The Abdus Salam
International Centre for Theoretical Physics

United Nations Educational, Scientific and Cultural Organization

IAEA International Atomic Energy Agency

Conference on Teleconnections in the Atmosphere and Oceans

17 - 20 November 2008

ICTP, Trieste, Italy

The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy, is organizing a **Conference on Teleconnections in the Atmosphere and Oceans**. It will be directed by In-Sik Kang (Seoul National University, Korea), David Straus (George Mason University, USA), Martin P. King (University of Alaska Fairbanks, USA) and Fred Kucharski (ICTP, Trieste).

Atmospheric and oceanic teleconnections govern the variability in our climate system on a broad range of time and spatial scales, in both the tropics and extratropics. On interannual time scales, the connection between the El Nino Southern Oscillation and the Asian Monsoon system influences rain amounts in regions particularly sensitive to floods/draughts. On interannual and decadal time scales, Sahel rainfall variability appears to be governed to a large extent by teleconnection patterns related to the Pacific region, Indian Ocean and the Atlantic Ocean. Examples of tropical-extratropical links in the Pacific region include the Tropical-Northern Hemisphere (TNH) pattern, which is forced by ENSO related SSTs, and the Pacific Decadal Oscillation (PDO) and Pacific North American Pattern (PNA) which govern the subtropical and extratropical atmospheric and oceanic flow patterns on interannual to decadal timescales. The decadal behavior of the North Atlantic Oscillation (NAO), influencing climate in Europe, Asia and northern Africa, is also likely to be connected to both tropical and extratropical sea surface temperatures in the Indo-Pacific and Atlantic regions. The climate trends observed in the 20th century, project as well, onto patterns like the NAO and the PDO.

Insight into the physical mechanisms which result in these teleconnections, as well as a clear understanding of the difference in methodologies used to identity them are both of utmost importance in seasonal prediction research, as well as in research related to climate change issues.

The proposed Conference will bring together scientists and graduate students of both modeling and observational aspects of atmospheric and oceanic climate variability on interannual to centennial time scales.

MAIN TOPICS

1. Review of the most up-to-date results in the scientific community on the mechanisms of the main atmospheric and oceanic teleconnections observed in the 20th century.
2. Discussion of outstanding issues in the dynamical understanding of teleconnections.
3. Identification of differences in methodologies of identifying teleconnection patterns and their implications.
4. Identification of the major problems of numerical models in representing atmospheric and oceanic teleconnection; assessing the performances of models and proposing potential solutions.
5. Estimations of how the teleconnections observed in the 20th century may change under climate change scenarios.

PARTICIPATION

The Conference is intended for scientists and post-graduate fellows working in the areas of Climatology and Oceanography from all countries, which are members of the United Nations, UNESCO or IAEA. The activity will be conducted in English.

Limited funds are available for some applicants, who are nationals of, and working in, developing countries only, to be selected by the Organizers. Such support is available only to those attending the full four days. There is no registration fee.

Call For Paper

For those interested in presenting a contribution in oral or poster form during the Conference, kindly submit a one-page abstract (size A4) **no later than 30 June 2008** to smr1968@ictp.it. File attachments should be in PDF format. Poster boards available: 8 wall-mounted boards, of m. 1.75 (width) x 1.90 (height) and 4 mobile boards of 4 faces each of m. 1.20 (width) x1.90 (height). Each board will hold 2 posters.

REQUEST FOR PARTICIPATION

The **Application Form** is obtainable via Web server at: http://agenda.ictp.it/smr.php?1968
Applications should be completed, signed and returned by either e-mail, fax or post, **to arrive no later than 30 June 2008** to:

Teleconnections in Atmosphere and Oceans - smr1968 (c/o M. de Comelli)
the Abdus Salam International Centre for Theoretical Physics
Strada Costiera 11, 34014 Trieste, Italy

(recent photograph & signature of the candidate are compulsory)

E-mail: ***smr1968@ictp.it*** ***Fax:*** **+39 040 224163** ***Tel:*** **+39 040 2240305** ***Web:*** **http://www.ictp.it/**

April 2008

ORGANIZERS

IN-SIK KANG
(Seoul National Univ., Korea)

DAVID STRAUS
(George Mason University, USA)

MARTIN P. KING
(Univ. of Alaska Fairbanks, USA)

FRED KUCHARSKI
(ICTP, Italy)

CURRENT INVITED SPEAKERS INCLUDE:

GRANT BRANSTATOR
(NCAR, USA)

ISAAC HELD
(Princeton Univ., USA)

BRIAN HOSKINS
(U. Reading, UK)

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DEADLINE
for requesting participation

30 JUNE 2008