ITACOSM2025-IASS Satellite Conference

Shaping the future of survey statistics in the data-driven era

Rimini, 30 June & Bologna, 1-4 July 2025

Dear Colleagues,

On behalf of the Scientific Program Committee and the Organizing Committee, we warmly welcome you to Bologna and to the ITACOSM2025-IASS Satellite Conference. ITACOSM is the acronym for Italian Conference on Survey Methodology, being a biennial international conference organized by the S2G - Survey Sampling Group of the Italian Statistical Society. For the first time, S2G and the IASS - International Association of Survey Statisticians collaborate to organize ITACOSM2025-IASS, a Satellite Conference of the World Statistics Congress 2025.

The aim of the ITACOSM2025-IASS Satellite Conference is to foster scientific discussion on survey sampling methodologies and their applications across various fields, including economics, social sciences, official statistics, demography, biology, and environmental sciences.

The **main theme of the conference, "Shaping the Future of Survey Statistics in the Data-Driven Era",** underscores the importance of adapting survey statistics to an ever-evolving data environment. The conference will explore the opportunities and challenges associated with harnessing data-driven techniques to improve survey accuracy, enhance inference for small populations, and maintain the relevance of survey statistics in a fast-paced digital world.

The conference includes **two sessions sponsored by GRINS -Growing, Resilient, INclusive, and Sustainable**, a project funded under the Next Generation EU program (National Recovery and Resilience Plan), which supports resilient, inclusive, and sustainable growth. In addition, **a session has been proposed by the y-SIS group**, which aims to provide a platform for early-career researchers to present their work, foster collaboration, and exchange knowledge on survey statistics.

The conference program features **6 Keynote Sessions, 19 Invited Sessions, 12 Contributed Sessions**, a one-day **short course** held on 30th June, and a concluding **Round Table**.

Papers presented at the ITACOSM2025-IASS conference will be given preferential consideration for the **Special Issue of Survey Methodology journal** entitled "Shaping the future of survey statistics in the data-driven era". For further details about the special issue please visit the ITACOSM2025-IASS website. We warmly thank the Editor of Survey Methodology, Prof. Jean-François Beaumont, for supporting this conference-related special issue and for kindly hosting it in the journal.

The Scientific Program Committee and the Organizing Committee have played a fundamental role in shaping and supporting the organization of the conference. We warmly thank them for their dedication and hard work. We also gratefully acknowledge the support of the Department of Statistical Sciences of the University of Bologna, the IASS, and the Italian Statistical Society. Our sincere thanks go to the funders and sponsors whose contributions made this event possible: IASS, GRINS project (and the GRINS satellites), Margherita s.r.l., the Department of Economics of the University of Bergamo and the Department of Statistical Sciences of the University of Bologna.

We wish you a stimulating conference and a pleasant stay at the University of Bologna.

Enjoy your ITACOSM2025-IASS!

Maria Rosaria Ferrante
S2G Coordinator and co- chair of
the Scientific Program Committee

Natalie Shlomo
IASS President and co- chair of
the Scientific Program Committee

Silvia De Nicolò
Chair of the
Organizing Committee

Information

This program, aside from the scheduling of sessions and events, does not include other information that is already available on the conference website. We chose this approach to minimize paper usage as much as possible. We hope you share and support this choice.

Wi-Fi
Eduroam is available throughout the venue. If you don't have Eduroam access, please request ALMAWIFI credentials at the registration desk.

Social Events and Practical Information
Further details about social events and other practical information are available on the official conference website.
Scan the QR code to go to the section: eventi.unibo.it/itacosm-2025/practical-information

