

First International Workshop on Climate Variability over Africa

15 - 26 May 2005

Alexandria, Egypt

The Abdus Salam International Centre for Theoretical Physics (ICTP), in cooperation with the Egyptian Meteorological Authority and Cairo University, is organizing the above Workshop to be held at the Bibliotheca Alexandrina Conference Center, Alexandria, Egypt from 6 to 17 March 2005. The Organizers of the Workshop are M. Abdel-Wahab (Univ. of Cairo, Egypt), A. Yousef (Egyptian Meteorological Authority), A.S. Zakey (Univ. of Gothenburg, Sweden), F. Molteni (ICTP, Italy), and A. Bracco (ICTP, Italy).

Introduction

Changes in climate could exacerbate periodic and chronic shortfalls of water, particularly in arid and semi-arid regions of the world where many developing nations are located. Most draw their water supplies from vulnerable systems which fail to provide resources when shortages occur. Given the technical, financial and management limitations in these countries, adjusting to shortages and/or implementing adaptation measures places a heavy burden on their national economies. There is evidence that also flooding is likely to become a larger problem in many temperate and humid regions. The Workshop is intended to review recent progress in understanding climate variability and trends (of both natural and anthropogenic origin) over Africa, and their impact on the hydrological resources of the continent.

Programme

The first week will be focused on global processes of relevance to the African continent with special attention to climate variability on interannual and interdecadal time-scales and ocean-atmosphere interactions. The second week will be devoted to a general presentation of the main regional processes influencing the climate of the African continent and to the modeling issues associated with the representation of such processes in regional climate models.

Lectures will be given on the use and applications of a global atmospheric circulation model (SPEEDY) during the first week and a Regional Climate Model (RegCM3) and Regional Spectral Model (RSM) during the second week. Different aspects of active research, such as the approach to numerical model design and parameterization of aerosols and simple chemistry module, surface fluxes, and convection processes will be emphasized. Laboratory sessions, in which students will be taught how to use RegCM3 and SPEEDY models, will complete the workshop. Students will also be encouraged to complete small projects.

Invited lecturers include: M. Barreiro (Princeton, U.S.A.), N. Elguindi (ICTP, Italy), A. Giannini (IRI, U.S.A.), F. Giorgi (ICTP, Italy), S. Hastenrath (Univ. Wisconsin, U.S.A.), F. Kucharski (ICTP, Italy), J. Pal (ICTP, Italy), J.O. Roads (Scripps Inst., U.S.A.), V.K. Saxena (Nasa, U.S.A.), F.H.M. Semazzi (Ncsu, U.S.A.), M. Shokr (AES, Canada), D. Simpson (NMI, Norway), and F. Solmon (ICTP, Italy).

Participation

The workshop is open to young researchers and PhD students working in the areas of Atmospheric Physics and Dynamics, Climatology and Oceanography, **from countries in Africa** that are members of the United Nations, UNESCO or IAEA. The principal objective of the ICTP is to help research workers from developing countries, through a programme of training activities within a framework of international cooperation. Participants should have an adequate working knowledge of English. The Workshop will be conducted entirely in that language.

Due to budget limitations, **the number of participants will be strictly limited to no more than 40.**

Every effort should be made by candidates to secure support for their fare (or at least half-fare). However, limited funds are available for some participants who are nationals of, **and working in**, a developing country, and who are not more than 45 years old. Participants are required to take part in all aspects of this activity for its entire duration. There is no registration fee.

The **Application Form** is available at: <http://agenda.ictp.trieste.it/smr.php?1689>

Applications should be sent via e-mail, fax or post,

to **arrive no later than 20 February 2005**, to:

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