



Conference Program

CLADAG-VoC 2025

Naples 8-10 September 2025

Day 1

Monday, September 8

09:30 REGISTRATION DESK OPENS

10:50 - 11:20 OPENING CEREMONY

Room Carlo Ciliberto (Aula Rossa)

11:30 - 13:00 INVITED SESSIONS GROUP 1

Room Carlo Ciliberto (Aula Rossa)

“Latent variable models for complex dependency structures”

Organizers: *Roberto Di Mari and Matteo Farnè*

Chair: *Matteo Farnè*

- Dylan Molenaar: *Relating Violations of Measurement Invariance to Group Differences in Response Times*
- Roberto Di Mari, Matteo Farnè and Angelos Vouldis: *endogeNOVA: a Latent Variable Approach to Assess Endogenous Bank Performance from ECB Supervisory Data*
- Francesco Lagona and Marco Mingione: *Copula-Based Hidden Semi-Markov Models for Cylindrical Time Series*
- Jouni Kuha and Zsuzsa Bakk: *Two-Step Estimation of latent trait models*



Room Lorenzo Mangoni (Aula Azzurra)

“Recent developments in finite mixture modeling”

Organizer: *Volodymyr Melnykov*

Chair: *Volodymyr Melnykov*

- Volodymyr Melnykov and Salvatore Ingrassia: *Fitting Gaussian Mixture Models with Uncertain Number of Components*
- Marta Nai Ruscone: *Mixture-Based Clustering for Ordinal Responses*
- Ganesh Babu, Aoife Gowen, Michael Fop and Isobel Claire Gormley: *Consensus, Constrained Parsimonious Gaussian Mixture Models: Labelling Pixels In Hyperspectral Images*
- Katharine Clark and Paul McNicholas: *Dealing with Outliers in Model-Based Clustering*

Room E1

“Complex Latent Class Modeling”

Organizers: *Zsuzsa Bakk and Johan Lyrvall*

Chair: *Johan Lyrvall*

- Yuqi Liu, Zsuzsa Bakk, Ethan M. McCormick and Mark de Rooij: *A Two-step estimator for Growth Mixture Models with Covariates in the Presence of Direct Effects*
- Christophe Biernacki and Violaine Courier: *Guided Clustering Variational Autoencoder*
- Felix Clouth: *Causal Structural Models for Stepwise Latent Class Analysis*
- Silvia Bacci, Rosa Fabbriatore and Maria Iannario: *A Latent Variable Approach for Joint Modeling of Item Responses, Response Times, and Item Position in Educational Testing*

Room E2

“New Statistical Approaches in Life Courses Studies”

Organizers: *Dalit Contini and Giancarlo Ragozini*

Chair: *Giancarlo Ragozini*

Discussant: *TBA*

- Vincenzo Giuseppe Genova, Maria Prosperina Vitale, Giuseppe Giordano and Giancarlo Ragozini: *Exploring Student Mobility Trajectories In Higher Education During The Covid-19 Pandemic*
- Cristian Usala, Mariano Porcu and Isabella Sulis: *Local Educational Supply and University Choice: Insights from Italy*



- Chiara Chiavenna and Alessia Melegaro: *Vaccination Timeliness as a Life Course Process: Patterns and Heterogeneity*

Room E3

“Safe Machine Learning”

Organizer: *Paolo Giudici*

Chair: *Paolo Giudici*

Discussant: *Paolo Giudici*

- Alessandro Piergallini and Paolo Giudici: *Safe Financial Time Series Agents*
- Emanuela Raffinetti: *An Holistic Trustworthiness Assessment of AI systems: the SAFETYvalue*
- Gennaro Auricchio, Paolo Giudici and Giuseppe Toscani: *The Gini index as a Multivariate Coefficient of Variation*

Room E4

“Trimming Based Robustness”

Organizer: *Marco Riani*

Chair: *Marco Riani*

Discussant: *Luis Angel García-Escudero*

- Mia Hubert, Fabio Centofanti and Peter Rousseeuw: *Robust Principal Components by Casewise and Cellwise Weighting*
- Andrea Cerioli, Luis Angel Garcia-Escudero, Agustin Mayo-Isacar, Domenico Perrotta and Francesca Torti: *Robust Data Analysis and Clustering Under Heavy Tails*
- Anthony Atkinson, Marco Riani, Gianluca Morelli and Aldo Corbellini: *The Use of Modern Robust Regression Analysis with Graphics: An Example from Marketing*

Room E5

“Scalable Estimation of Large-Scale Models”

Organizer: *Ruggero Bellio*

Chair: *Ruggero Bellio*

- Omiros Papaspiliopoulos and Max Goplerud: *Hierarchical Item Response Theory*



- Maria-Pia Victoria Feser, Giuseppe Alfonzetti and Stephane Guerrier: *Fast M-Estimation for Exploratory Generalized Linear Latent Variable Models in High Dimensions*
- Giuseppe Alfonzetti, Ruggero Bellio and Cristiano Varin: *Scalable Composite Likelihood Estimation of Categorical Data Models with Crossed Random Effects*
- Motonori Oka, Yunxiao Chen and Irini Moustaki: *Boosting Strategies of Stochastic Optimisation for High-Dimensional Latent Variable Models*

Room E6

“Biclustering: Methodologies and Applications”

Organizer: Jos Hageman

Chair: Jos Hageman

- Jos Hageman and Guus Nellissen: *A Genetic Algorithm Approach For Biclustering Diverse Structural Components in Complex Data*
- Sanjeena Dang: *A Mixture Of Multivariate Poisson Lognormal Distributions and its Extension to Biclustering*
- Mariaelena Bottazzi Schenone, Luis Angel Garcia Escudero, Agustín Mayo Íscar and Maurizio Vichi: *Robust Triple K-Means*
- Alessia D’Ambrosio, Giuseppe Gismondi, Marco Cardillo, Giuseppe Pandolfo and Antonio D’Ambrosio: *An Innovative Approach to Co-Clustering of Directional Data: A Methodological Framework with an Application on Interregional Mobility in the Italian National Health Care System*

13:00 - 13:50 LUNCH BREAK



14:00 – 15:00 KEYNOTE TALK 1

Room Carlo Ciliberto (Aula Rossa)

Eva Ceulemans: *The EWMA Control Chart For Real-Time Detection Of Developing Mood Disorders: Key Principles, Optimization Of Performance, And Applications*

Chair: Mark de Rooij

15:10 – 16:40 INVITED SESSIONS GROUP 2

Room Lorenzo Mangoni (Aula Azzurra)

“Advanced Clustering Methods for Complex Data I”