Venue plan

Belmeloro Complex, Ground Floor

Room A

Room P

Room Q
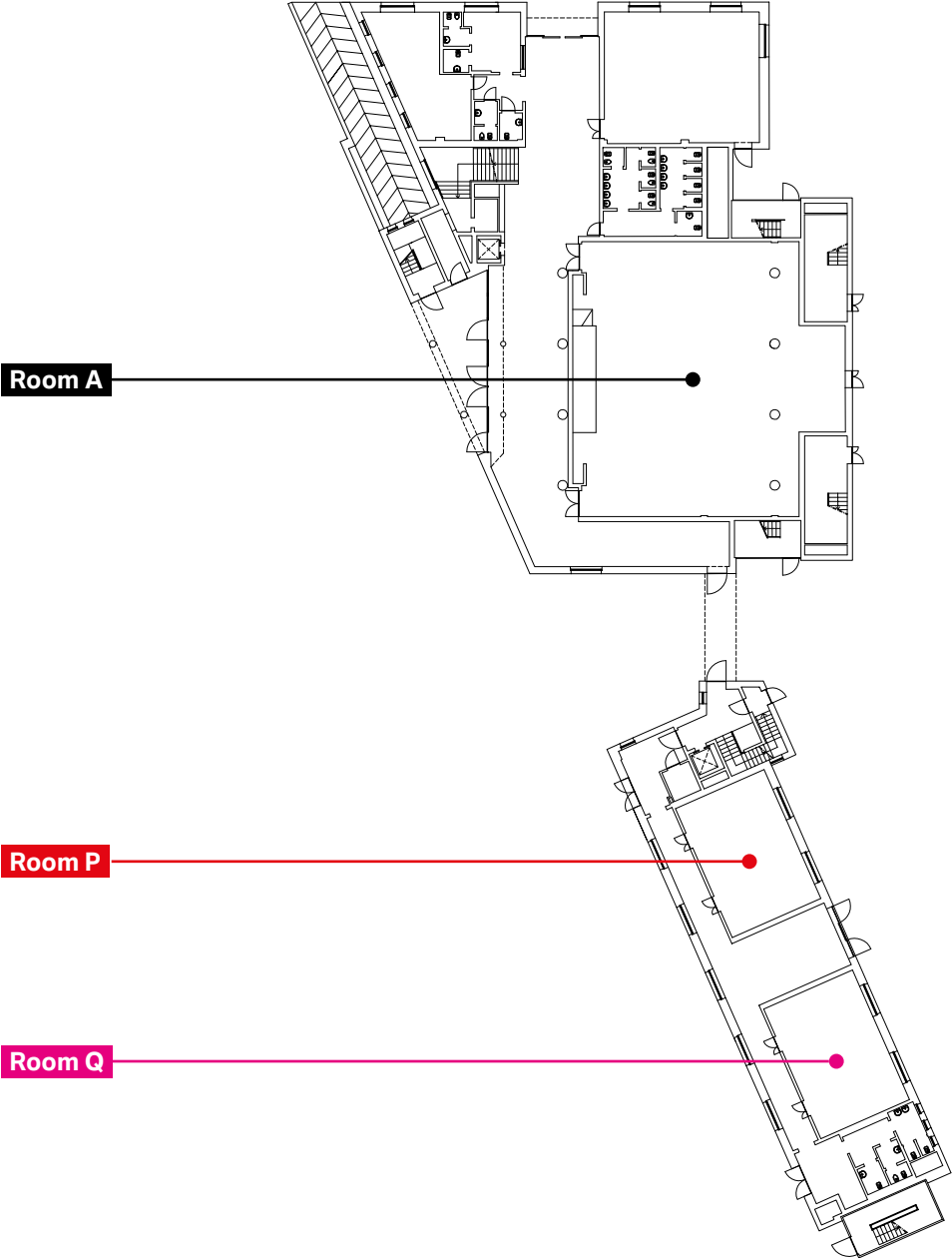
Conference program at a glance

▼ JUNE 30 – Rimini, Alberti Complex, Room Alberti 7	
9.00 – 11.00	Advanced sampling and estimation methods with R – Matei, A.
11.00 – 11.30	Coffee Break
11.30 – 13.00	Advanced sampling and estimation methods with R – Matei, A.
13.00 – 14.15	Lunch
14.15 – 16.00	Introduction to small area estimation and some topics of recent research interest – Tzavidis, N.
16.00 – 16.30	Coffee Break
16.30 – 17.45	Introduction to small area estimation and some topics of recent research interest – Tzavidis, N.

▼ JULY 1 – Bologna, Belmeloro Complex			
	Room A	**Room P**	**Room Q**
9.30 – 10.30	Registration		
10.30 – 11.30	Welcome ceremony		
11.30 – 12.30	**KEY1** – Beaumont, J. F.		
12.30 –13.30	Lunch		
13.30 – 15.00	**INV1** – On the use of machine learning methods for survey data	**INV2 – Correcting for selection bias in nonprobability samples**	**CON1 – Innovative methods and data integration for socio-economic measurement**
15.00 – 16.00	**CON2** – Enhancing small area predictions and model diagnostics	**CON3 – The role of bootstrap in complex statistical inference**	**CON4 – Privacy protection and disclosure control in statistical data and survey method**
16.00 – 16.30	Coffee Break		
16.30 – 18.00	**INV3** – Imputation Strategies for Social Surveys	**INV4 – Multiple frame surveys in the context of new data sources**	
18.00 – 18.30	S2G Assembly		
18.35 – 20.30	Archiginnasio Tour		
20.30	Welcome cocktail		

