

FINAL EUROMARC CONFERENCE

7-9 February 2011

Hotel Baia, Cascais, Portugal

FINAL PROGRAMME

Last update: 07 February 2011

Registration from 18:30 to 19:30 at ESF desk on 6 February 2011

Monday, 7 February 2011

08:45 **Introduction**
Paola Campus (EuroMARC Programme Coordinator, ESF, Strasbourg, France)

Session 1: The 7 Collaborative Research Projects: H2DEEP, CHECREEF, AMOCINT, RETRO, GLOW, CARBONATE, MOCCHA
Chair: Dr. Gilbert Camoin

09:00-13:00 Oral Presentations

09.00 **Gilbert Camoin et al.** (CEREGE, Université Aix-Marseille, France)
The last deglacial sea-level and climatic changes. Coral reef records in the South Pacific: Tahiti (French Polynesia) – IODP Expedition #310 -, Australian Great Barrier Reef – IODP Proposal #519 (CHECREEF)

- 09.30 **Gerard Versteegh et al.** (Bremen University, Germany)
Results of the MOCCHA Project
- 10.00 **Trond Dokken et al.** (Bjerknes Centre for Climate Research Uni Research,
Bergen, Norway)
What has been achieved, and future perspective for RETRO
- 10:30 Coffee Break**
- 11.00 **Andrew Wheeler et al.** (University College Cork, Ireland)
The CARBONATE project: an overview
- 11.30 **Dick Kroon et al.** (Vrije University, The Netherlands)
Tropical Temperature History during Global Warming (GLOW) Events
- 12.00 **Rolf-Birger Pedersen et al.** (University of Bergen, Norway)
The H2DEEP project: Ultra-slow spreading and hydrogen-based deep biosphere
- 12.30 **Silvia Nave et al.** (Laboratório Nacional de Energia e Geologia, Alfragide,
Portugal)
*Paleoproductivity variations in the sub-tropical North Atlantic and the Nordic
Seas and their relation to the Atlantic Meridional Overturning Circulation
(AMOCINT)*

13:00 Lunch

Session 2: Geodynamic, hydrothermal and biogeochemical processes
Chair: Prof. Andrew Wheeler

14:30-15:00 Poster Presentations

- 14.30 **Benjamin Eickmann** (University of Bergen, Norway)
*On the origin of barite chimneys in two hydrothermal sites along the slow-
spreading Arctic Mid-Ocean Ridge*
- 14.40 **Steffen L. Jörgensen** (University of Bergen, Norway)
*High resolution community profiling of stratified sediments associated with
Loki's Castle vent field at the Knipovich ridge*
- 14.50 **Rudy Swennen** (Catholic University of Leuven, Belgium)
*Early diagenetic processes in carbonate mounds and their influence on palaeo-
environmental records*
- 15.00 **Fernando Barriga** (University of Lisbon, Portugal)
*Mineralogy and Geochemistry in the Arctic crust near Loki's Castle, 74 degrees
N (South Knipovich Ridge)*
- 15.20 **Inês Ferreira Silva da Cruz** (University of Lisbon, Portugal)
Loki's Castle Arctic Vents and Host Sediments: Mineralogy and Geochemistry

15.30 **Agata Dias** (University of Lisbon, Portugal)
Trollveggen Vent Field: Mineralogy and geochemistry of chimneys and deposits, and evidence of hydrothermal activity in far-field cores

15:30-18:30 Oral Presentations

15.30 **Edward Bard** (CEREGE, Université Aix-Marseille, France)
New insights into the radiocarbon calibration based on ¹⁴C and U-Th dating of corals drilled offshore Tahiti (IODP Expedition #310)

16.00 **Fernando Barriga** (University of Lisbon, Portugal)
Geological mineral exploration tools in the Arctic near Loki's Castle, 74 degrees N (South Knipovich Ridge)

16:30 Coffee Break

17.00 **Tamara Baumberger** (ETH Zurich, Switzerland)
Loki's Castle: A sediment-influenced hydrothermal vent field at the ultra-slow spreading Arctic Mid-Ocean Ridge

17.30 **Daniel Birgel** (University of Vienna, Austria)
Formation of microbialites in post-glacial coral reefs induced by sulfate-reducing bacteria

18.00 **Andrea Jaeschke** (ETH Zurich, Switzerland)
Diversity of microbial communities of Loki's Castle black smoker field at the ultra-slow spreading Arctic Mid-Ocean Ridge

18.30 **Poster session** (poster presenters required to stand from 18.30 to 19.30)

20:00 Dinner

21.30 **Poster session**

Tuesday, 8 February 2011

Session 2: Geodynamic, hydrothermal and biogeochemical processes
Chair: Prof. Andrew Wheeler

08:30-13:00 Oral Presentations

08.30 **Martin Koelling** (University of Bremen, Germany)
The impact of freshwater geochemistry on reef growth and reef alteration

09.00 **Ingunn Thorseth** (University of Bremen, Germany)
Microbial processes and biomineralisation associated with low-temperature hydrothermal venting and formation of barite chimneys at Loki's Castle vent field

09.30 **Dierk Hebbeln** (University of Bremen, Germany)
Glacial cold-water coral growth in the Gulf of Cádiz, NE Atlantic

10:00 Coffee Break

Session 3: Land, ocean and climate records: interaction and forcing mechanisms
Chair: Dr. Gert De lange

10:30-11:20 Poster Presentations

10.30 **Ana Alberto** (Laboratório Nacional de Energia e Geologia, Amadora, Portugal)
Sea surface temperature and oceanic productivity variations off the Iberian margin during the last 20.000 years