Organizer: Marta Nai Ruscone

Chair: Marta Nai Ruscone

- Pietro Coretto, Alfonso Peluso and Luca Coraggio: *Community Detection in Financial Networks and the Importance of Being Robus*
- Igor Melnykov and Szymon Steczek: *Mixtures of Dirichlet Distributions for Clustering Dynamic Compositional Data*
- Thomas Brendan Murphy and Julien Jacques: *Model-Based Clustering and Variable Selection for Multivariate Count Data*
- John R.J. Thompson, Jesse S. Ghashti, Daniel Krasnov and Nicolas Bosteels: *Mixed-Type Fuzzy Spectral Clustering With Kernel-Based Similarity*

Room E1

“Data Science Applications For Environmental Quality Control and Sustainability”

Organizer: Monica Palma

Chair: Monica Palma

Discussant: Pasquale Sarnacchiaro

- Rodolfo Metulini, Maurizio Carpita and Manlio Migliorati: *Characteristic-Based Fuzzy Clustering of MCS-GARCH Volatility Components in Traffic Flow Data*
- Antonella Congedi, Sandra De Iaco, Monica Palma and Lucia Simmini: *An Enhanced New Multivariate GWR Approach for Spatio-Temporal PM10 Levels Prediction*



- Veronica Distefano and Sandra De Iaco: *Advances of Spatio-Temporal Clustering for Evaluating the Interaction Between Tourism And Environment*

Room E2

“Advances in Clustering Algorithms: Contrastive Hierarchical Approaches and Dynamic Time Warping”

Organizers: *Anna Denkowski and Stanisław Wanat*

Chair: *Maciej Denkowski*

- Sebastian Baran: *Large-Scale Benchmarking of GLMs and Machine Learning Models in Auto Insurance Ratemaking*
- Przemysław Rola: *Contrastive Hierarchical Clustering*
- Anna Denkowski, Maciej Denkowski, João Paulo Vieito and Stanisław Wanat: *DTW-Based Time Series Clustering with Application to the Identification and Measurement of Systemic Threats in the Insurance Sector*
- Krzysztof Szczepny, Stanisław Wanat and Valentina Lorenzoni: *Analyzing the Impact of Tail Dependencies on Value at Risk (VaR) using Distorted Mix Copula*
- Valentina Lorenzoni: *How European Countries Cluster with Respect to the Ability to Satisfy Health Needs and Ensure The Health of Citizens by Their Expenditure On Health?*

Room E3

“Advanced Methods for Cellwise Outlier Detection”

Organizer: *Giorgia Zaccaria*

Chair: *Giorgia Zaccaria*

Discussant: *Matteo Farnè*

- Fabio Centofanti, Mia Hubert and Peter Rousseeuw: *Cellwise and Casewise Robust Covariance in High Dimensions*
- Mehdi Hirari, Fabio Centofanti, Mia Hubert and Stefan Van Aelst: *Casewise and Cellwise Robust Tensor-on-Tensor Regression*
- Jakob Raymaekers and Peter J. Rousseeuw: *Challenges of Cellwise Outliers*



Room E4

“Symbolic Data Analysis”

Organizer: *Paula Brito*

Chair: *Paula Brito*

Discussant: *Ndeye Niang*

- Rosanna Verde, Gianmarco Borrata and Antonio Balzanella: *Functional Regression for Predicting Distributional Data: an Application to CO₂ Emissions*
- Francesca Condino and Paula Brito: *Entropy-Based Discriminant Analysis for the Classification of Density-Valued Symbolic Data*
- Sónia Dias and Paula Brito: *Principal Component Analysis of Distributional Data: Method and Applications*

Room E5

“Advances in Clustering and Classification for Mixed Data”

Organizer: *Carlo Cavicchia*

Chair: *Michel van de Velden*

Discussant: *Michel van de Velden*

- Aurea Grané and Fabio Scielzo-Ortiz: *New Robust Distance-Based Clustering Algorithms for Large Mixed-Type Data*
- Andrea Cappozzo and Alessandro Casa: *A Regularized Wishart Mixture Model for Clustering Covariance Objects*
- Efthymios Costa, Ioanna Papatsouma and Angelos Markos: *Cluster Analysis From an Information-Theoretic Viewpoint*

Room E6

“Data-Driven Decision Making”

Organizer: *Tim Verdonck*

Chair: *Tim Verdonck*

- Bing Yang, Stefan Van Aelst and Tim Verdonck: *Ensemble Cost-Sensitive Logistic Regression Models with Multi-Type Lasso Penalty*



- Marco Riani, Anthony C. Atkinson, Domenico Perrotta, Aldo Corbellini and Valentin Todorov: *Applied Robust Statistics Through the Monitoring Approach*
- Christophe Croux, Klaus Nordhausen, Mika Sipila and Sara Taskinen: *Robust Forecasting with LSTM*
- Edoardo Redivo and Cinzia Viroli: *Frequentist Estimation of Microclustering Models with Applications to Record Linkage*

16:40 - 17:00 COFFEE BREAK

17:00 - 17:45 CONTRIBUTED SESSIONS GROUP 1

Room Lorenzo Mangoni (Aula Azzurra)

“Multidimensional Scaling and Related Methods”

Chair: *Antonio D'Ambrosio*

- Akinori Okada and Tadashi Imaizumi: *Multidimensional Scaling Utilizing Self-Similarity*
- Giuseppe Gismondi, Marco Cardillo and Alfonso Piscitelli: *Tracking Preference Evolution with Dynamic Multidimensional Unfolding*
- Lizbeth Burgos-Ochoa and Katrijn Van Deun: *Clustering Multivariate Trajectories of Neighbourhood Change: Exploring Self-Organizing Maps and Alternatives*

Room E1

“Latent Variable Models And Dimensionality Reduction Methods for Complex Data I”

Chair: *Cinzia Viroli*

- Marta Cipriani, Marco Alfò and Mirko Signorelli: *Extending Landmarking to Mixture Cure Models with Longitudinal Covariates*
- Michela Battauz: *A Penalized Likelihood Approach to DIF Detection*
- Marta Ferrari, Alessandra R. Brazzale and Giovanna Menardi: *Trajectory Reconstruction in Muon Scattering Tomography Using Two-Component Mixture Modelling*



Room E2

“Item Response Theory and Scale Validation”

Chair: *Maria Spano*

- Ilaria Primerano and Maria Carmela Catone: Leveraging Social Network Analysis for Semantic Differential Scale: An application to Survey Data
- Gabriel Wallin and Qi Huang: A Hybrid Latent-Class Item Response Model for Detecting Measurement Non-Invariance in Mental Health Survey Data
- Travis Yang, Wilco Emons, Yves Rosseel and Katrijn van Deun: Novel Estimation Methods for Regularized Large-Scale Multidimensional Item Response Theory Models

Room E3

“Advanced Clustering Techniques for Mixed-Type and Imbalanced Data”

