

# Environmental modelling under climate change scenarios

## University of Palermo

(Aula D1, via Archirafi 20)

**20-21 April 2026**

### Monitors



**Teresa Albuquerque** - Holding a PhD in Mining Engineering and a bachelor's degree in geology, I am passionate about environmental modelling and data spatio-temporal characterization. I particularly enjoy working on constructing vulnerability and risk maps under climate change scenarios.



**Margarida Ribeiro** - With a PhD in Forest Genetics, my main research fields are population genetics and molecular markers for studying plant dynamics, including gene flow, relatedness, fingerprinting, conservation, and genetic variation. Recently, I focused on macroecology, linking genetic diversity to ecology via ecological niche modelling in global warming scenarios.

### April 20

9:45 – Introduction

#### **Lectures**

10:00 – 11:00 – Teresa Albuquerque and Federica Lo Medico -Compositional data analysis. Construction of a novel Compositional Pollution Index (CPI) – the Sicily case study

11:30-12:30 – Margarida Ribeiro - Ecologically Friendly and Climate-Informed Afforestation in Portugal

#### **Lunch**

15:00 – 17:00 – Teresa Albuquerque - Introduction to geostatistics and hands-on lab work

### April 21

#### **Lectures**

10:00-11:00 – Teresa Albuquerque - Perspectives on the climate-water balance in climate change scenarios –The Trimpancho watershed case study, Spain

11:30-12:30 – Carlos Boente, Saki Gerassis, Teresa Albuquerque, Javier Taboada, José Luis Gallego - Optimizing soil screening levels for the delimitation of pollution risk zones in high-density industrial areas

#### **Lunch**

15:00-17:00 - Hands-on lab work



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