

Séminaire de Ana Luiza Albuquerque au LSCE

Name : Séminaire de Ana Luiza Albuquerque au LSCE

Title : Last Interglacial inter-hemispheric transmission of Agulhas Leakage controlled by the western South Atlantic

Laboratory :

Name of the speaker :

Affiliation :

Date and time : 03-12-2018 10h30

Location : Orme des Merisiers, bât. 714, pièce 1110

Summary :

The intensification of the Agulhas Leakage (AL) during glacial Terminations has long been proposed as a required mechanism to return the Atlantic meridional overturning circulation (AMOC) to its interglacial mode. However, the lack of records that shows the downstream evolution of the AL signal throughout the Atlantic and the large temporal differences between AL intensification and resumption of deep-water convection cast doubt on this mechanism. Our new data show that during glacial Termination II, AL dense waters recirculated in the surface and thermocline layers of the subtropical South Atlantic until they were abruptly released to the Northern Hemisphere in two pulses. These pulses were synchronous to the two deep-water reactivation intervals recorded in the high latitudes of the North Atlantic at 129 and 124 ka. Our results connect AL intensification to AMOC resumption and suggest that not only a strong AL is required, but also a favorable tropical Atlantic ocean-atmosphere configuration is required.

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