Chair: *Rosaria Simone*

- Alfonso Iodice D'Enza, Cristina Tortora and Francesco Palumbo: *Association-Based Spectral Clustering for Mixed Data*
- Marco Stefanucci, Mauro Bernardi and Antonio Canale: *Fast and Flexible Convex Clustering with General Weights*
- Emil Lambert, Daniyal Kazempour and Peer Kröger: *Polynomial Manifold Clustering*

Room E4

“Local Modeling and Advanced Inference for Spatial and Functional Data”

Chair: *Christian Capezza*

- Ndeye Awa Dieye, Giorgio Russolillo and Ndèye Niang: *When Standard Calibration Metrics Fail in Evaluating Classifier Calibration: a Simulation Study*
- Martina Narcisi, Garritt L. Page and Gilbert W. Fellingham: *New Insights into Volleyball Setter Evaluation through Spatial-Outcome Clustering*
- Domenico Persia, Vito Santarcangelo, Angelo Romano, Giulio Setzu, Angelo Lamacchia, Alessandro D'Alcantara, Michele Di Lecce, Saverio Gianluca Crisafulli, Massimiliano Giacalone, Gianfranco Piscopo and Sergio Vitullo: *Unisound: a Sustainable Design Based Active Noise Cancellation Device for Workplaces*



Room E5

“Model-Based Clustering and Representation Learning for Structured and Incomplete Data”

Chair: *Michelangelo Misuraca*

- Marta Campagnoli, Marta Magnani and Silvia Salini: *Understanding Students' Paths in Italian Higher Education: A Bayesian Network Approach*
- Małgorzata Grzywińska-Rapca and Aneta Ptak-Chmielewska: *Subjective Perceptions of The Financial Situation of Polish Households and their Savings*
- Domenica Fioredistella Iezzi and Roberto Monte: *Enhancing Sentiment Detection in Social Media Using LLMS and Embedding-Based Clustering*

Room E6

“Latent Structures and Interpretability”

Chair: *Agostino Gnasso*

- Marco Bee and Flavio Santi: *Modeling and Estimating Skewed and Heavy-Tailed Populations via Unsupervised Mixture Models*
- Furio Urso, Nicola Argentino, Antonino Abbruzzo, Reza Mohammadi, Kevin Pak and Maria Francesca Cracolici: *Unravelling Latent Cognitive Dissonance in E-Commerce: A Profile-Based Analytical Framework*
- Andrea Nigri, Massimo Bilancia, Barbara Cafarelli and Samuele Magro: *A Sparse and Interpretable Post-Clustering Logistic Regression for Modelling Higher Education Dropouts*

20:00 WELCOME EVENT IN THE CITY CENTER

Where: *Complesso dei SS. Marcellino e Festo, Largo S. Marcellino 10*

More information at CLADAG2025 Special Events (Welcome Event)



Day 2

Tuesday, September 9

08:00 REGISTRATION DESK OPENS

08:50 – 09:50 CONTRIBUTED SESSIONS GROUP 2

Room Lorenzo Mangoni (Aula Azzurra)

“Recursive Partitioning and Related Methods”

Chair: *Massimo Aria*

- Giorgio Spadaccini, Marjolein Fokkema and Mark van de Wiel: *Posterior inference for Shapley values through Bayesian Horseshoe Estimation of Tree-Based Prediction Rule Ensembles*
- Andrea Carta and Luca Frigau: *Weighted Logistic Oblique Tree for Regression*
- Jakob Raymaekers, Peter Rousseeuw, Thomas Servotte, Tim Verdonck and Ruicong Yao: *A Powerful Random Forest Featuring Linear Extensions (RaFFLE)*
- Agostino Gnasso and Massimo Aria: *“Can You Explain That?” E2Tree, SHAP, and LIME for Interpretable Random Forests*

Room E1

“Statistical Models for Sequential, Functional, and Structured Data”

Chair: *Giulia Vannucci*

- Gianluca Mastrantonio, Giovanna Jona Lasinio and Alessio Pollice: *Clustering Dolphin Signature Whistles with Dirichlet Process Mixtures*
- Josiah Leinbach, Xuwen Zhu and Shuchismita Sarkar: *A State-Restricted Hidden Markov Model for Authorship Attribution of the Deutero-Pauline and Pastoral Epistle*
- Christian Capezza, Antonio Lepore and Kamran Paynabar: *Active Learning for Sequential Classification with Partial Labels*
- Michael Gallagher and Xuwen Zhu: *Matrix Variate Hidden Markov Models with Skewed Emissions*



Room E2

“Clustering and Community Detection for Structured and Complex Data”

Chair: *Alfonso Iodice D’Enza*

- Ilaria Mozzetta, Maurizio Vichi and Tiziano Iannaccio: *Hybrid Single Linkage Clustering*
- Rebecca Riveccio and Roberta Siciliano: *Extending the Boosted-Oriented Probabilistic Clustering to the Unit Hypersphere: A Textual Data Perspective*
- Sara Geremia and Domenico De Stefano: *Density-Based Community Detection Combining Structure and Attribute Information*

Room E3

“Bayesian Learning for Structured and Functional Data”

Chair: TBA

- Anna De Magistris, Elvira Romano and Gerardo Toraldo: *Local Conformal Prediction for Non-Parametric Uncertainty Bands in Functional Ordinary Kriging*
- Niccolò Cao, Silvia Cagnone, Livio Finos and Marilina Amabile: *Modelling Longitudinal Health-Related Constructs: a Latent Variable Approach*
- Matteo Mori and Laura Anderlucci: *Model-Based Clustering of Functional Data via Random Projection Ensembles*
- Raul Zanatta and Giovanna Menardi: *Adaptive Density Estimation with Application to Image Segmentation*

Room E4

“Dimensionality Reduction and Latent Structures in High-Dimensional Data”

Chair: *Rosaria Simone*

- Ana Moreira and Susana Faria: *Comparison of Group Lasso Methods for Finite Mixtures of Linear Regression Models*
- Leonardo Genesin, Giovanni Parmigiani and Giovanna Menardi: *Bayesian Multi-Study Biclustering*
- Kaiwen Liu, Mark de Rooij and Wouter Weeda: *Principal Covariate Regression with Nuclear Norm Penalty*
- Tiziano Iannaccio and Maurizio Vichi: *ODK-means: A Simultaneous Approach to Clustering and Outliers Detection*



Room E5

“Methodological Advances in Applied Statistical Modeling”

