



UNIVERSITÀ DI PAVIA
Corso di Dottorato in Scienze della Terra
e dell'Ambiente

2025 PHD DAY

Two expert speakers will explore the cutting-edge applications of AI in scientific research



Federico Faroldi, Unipv
Speaker

"AI: Safety, Ethics, Law"



Riccardo Torre, INFN
Speaker

"Artificial Intelligence at the Service of Science"

Event moderated by **Dr. Lorenzo Goppa**

Following:

- Round table about AI & Science
- PhD Student Presentations
- Coffee break and lunch

**Join us for an exciting
day of learning, sharing,
and networking!**



Location
Rooms B6/B7, via Ferrata 1



Date
21 February, 2025



Time
9:30AM - 4:30PM





PHD DAY - PROGRAM

9.30-9.45

Opening words

9.45-11.45

Key note & Round table about the use of AI in Scientific Research
Speakers: **Federico Faroldi** (Unipv), **Riccardo Torre** (INFN, Genova).

11.45-12.45

1st and 2nd year PhD student presentation (3 mins each)

- Climate Change in Deglaciating Alpine Basins: Impacts on Mechanisms, Rates, and Volumes of Sediment Transfer | **Ananya Pandey**, 40th cycle.
- Development of digital methods for the stability analysis of critical rock masses in the context of railway infrastructure | **Matteo Foletti**, 39th cycle.
- Linking the exposed belt to the buried one: the Northern Apennine front in the framework of the project CARG 160 - Pavia | **Paola Bellotti**, 39th cycle.
- Study of the first continental tectono-stratigraphic phases of the Alpine Cycle in the Basque-Cantabrian area of the Pyrenees | **Rudy Scarani**, 40th cycle.
- Investigation into the *Hieracium tomentosum* L. group: defining an integrative approach for a taxonomic revision combining traditional taxonomy with ecological, cytological, and molecular data | **Giacomo Baldesi**, 40th cycle.
- Alpine plants under pressure: who thrives and who declines in a changing climate? | **Margherita Tognela**, 39th cycle.
- Native species for greening agroecosystems | **Micol Orengo**, 39th cycle.
- Monitoring marine soundscapes using Machine Learning techniques | **Davide Michel Lelong**, 40th cycle.
- Assessing the effects of anthropization on alpine amphibians and reptiles | **Anna Sotta**, 40th cycle.
- Impact of climate change on social dynamics and demography of alpine marmots (*Marmota marmota*) in the Gran Paradiso National Park | **Beatrice Masella**, 40th cycle.
- Coypu Invasion: advanced population monitoring and analysis of control measures in the Lombardy region | **Chiara Del Fabbro**, 40th cycle.
- *Rana temporaria* in alpine lakes: ecological adaptations and impacts of introduced fish species | **Giorgia Mattioli**, 39th cycle.
- Amphibians at the interface: ecology and distribution from the Po Plain to the Apennines | **Martino Flego**, 39th cycle.



PHD DAY - PROGRAM

12.45-14.15

Lunch break & Poster session

14.15-15.00

3rd year PhD student presentation (15 mins each) - First group

- Mineral phase transitions: a tool to reveal the secrets of high pressure and temperature faulting | **Giulia Mingardi**, 38th cycle.
- Microplastic pollution in the littoral environment: insights from the Mediterranean *Sabellaria spinulosa* (Annelida) reefs and shoreface sediments | **Giusto Lo Bue**, 38th cycle.
- Laboratory experiments and geochemical models for CO₂ mineralization in basalts | **Onat Yakisik**, 38th cycle.

15.00-15.30

Coffee break

15.30-16.00

3rd year PhD student presentation (15 mins each) - Second group

- The *Festuca stricta/valesiaca* complex in Italy: filling in the gaps with integrative taxonomy | **Mattia Pallanza**, 38th cycle.
- Management of Bioinvasions in ports: exploring sustainable solutions to increase native biodiversity and exploit non-native fouling species | **Salvatore Coco**, 38th cycle.

16.00-16.15

Closing remarks