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# MARINE GEOLOGY Advanced School

Deep Sea Frontiers

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27<sup>th</sup> - 31<sup>st</sup>  
January 2025

Venue: Area della  
Ricerca di Bologna, ITALY

Room #216  
Application Deadline:  
October 13<sup>th</sup> 2024

Understanding of the  
geological frontiers that lie  
beneath the ocean depths.

Join us for a week of immersive learning, collaboration, and  
exploration in the cheerful setting of Bologna




10' public transportation  
from Bologna central  
station



Conference  
and Lecture Rooms



Bar-Caf 



The School offers an advanced exploration of geological processes within the ocean depths, encompassing the entire life cycle of the oceanic lithosphere, from its formation to its eventual subduction and destruction. Topics covered include the in-depth examination of abyssal regions, exploration of ocean ridges, analysis of sediments, and the study of marine bio-geology in extreme environments, as well as the use of advanced exploration technologies. The ocean deeps play a crucial role in the Earth's interconnected systems, facilitating exchanges of heat and matter between the lithosphere and the oceans. The formation and structure of ocean crust and the rates and pathways of interaction with the oceans depend on spreading and magma supply rates. Oceanic core complexes are expressions of a major mode of crustal accretion at slow - spreading ridges, where upper mantle rocks are exhumed along long - lived, low - angle detachment faults. Understanding the interactions between the oceans and the lithosphere is crucial for comprehending Earth's climate, geology, and ecosystems. Ongoing research continues to unveil the complexities of these interconnected processes and their implications for the planet's health and stability. The course intends to actively involve doctoral students and young researchers in research projects, expanding their design skills towards the challenges of the "Deep Sea".

## Deep Sea Frontiers

Lectures and practical exercises will be conducted by distinguished experts in marine science (F. Caratori Tontini, C. Berndt, A. Langone, E. Erba, S. Passaro, A. Bosman, F. Bonetti, M. Maia, J. Escartin, J. H. Molina, D. Brunelli, A. Sanfilippo, G. De Lange, C. Boschi, P. Montagna, M. Taviani, L. Lanci, L. McNeil, M. Rovere, F. Gamberi, F. Fogliani, G. De Alteriis, G. Aiello, A. Polonia, A. Asioli, M. Ligi, N. Zitellini, R. Lucchi)

Who can apply? This Advanced School is intended for motivate undergraduate, graduate, post-doctoral students and young researchers of Earth Sciences

**APPLY HERE**

Deadline: October 13<sup>th</sup>, 2024