Chair: *Luca D’Aniello*

- Lisa Verbeij, Mark de Rooij and Wouter Weeda: *Linking Brain Function And Structure To Phenotypes: A Preliminary Work on the Assessment Of Replicability in the Human Connectome Project.*
- Marta Campagnoli, Sophia Chiara Fiora, Rebecca Ghio, Marta Magnani, Silvia Salini and Stefano Trancossi: *Evolution of Students’ Profiles Enrolled in Italian Distance Learning Universities Over the Last Decade*
- Sirine Ben Assi, Wiem Neji, Giuseppe Cappelli, Sofia Nardoianini, Simona Balzano, Mauro D’Apuzzo and Giovanni Camillo Porzio: *Some Statistical Aspects in the Development of New Crash Frequency Models for Vulnerable Users*
- Edoardo Pascucci, Simona Balzano, Houyem Demni, Luisa Natale and Giovanni Camillo Porzio: *Young Generation and Sustainable Mobility: Findings From a PLS Structural Equation Model*

Room E6

“Modeling Dependence and Structure in Graphs, Space, and Circular Data”

Chair: TBA

- Yahia Hammami, Giovanni Camillo Porzio, Houyem Demni and Amor Messaoud: *A Mardia-Sutton Distribution for Cylinders with Random Ray*
- Sarah Leyder, Jakob Raymaekers and Peter Rousseeuw: *Robust Distance Correlation*
- Sara Milito, Francesco Giordano and Maria Lucia Parrella: *Efficient Estimation of Clustered SDPD Models with Exogenous Components*
- Ahmadali Jamali and Domenico De Stefano: *Graph Embeddings Impact on Unsupervised Community Detection in Ring Of Cliques with Outlier Effects*



10:00 – 11:00 KEYNOTE TALK 2

Room Carlo Ciliberto (Aula Rossa)

Peter Rousseuw: *Independent Component Analysis by Robust Distance Correlation*

Chair: *Maurizio Vichi*

11:00 - 11:20 COFFEE BREAK

11:20 - 12:50 INVITED SESSIONS GROUP 3

Room Lorenzo Mangoni (Aula Azzurra)

“Advances in Mixture Models”

Organizer: *Paul McNicholas*

Chair: *Paul McNicholas*

- Alexa Sochaniwsky and Paul McNicholas: *Parsimonious Ultrametric Manly Mixture Models*
- Antonello Maruotti, Alfonso Russo and Fabio Divino: *Model-Based Clustering of Mixed-Type Compositional-Continuous Data*
- Volodymyr Melnykov and Lingge Wang: *Change Point Detection in Categorical Sequences*
- Salvatore Daniele Tomarchio, Luca Bagnato and Antonio Punzo: *Dimension-Wise Kurtosis Control and Parsimony in Model-Based Clustering*

Room E1

“Preference Data”

Organizer: *José Luis Garcia Lapresta*

Chair: *José Luis Garcia Lapresta*

- José Carlos R. Alcantud: *Challenges in Preference-Approval of Opportunity Sets*
- Remzi Sanver: *The Majority Principle is Adequate Only for Purely Ordinal Individual Preferences*
- José Luis García-Lapresta and Miguel Martínez-Panero: *Aggregating Ternary Preferences In A Scoring Context*



- Alessandro Albano, José Luis Garcia Lapresta, Antonella Plaia and Mariangela Sciandra: *Marginal Contribution To Consensus In Ternary Preferences*

Room E2

“New Approaches to Dimensionality Reduction: Applications in the social sciences”

Organizers: *Alfonso Piscitelli and Leonardo Salvatore Alaimo*

Chair: *Alfonso Piscitelli*

Discussant: *Leonardo Salvatore Alaimo*

- Ida Camminatiello, Rosaria Lombardo and Mario Musella: *Modelling Social Inequalities with Identity Spline and LASSO Regression*
- Samuela L'Abbate, Paola Perchinunno and Leonardo Salvatore Alaimo: *Density-Based Clustering for the Detection of High-Intensity Regions*
- Mariaelena Bottazzi Schenone and Maurizio Vichi: *Assessing Foods Environmental Footprints Using Clustering Hierarchical Disjoint Principal Component Analysis*

Room E4

“Classification for biomedical data”

Organizer: *Cinzia Viroli*

Chair: *Cinzia Viroli*

Discussant: *Saverio Ranciati*

- Alice Giampino, Roberto Ascari and Sonia Migliorati: *A flexible Latent Dirichlet Model for modeling taxa communities*
- Pierfrancesco Alaimo Di Loro, Gianluca Mastrantonio and Marco Mingione: *A New Prior for Bayesian Graphical Modeling: the S-Bartlett*
- Silvia Dallari, Laura Anderlucci and Angela Montanari: *Clustering Microbiome Data Via Diversity-Based Mixture Models*

Room E5

“Regularization and Latent Variables”

Organizer: *Andreas Alfons*

Chair: *Andreas Alfons*

- Jan O. Bauer: *Beyond Regularization: Inherently Sparse Principal Component Analysis*



- Daniël J.W. Touw, Andreas Alfons, Patrick J.F. Groenen and Ines Wilms: *Sparse Clusterpath Gaussian Graphical Modeling and Covariance Estimation*
- Tra Le, Jeroen Vermunt and Katrijn Van Deun: *Block-regularized Exploratory Approximate Factor Analysis for Multidomain Data*
- Camilo Cardenas-Hurtado, Irini Moustaki and Yunxiao Chen: *A Generalized Additive Partial-Mastery Diagnostic Classification Model*

Room E6

“Statistical perspectives on Fairness in Classification Algorithms”

Organizer: *Anna Gottard*

Chair: *Anna Gottard*

- Francesco Pauli and Roberta Pappadà: *Measuring Discrimination in Decision-Making Algorithms: An Approach Based on Causal Inference*
- Isabel Valera: *Society-centered AI: An Integrative Perspective on Algorithmic Fairness*
- Emanuele Aliverti: *Removing the Influence of Sensitive Attributes via Variational Approximations*
- Evgenii Chzhen, Mohamed Hebiri and Gayane Taturyan: *Multi-Class Classification Under System Constraints: a Unified Approach via Post-Processing*



12:50 - 14:00 LUNCH BREAK

14:00 – 15:00 KEYNOTE TALK 3

Room Carlo Ciliberto (Aula Rossa)

Regina Liu: *Fusion Learning: Fusing Inferences from Diverse Data Sources*

Chair: Giovanni Camillo Porzio

15:10 – 16:40 INVITED SESSIONS GROUP 4

Room Carlo Ciliberto (Aula Rossa)

“Advances in Text Mining for Data Analysis”

Organizer: *Luca Frigau*

Chair: *Luca Frigau*

- Chiara Di Maria, Alessandro Albano, Mariangela Sciandra and Antonella Plaia: *Text-Based Propensity Scores for Analyzing Comorbidities in EHRs*
- Marco Ortu: Unsupervised Topic Relationship Discovery Using Generalized Structured Component Analysis: *A Novel Approach to Document Clustering*
- Silvia Bartolucci: Bridging Textual and Network Data Analysis: *Exploring Trends in Ethereum Developer Discussions*
- Giulia Contu and Marco Ortu: *Modeling the Impact of Review Content on Tourist Satisfaction: The case of the Sardinian Hotel Reviews*

