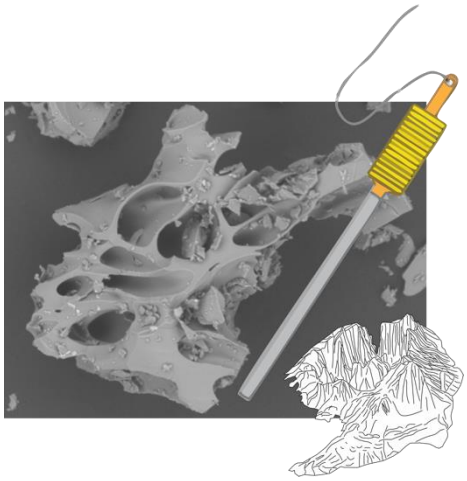
1st circular

"Tephrochronostratigraphy and associated research of the Mediterranean",

23th - 25th April 2025 at GEOMAR, Kiel



The seas around **subduction zones, volcanic islands, and submarine volcanoes** collect large volumes of eruption-generated material in form of marine ash layers and basin-filling mass flow deposits from syn- or post eruptive processes like explosive volcanic eruptions and/or flank collapses that present ongoing hazards for populated regions in many parts of the world. Especially the **Mediterranean region** is known to be vulnerable for these hazards.

Submarine volcanic deposits therefore record eruption, transport, and depositional processes. The marine sediment archive allows to reconstruct their volcanic provenance and high-resolution **eruptive and event time series** alongside meticulous description of associated **petrogenetic processes** and **eruption triggers**. Marine exploration, including seismic, coring, and drilling campaigns, field studies, and experimental and theoretical work, advances knowledge on transport and deposition as well as the systematics of volcanic deposits in the oceans in combination with independent proxies and precise age models.

This workshop aims to bring together researchers working on modern and ancient marine volcanic deposits, petrology as well as age and climate proxies in a holistic approach using marine exploration, field studies, and experimental and theoretical work in the Mediterranean.

We focus particularly on tephrochronostratigraphy, age models, eruption time series, and geophysical observations to understand the formation of volcanic deposits on the seafloor and their link to tectonic processes and sea level variation, as well as on petrologic studies of magmatic processes over time.

We welcome contributions from recent marine studies of the Hellenic arc, especially associated with IODP Expedition 398, the Italian volcanic provinces, especially Mt. Etna and Stromboli, Aeolian Island, as well as other Mediterranean marine research linked to volcanology and contributions on related volcanic hazards and risk mitigation.

Preliminary workshop schedule:

We aim for a hybrid between a conference and a simple workshop. Therefore, initial oral presentations with lots of time for discussion, will be followed by breakout sessions focusing on future collaborations and research initiatives.

Wednesday 23th April 2025, start 8.30 AM:	Thursday 24th April 2025	Friday 25th April 2025, end ca. 1 PM
Oral presentations and posters. Welcome event	Oral presentations, posters and breakout sessions. Joint dinner	Breakout sessions and wrap up

Registration and abstract submission will start soon, for more information and updates please have a look at:
https://events.geomar.de/e/tephra

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GEOMAR Helmholtz Centre for Ocean Research Kiel

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