

PhD program in Statistics

# DSS Statistics Seminar

January 31, 2025, 12:00

**In person** Room 34 (CU002)

**Webinar** <https://uniroma1.zoom.us/j/83625004899?pwd=bXCtz0mp759PUh2lkqT0BUoVa0Uegg.1>

Passcode: 123456

Linkages between AIR POLLUTION  
and CLIMATE CHANGE: MODELS  
and MEASUREMENTS

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Air pollution and climate change are closely linked: the chemical species that lead to a degradation in air quality are normally co-emitted with greenhouse gases. Thus, changes in one inevitably cause changes in the other. Air pollution and climate change are both threats to global population health and require a response that involves intersectoral policy and action. What are the tools commonly used to tackle these issues?

Since the 90's, ENEA has been established long term observatories of the main climatic parameters in "hot spot" regions like the Mediterranean and Antarctica. The Station for Climate Observations on the island of Lampedusa, an integrated research facility in the Mediterranean, has been collecting more than 25 years of data for the study of climate change.

In the same years, ENEA has developed a chemical transformation model to study air pollution producing different simulations both for present and future scenarios (till the year 2030-2050), than for 3-days forecast over Italy (4km) and Europe (10km).

During the seminar an overview of the models developed, the measures collected in these remote regions and the activities currently carried out will be presented, discussing both long time series than specific studies, focusing on the main challenges and uncertainties the scientific community is facing.

### LINKS

#### MEASUREMENTS

- The Lampedusa Observatory, <https://www.lampedusa.enea.it/index.php?lang=en>

- Antarctic Meteo-Climatological Observatory, <https://www.climantartide.it/index.php?lang=en>

#### MODELS

- MINNI CAMS (European level), <https://atmosphere.copernicus.eu/european-air-quality-forecast-plots>; <https://camsvisu.meteo.fr/web/>

- FORAIT-IT (national level), [https://www.afs.enea.it/project/ha\\_forecast/forair-it/it.html](https://www.afs.enea.it/project/ha_forecast/forair-it/it.html)

- National simulations, <https://airqualitymodels.enea.it/>



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