# Training School

**IFREMER, Brest, France.**
**21st-25th November 2016**

**Detection of gas emissions from the seafloor using multibeam echo soundings**

# Announcement

The FLOWS community announces its first Training School that will take place at Ifremer's facilities in Plouzané (Brest, France) from **21 to 25 November 2016**. Understanding the evolution of fluid-fault interactions during earthquake cycles is a challenge that can be addressed by the investigation of acoustic gas emission. Shipborne multibeam echo sounder water column imaging is one tool of excellence to detect and evaluate gas emissions in active areas that result from seafloor fluid seepage. This Training School will provide the theoretical background, examples of applications, and practical training involving water column processing using the Sonarscope and GLOBE software that are fare-free for academic use.

FLOWS will support participation for trainees coming from COST countries covering local expenses and a flat-rate grant for travel. Up to **20** grants (maximum amount awarded per grant is 800€) will be assigned to applicants by decision of the FLOWS Management Committee. Participation is also open to scientists that can support their own expenses, up to reaching the total room capacity of 20 trainees, on a first-come first-served basis.

Students and interested scientists must submit their application by **October 15th**. The application form can be downloaded **here** and should be sent to Astrid Ulbrich (aulbrich@geomar.de).

Accepted applicants will be notified by **October 28th**, and will then have to register by **November 11th**. Further information to applicants will be provided then.

## Provisional program

Day 1 morning: lecture on the theoretical and technical key points concerning the acquisition and processing of water column acoustic data.

Day 1 afternoon: lecture on Sonarscope and GLOBE software (used to process and visualise water column data)

Day 2 morning and afternoon: use of Sonarscope with practical work on data (quick bathymetry and reflectivity, water column processing)

Day 3 morning: taking in hand Sonarscope (water column processing)

Day 3 afternoon: use of GLOBE with practical work on visualisation of water column data (previously generated by Sonarscope)

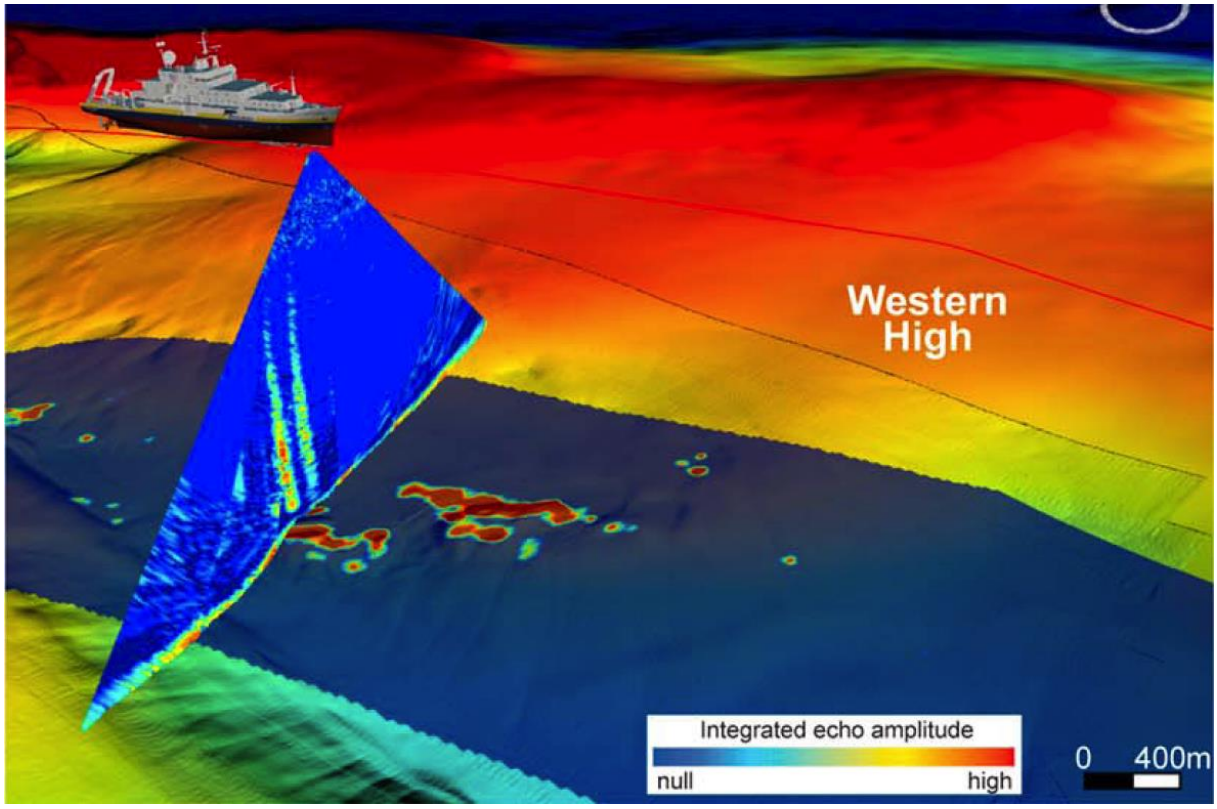
Day 4 morning and afternoon: Sonarscope/GLOBE practical work on water-column survey data (processing, interpretation and classification of echoes)

Day 5 morning and afternoon: lectures on geological and geochemical context of natural fluid seeps. Presentation and discussion of case studies. Optional: trainees process and present their own data.

## Requirements

Trainees should bring their own laptop with the following specifications: windows 64 bits and a minimum RAM of 16 Go. Ifremer may need an agreement with trainees' institutions in order to provide fare free licenses of the software for academic uses and prevent any commercial use of those licenses.

**Carla Scalabrin, Pierre Henry, Luis Matias, Christian Hensen**




*Dupré et al. (2015)*