

Fjord sediment archives in the northeastern North Atlantic

7-8 April 2018, Vienna, Austria

This workshop will gather a broad spectrum of scientists willing to share their expertise and develop original concepts on the identification and reconstruction of post-glacial paleoclimate changes and coastal geohazards based on fjord sediment archives. It will stimulate the submission of a Full IODP proposal for the October 2018 deadline, as an extended and reviewed version of the IODP 915-Pre proposal "Fjord sediment archives in the northeastern North Atlantic".

Norwegian and Svalbard fjords communicate with the Norwegian Sea and Greenland Sea/Fram Strait, respectively, and constitute extensions of the open ocean towards land. Changes in their modern hydrology and sedimentary budget are related to changes in the volume transport and physical-chemical signature of Atlantic and Arctic-derived water masses circulating over the continental margin, to the seasonal development of sea-ice such as in coastal Svalbard, as well as to processes acting on the hinterland such as precipitation variations and the dynamics of tidewater glaciers (when present). Finally, fjords are characterized by frequent mass-movement events whose understanding is of vital importance given their catastrophic impacts on coastal infrastructures and human lives.

The general paucity of high resolution, continuous, coupled marine and continental records of Holocene environmental changes in the northeastern North Atlantic region since the initial demise of the NW European ice-sheets has precluded any firm understanding of (1) high and low frequency behaviors, and the impact in this region of internal modes of the climate variability such as NAO and AMO, (2) interactions with external climate forcing acting over short and long time-scales, (3) the coupled ocean/cryosphere/atmosphere dynamics and the connections between marine and continental climates, (4) the synchronicity and trigger mechanisms of past mass movements in high latitude coastal environments of Northwestern Europe.

These four overarching themes will be thoroughly debated throughout the workshop in the form of keynotes and open discussions covering a wide range of disciplines and topics related to the motivation and objectives of "FANA".

This workshop will be organized as a pre-EGU event, in order to guarantee the participation of key scientists who will also be attending the General Union Meeting from April 9th, 2018.

Registration:

Scientists interested in contributing to the workshop are invited to submit an expression of interest by **15 March 2018** to jacques.giraudeau@u-bordeaux.fr. Researchers will be accepted based on their research interest related to the scientific goals of the workshop. Applicants will be informed on the outcome immediately after deadline. Early Stage Researchers are particularly welcomed to apply.

Organizer:

Jacques Giraudeau, CNRS – Université de Bordeaux, France. On behalf of IODP 915-Pre co-proponents.