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DIPARTIMENTO DI GEOSCIENZE

Seminario "Dipartimento di Eccellenza"

Mediterranean marine sediment cores database: unlocking paleoclimatic signals for the last 20,000 years

Giovedì 17 ottobre 2024 – ore 17:00, Aula Arduino

Relatore: **Dr.ssa Allyson Viganò**

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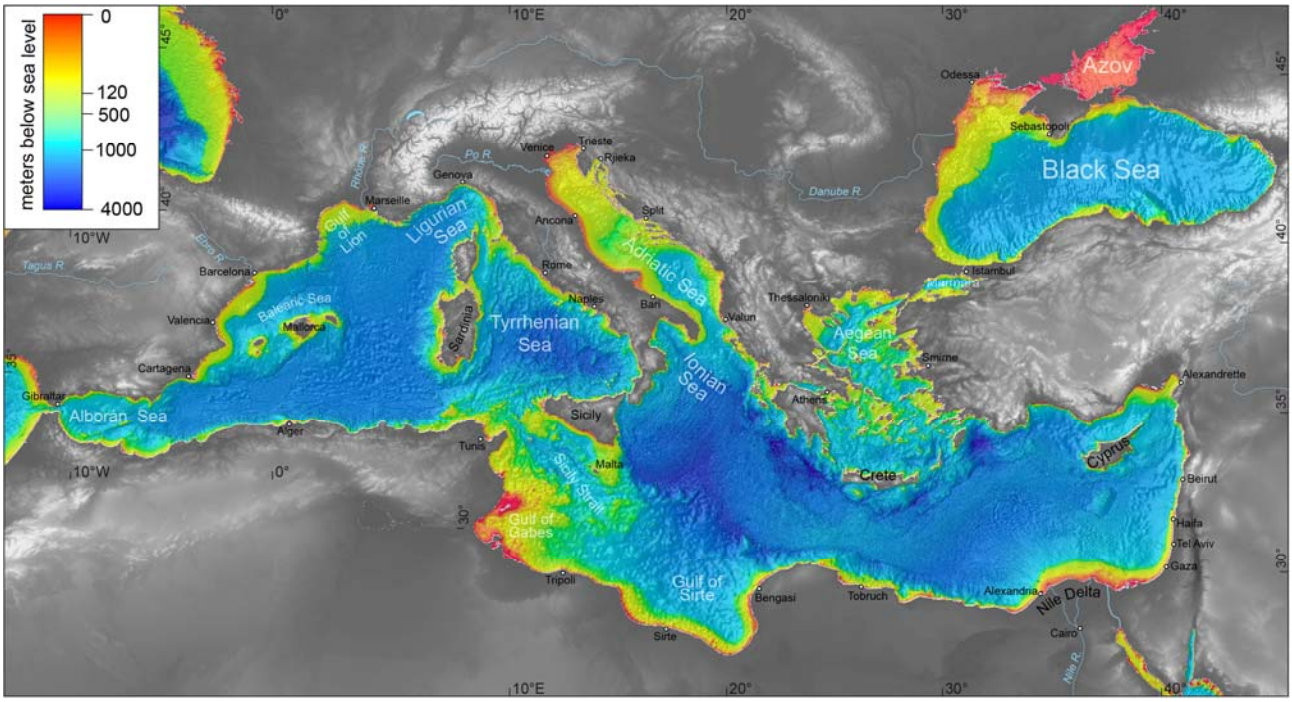

The Mediterranean is a crucial area for studying past climate dynamics due to its unique geography and hydrology. Its small size and rapid response to climate changes make it an ideal laboratory to evaluate the impact of marginal basins on global climate. Paleoclimatic data from the Mediterranean are vital for evaluating past events and predicting future scenarios. Here, we present a comprehensive paleoclimatic database covering nearly six decades of research in the Mediterranean, spanning the last 20,000 years. This database comprises more than 1,500 marine sedimentary cores and includes detailed descriptions of the oceanographic cruises and related cores.

For each core, we have documented virtually all available information on past environmental variables and their associated proxies. Our primary objective is to identify key environmental variables for assessing past climatic conditions over the last 20,000 years in the Mediterranean. We also aim to identify knowledge gaps and offer an overview of the main climatic proxies for this region. We gathered data from over 400 scientific articles and selected 36 well-studied and/or potentially significant cores both from western and eastern Mediterranean. These cores enable a comprehensive graphical synthesis of the principal environmental variables and key proxies for last 20,000 years.