised and supervised classification modeling for clustering, model selection and dimensionality reduction || *Mario Fordellone*

A panel data analysis of Italian hotels || *Antonio Giusti, Laura Grassini, Alessandro Viviani*

Comparison between Experience-based Food Insecurity scales || *Federica Onori, Sara Viviani, Pierpaolo Brutti*

ROOM 08 | CO3.2 Statistical Models for Ordinal Data

chair: **Antonella Plaia** —*University of Palermo*

Worthiness Based Social Scaling || *Giulio D'Epifanio*

Modified profile likelihood in models for clustered data with missing values || *Claudia Di Caterina, Nicola Sartori*

Direct Individual Differences Scaling for Evaluation of Research Quality || *Michele Gallo, Nickolay Trendafilov, V. Simonacci*

Measuring the multiple facets of tolerance using survey data || *Caterina Liberati, Riccarda Arianna Longaretti, Alessandra Michelangeli*

A test for variable importance || *Rosaria Simone*

A comparative study of benchmarking procedures for interrater and intrarater agreement studies || *Amalia Vanacore*

ROOM 09 | CO3.3 Recent Developments in Sampling

chair: **Giovanni Boscaino** —*University of Palermo*

Species richness estimation exploiting purposive lists: A proposal || *Alessandro Chiarucci, Rosa Maria Di Biase, Lorenzo Fattorini, Marzia Marcheselli, Caterina Pisani*

Testing for independence in analytic inference || *Pier Luigi Conti, Alberto Di Iorio*

On the aberrations of two-level Orthogonal Arrays with removed runs || *Roberto Fontana, Fabio Rapallo*

Design-based exploitation of big data by a doubly calibrated estimator || *Maria Michela Dickson, Giuseppe Espa, Lorenzo Fattorini*

ROOM 10 | CO3.4 Advanced Algorithms and Computation

chair: **Giovanni De Luca** —*Federico II University of Naples*

Customer Churn prediction based on eXtreme Gradient Boosting classifier || *Matteo Borrotti*

HPC-accelerated Approximate Bayesian Computation for Biological Science || *Ritabrata Dutta*

Brexit in Italy - Text Mining of Social Media || *Francesca Greco*

Distance based Depth-Depth classifier for directional data || *Giuseppe Pandolfo, Giovanni C. Porzio*

Approximate Bayesian Computation for Forecasting in Hydrological models || *Jonathan Romero, Antonino Abbruzzo, Giada Adelfio, Félix Francés*

PC Algorithm for Gaussian Copula Data || *Vincenzina Vitale, Paola Vicard*

ROOM 11 | CO3.5 Statistical Models: New Proposals

chair: **Antonino Abbruzzo** —*University of Palermo*

Node-specific effects in latent space modelling of multidimensional networks || *Silvia D'Angelo, Marco Alfò, Thomas Brendan Murphy*

On the estimation of epidemiological parameters from serological survey data using Bayesian mixture modelling || *Emanuele Del Fava, Piero Manfredi, Ziv Shkedy*

Decomposing Large Networks: An Approach Based on the MCA based Community Detection || *Carlo Drago*

An evaluation of KL-optimum designs to discriminate between rival copula models || *Silvia Angela Osmetti*

On Bayesian high-dimensional regression with binary predictors: a simulation study || *Debora Slanzi, Valentina Mameli, Irene Poli*

Variational Approximations for Frequentist and Bayesian Inference || *Luca Maestrini*

09:40 - 10:40 —B.19
SOLICITED SESSIONS

ROOM 07 | SO3.1 Spatial Functional Data Analysis

chair: **Antonio Balzanella** —*University of Campania*

Object oriented spatial statistics for georeferenced tensor data || *Alessandra Menafoglio, Davide Pigoli, Piercesare Secchi*

A simple spatio-temporal model for some complex data || *Luigi Ippoliti*

Constructing priors for functional linear regression models || *Maria Franco Villoria, Massimo Ventrucci, Haavard Rue*

A Spatio-Temporal Mixture Model for Urban Crimes || *Angela Ferretti, Luigi Ippoliti, Pasquale Valentini*

FRIDAY 22 JUNE

ROOM 08 | SO3.2 **Advances in Discrete Latent Variable Modelling**

chair: **Marco Alfò** —*Sapienza University of Rome*

A joint model for longitudinal and survival data based on a continuous-time hidden Markov model || *Alessio Farcomeni, Francesco Bartolucci*