Room Lorenzo Mangoni (Aula Azzurra)

“Analysis of Complex Data”

Organizers: *Domenico Perrotta and Andrea Cerioli*

Chair: *Agustín Mayo-Iscar*

Discussant: *Andrea Cerioli*



- Fabrizio Laurini, Agustín Mayo Iscar and Luis-Angel Garcia-Escudero: *Robust estimation of mixed models*
- Luca Greco and Claudio Agostinelli: *Weighted Likelihood Estimation of Multivariate Location and Scatter With Simultaneous Outliers and Missing Values*
- Luis Angel García-Escudero, Agustín Mayo-Isicar and Lucia Trapote-Reglero: *Robust Clustering Based on Trimming with Increasing Dimensionality*

Room E1

“Statistical Approaches for Measuring and Analysing Educational Imbalance”

Organizer: *Rosaria Romano*

Chair: *Francesco Palumbo*

- Tommaso Agasisti, Mara Soncin, Chiara Masci and Sergio Longobardi: *Enhancing Student Resilience Through Socio-Emotional Skills: Evidence from PISA 2022*
- Angelos Markos, Efthymios Costa and Ioanna Papatsouma: *Discovering Profiles of Resilient Students in PISA: an Information-Theoretic Approach to Clustering Mixed-Type Educational Data*



- Pasquale Sannino, Cristina Davino and Rosaria Romano: *Assessing Policies for Schools With Low Socioeconomic Opportunities: Insights from INVALSI Tests*
- Clelia Cascella, Marco Geraci and Domenico Vistocco: *Advancing Educational Research with Multilevel Quantile Regression: Evidence from Large-Scale Data*

Room E2

“Data-Driven Classification And Statistical Modeling for Tackling Environmental Challenges”

Organizer: *Luca Merlo*

Chair: *Luca Merlo*

- Antonello Maruotti, Lorena Ricciotti, Alfonso Russo and Sondre S. Hølleland: *Flexible and Robust Modeling of Tidal Meteorological Residuals in the Venice Lagoon Using Hidden Semi-Markov Models*
- Mackenzie Neal, Paul McNicholas and Arthur White: *Robust Clustering Using Maximized Mutual Information*
- Giulio Grossi and Lea Anna Cozzucoli: *Climate-Risk Salience and Public Support for Mitigation: Causal Evidence from the 2021 German Floods*
- Alfonso Russo, Alessio Farcomeni, Sabrina Giordano and Antonello Maruotti: *Discrete Latent Variable Models for Time-Dependent Ranking Data*

Room E3

“Biomedical Data Analysis and Systems Biology”

Organizer: *Hans Kestler*

Chair: *Adalbert Wilhelm*

- Ludwig Lausser: *Linear Classification Algorithms for Ordinal Classifier Cascades*
- Annika Kestler and Hans Kestler: *A Sparse Explainable Ensemble Classifier Leveraging Noise (and a Representation In The Decision Function Space) for High-Dimensional Data*
- Max Krüger and Ludwig Lausser: *Semantic Data Integration for the Reconstruction of Gene Regulatory Networks*
- Caya L. O. Hotstegs, Johann M. Kraus and Hans A. Kestler: *Simulating A Boolean Network of Hematopoietic Stem Cell Regulation on Neuromorphic Hardware*



Room E4

“Advances in Preference Learning”

Organizer: *Valeria Vitelli*

Chair: *Valeria Vitelli*

- Michael Pearce and Elena A. Erosheva: *Bayesian Rank-Clustering*
- Giuseppe Mignemi and Ioanna Manolopoulou: *Flexible Models for Multiple Raters Data via Bayesian Nonparametric Priors*
- Luca Coragggio and Valeria Vitelli: *Stability post-processing for Items Importance in Preference Learning via the Bayesian Mallows*
- Luiza Piancastelli and Nial Friel: *The Clustered Mallows model*

Room E5

“Complex Environmental Data”

Organizers: *Laura Sangalli and Francesco Lagona*

Chair: *Mariangela Sciandra*

- Nicoletta D'Angelo: *Detecting Changes in Space-Varying Parameters in Seismic Point Processes*
- Marco Mingione, Pierfrancesco Alaimo Di Loro, Francesco Lagona and Antonello Maruotti: *Environmental Risk Assessment via Nonhomogeneous Hidden Semi-Markov Models with Penalized Vector Auto-Regression*
- Luisa Ferrari, Maria Franco-Villoria, Garritt Page and Alex Laini: *Clustering Metabarcoding Data: A Model-Based Approach*
- Eleonora Arnone and Laura Sangalli: *Spatio-Temporal Regression with PDE Penalization: Mean and Quantile Estimation*

Room E6

“Unsupervised Methods in Data Science with Applications to Finance and Social Sciences”

Organizer: *Antonio Balzanella*

Chair: *Antonio Balzanella*

Discussant: *Raffaele Mattera*

- Furio Urso, Antonino Abbruzzo, Marcello Chiodi and Maria Francesca Cracolici: *Model Selection for Mixture Hidden Markov Models: An Application to Clickstream Data*



- Gianmarco Borrata, Antonio Balzanella, Raffaele Mattera and Rosanna Verde: *Cluster-Based Prediction under Missing Data: An Application to Green Funding of Italian SMEs*
- Arianna Agosto, Paola Cerchiello and Antonio Balzanella: *Aggregating ESG Scores: a Wasserstein Distance-Based Method*

16:40 - 17:00 COFFEE BREAK

17:00 – 18:00 CONTRIBUTED SESSIONS GROUP 3

Room Lorenzo Mangoni (Aula Azzurra)

“Latent variable models and dimensionality reduction methods for complex data II”

Chair: *Paolo Giordani*

- Cinzia Di Nuzzo and Matteo Farnè: *Algebraic Laplacian Estimator to Select the Number of Clusters in Spectral Clustering*
- Lucia Guastadisegni, Silvia Bianconcini and Silvia Cagnone: *A Comparison of Estimation Methods in Latent Variable Models for Binary Panel Data*
- Gian Mario Sangiovanni, Louisa Kontoghiorghe, Ana Colubi and Maria Brigida Ferraro: *Topic Homogeneity Test-based Fuzzy Document Clustering*
- Dalila Failli, Maria Francesca Marino and Francesca Martella: *Mixture of Experts Latent Trait Analyzers*

Room E1

“Advances in Preference and Perceptions Statistical Modeling”

