



RESEARCH CONFERENCES

ESF-FWF Conference in Partnership with LFUI

Mechanisms of Quaternary Climate Change: Stability of warm phases in the past and in the future

Universitätszentrum Obergurgl (Ötztal Valley, near Innsbruck) • Austria
06-11 June 2009

Chair: **Carlo Barbante**, University of Venice, I
Co-/Vice-Chair(s): **Hubertus Fischer**, University of Bern, CH
ESF Rapporteur: **Zoltan Varga**, Debrecen University, Hungary

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With support from
- **European Project for Ice Coring in Antarctica**



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Final Programme

Saturday 06 June 2009

Late afternoon / early evening	Registration at the ESF-RC desk
19.00	Welcome Drink
20.00	Supper

Sunday 07 June 2009

08.45-09.00	- Conference Opening - Zoltan Varga Debrecen University, Hungary <i>ESF Presentation</i>
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Session 1: **Comparison between interglacials**

Chair: Eric Wolff, BAS, Cambridge, UK

09.00-09.40	André Berger Catholic University of Louvain, Belgium <i>Orbital forcing and response during interglacials</i>
09.40-10.20	Kumiko Goto-Azuma National Institute of Polar Research, Tokyo, Japan <i>Interglacials in the ice core records</i>
10.20-10.35	Short Talk - Bergami Caterina ISMAR-CNR, Bologna, Italy <i>Climatic changes at the polar front of the Pacific Ocean during the Mid-Pleistocene revolution</i>
10.35-11.00	Coffee break
11.00-11.40	Jerry Mc Manus Columbia University, Lamont-Doherty Earth Observatory, USA <i>Marine reconstruction of interglacial climate variability</i>
11.40-12.20	Chronis Tzedakis University of Leeds, U.K. Interglacial vegetation patterns
12.20-12.35	Short Talk - Qiuzhen Yin Catholic University of Louvain, Belgium Interglacials over the last 1 million years: forcing and modeling
12.35	Lunch
14.00-15.30	Poster Session 1
15.30-16.00	Coffee break
16.00-16.40	Hubertus Fischer University of Bern, Switzerland <i>Greenhouse gases during interglacials</i>

16.40-17.20	Barbara Delmonte University of Milan, Italy <i>Changes in dust occurrence during warm periods</i>
17.20-17.35	Short Talk - Paul T. Vallelonga IDPA-CNR, Venice, Italy <i>High resolution record of fluxes of iron and other trace elements to Talos Dome, Antarctica, during the last glacial cycle</i>
17.35-18.30	Plenary Discussion
19.00	Dinner

Monday 08 June 2009

Session 2: **Variability and stability of warm phases**

Chair: Hubertus Fischer, University of Bern, Switzerland

09.00-09.40	William F. Ruddiman University of Virginia, Charlottesville, USA <i>Falsification of Natural Explanations for the late Holocene CO₂ and CH₄ Increases</i>
09.40-10.20	Frank Sirocko University of Mainz, Germany <i>Interglacial variability and glacial inception in terrestrial archives</i>
10.20-10.35	Short Talk - Eva Fetter Budapest University of Technology and Economics, Budapest, Hungary <i>Mercury Records in sediments cores from South Shetland Islands, Antarctic Peninsula</i>
10.35-11.00	Coffee break
11.00-11.40	Valerie Masson Delmotte CEA, Saclay, France <i>Short term variability during warm periods</i>
11.40-12.20	Kurt Nicolussi University of Innsbruck, Austria <i>Holocene variability from Alpine tree-ring archives</i>
12.20-12.35	Short Talk - Ilham Bouimetarhan University of Bremen, Germany <i>Concerted climatic and oceanic variability in and off western Sahel related to the latitudinal migration of the ITCZ through the late Holocene warm period</i>
12.35	Lunch
15.30-16.00	Coffee break
16.00-16.40	Hans Renssen University of Amsterdam, The Netherlands <i>Abrupt climate changes in interglacials – the 8.2 kyr event and the thermohaline circulation</i>
16.40-16.55	Short Talk - Lars Moeller Alfred Wegener Institute for Polar and Marine Research, Bremerhaven, Germany <i>The impact of abrupt climate variations on the carbon isotopic signature of methane</i>