▼ JULY 2 – Bologna, Belmeloro Complex			
	Room A	**Room P**	**Room Q**
9.00 – 10.30	**INV5** – Advancing the AMELIA Data Platform: the role of small area estimation (GRINS SESSION)	**INV6 – Spatial survey sampling with applications on environment**	
10.30 – 11.00	Coffee Break		
11.00 – 12.00	**KEY2** – Tzavidis, N.		
12.00 – 13.30	**INV7** – The Baltic-Nordic-Ukrainian network session	**INV8 – Modeling subpopulations with linked and self-selected data sources**	**INV9 – Uncertainty quantification in multisource statistics**
13.30 – 14.30	Lunch		

14.30 – 15.30	**KEY3 – Matei, A.**		
15.30 – 16.30	**CON5 –** Innovations in small area estimation for social and economic indicators	**CON6 –** New approaches to handling selection bias in survey research	**CON7 –** Methodological innovations in sampling design and precision optimization
16.30 – 17.00	Coffee Break		
17.00 – 18.30	**INV10 –** Development and implementation of statistical matching techniques (GRINS SESSION)	**INV11 –** y-SIS: Use and integration of innovative data sources	
18.30 – 19.15	IASS Assembly		
19.30	y–SIS Happy Hour		

▼ JULY 3 – Bologna, Belmeloro Complex			
	Room A	**Room P**	**Room Q**
9.00 – 10.30	**INV12 –** Bridging data integration and artificial intelligence: Innovations for statistical modelling	**INV13 –** Differential privacy and synthetic survey data	
10.30 – 11.00	Coffee Break		
11.00 – 12.00	**KEY4 – Struminskaya, B.**		
12.00 – 13.30	**INV14 –** Sampling schemes exploiting register data	**INV15 –** Equality, diversity and inclusion in survey statistics and methodology	**CON8 –** Advanced calibration and estimation methods in complex survey designs
13.30 – 14.30	Lunch		
14.30 – 15.30	**KEY5 – Perri, P. F.**		
15.30 – 16.30	**CON9 –** Innovations in spatial and balanced sampling	**CON10 –** Alternative sampling and data collection strategies in the digital age	**CON11 –** Advanced weighting techniques using linked and administrative data in official statistics
16.30 – 17.00	Coffee Break		
17.00 – 18.30	**INV16 –** Inference from different data sources: Challenges in Survey Methodology	**INV17 –** New forms of data collection	
20.30	Social Dinner		

▼ JULY 4 – Bologna, Belmeloro Complex			
	Room A	**Room P**	**Room Q**
9.00 – 10.30	**INV18 –** Advances in small area estimation	**INV19 –** Combining diverse data sources for policy analysis: challenges and innovations	**CON12 –** Modern approaches to data collection, estimation, and dissemination
10.30 – 11.30	Coffee Break		
11.00 – 12.00	**KEY6 – Elliott, M.**		
12.00 – 13.15	Round Table		
13.15 – 13.30	Closing remarks		
13.30	Lunch		

Detailed program, 1-4 July

JULY 1

9.30   Registration

10.30   Welcome ceremony   `Room A`

11.30   Keynote   `Room A`
KEY1 – Prediction inference with no or limited probability survey data
Jean-François Beaumont, Statistics Canada, Chair: Marcello Chiodi

12.30   Lunch

13.30   Parallel sessions

INV1 – On the use of machine learning methods for survey data   `Room A`
Organizer: David Haziza, Chair: Natalie Shlomo

▶ **Adjusting survey estimates with multi-accuracy post-processing**
Fischer-Abaigar, U., LMU, MCML; Kern, C., LMU, MCML; Kreuter, F., LMU, MCML, UMD

▶ **Generalized tree-based machine learning methods with applications to small area estimation**
Frink, N., Freie Universität Berlin; Schmid, T., Otto-Friedrich Universität Bamberg

▶ **Statistical inference with machine learning-based imputation**
Haziza, D., University of Ottawa; Dagdoug, M., Mc Gill University

INV2 – Correcting for selection bias in nonprobability samples   `Room P`
Organizer and Chair: Ton De Waal

▶ **Multiple frame estimation with administrative and volunteer panel data**
Bianchi, A., University of Bergamo; Shlomo, N., University of Manchester

▶ **Variance and bias correction in integrating non-probability samples**
Čiginas, A., Vilnius University; Krapavickaitė, D., Lithuanian Statistical Society; Nekrašaitė-Liegė, V., Vilnius Gediminas Technical University

▶ **Some recent research at statistics Netherlands on combining probability and non-probability samples**
Scholtus, S., Statistics Netherlands

CON1 – Innovative methods and data integration for socio-economic measurement   `Room Q`
Chair: Chiara Bocci

▶ **Population size estimation and consensus ethnicity classification for domains using multiple sources**
Smith, P.A., University of Southampton; van der Heijden, P.G.M., Utrecht University & University of Southampton; Cruyff, M., Utrecht University; et al.

