

Workshop 3rd - 4th February 2026 - University of Bergamo

STATISTICAL METHODS TO ADDRESS THE NEXUS BETWEEN MOBILITY AND AIR QUALITY

The event is part of the dissemination activities of the PRIN PNRR 2022 Project "Study of mobile phone siGNals for the evalUation of the interconnections between Mobility and the environment in Lombardia"

Principal Investigator: **Rodolfo Metulini**, **Dipartimento di Scienze Economiche** - Università degli Studi di Bergamo

Aula Fornasa, piazzale Sant'Agostino 2, Bergamo

3rd February, 2026:

18:00 Internal meeting for project participants

20:00 Welcome dinner @Il Circolino

9.30 Welcome

Gianmaria Martini (Director of the Department of Economics, U. Bergamo)

10.00 S1: Mobility and forecasting

Arianna Burzacchi (Fondazione Bruno Kessler) TBD

Muhammad Haroon Shaukat (U. Bergamo) Statistical models and algorithms for the analysis of human mobility data from smartphone applications

Sara Selvaggia Guerini (Milano Bicocca) Forecasting traffic flow time series with Vine-Transform ARMA Copula models (co-author: Rodolfo Metulini)

11.15 Coffee break

11.45 S2: Mobility and Air Quality

Michela Cameletti (U. Bergamo) A spatio-temporal analysis of NO2 concentrations in the case of policy interventions

Francesco Biancalani (IMT Lucca) Measuring the effect of traffic on pollutants with ARIMA models: the case study of a city in Lombardia (co-authors: Roxana Adam, Rodolfo Metulini)

Maurizio Carpita, Mattia Cefis (U. Brescia) TBD

13.00 Lunch

14.30 S3: Environment and policy evaluations

Giulio Grossi (U. Firenze) Direct, spillover and spatial effects of the tramway in Florence using panel data methods

Rodolfo Metulini (U. Bergamo) Eigenvector Spatial Filters Nuclear Norm Matrix Completion with Application to Air Quality Data

Paola Zuccolotto (U. Brescia) Interpreting water scarcity and flooding events in Scotland via the spatial clustering of catchments based on tail dependence (co-authors: Giovanni De Luca, Luigi Spezia)

15:45 Greetings

Organizing Committee:

- **Rodolfo Metulini** (U. Bergamo)
- **Francesco Biancalani** (IMT Lucca)
- **Maurizio Carpita** (U. Brescia)
- **Francesco Finazzi** (U. Bergamo)



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