Causality patterns of a marketing campaign conducted over time: evidence from the latent Markov model || *Fulvia Pennoni, Leonard J. Paas, Francesco Bartolucci*

Dealing with reciprocity in dynamic stochastic block models || *Francesco Bartolucci, Maria Francesca Marino, Silvia Pandolfi*

Modelling the latent class structure of multiple Likert items: a paired comparison approach || *Brian J. Francis*

ROOM 09 | SO3.3 **Living Conditions and a Consumption Expenditure in Time of Crises**

chair: **Margherita Carlucci**—*Sapienza University of Rome*

The financial crisis, food consumption and quality of diets: An international perspective || *Tiziana Laureti,Mario Mazzocchi*

Micro and Macro Resilience measures to the economic crisis || *Cristina Bernini, Maria Francesca Cracolici, Peter Nijkamp*

Dynamics in Price and Income Elasticities over 20 years in Italy || *Sara Capacci, Luca Secondi, Ilaria Benedetti*

Material deprivation and household consumption expenditure in Italy during last economic crises || *Isabella Siciliani, Ilaria Arigoni*

ROOM 10 | SO3.4 **Methodological Approaches to Constructing Social Composite Indicators**

chair: **Maria Gabriella Grassia** —*Federico II University of Naples*

Model based Indicators for Sustainability || *Rosanna Cataldo, Carlo Natale Lauro, Marina Marino, Viktoriia Voytsekhovska*

Introduction of weights in poset-based synthetic indicators || *Giovanna Boccuzzo, Giulio Caperna*

A composite indicator to analyse gender balance in Italian Public University || *Laura Antonucci, Corrado Crocetta, Madia D'Onghia, Emma Zavarrone*

Comparing different aggregating approaches. An application to the Gender equality indicators in Italy at sub-national level || *Enrico di Bella, Filomena Maggino, Lucia Leporatti*

ROOM 11 | SO3.5 **Statistical Modelling for Business Intelligence**

chair: **Bruno Scarpa** —*University of Padua*

A nonlinear state-space model for the forecasting of field failures || *Antonio Pievatolo*

Bayesian Ensemble of Quantile Trees for Sales Prediction || *Mauro Bernardi, Paola Stolfi*

Discrimination in machine learning algorithms || *Roberta Pappadà, Francesco Pauli*

Does Airbnb affect the real estate market? A spatial dependence analysis || *Mariangela Guidolin, Mauro Bernardi*

FRIDAY 22 JUNE

ROOM 12 | SO3.6 **Supporting Regional Policies Through Small Area Statistical Methods**

chair: **Silvia Pacei —***University of Bologna*

Survey-weighted Unit-Level Small Area Estimation || *Patricia Doerr, Jan Pablo Burgard*

Integration of socio-economic data for the estimation of indicators at the municipal level || *Michele Dalo, Alessio Guandalini, Andrea Fasulo, Solari Fabrizio*

Accounting for measurement error in unit and area-level small area models || *Nikos Tzavidis, Timo Schmid, Paul Walter, Natalia Rojas-Perilla, Paul Smith, Jan van den Brakel*

Robust and model-assisted small area estimation methods: an application to the Banca d'Italia Survey of Industrial and Service Firms || *Enrico Fabrizi*

10:40 - 11:30 —B.13
PLENARY SESSION

AULA MAGNA "V. LI DONNI" | PL3.A **The Istat President, Giorgio Alleva, Presents the Annual Report of 2018**

chair: **Vincenza Capursi —***University of Palermo*

11:30 - 12:00 —ED19
COFFEE BREAK

12:00 - 13:30 —ED13
PLENARY SESSION

AULA MAGNA "V. LI DONNI" | PL3.B **Advanced Models and Computational Methods for Data from Modern Biomedicine**

chair: **Clelia Di Serio —***Vita-SaluteSan Raffaele University of Milan*

Statistical challenges and opportunities in modelling coupled behaviour-disease dynamics of vaccine refusal || *Chris Bauch —University of Waterloo*

Precision medicine and personalized networks || *Francesco C. Stingo —University of Florence*

Health information systems and statistics || *Fabrizio De Nicola —Head of the Polyclinic of the University of Palermo*