- **Exploring M2M transmission for short-term business official surveys**
  Papa, P., ISTAT; Bosso, P., ISTAT; Di Paolo, G.G., ISTAT; Distefano, D., ISTAT

- **Exploring patterns and determinants of agricultural carbon footprint in Northern Italy**
  Borgoni, R., University of Milan-Bicocca; Carillo, F., CREA; Maranzano, P., University of Milan-Bicocca; Pajno, R., University of Milan-Bicocca

- **Mismatched measures: Comparing asset-based wealth index and income/consumption poverty in Mozambique**
  Allorant, A., University of Southampton; Perfetti Villa, L, University of Southampton; Luna Hernandez, A, University of Southampton; Tzavidis, N, University of Southampton

- **Are we reaching the poor? Evaluating Austria's social assistance schemes via small area estimation**
  Broka, A., University of Bologna; De Nicolò, S., University of Bologna; Angel, S., Austrian Institute of Economic Research

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15.00   Parallel sessions

CON2 – Enhancing small area predictions and model diagnostics   `Room A`
Chair: Gaia Bertarelli

- **Area-level SAE with random forests**
  Harmening, S., Otto-Friedrich-Universität Bamberg; Lee, Y., Otto-Friedrich-Universität Bamberg; Runge, M., Freie Universität Berlin; Schmid, T., Otto-Friedrich-Universität Bamberg

- **Clusterwise small area estimation models**
  Maranzano, P., University of Milano-Bicocca; Mattera, R., Luigi Vanvitelli University of Campania; Sugasawa, S., Keio University

- **On some new diagnostic measures for area-level models in small area estimation**
  Marcis, L., University of Cassino and Southern Lazio; Pagliarella, M.C., University of Cassino and Southern Lazio; Salvatore, R., University of Cassino and Southern Lazio

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CON3 – The role of bootstrap in complex statistical inference   `Room P`
Chair: Fulvia Mecatti

- **Bootstrap confidence Intervals in SAE**
  Ferrante, M. R., University of Bologna; **Mori, L.**, University of Bologna; Tizianel, E., University of Bologna

- **Estimating the variance of basic summary statistics in the absence of complete design information**
  Stacchini, A., University of Bologna

- **Bootstrap to enhance variance estimation for more than one-frame surveys**
  Cocchi, D., University of Bologna; **Ievoli, R.**, University of Ferrara

CON4 – Privacy protection and disclosure control in statistical data and survey method

Chair: Natalie Shlomo

► **Evaluation of anonymised georeferenced data**
Gril, L., Freie Universität Berlin; Rendtel, U., Freie Universität Berlin

► **Survey sampling and differential privacy**
Bonnéry, D., Insee, Crest Ensae. Jamme J., Insee.

► **Using perturbative methods for magnitude tables in statistical disclosure control**
Adriansson, N., Statistics Sweden; **Sabolová, R.**, Statistics Sweden; Tepe, Ö., Statistics Sweden

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16.00 Coffee break

16.30 Parallel sessions

INV3 – Imputation Strategies for Social Surveys

Organizer and Chair: Antonella D'Agostino, Discussant: Gaia Bertarelli

► **From categorical data to continuous measures**
Betti, G., University of Siena; Mori, L., University of Bologna

► **Poverty transitions via parametric and semi-parametric methods**
D'Alberto, R., University of Verona; De Nicolò, S., University of Bologna; Gardini, A., University of Bologna

► **Editing and imputation: an official statistics perspective**
Rosati, S., ISTAT; Filippini, R., ISTAT; Toti, S., ISTAT

INV4 – Multiple frame surveys in the context of new data sources

Organizer and Chair: Annamaria Bianchi, Discussant: Maria Giovanna Ranalli

► **MF Survey: Roots, trends, emerging horizons**
Mecatti, F., University of Milano-Bicocca

► **Multiple frames in the integration of probability and non-probability surveys**
Cobo, B., University of Granada; Rueda, M.M., University of Granada; Rueda, J.L., University of Granada

► **Multiple frame surveys in modern data integration**
Saegusa, T., University of Maryland

18.00 S2G Assembly

18.35 Archiginnasio Tour – Starting point: Belmeloro Complex

20.30 Welcome Cocktail – Complesso di San Giovanni in Monte

JULY 2

9.00   Parallel sessions

INV5 – Advancing the AMELIA Data Platform: the role of small area estimation (GRINS SESSION)   `Room A`
Organizer and Chair: Maria Rosaria Ferrante, Discussant: Paolo Righi

