



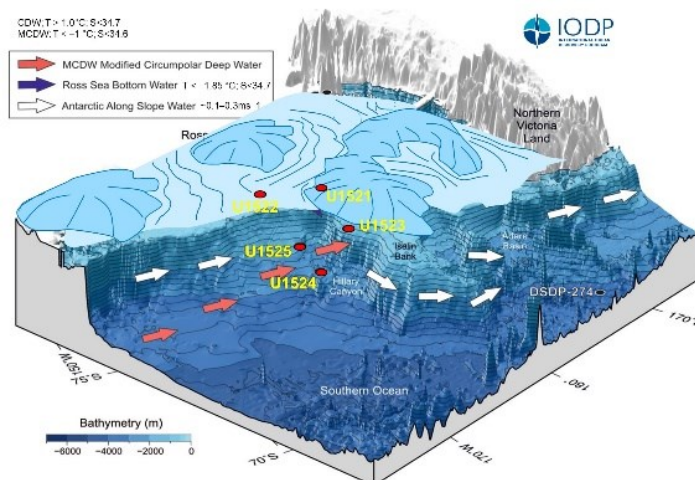
CICLO DI SEMINARI

25 gennaio 2024

"ice sheet and ocean interaction, paleoclimate and paleoceanographic record during past glacial and interglacials"

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Ice sheets that currently rest on submarine bedrock interact with processes in the ocean. Satellite observations indicate an accelerated loss of some marine sectors of the Antarctic ice sheet, which has led to a global sea level rise over the last 20 years. Other sectors appear to be stable or in an initial phase of change. The mechanisms that determine the response of marine ice sheets to the ongoing warming of the ocean are poorly understood. This knowledge gap makes it difficult to predict reliable scenarios for the near and long-term future in a rapidly warming world with increasing levels of greenhouse gases in the atmosphere. Paleoclimate and paleoceanographic records are needed to reconstruct when and why the ice sheet crossed stability thresholds in past warm periods. This talk will present how mapping depositional features help to reconstruct the maximum extent and retreat of the marine paleo-ice sheet. Geological records collected by IODP expedition 374 (Ross Sea) from these depositional features provide insight into the environment and the interaction between the ice sheet and the ocean during past glacial and interglacial periods. Slow circulation and open water conditions characterised warmest Pliocene and Pleistocene periods.