Chair: TBA

- Maurizio Romano and Gianpaolo Zammarchi: *An Hybrid Preference Learning Framework to Refine the Consensus Ranking*
- Marco Cardillo, Alfonso Piscitelli and Raffaele Sacchi: *The Relevance of Information in Changing the Structure of Consumer Preferences: a Pre-Post Sensory Experiment on Seven Olive Oils*
- Rossella Duraccio, Maria Iannario, Claudia Tarantola and Roberta Varriale: *Gender Stereotypes and Barriers in STEM: a Bayesian Statistical Analysis of Perceptions and Challenges*



- Rosaria Simone, Francesca Di Iorio, Carmela Cappelli and Stefania Capecchi: *A Joint Investigation of Model-Based Classification Trees and Composite Indicator for Multivariate Ordinal Responses*

Room E2

“Innovative Approaches in Machine Learning and Clustering”

Chair: *Giuseppe Pandolfo*

- Flor Debois, Jakob Raymaekers, Thomas Servotte and Tim Verdonck: *Fast Weighted Linear Model Trees*
- Laura Anderlucci and Angela Montanari: *sketchedRF: a Random Forest Framework for Classification under Dataset Shift*
- Agostino Gnasso, Massimo Aria and Roberta Siciliano: *From Prediction to Explanation: Interpreting Risk Factors in Health Survey Analytics*
- Moatassam Bellah Alyani, Houyem Demni, Amor Messaoud, Paolo Giordani and Giovanni Camillo Porzio: *Fuzzy Clustering Of Cylindrical Data: Some New Approaches*

Room E3

“From Stratified Effects to Latent Trajectories: Advances in Statistical Association”

Chair: TBA

- Lorenzo Frattarolo: *Testing for Constant Central Asymmetry Between Two Copulas*
- Ruggero Bellio, Annamaria Guolo and Nicola Sartori: *A Unified Approach to Inference on a Common Parameter of Interest in Stratified 2×2 Tables*
- Marjolein Fokkema: *Assessing Shape Heterogeneity in Regression and Smoothing Spline Models*
- Miki Nakai and Fulvia Pennoni: *Diverging Career Trajectories of Men and Women in Japan: a Comparison Through Hidden Markov Models*

Room E4

“Advanced Statistical Modeling in Financial Markets”

Chair: *Carmela Iorio*

- Fausto Corradin, Antonio Peruzzi and Roberto Casarin: *ISP Index: a Parsimonious Method to Predict Defaults*



- Przemyslaw Jasko: *Random Dynamic Systems as a Modeling Tool in Statistical Arbitrage in the Stock Market*
- Steven Mphaya and Marialuisa Restaino: *Machine Learning for Credit Risk Modelling*
- Michael Trequattrini, Silvia Pandolfi and Francesco Bartolucci: *Weighted Estimation of Hidden Markov Stochastic Volatility Models*

Room E5

“Statistical Modeling and Machine Learning in Genomic and Population Health Research”

Chair: TBA

- Paolo Dalena, Luigina De Leo, Elena Spinelli, Giulia Barbati and Adamo Pio D'Adamo: *Prioritization of Differential Methylation Regions for the Prediction of Coeliac Disease: a Machine Learning Approach*
- Giulia Vannucci, Roberta Siciliano, Valentina Iuzzolino, Gianmaria Senerchia and Raffaele Dubbioso: *Enhancing Statistical Inference in Mixed-Effect Three-Tree Model: a Data-Carving Estimation Strategy with an Application on Amyotrophic Lateral Sclerosis Data*
- Simona Cafieri, Francesco Pugliese and Mauro Sodani: *Innovative Applications of Supervised Learning in Addressing Missing Data: A Case Study on Social Surveys*
- Ali Mertcan Köse: *Off-Target Analysis through Latent Class Models and Machine Learning in CRISPR Cas9: Tumor Protein 53 Sequence Application*

Room E6

“Advances in Statistical Optimization”

Chair: Christian Capezza

- Luca Martino, Salvatore Ingrassia, Sofia Mangano and Luca Scaffidi Domianello: *A Note on Gradient-Based Parameter Estimation for Energy-Based Models*
- Luca Frigau: *Local Optimization-Based Clustering*
- Andrea Mascaretti, Anna Vesely and Aldo Gardini: *Selection Accuracy and Errors in Sparse Models with the Horseshoe Prior*
- Marcella Niglio, Marialuisa Restaino and Rosaria Simone: *Optimizing Predictive Ability of Binary Regression for Imbalanced Data: a Simulation Study on Asymmetric Link Functions and Feature Selection*



18:00 – 19:00 CLADAG Assembly and Young Researchers Best Paper Award

Room Carlo Ciliberto (Aula Rossa)

20:30 Social Dinner

Where: Hotel Royal Continental – Via Partenope, 38, 80121 Napoli NA

More information at CLADAG2025 Special Events (Social Dinner)



Day 3

Wednesday, September 10

08:00 REGISTRATION DESK OPENS

08:50 – 09:50 CONTRIBUTED SESSIONS GROUP 4

Room Lorenzo Mangoni (Aula Azzurra)

“From Structural Models to Machine Learning: Predictive Approaches Across Domains”

Chair: Agostino Gnasso

- Hsin Kao, Li Zeng and Katrijn Van Deun: *Structural Equation Modeling for Out-of-Sample Prediction: A Comparative Study of Methods*
- Aditi M. Bhangale, Mark de Rooij and Julian D. Karch: *Relaxed SEM-Based Out-of-Sample Predictions*
- Cosimo Grazzini, Giorgia Spera, Stefania Morelli, Daniele Castellana, Giulia Cosenza, Michela Baccini, Giulia Cereda, Elena Pilli: *Evaluation of Supervised Machine Learning Methods in Predicting Biogeographical Ancestry through an Innovative SNP Panel.*
- Alessia D'Ambrosio, Giuseppe Gismondi, Alfonso Piscitelli: *Clustering Using Multidimensional Indicators: an Approach without Feature Reduction*

Room E1

“Statistical Methods and Optimization for Complex Decision Environments”

Chair: Giuseppe Pandolfo

- Lorenza Cotugno, Stefano Pellegrino and Roberta Siciliano: *Decoding Locomotor Intentions: Neural Networks and Probabilistic Machine Learning for Customizable Exoskeletons*
- Giuseppe Alfonzetti, Ruggero Bellio and Paolo Vidoni: *Computing an Agreement Measure for Crowdsourcing in Information Retrieval by Accurate Estimation of a Two-Way Beta Regression Model*



- Simona Cafieri and Francesco Petrucci: *Enhancing Small-Sample Inference for Health Indicators: a Machine Learning Framework Applied to EU Countries*
- Matteo Giordano: *Bayesian inference with Besov-Laplace Priors for Spatially Inhomogeneous Binary Classification Surfaces*