13:30 - 14:30 —ED19
LUNCH

14:30 - 16:00 —ED19
SPECIALIZED SESSION

ROOM 07 | SP3.1 **Statistical Modelling of Big Spatial Data**

chair: **Michela Cameletti —***University of Bergamo*
discussant: **Luig Ippoliti —***University of Chieti-Pescara*

A Hierarchical Multivariate Spatio-Temporal Model for Clustered Climate data with Annual Cycles || *Giovanna Jona Lasinio, Gianluca Mastrantonio, Alessio Pollice, Giulia Capotorti, Lorenzo Teodonio, Carlo Blasi*

A variance-adaptive proposal for multivariate disease mapping || *Miguel Angel Martinez-Beneito, Francisca Corpas-Burgos, Paloma Botella-Rocamora*

Multivariate statistical emulators for city-level air quality management || *Francesco Finazzi, Yoana Borisova, Marian E. Scott, Alan Hills, Michela Cameletti*

FRIDAY 22 JUNE

ROOM 08 | SP3.2 Statistical Modelling

chair: **Vito Muggeo —***University of Palermo*
discussant: **Vito Muggeo —***University of Palermo*

The GAMLSS models: Past and Future || *Mikis Stasinopoulos*

A regularized estimation approach for the three-parameter logistic model || *Michela Battauz, Ruggero Bellio*

Recovering Indirect Information in Demographic Applications || *Jutta Gampe*

ROOM 09 | SP3.3 Functional Statistics for Spatiotemporal Data (in collaboration with the Royal Statistical Society)

chair: **Claire Miller —***University of Glasgow*
discussant: **Maria Franco Villoria —***University of Turin*

Visualization and assessment of spatio-temporal covariance properties || *Ying Sun*

Application of semiparametric function-on-scalar regression for modeling spatio-temporal earthquake dynamics || *Alexander Bauer*

Functional principal component analysis for non-stationary dynamic time series with an application to high-frequency hydrological data || *A El-Ayouti*

ROOM 10 | SP3.4 Statistics and Indicators for the Analysis of the Economic Competitiveness of the Business System

chair: **Stefano Menghinello —***Istat*
discussant: **Matilde Bini—***European University of Rome*

A Survival Multilevel Model on EU Companies (2006-2016) || *Margherita Velucchi*

Changing lenses to read a changing world: The new Istat approach to study firms' competitiveness using integrated data || *Stefano Costa*

The information of the territorial register for the analysis of spatial distribution || *Alessandro Faramondi*

ROOM 11 | SP3.5 Reproducibility in Biostatistics: from Observational Studies to Sampling Strategies

chair: **Clelia Di Serio —***Vita-Salute San Raffaele University of Milan*
discussant: **Pierlugi Conti—***Sapienza University of Rome*

Designing Effective Sampling Strategies in Biomedical Studies: is Selection Bias Always Bad? || *Fulvia Mecatti*

Recurrence dynamics of cancer according to the dormancy paradigm || *Elia Biganzoli*

Reproducibility and uncertainty || *Annibale Biggeri*

16:00 - 17:30 —B.13
ROUND TABLE

AULA MAGNA "V. LI DONNI" | The Culture of Work: from Statistics on the Job Market to the Job Market of Statisticians (SIS – AlmaLaurea)

chair: **Francesco Bartolucci** —*University of Perugia*

Welcome addresses

F. Micari —*Rettore dell'Università degli Studi di Palermo*

N. Musumeci — *Presidente della Regione Siciliana*

L. Orlando — *Sindaco di Palermo*

R. Lagalla — *Assessore all'Istruzione e alla Formazione professionale*

M. Ippolito — *Assessore Regionale della Famiglia, delle Politiche sociali e del Lavoro*

G. Antonelli — *Presidente del Comitato Scientifico Strategico di AlmaLaurea*

Comments

L'occupazione dei laureati siciliani nel contesto nazionale ||
Silvia Ghiselli —AlmaLaurea

La Statistica nel mondo del lavoro: Statistici e non solo... ||
Ornella Giambalvo —University of Palermo

Le competenze statistiche nelle professioni economiche ||
Francesco Ferrante —University of Cassino and Southern Lazio

Gli statistici in ambito psicologico ||
Tiziana Pascucci —Sapienza University of Rome

Le attività degli Statistici in campo medico ||
Leonardo Emberti Gialloreti —Tor Vergata University of Rome

