# Workshops on CLIMATE VARIABILITY in the TWENTIETH CENTURY (C20C)

# 19 - 30 April 2004

Miramare - Trieste, Italy

The Abdus Salam International Centre for Theoretical Physics (ICTP) is sponsoring two interrelated workshops on "Climate Variability in the Twentieth Century", to be held from 19 to 30 April 2004 in Trieste, Italy. The third workshop on the "International Climate of the Twentieth Century (C20C) Project", will take place in the first week (19 - 23 April 2004). It will be directed by Chris Folland (Hadley Centre for Climate Prediction and Research, U.K.) and James L. Kinter III (Center for Ocean-Land-Atmosphere Studies, Maryland, U.S.A.). The second ICTP workshop on "Climate Variability Studies in the Ocean", directed by Pavel Povinec (Marine Environment Laboratory of the International Atomic Energy Agency, Monaco) will take place in the second week (26 - 30 April 2004). Franco Molteni (ICTP) and Annalisa Bracco (ICTP) will act as Co-Directors and local organizers of the workshops.

### The International Climate of the Twentieth Century Project (19 - 23 April 2004)

The International Climate of the Twentieth Century (C20C) Project, coordinated by the Hadley Centre and the Center for Ocean-Land-Atmosphere Studies, involves the use of both ocean-forced atmospheric general circulation models (AGCMs) and observed data to study climate variations and changes over the last 130 years, particularly in the period since 1950. Presentations have been invited from the following institutions participating in the C20C project: BOM (Australia), CCSR (Japan), COLA (USA), CPTEC (Brazil), CSIRO (Australia), DMRQ (Australia), GSFC (USA), Hadley Centre (UK), JMA (Japan), MGO (Russia), NCC (China), NIWA (New Zealand), SNU (Korea), and UCLA (USA). The 2004 C20C workshop will review recent progress in numerical simulations of climate variability and trends made with different AGCMs (Phase I of C20C), and discuss plans for the Phase II of the project with representatives of major climate research programmes (CLIVAR, WGCM, WGSIP and WGNE). The involvement of research institutions from developing countries in future research efforts in this field will also be addressed.

#### Climate Variability Studies in the Ocean (26 - 30 April 2004)

This workshop will review current knowledge on ocean variability on inter-annual to intercentennial time scales, starting from 20th-century anomalies and discussing the extension of the observational record into the previous centuries and millennia through the analysis of isotopic records. Both large-scale phenomena, such as the El Nino - Southern Oscillation, and variations in semi-enclosed seas will be covered. Numerical simulations by coupled ocean-atmosphere models on different time-scales will also be presented.

The Workshops are intended for Scientists and post-graduate fellows working in the areas of Atmospheric Physics and Dynamics, Climatology, Oceanography, Environmental Physics, from all member countries of the United Nations, UNESCO and IAEA. Although the main purpose of the ICTP is to help researchers from developing countries through a program based on international cooperation, scientists from developed countries are also welcome to attend. The activity will be conducted in English.

Limited funds are available for applicants from, <u>and working in</u>, developing countries only, to be selected by the organizers. There is no registration fee. Those wishing to participate should complete and return the "Request for Participation" form, to arrive no later than **20 January 2004.** 

The application form can be downloaded from the workshop web page <a href="http://agenda.ictp.trieste.it/age.php?id=a0341">http://agenda.ictp.trieste.it/age.php?id=a0341</a> or obtained by sending an e-mail message to <a href="mailto:smr1560@ictp.trieste.it">smr1560@ictp.trieste.it</a> with the subject "get index".

Please send your completed application form via e-mail, fax, or post to:

the Abdus Salam ICTP
Workshops on Climate Variability in the twentieth Century (C20C)
(c/o P. Pieri)
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I-34014 Trieste, Italy

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ICTP home page: http://www.ictp.trieste.it

### <u>ORGANIZERS:</u>

CHRIS FOLLAND (Hadley Centre)

JAMES L. KINTER III (COLA)

**PAVEL POVINEC** (IAEA-MEL)

FRANCO MOLTENI (ICTP)

ANNALISA BRACCO (ICTP)

## **MAIN TOPICS**

#### **C20C Project:**

- Climate anomalies in the 20thcentury observational record
- Attribution studies: SST, sea ice, and other sources of atmospheric anomalies
- Multi-decadal AGCM simulations from Phase I of the C20C Project.

#### Ocean Variability:

- Response of oceans and seas to climate change
- Numerical modelling of ocean variability
- Isotopic archives in oceans and seas

DEADLINE

**20 JANUARY 2004**