Room E2

“Latent Structures and Regularization in Graphical, Causal and Deep Clustering Models”

Chair: *Giulia Vannucci*

- Anna Crisci and Pasquale Sarnacchiaro: *Generalized Estimating Equation Methods with a New Interpretation of Goodness of Fit Measures. The Impact of Digitalization Level on GDP of the European Countries.*
- Girolamo Franchetti and Massimiliano Politano: *Revealing the Nature of Italian Life Expectancy: A Comparative Study of ARIMA Models Using COVID-19 Shock*
- Violetta Simonacci, Michele Gallo and Lucio Palazzo: *Reframing Fair PCA: a Multiset Tensor Decomposition Perspective*
- Maria Spano, Michelangelo Misuraca and Luigi Celardo: *From Vectors to Networks: Comparing Conventional and Graph-Based Approaches to Unsupervised Text Categorisation.*

Room E3

“Structured and Multi-Way Data Modeling”

Chair: *Luca D’Aniello*

- Zdenek Sulc and Jaroslav Hornicek: *nomclust 3.0: an R Package for Agglomerative Hierarchical Clustering of Categorical and Mixed-Type Data*
- Marco Berrettini and Giuliano Galimberti: *Closed-Form Information Matrix Expressions for Matrix-Normal Mixtures*
- Daniyal Kazempour, Emil Lambert, Claudius Zelenka and Peer Kröger: *On Relations Of Piecewise-Linear Approximations*
- Andrzej Sokółowski and Małgorzata Markowska: *Measuring Dynamics in Spatio-Temporal Clusters*



Room E4

“Validation and Innovation in Clustering: From Hierarchical Stability to Spatio-Temporal Pattern Discovery”

Chair: Luca Coraggio

- Jaroslav Horníček: *Instability measures for Hierarchical Clustering in Categorical Data*
- Alessia Benevento, Fabrizio Durante and Roberta Pappadà: *Comonotonic-Based Time Series Clustering with Soft Spatial Constraints*
- Orietta Nicolis, Billy Peralta and Alonso Rivera: *Graph-Based Deep Learning Approach for the Classification of Earthquake Magnitudes in Space and Time*

Room E5

“Bayesian and Nonparametric Frontiers in Network and Spatial Classification”

Chair: Mario Rosario Guarracino

- Stefano Bonnini, Michela Borghesi and Massimiliano Giacalone: *Advances on Combined Permutation Tests in Multivariate Problems*
- Antonio Peruzzi and Roberto Casarin: *A Multiple Random Scan Strategy for Bayesian Latent Space Models*
- Antonio Pacifico: *Adaptive Multiscale Clustering of Spatial Panels via Bayesian Wavelet Decomposition*
- Brian Daniel Bernhardt, Chiara Marciano, Sara Gigli, Lucia Maddalena and Mario Rosario Guarracino: *Understanding ESG Scores Through Network Analysis: A Study Using Graph Neural Networks*

Room E6

“Automated Financial Analysis and Funding Matching: Statistical Validation of AI Modeling”

Chair: Carmela Iorio

- Fabio Leone, Antonella Meccariello, Daniele Rossi, Luca Ruocco, Carmine Santone, Sergio Beraldo, Antonio D'Ambrosio, Carmela Iorio and Giovanni Walter Puopolo: *Can GenAI Match Human Standards in Financial Reports?*
- Fabio Leone, Antonella Meccariello, Daniele Rossi, Luca Ruocco, Carmine Santone, Sergio Beraldo, Antonio D'Ambrosio, Carmela Iorio and Giovanni Walter Puopolo: *Enhancing Access to European Funding through AI-powered tool*



- Fabio Leone, Antonella Meccariello, Daniele Rossi, Luca Ruocco, Carmine Santone, Sergio Beraldo, Antonio D'Ambrosio, Carmela Iorio and Giovanni Walter Puopolo: *From Data to Decision: A Scalable AI Approach to Public and Private Funding Discovery*

10:00 - 11:00 KEYNOTE TALK 4

Room Carlo Ciliberto (Aula Rossa)

Dimitris Karlis: *Model based clustering for non-continuous time series*

Chair: Roberto Rocci

11:00 - 11:20 COFFEE BREAK

11:20 - 12:50 INVITED SESSIONS GROUP 5

Room Lorenzo Mangoni (Aula Azzurra)

"Advances in Robust Clustering"

Organizers: Luis Angel Garcia Escudero

Chair: Luis Angel Garcia Escudero

Discussant: Marco Riani

- Marcus Mayrhofer, Una Radojčić and Peter Filzmoser: *Robust and Interpretable Matrix-Variate Data Analysis*
- Andrea Fois, Luca Insolia, Luca Consolini, Fabrizio Laurini, Marco Locatelli and Marco Riani: *A Probabilistic Branch-and-Bound Algorithm for Clusterwise Linear Regression*
- Giorgia Zaccaria, Lorenzo Benzakour, Francesca Greselin, Luis Angel García Escudero and Agustín Mayo-Íscar: *Cellwise Outliers in Heterogeneous Populations: a Fuzzy Clustering Approach*

Room E1

"Variable Selection in Complex Settings"

Organizer: Silvia Bacci



Chair: *Silvia Bacci*

Discussant: *Irini Moustaki*

- Zilong Xie, Yunxiao Chen, Matthias von Davier and Haolei Weng: *Variable Selection in Latent Regression IRT Models via Knockoffs: An Application to International Large-Scale Assessment in Education*
- Silvia Bacci, Emanuela Dreassi, Leonardo Grilli and Carla Rampichini: *Variable Selection via Knockoffs for Clustered data*
- Moritz Berger and Maria Iannario: *Taming Complexity: Variable Selection in Mixed-Effects Location-Scale and Location-Shift Models for Ordinal Data*

Room E2

“Sports Analytics”

Organizer: *Michel van de Velden*

Chair: *Michel van de Velden*

- Benjamin Holmes: *Rewriting the Rules: Can a Draft System Close the Premier League’s Competitive Divide*
- Thomas Servotte, Tom Van Deuren and Tim Verdonck: *Unlocking Prescriptive Training: Causal Machine Learning for Actionable Athlete Guidance*
- Roberto Rondinelli, Lucio Palazzo, Riccardo Ievoli and Giancarlo Ragozini: *Disentangling Successful Football Actions: A Network-Based Approach*
- Michel van de Velden and Vanja Misuric-Ramljak: *Identifying Playing Styles in Football Through Topic Modelling*

Room E3

“Statistical Modelling of Financial Data”