▶   **Sanitary migration in Italy: A model-based approach**
Arima, S., University of Salento, Angelelli, M., University of Salento, Polettini, S., Sapienza University of Rome, Ciavolino, E., University of Salento

▶   **Poverty prevalence among people with disability: a small area estimation approach**
Fabrizi, E., Università Cattolica del Sacro Cuore

▶   **Spatially geographically weighted Fay-Herriot model for poverty estimation in Italy**
Schirripa Spagnolo, F., University of Pisa; Giusti, C., University of Pisa; Moretti, A., Utrecht University; Salvati, N., University of Pisa

▶   **Unit-level models for multivariate binary data: Small area estimation of social inclusion indicators**
Failli, D., University of Perugia; Marino, M. F., University of Florence; Ranalli, M. G., University of Perugia

INV6 – Spatial survey sampling with applications on environment   `Room P`
Organizer and Chair: Camelia Goga

▶   **Indirect sampling for the spatialization of maritime fishing activities: The case of Valpena**
Medous, E., IGN; El Ghaziri, A., Institut Agro Anger-Rennes; Rollo, N., LETG Nantes; Trouillet, B., LETG Nantes; Bellanger, L., Nantes University; Dieudonée, E., LETG Nantes.

▶   **Variance estimation for spatially balanced sampling designs: A review and new results**
Pantalone, F., University of Southampton; Benedetti, R., University of Chieti-Pescara; Piersimoni, F., ISTAT; Ranalli, M.G., University of Perugia

▶   **Sampling artificial stands: Can spatial information play a role?**
Dickson, M.M., University of Padova; Bucci, G., CNR-Institute of Biosciences and BioResources; Ioveno, P., CNR-Institute of Biosciences and BioResources; Marchi, M., CNR-Institute of Biosciences and BioResources; Puletti, N., CREA; Serio, R.G., University of Trento; Toffoli, D., University of Trento

10.30   Coffee break

11.00   Keynote   `Room A`
KEY2 – Small Area Estimation in the era of machine learning and new data
Nikos Tzavidis, University of Southampton, Chair: Daniela Cocchi

12.00 Parallel sessions

INV7 – The Baltic-Nordic-Ukrainian network session Room A
Organizer and Chair: Maciej Beręsewicz

▶ **Predictor selection under misspecified models**
Żądło, T., University of Economics in Katowice; Chwila, A., University of Economics in Katowice; Hadaś-Dyduch, M., University of Economics in Katowice; Krzciuk, M., University of Economics in Katowice; Stachurski, T., University of Economics in Katowice; Wolny-Dominiak, A., University of Economics in Katowice

▶ **Geospatial assignment of individuals to local units using administrative and survey data**
Pavasare, R., Central Statistical bureau of Latvia

▶ **Adapting a small area estimation model for non-probability sample data integration**
Burakauskaitė, I., Vilnius University & Statistics Lithuania; Čiginas, A., Vilnius University & Statistics Lithuania; Šlevinskas, D., Statistics Lithuania

INV8 – Modeling subpopulations with linked and self-selected data sources Room P
Organizer and Chair: Gaia Bertarelli

▶ **When non-response makes estimates from a census a small area estimation problem**
Ranalli, M.G., University of Perugia; Pennoni, F., University of Milan Bicocca; Bartolucci, F., University of Perugia; Mira, A., Università della Svizzera Italiana & University of Insubria

▶ **Integrating datasets from finite populations: A focus on registries and self-selected surveys**
Nicolussi, F., Politecnico di Milano; Masci, C., University of Milan; Bertarelli, G., University of Venice Ca' Foscari; Terzera, L., University of Milan-Bicocca; Mecatti, F., University of Milan-Bicocca

▶ **Area level SAE with linked data**
Chambers, R., Australian National University; Salvati, N., University of Pisa; Fabrizi, E., Università Cattolica del Sacro Cuore

INV9 – Uncertainty quantification in multisource statistics Room Q
Organizer: Danila Filipponi, Chair: Marco D. Terribili

▶ **Conformalized bayesian prediction in official statistics**
Deliu, N., Sapienza University of Rome; **Liseo, B.**, Sapienza University of Rome

▶ **Uncertainty when integrating data with transfer learning methods**
Tuoto, T., ISTAT; Zhang, L.-C., Southampton University & Statistics Norway

▶ **Accuracy measures for text mining methods applied to public administration PIAOs**
Righi, P., ISTAT; Bianchi, G, ISTAT; Giubilei, R., Food and Agriculture Organization of the United Nations; Naccarato, A., Roma Tre University

13.30 Lunch

14.30 Keynote

KEY3 – Recent developments in sample coordination
Alina Matei, University of Neuchatel, Chair: Ray Chambers

