



Research Networking Programmes

Short Visit Grant or Exchange Visit Grant

(please tick the relevant box)

Scientific Report

The scientific report (WORD or PDF file – maximum of eight A4 pages) should be submitted online within one month of the event. It will be published on the ESF website.

Proposal Title: Grant to attend the Urbino Summer School in Italy, 9-25 July, 2014

Application Reference N°: 6702

1) Purpose of the visit

The purpose of this visit was to attend and learn at the Urbino Summer School in Paleoclimatology - Past Global Change Reconstruction and Modelling Techniques (USSP), in Urbino, Italy from 9th to 25th of July.

2) Description of the work carried out during the visit

We started with an introduction to climate system dynamics, archives and proxies used to reconstruct past climates, and from that we focused on the biogeochemical cycles and in the orbital theory and forcing on climate.

In the field trip, we went to visit the northeastern Apennines (more precisely the Furlo Gorge; the Contessa Valley; the Bottaccione Valley; and the Massignano quarry (Monte Conero)) on the 13th of July. All students were divided in groups and collected data directly from field (after identification of the Paleocene-Eocene and Cretaceous-Paleogene boundaries).

Again in class, we focused on anoxic and abrupt events of the past, such as the Paleocene-Eocene Thermal Maximum (PETM) and Eocene Thermal Maximum 2 (ETM2), and the dynamics of the carbon

cycle using modeling techniques that help us visualize the fluxes between different reservoirs and the climate system functioning in those remote times. The cryosphere dynamics and ice reconstructions were also presented for the same and more recent periods. We also focused on the Pliocene and Pleistocene cryosphere dynamics, for the northern hemisphere glaciation and the last glacial-interglacial cycles (formerly known as ice ages). We finally focused on the Pleistocene abrupt events, climate sensitivity, equilibrium states, thresholds and tipping points.

3) Description of the main results obtained

As a result of attending this summer school and after learning so much I believe I have better knowledge on the state of the art in Paleoclimatology, and in what are the big scientific questions that still remain to be answered. This will already help me to improve my PhD project and, in the future, allow me to continue research on carbon and carbonate cycles and on the effect of the biosphere on the climate system.

4) Future collaboration with host institution (if applicable)

(not applicable)

5) Projected publications / articles resulting or to result from the grant (*ESF must be acknowledged in publications resulting from the grantee's work in relation with the grant*)

(no publications or articles will result from this grant)

6) Other comments (if any)

Thank you for awarding me with this grant, it wouldn't have been possible for me to attend the USSP if I wouldn't have had a grant supporting me.