

Ms. Mieke Thierens  
Geology Department & Environmental Research Institute  
University College Cork  
Lee Road  
Cork  
Ireland

e-mail: mieke.thierens@gmail.com

*Reference: EuroMARC Support for Junior Researchers for the American Geophysical Union Fall Meeting 2009*

## **Scientific Report AGU Fall Meeting 14-18 December 2009**

During the latest AGU Fall Meeting (14-18 December 2009, San Francisco, USA) I was given the opportunity to present some key results of my PhD research on the Challenger cold-water coral carbonate mound (session PP31C "Paleoceanography and Paleoclimatology General Contributions – Posters"; see APP.1-2). In this presentation ("The 2.6 Ma depositional sequence from the Challenger cold-water coral carbonate mound (IODP Exp. 307): a unique palaeo-record of Plio-Pleistocene NE Atlantic climate variability"), the potential of the Challenger Mound as continental margin, Plio-Pleistocene palaeo-environmental recorder was highlighted and linked to the unique interplay of hydrodynamically-influenced sedimentation and cold-water coral-mediated sediment preservation. This provided plenty of scope for interesting discussions with other PhD students and senior scientists on both the topics of cold-water corals and continental margin sedimentation processes. Furthermore, preliminary results on provenance analysis of ice-rafted detritus, preserved manifold throughout the Challenger Mound sequence, were well received and led to motivating debates with, e.g., experts from the international ice-sheet community.

Besides the opportunity to discuss my own work, numerous presentations and talks from experts in, e.g., the following sessions enlarged my scientific knowledge, insight and enthusiasme:

- PP Deep and Surface Water Coral Archives of Oceanographic Change
- PP Reconstruction and Modelling of the Transient Climate Evolution of the Past 21,000 Years
- PP Late Pleistocene Variability in Ventilation of Deep and Intermediate Water Masses
- PP Paleoclimate Records of North Pacific Climate Variability: Ocean-Atmosphere Interactions
- C Ice Shelves, Ice Tongues and Coupling with Ocean and Ice Sheets
- PP Deglaciation of the Northern Hemisphere: Timings and Forcings
- PP Changing Terrestrial Fluxes to the Oceans: Investigating Controls on Weathering and Sediment Fluxes Through Time Using Geochemical Proxies
- C Climatic Versus Internal Dynamic Forcing of Glacial Systems in the Past, Present and Future
- PP Merging New and Old Proxies: Techniques, Limitations, and Applications from the Geological Record
- PP Paleoceanography and Paleoclimatology General Contributions
- C Sea Ice Processes and Properties
- PP Cenozoic Antarctic Evolution
- PP Decadal- to Century-Scale Climate Variability Over the Past Millennium: Evidence From Non-Tree-Ring Archives
- G Quantifying Sea Level Change

Overall, I experienced the 2009 AGU Fall Meeting as very inspiring and successful.

Enclosed with this scientific report you can find the ESF Travel Claim Form, including all original receipts associated with this travel. Of course I am available for any further enquiries.

With grateful regards,  
Mieke Thierens