15.30 Parallel sessions

CON5 - Innovations in small area estimation for social and economic indicators
Chair: Francesco Schirripa Spagnolo

▶ **Small area estimation under several spatial specifications**
Billé, A.G., University of Bologna; Ferrante M.R. University of Bologna; Salvati N. University of Pisa

▶ **Measuring educational poverty in Italy: A MIRT-SAE approach**
Ranalli, M.G., University of Perugia; Bertarelli, G., University of Venice; **Del Sarto, S.**, University of Perugia; Guandalini, A., ISTAT; Pratesi, M., University of Pisa

▶ **A machine learning-based approach to small area estimation**
Niederhametner, N., Statistics Austria; Daul, R., Statistics Austria

CON6 - New approaches to handling selection bias in survey research
Chair: Camilla Salvatore

▶ **Correcting selection bias in non-probability two-phase payment survey**
Chen, H., Bank of Canada; Tsang, J., University of Ottawa

▶ **Data-driven sampling: A new framework for correcting political bias in probability-based online panels**
Barton, J., Social Research Centre; **Neiger, D.**, Social Research Centre; Phillips, B., Social Research Centre; Ward, A. C., Social Research Centre

▶ **The use of meta-information in adjusting non-ignorable selection bias**
Arletti, A., University of Padua; Si, Y., University of Michigan; Letizia, M. L., University of Padua; Paccagnella, O., University of Padua

CON7 - Methodological innovations in sampling design and precision optimization
Chair: Sara Franceschi

▶ **Sampling strategies for spatial phenomena leveraging auxiliary information**
Bocci, C., University of Florence; Rocco, E., University of Florence

▶ **An automated approach for tuning precision constraints in an optimal allocation problem**
Barcaroli, G.; **Bombelli, I.**, ISTAT; Fasulo, A., EUROSTAT; Guandalini, A.,ISTAT; Sacco, G.,ISTAT; Terribili, M. D., ISTAT

▶ **Review of procedures for informative sampling**
Eideh, A.A., Al-Quds University

16.30 Coffee break

INV10 – Development and implementation of statistical matching techniques (GRINS SESSION)
Room A

Organizer and Chair: Fedele Greco

▶ **Interactive statistical matching**
Guastadisegni, L., University of Bologna ; Trivisano, C., University of Bologna

▶ **Integrating social survey data**
Fontanella, L., University of Chieti-Pescara "G. D'Annunzio"; Cucco, A., University of Chieti-Pescara "G. D'Annunzio"; Aretusi, G., University of Chieti-Pescara "G. D'Annunzio"; del Gobbo, E., University of Foggia; Sarra, A., University of Chieti-Pescara "G. D'Annunzio"

▶ **OLS distribution in parametric statistical matching**
Narcisi, M., University of Bologna

INV11 – y-SIS: Use and integration of innovative data sources
Room P

Organizer: Veronica Ballerini, Chair: Gaia Bertarelli,
Discussant: Maria Giovanna Ranalli

▶ **Bayesian integration of different data sources: Balancing cost, bias and measurement**
Salvatore, C., Utrecht University; Sakshaug, J., IAB & LMU-Munich; Wisniowski, A., Manchester University; Struminskaya, B., Utrecht University; Biffignandi, S., University of Bergamo

▶ **Make valid and reliable inferences about technological innovation and Industry 4.0 of firms**
Braito, L., University of Florence; Rocco, E., University of Florence; Lodetti, P., Baloon srl

▶ **Improving sampling strategies using machine learning algorithms**
Klingwort, J., Statistics Netherlands; van Berkel, K., Statistics Netherlands; van den Brakel, J., Statistics Netherlands

18.30   IASS Assembly
Room A

19.30   y-SIS Happy Hour

JULY 3

9.00   Parallel sessions

INV12 – Bridging data integration and artificial intelligence: Innovations for statistical modelling
Room A

Organizer and Chair: Maciej Beręsewicz

▶ **Statistical frameworks for data integration and beyond**
Wu, C., University of Waterloo

▶ **Beyond string matching: Embeddings and artificial intelligence for statistical integration**
Bruno, M., ISTAT

▶ **Integrating big data and alternative sources into small area estimation**
Pratesi, M., University of Pisa

INV13 – Differential privacy and synthetic survey data
Organizer and Chair: Enrico Fabrizi

▶ **Differential privacy for frequency tables**
Shlomo, N., University of Manchester, Rinott, Y., Hebrew University, O'Keefe, C., CSIRO Australia, Skinner, C., The London School of Economics and Political Science

▶ **On the formal privacy guarantees of synthetic data**
Neunhoeffer, M., Institute for Employment Research & Ludwig-Maximilians-Universität München; Seeman, J., Urban Institute & University of Michigan; Drechsler, J., Institute for Employment Research & Ludwig-Maximilians-Universität München & University of Maryland

▶ **PrivGen: A human-in-the-loop method for private synthetic data generation**
Nobani, N.,University of Milan-Bicocca; Officioso, G., University of Milan-Bicocca; Mezzanzanica, M,. University of Milan-Bicocca; et al.

