PhD Scholarship Opportunity

Multi scale modelling of climate change impacts on Mediterranean coastal systems

Mediterranean coastal regions are experiencing some of the most rapid and complex manifestations of climate change, driven by the interplay of atmospheric, oceanic, hydrological, and ecological processes. From eco-hydro-climatological transitions and intensifying extremes to the potential influence of global tipping elements such as the Atlantic Meridional Overturning Circulation (AMOC), the Mediterranean basin offers a unique natural laboratory for advancing next-generation modelling approaches capable of supporting climate-resilient pathways for coastal societies.

This PhD position focuses on developing and applying multi-scale modelling frameworks to better understand how climate change affects Mediterranean coastal systems. The project will explore the links between large-scale climate drivers, regional atmospheric and oceanic dynamics, and local impacts relevant to coastal vulnerability, extreme events, and adaptation planning. Examples of possible research directions within the broader theme of the position include (but are not limited to): (1) Eco-hydro-climatological Extremes and Transitions in the Mediterranean under Climate Change: Greening Scenarios for Coastal Adaptation; (2) Impacts of a Potential Collapse of the Atlantic Meridional Overturning Circulation on the Euro-Mediterranean Climate, and (3) Extreme precipitation events in the Mediterranean and their connection to large-scale climate variability and change.

The fully funded, four-year position is hosted by Ca' Foscari University of Venice within the PhD Programme in Science and Management of Climate Change. It is co-funded and co-supervised by the International Centre for Climate Change Research and Studies (CSRCC), in collaboration with research groups from its associated institutions, such as Ca' Foscari lab on Climate Physics, Oceanography and Meteorology, Ca' Foscari lab on Statistical Research, CNR-ISAC and CNR-ISMAR.

We welcome applicants from a range of quantitative and environmental disciplines, including (but not limited to) climate science, environmental sciences, physics, oceanography, statistics, applied mathematics, geosciences, and related fields. Candidates should demonstrate strong analytical skills, experience or interest in numerical modelling, and motivation to work across scales and disciplines. Programming experience is an asset.

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The position offers:

- The opportunity to develop an original research project at the intersection of climate modelling and climate-risk assessment
- Close collaboration with supervisors and research teams spanning across disciplines, such as climate dynamics, statistical modelling, and coastal resilience
- The chance to contribute modelling methods and insights that can be directly relevant for future climate-adaptation strategies for Mediterranean coastal regions, generating knowledge with high relevance for policy, planning, and long-term resilience

We strongly encourage applications from motivated candidates eager to work in one of Europe's most vibrant hubs for climate-change research.

Applications close on Wednesday May, 6 2026 at 1 PM (Italian Time). For application details, please refer to the official Call for Applications on the Ca' Foscari University website: https://www.unive.it/web/en/2161/annual-call

Interested to know more? Do not hesitate to contact us: info@csrcc.it

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