**Doctoral Course** | GEOSCIENCES  
---|---
**Macro-area** | Physical Sciences and Engineering  
**Department name** | Department of Geosciences  
**Webpage** | [https://www.geoscienze.unipd.it/corsi/scuola-dottorato](https://www.geoscienze.unipd.it/corsi/scuola-dottorato)  

### Research topic A  
**Deep Earth’s volatile cycle: processes, fluxes and metasomatism**  
The distribution of volatiles within the Earth’s interior has profound implications on the dynamics and the evolution of our planet. Yet, our understanding of the deep-Earth volatiles cycle is crude, as several uncertainties remain relative to the storage of different volatile species at depths, and the surface and deep processes triggered by their subsequent release. The aim of the research topic is to bridge this knowledge gap by exploiting blended field, experimental and numerical approaches.

### Research topic B  
**Interdisciplinary studies of the geology and mechanics of natural and human-induced earthquakes**  
With an average toll of 50,000 deaths per year over the last two decades, earthquakes are the most dreadful geohazard. However, we know little about earthquake mechanics. Here we propose an interdisciplinary approach which includes field studies of seismogenic faults, laboratory experiments and microanalytical investigations of both natural and experimental fault products to unravel the mechanics of natural and human-induced earthquakes.

**Link to the UNIPhD Call (Academic Year 2022/2023)** | [https://www.unipd.it/en/uniphd](https://www.unipd.it/en/uniphd)