10.30 Coffee break

11.00 Keynote

KEY4 – Leveraging technology for data collection in social research and official statistics
Bella Struminskaya, Utrecht University, Chair: Natalie Shlomo

12.00 Parallel sessions

INV14 – Sampling schemes exploiting register data

Organizer and Chair: Claudia De Vitiis, Discussant: Stefano Falorsi

▶ **Stratifying the second stage sample units via marginal allocation: an innovative two-stage sampling**
Asti, L., ISTAT; De Vitiis, C., ISTAT; Inglese, F., ISTAT; Terribili, M., ISTAT; Trambusti, D., ISTAT

▶ **Evidence supporting the design of the italian integrated system of social surveys**
Guandalini, A., ISTAT; Loriga, S., ISTAT; Terribili, M.D., ISTAT

▶ **Some applications of optimality principles to sample selection from a register**
Tillé, Y., University of Neuchatel

INV15 – Equality, diversity and inclusion in survey statistics and methodology

Organizer and Chair: Angelo Moretti, Organizer and Discussant: Camilla Salvatore

▶ **Sampling designs for small area estimation**
Falorsi, P. D., Sapienza University of Rome; Falorsi, S., ISTAT; **Nardelli, V.**, Università Cattolica del Sacro Cuore; Righi, P., ISTAT

▶ **Weighting survey data for respondent embeddedness in a recruitment environment**
Albert, E., University of Vienna

▶ **Strategies for dealing with digital inequality in self-completion survey designs**
Cornesse, C., GESIS

CON8 – Advanced calibration and estimation methods in complex survey designs
Chair: Dalila Failli

▶ **Calibration with bagging of the principal components on a large number of auxiliary variables**
Hasler, C., University of Neuchâtel & University of Zürich; Tripet, A., University of Neuchâtel; Tillé, Y., University of Neuchâtel

▶ **Two-step calibration of design weights under dual frame surveys**
Kumar, S., Banaras Hindu University; Rai, P. K., Banaras Hindu University

▶ **A neutrosophic general class of calibration estimators for population median...**
Pandey, M. K., Indian Institute of Technology - Indian School of Mines; Singh, G. N., Indian Institute of Technology - Indian School of Mines

▶ **Accurate Inference for SAE models**
Victoria Feser, M.-P., University of Bologna; Orso, S., University of Geneva; Guerrier, S., University of Geneva; Karemera, M., University of Geneva

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13.30 Lunch

14.30 Keynote
Room A
KEY5 – Indirect questioning in sensitive surveys
Pier Francesco Perri, University of Calabria, Chair: Yves Tillè

15.30 Parallel sessions

CON9 - Innovations in spatial and balanced sampling
Room A
Chair: Ilaria Bombelli

▶ **A dynamic adaptive sampling approach for spatial data**
Altieri L., University of Bologna; Cocchi D., University of Bologna

▶ **Spatially balanced sampling for italian social surveys**
Benedetti, R., University of Chieti-Pescara "G. D'Annunzio" ; **Falorsi, S.**, ISTAT; Loriga, S., ISTAT; Piersimoni, F., ISTAT; Russo, M., ISTAT

▶ **Gradient-oriented transects**
Carrer, F., Swedish University of Agricultural Sciences; Prentius, W., Swedish University of Agricultural Sciences; Grafström, A., Swedish University of Agricultural Sciences

CON10 - Alternative sampling and data collection strategies in the digital age
Room P
Chair: Alberto Arletti

▶ **A non-probabilistic survey to study the regional variability in attitudes towards homosexuality**
Moretti, A., Utrecht University; Salvatore, C., Utrecht University; Meitinger, K., Utrecht University

▶ **Alternative selection mechanisms in online surveys**
Prücklmair, F., Universität Bamberg; **Rendtel, U.**, Freie Universität Berlin

▶ **Harnessing social media for innovative data collection**
Stracqualursi, L., University of Bologna

CON11 - Advanced weighting techniques using linked and administrative data in official statistics `Room Q`
Chair: Claudia De Vitiis

▶ **Assigning unit weights for linked data**
Liu, A.-C., Utrecht University; Lugtig, P., Utrecht University; Scholtus, S., Statistics Netherlands; De Waal, T., Statistics Netherlands, Tilburg University