10.40 **Liang Chen** (University of Bremen, Germany)
Organic walled dinoflagellate cyst based paleoclimate reconstruction during "Roman Classical Period" in Southern Adriatic area and its potential forcing mechanisms

10.50 **Jan Hoffman** (University of Bremen, Germany)
The Tahitian freshwater system at present and in the LGM

11.00 **Nil Irvali** (University of Bergen, Norway)
Abrupt Changes in North Atlantic Climate and Hydrography and Their Relationship to Deep Ocean Ventilation During the Penultimate Interglacial (MIS 5e)

11.10-11.20 **Andrea Tegzes** (Bjerknes Centre for Climate Research, Bergen, Norway)
Reconstructing holocene inflow-overflow dynamics in the nordic seas using sediment parameters and model results

11:30-13:00 Oral Presentations

11.30 **Edward Bard** (CEREGE, Université Aix-Marseille, France)
A dramatic ice sheet collapse at the onset of the Bölling warming at 14.6 kyr: New evidence from the IODP "Tahiti Sea-Level" Expedition

12.00 **Hanno Kinkel** (Kiel University, Germany)
Multiproxy reconstruction of AMOC's Upper and Lower Limbs in the Interior North Atlantic Ocean south off the Azores

12.30 **André Krabbenhöft** (Kiel University, Germany)
Stable Sr isotope fractionation in the marine realm

13:00 **Lunch**

14:30-17:30 **Oral Presentations**

- 14.30 **Susana Lebreiro** (Spanish Geological and Mining Institute, Madrid, Spain)
Deep-sea counterpart of Holocene Bond cycles
- 15.00 **Christian Schwab** (Kiel University, Germany)
Comparison of interglacial coccolith assemblages from the central subtropical North Atlantic and their relation to hydrographic and productivity changes
- 15.30 **Yiming Wang** (Kiel University, Germany)
Climate controls on moisture variability and vegetation changes in Southern Africa during the last 37 kyr BP

Session 4: High resolution climate records and climate changes
Chair: Dr. Trond Dokken

16.00-16.20 **Poster Presentations**

- 16.00 **Gert De Lange** (Utrecht University, the Netherlands)
Multidisciplinary study Of Continental/ocean Climate dynamics using High-resolution records from the eastern mediterranean (MOCCHA)
- 16.10 **Chloé Prétet** (University of Geneva, Switzerland)
Calcium isotope fractionation ($\delta^{44}/^{40}\text{Ca}$) in tropical corals: Applicability for environmental reconstruction

16.20 **Coffee Break**

16.50-19:30 **Oral Presentations**

- 16.50 **Gilbert Camoin** (CEREGE, Université Aix-Marseille, France)
Reef response to sea-level and environmental changes during the last deglaciation. IODP Expedition 310 "Tahiti Sea Level"
- 17.20 **Claire Seard** (CEREGE, Université Aix-Marseille, France)
Impact of environmental parameters on coral reef development and drowning: Forward modelling of last deglacial reefs from Tahiti (French Polynesia; IODP Expedition #310)
- 17.50 **James Collins** (University of Bremen, Germany)
Tropical African rainbelt dynamics over the past 23,000 years
- 18.20 **Thomas Felis** (University of Bremen, Germany)
Potential of last deglacial Tahiti corals for subseasonal climate reconstructions (IODP Expedition 310) - New approaches in screening for diagenetic alteration

18.50-19.20 **Ralph Schneider** (Kiel University, Germany)
Glacial to Holocene surface temperature evolution in the Western Tropical Indian Ocean

19.30 **Aperitif**

20:00 **Conference Dinner**

Wednesday, 9 February 2011

Session 4: High resolution climate records and climate changes
Chair: Dr. Trond Dokken

08:00-12.30 Oral Presentations

08.00 **Anna-Lena Grauel** (ETH Zurich, Switzerland)
Reconstructing climate change with 'clumped-isotopes' in foraminifera from sediment cores covering the last 2000 years in the Gulf of Taranto, Mediterranean Sea

08.30 **Nina Joseph** (Nuremberg Erlangen University, Germany)
Holocene benthic foraminifers in the cold-water coral habitat and fjord trough deposits of the Stjernesund, northern Norway

09.00 **Catherine Kissel** (CEA/CNRS/UVSQ, Paris, France)
Magnetic properties and sortable silt and isotopes in the sub-polar North Atlantic and the relation with the deep oceanic circulation

09.30 **Arne Leider** (University of Bremen, Germany)
Assessment of climate variability for the last 500 years based on lipid biomarker proxies (Gulf of Taranto, S. Italy)

10.00 **Coffee Break**

10.30 **Niamh O'Sullivan** (University of Dublin, Ireland)
Offshore Southern Tanzania; Stratigraphy, Structure and potential Paleogene Sites. Results from the GLOW cruise 2009

11.00 **Janne Repschläger** (Kiel University, Germany)
Differences in Atlantic Meridional overturning circulation over Holocene and MIS5 - indications from the subtropical North Atlantic

11.30 **Marie-Louise Goudeau** (Utrecht University, The Netherlands)
Recent geochemical compositional patterns and subrecent variability (0-400 yrs) of sediments in the Gulf of Taranto (S. Italy) and the South Western Adriatic Sea

12.00

Karin Zonneveld (University of Bremen, Germany)

Anthropogenic and natural induced changes in trophic conditions of the distal part of the Po-river discharge plume during the last 300 years

12.30

Lunch and departure