17:30 - 17:50 —B.13

AULA MAGNA "V. LI DONNI" | CLOSING CEREMONY

POSTER SESSIONS

*Poster exhibition will take place at **B.19 2nd floor***
*The size of the poster should be **width** : max 100cm / **height** : max 100cm*

SPEED PRESENTATION 1 || WED.20TH, 13:00 - 13:30

- Mapping the relation between University accesstest and student's university performance || *Antonella Plaia, Vincenzo Giuseppe Genova*

- Spatial Segregation of Immigrant Households in Messina || *Angelo Mazza, Massimo Mucciardi*

- The measurement of ethnic identity through the MEIM, EIS and FESM scales: a case study || *Antonino Mario Oliveri, Gabriella Polizzi*

- Spatially varying coefficient models for areal data || *Massimo Ventrucci*

- Investigating the effect of drugs consumption on survival outcome of Heart Failure patients using joint models: a case study based on regional administrative data. || *Marta Spreafico, Francesca Gasperoni, Francesca Ieva*

- A note on objective Bayes analysis for graphical vector autoregressive models || *Lucia Paci, Guido Consonni*

- Deep Learning to the Test: an Application to Traffic Data Streams || *Nina Deliu*

- Spatiotemporal Prevision for Emergency Medical System Events in Milan || *Andrea Gilardi, Riccardo Borgoni, Andrea Pagliosa, Rodolfo Bonora*

- An R package for more reliable estimates of Residential Segregation || *Angelo Mazza, Antonio Punzo*

- Multivariate analysis of marine litter abundance through Bayesian space-time models || *Crescenza Calculli, Alessio Pollice, Letizia Sion, Porzia Maiorano*

- Classification of the Aneurisk65 dataset using PCA for partially observed functional data || *Marco Stefanucci*

- Bayesian Population Size Estimation with A Single Sample || *Pierfrancesco Alaimo Di Loro*

- Supervised Learning for Link Prediction in Social Networks || *Riccardo Giubilei*

- Estimating the implied probabilities in the tennis betting market: A new normalization procedure || *Vincenzo Candila, Antonio Scognamillo*

SPEED PRESENTATION 2 || THUR.21ST, 13:00 - 13:30

• Attitudes, beliefs, behaviours and HPV vaccine || *Veronica Dorgali*

• A distribution curves comparison approach to analyze the university moving students performance || *Giovanni Boscaino, Giada Adelfio, Gianluca Sottile*

• Sovereign co-risk measures in the Euro Area || *Silvia Facchinetti*

• A Partial Ordering Application in Synthetizing Dimensions of Subjective Well-being || *Paola Conigliaro*

• A methodological approach for Umbria's environmental data || *Marta Bosi, Monica Franzese, Cristiano Trani, Sandra Verduci*

• Random Garden: a Supervised Learning Algorithm || *Ivan Luciano Danesi, Valeria Danese, Nicolò Russo, Enrico Tonini*

• Structured Additive Distributional Regression applied to the spatio-temporal analysis of soil-plant variability || *Giovanna Jona Lasinio, Alessio Pollice, Thomas Kneib, Stephan Lang, Roberta Rossi, Mariana Amato*

• Women's empowerment and child mortality: the case of Bangladesh || *Chiara Puglisi*

• How to measure cybersecurity risk || *Silvia Angela Osmetti*

• Power Priors for Bayesian Analysis of Graphical Models of Conditional Independence in Three Way Contingency Tables || *Aikaterini Mantzouni*

• Implementation of an innovative technique to improve Sauvignon Blanc wine quality || *Filippa Bono, Pietro Catania, Mariangela Vallone*

• A proportional hazards model under bivariate censoring and truncation || *Marialuisa Restaino, Hongsheng Dai*

• Reconstructing missing data sequences in multivariate time series: an application to environmental data || *Maria Lucia Parrella, Giuseppina Albano, Michele La Rocca, Cira Perna*

• Testing different structures of Spatial Dynamic Panel Data models by a bootstrap multiple testing procedure || *Maria Lucia Parrella, Francesco Giordano, Massimo Pacella*

• Estimating the number of unseen species under heavy tails || *Marco Battiston, Federico Camerlenghi, Emanuele Dolera, Stefano Favaro*

• Studying the relationship between anxiety and school achievement using M-quantile random-effects model with sampling weights || *Francesco Schirripa Spagnolo, Antonella D'Agostino, Nicola Salvati*