Organizer: *Carmela Iorio*

Chair: *Carmela Iorio*

- Jorge Caiado and Nuno Crato: *A Data-Driven Fragmented Autocorrelation Approach for Time Series Clustering*
- Raffaele Mattera and Germana Scepi: *Clustering Financial Time Series by Good and Bad Realized Volatility Decomposition*
- Carolin Vasconcelos and Bruno Damasio: *Generalized Multivariate Markov Chains*



- Alessandra Amendola, Vincenzo Candila, Shahram Dehghan Jabarabadi and Peter Winker: *Does Sustainability Impact Tail Risk Measurement? Evidence from a Novel Text-Based ESG Indicator*

Room E4

“Advances in Directional Statistics”

Organizers: *Stefania Fensore and Marco Di Marzio*

Chair: *Giovanni Camillo Porzio*

Discussant: *Giuseppe Pandolfo*

- Charles Taylor, Stefania Fensore and Marco Di Marzio: *Rounding Errors in Circular Data*
- Claudio Agostinelli, Luca Greco and Giovanni Saraceno: *Robust Estimation in Multivariate Torus Data*
- Anna Gottard and Agnese Panzera: *Conditional von Mises Bayesian Networks*

13:00 - 13:50 LUNCH BREAK

14:00 - 15:30 INVITED SESSIONS GROUP 6

Room Lorenzo Mangoni (Aula Azzurra)

“Advanced Clustering Methods for Complex Data II”

Organizer: *Marta Nai Ruscone*

Chair: *Marta Nai Ruscone*

- Francesca Greselin, Luis Angel Garcia-Escudero, Agustin Mayo-Iscar and Giorgia Zaccaria: *A Gaussian Mixture Model Approach for Clustering and Cellwise Outlier Detection*
- Roberto Rocci and Stefano Antonio Gattone: *Simultaneous Clustering and Reduction of Curves*
- Christian Hennig: *On Decision Making in Cluster Analysis with Focus on Variables of Mixed Type*
- Shen Jia, James Ng, Mark Little and David Selby: *A Novel Multi-view Mixture Model Framework for Longitudinal Clustering with Application to ANCA-Associated Vasculitis*



Room E1

“Nonparametric Estimation of Latent Variable Models”

Organizer: *Matthieu Marbac-Lourdelle*

Chair: *Matthieu Marbac-Lourdelle*

- Dalila Faiili, Bruno Arpino and Maria Francesca Marino: *Hierarchical Mixtures of Latent Trait Analyzers for Clustering Three Way Binary Data*
- Pierre Gloaguen, Mathis Chagneux, Sylvain Le Corff, Jimmy Olsson and Mathias Muller: *Importance Sampling for Online Variational Learning in State-Space Models*
- Marie du Roy de Chaumaray and Vincent Vandewalle: *Non-Parametric Multi-Partitions Clustering*
- Marie-Pierre Etienne, Célian Monchy and Olivier Gimenez: *Latent Variable Models for Species Detection: Propagating Uncertainty from Deep Features to Ecological Inference*

Room E2

“Bayesian Approaches in Model-Based Clustering”

Organizer: *Gertraud Malsiner-Walli*

Chair: *Gertraud Malsiner-Walli*

Discussant: *Sylvia Frühwirth-Schnatter*

- Andrea Cremaschi and Beatrice Franzolini: *Dependent Dirichlet-Multinomial Processes with Random Number of Components*
- Gertraud Malsiner-Walli, Sylvia Frühwirth-Schnatter and Bettina Grün: *CLIPS - Finding Cluster Distributions Behind Data*
- Clara Grazian and Gianluca Mastrantonio: *Tree-Structured Mixtures for Spatial Prior Specification*

Room E3

“Differential Privacy and Robust Classification”

Organizers: *Claudio Agostinelli and Anand Vidyashankar*

Chair: *Claudio Agostinelli*

Discussant: *Anand Vidyashankar*

- Nicholas Rios and Zhaoxue Tong: *Randomized Smart Subset Selection*
- Lasse Vuursteen: *Adaptive Estimation under Differential Privacy Constraints*



- Pramita Bagchi, Anand Vidyashankar and Fengnan Deng: *Privacy-aware Neyman-Pearson Classification via Divergences*

Room E4

“Advances in Statistical Learning and Modeling”

Organizer: *Roberta Siciliano*

Chair: *Roberta Siciliano*

- Alessandro Santonicola: *Integrated Quadratic Distance as an Adaptation Criterion for Adaptive Importance Sampling*
- Salvatore Cuomo, Francesco Piccialli, Roberta Siciliano and Alessandro Bottino: *Enhance Physics-Informed Neural Networks Performance for Solving Richards Equation by Deep Learning Optimization*
- Emiliano del Gobbo, Alex Cucco, Lara Fontanella, Elisa Ignazzi and Sara Fontanella: *Human-Guided Learning for Interpretable Detection of Online Misogyny*
- Semhar Michael, Andrew Simpson, and Yana Melnykov: *Statistical Learning for Large-Scale Few-Shot Classification*

Room E5

“Analysis of Multiblock Data”

Organizer: *Katrijn Van Deun*

Chair: *Mark de Rooij*

Discussant: *Rosaria Romano*

- Stéphanie Bougeard, Jean Michel Galharret and Mohamed Hanafi: *Exploring Common and Specific Observation-Structures for Several Blocks of Variables*
- Tormod Næs, Rosaria Romano, Oliver Tomic, Age Smilde and Kristian Hovde Liland: *Alternative Definitions of Effects/Contributions in Path Analysis with Multidimensional Blocks*
- Zino Brystowski: *Stacked Domain Learning: A Theory-Guided Approach to Multidomain Data Modeling*



Room E6

“Analysis of Teaching and Research Activity of Higher Education Institutions”

Organizers: *Paweł Lula and Miladin Stefanovic*

Chair: *Paweł Lula*

- Ildikó Dén-Nagy, Paweł Lula, Anna Drabina, Katarzyna Wójcik and Norbert Magyar: *Future-Oriented Insights on the Role of AI in Higher Education in the Light Of Scientific Publications*
- Miladin Stefanovic, Anna Drabina, Katarzyna Wójcki and Paweł Lula: *Success Factors for Obtaining HORIZON EUROPE Grants by European Higher Education Institutions*
- Anna Drabina, Paweł Konkol and Katarzyna Wójcik: *Sentiment Analysis of Study Programmes' Evaluation Reports Prepared by Polish Accreditation Committee*
- Przemysław Jasko and Paweł Lula: *Selected Counting Processes as a Tool for Modeling the Dynamics of Scientific Paper Citations*

15:40 - 16:40 KEYNOTE TALK 5

Room Carlo Ciliberto (Aula Rossa)

Giovanni Camillo Porzio: *Directions on directions: a directional data analysis journey*

Chair: *Francesca Greselin*

16:40 - 17:00 CLOSING CEREMONY

Room Carlo Ciliberto (Aula Rossa)