▶ **Machine learning for the estimation of response probabilities in EU-SILC**
Glaser, T., Statistics Austria

▶ **Using administrative data and machine learning**
Einarsson, H., University of Iceland; **Sakshaug, J.W.**, IAB & LMU-Munich

16.30 Coffee break

17.00 Parallel sessions

INV16 – Inference from different data sources: Challenges in Survey Methodology `Room A`
Organizer and Chair: Sara Franceschi

▶ **Statistical inference for from different sources**
Conti, P. L., Sapienza University of Rome

▶ **Data integration for mapping vegetation biodiversity**
Golini, N., University of Turin; Zoppi G., University of Turin; Lanteri, A., University of Turin; Cameletti, M., University of Bergamo; Ignaccolo, R., University of Turin; Lo Presti, A., University of Turin

▶ **Admissibility in graph sampling**
Zhang, L.C., University of Southampton & Statistisk sentralbyrå

INV17 – New forms of data collection `Room P`
Organizer and Chair: Bella Struminskaya

▶ **The role of participant understanding in data donation studies**
Boeschoten, L., Utrecht University; McCool, D., Utrecht University, Struminskaya, B., Utrecht University

▶ **Collecting expenditure data with a household budget app in Germany**
Keusch, F., University of Mannheim; Fritz, M., University of Mannheim; Volk, J., Destatis; Häufglöckner, L., Destatis

- ▶ **Innovative approach to real-time data collection**
  Rivilla, K. S., RECSM-Universitat Pompeu Fabra; Ochoa, C., RECSM-Universitat Pompeu Fabra; Revilla, M., RECSM-Universitat Pompeu Fabra

20.30 Social Dinner - Oratorio San Filippo Neri

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9.00 Parallel sessions

INV18 – Advances in small area estimation `Room A`
Organizer and Chair: Natalie Shlomo

- ▶ **Gradient boosting for hierarchical data in small area estimation**
  Messer, P., University of Bamberg; Schmid, T., University of Bamberg

- ▶ **Support vector mixed effects SAE prediction**
  Berg, E., Iowa State University; Pham, H., Mount Holyoke College

- ▶ **The use of web data in small area estimation**
  Moretti, A., Utrecht University; Salvatore, C., Utrecht University

INV19 – Combining diverse data sources for policy analysis: challenges and innovations `Room P`
Organizer and Chair: Andrea Neri

- ▶ **Estimating housing wealth with survey and administrative data**
  Porreca, E., Bank of Italy; Benedetti, R., University of Chieti-Pescara; Neri, A., Bank of Italy; Ranalli, M. G., University of Perugia

- ▶ **Distributional wealth accounts**
  Blatnik, N., European Central Bank; Celislami, E., European Central Bank

- ▶ **Statistical matching to investigate household income, consumption and wealth in Italy**
  D'Orazio, M., ISTAT; Donatiello, G., ISTAT; D'Orazio, M., ISTAT; Loschiavo, D., Bank of Italy; Neri, A., Bank of Italy, Tullio, F., Bank of Italy

CON12 - Modern approaches to data collection, estimation, and dissemination `Room Q`
Chair: Maciej Beręsewicz

- ▶ **Regression estimation from different data sources with many variables in common**
  Hirukawa, M., Ryukoku University

- ▶ **Including the spatial balance criterium into the estimator**
  Benedetti, R., University of Chieti-Pescara "G. D'Annunzio"; **Pantalone, F.**, University of Southampton; Piersimoni, F., ISTAT

▶ **Producing representative data in a monthly employment panel in Germany**
Seesing-Coelho, C., Federal Statistical Office of Germany & University of Hamburg; Jaeger, C., Federal Statistical Office of Germany; Preising, M., Federal Statistical Office of Germany

▶ **STATENT Flash: Rapid estimates for the Swiss structural business statistics**
Chalimourda, A., Swiss Federal Statistical Office; Vallon, N., Swiss Federal Statistical Office; Nedyalkova, D.; Swiss Federal Statistical Office; Assoulin, D., Swiss Federal Statistical Office

▶ **Composite estimators under domain estimation**
Yadav, G., Banaras Hindu University

10.30 Coffee break

11.00 Keynote   **Room A**
KEY6 – The role of probability samples in the 21st century
Michael Elliott, University of Michigan, Chair: Monica Pratesi

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12.00 Roundtable   **Room A**
Harnessing AI for survey statistics: Innovations and challenges in sampling, data collection, and inference
Chair: Paolo Verme

Mauro Bruno, ISTAT
Frauke Kreuter, University of Maryland
Monica Pratesi, University of Pisa
Changbao Wu, University of Waterloo

13.15 Closing Remarks   **Room A**

13.30 Lunch