16.55-17.10

Short Talk - Emil Gachev

Southwestern University "Neofit Rilski", Blagoevgrad, Bulgaria
Researching Evidences for Late Pleistocene and Holocene climatic changes in the highest mountains of Bulgaria - first results and future prospects

17.10-18.00

Plenary Discussion

19.00

Dinner

20.00-21.30

Poster Session 2

Tuesday 09 June 2009

Session 3: **Modelling the climate during warm phases**

Chair: Valerie Masson Delmotte, CEA, Saclay, France

09.00-09.40

Michael Schulz

University of Bremen, Germany
Interglacial climate variability at interdecadal-to-centennial timescales: origin, amplification and interactions

09.40-10.20

Fortunat Joos

University of Bern, Switzerland
Modelling the carbon cycle: a few examples

10.20-10.35

Short Talk - Paolo Gabrielli

Ohio State University, Columbus, USA
The widespread abrupt transition from the Holocene Thermal Maximum to the Neoglacial at ~5 kyr BP: what are the drivers and the mechanisms?

10.35-11.00

Coffee break

11.00-11.15

Short Talk - Robert Schneider

University of Bern, Switzerland
Comparing past interglacials to understand atmospheric CO₂ and carbon cycle dynamics using ice core $\delta^{13}\text{CO}_2$ data

11.15-11.55

Viktor Brovkin

Max Planck Institute for Meteorology, Germany
Modelling vegetation dynamics

11.55-12.30

Plenary Discussion

12.30

Lunch

Afternoon

Free time

19.00

Dinner

20.00-21.30

Poster Session 3

Wednesday 10 June 2009

Session 4: *Ice sheet response to interglacial warming and their impact on sea level*

Chair: Viktor Brovkin, Max Planck Institute for Meteorology, Germany

09.00-09.40

Massimo Frezzotti

ENEA, Rome, Italy

Surface Mass Balance in East Antarctica: temporal and spatial variability

09.40-10.20

Richard C.A. Hindmarsh

BAS, Cambridge, UK

Recent developments in ice-sheet modelling and their relevance to the last inter-glacial

10.20-10.35

Short Talk - Margarita Syromyatina

Saint-Petersburg State University, Saint-Petersburg, Russian Federation

Features of climate change in the Altai Mountains: seasonal temperature and precipitation

10.35-11.00

Coffee break

11.00-11.40

Hans Oerlemans

University of Utrecht, The Netherlands

Response of ice streams and glaciers to recent and past warming

Session 5: *How and when interglacials end ?*

Chair: André Berger, Catholic University of Louvain, Belgium

11.40-12.20

Gilles Ramstein

LSCE, Saclay, France

Modelling Long Term climate Variability (from onset to decay) the role of rapid climate changes

12.20-12.35

Short Talk - Stefan Ritz

University of Bern, Switzerland

Development of the Bern3D EMIC for long-timescale paleo-simulations

12.35

Lunch

15.30-16.10

Marie France Loutre

Catholic University of Louvain, Belgium

When will the next glacial inception take place?

16.10-16.40

Coffee break

Session 6: *Socio-economic aspects of climate change*

Chair: William F. Ruddiman, University of Virginia, Charlottesville, USA

16.40-17.20

Björn-Ola Linnér

University of Linköping, Sweden

Conflicts and Consensus at Copenhagen: Climate Adaptation and Mitigation Policies

17.20-18.00

Paul Crutzen

University of Mainz, Germany

Living in the Anthropocene

18.00-19.30
20.00

Forward Look Plenary Discussion
Get-together & Conference Dinner

Thursday 11 June 2009

Breakfast & Departure

Posters

Instructions

Please refer to List of Accepted Posters. Posters can be fixed with pins onto poster panels. Recommended poster size is 140 cm high x 100 cm wide. Use letters and drawings that can be read from approximately 100 cm distance.