

# The Abdus Salam International Centre for Theoretical Physics



Workshop on

## Variability in the Western Tropical Pacific: mechanisms, teleconnections and impacts on sub-seasonal, inter-annual and inter-decadal time scales

### 12 – 16 November 2012

ICTP, Trieste, Italy

The Western Tropical Pacific (WTP) is a region where sea surface temperatures reach their highest values. Its warm waters are the source of intense convective systems, and the associated latent heat release acts as an important forcing for planetary waves across the whole globe. SST variability in the WTP, although weaker in amplitude than the variability in the central and eastern part of the tropical Pacific, has the potential to affect atmospheric teleconnection on a variety of scales. On the subseasonal scale, the MJO and other modes of tropical low-frequency variability interact in a two-way fashion with the WTP, both driving and being driven by variations in the WTP. On the interannual time-scale, the monsoon systems of East and South Asia are affected by WTP anomalies, as well as the planetary waves propagating into the northern extra-tropics. On the interannual time scales, variations in zonal and meridional gradients of SST in the WTP region affect long-term changes in the Walker and Hadley circulations, and links with decadal variability in the North Pacific and the North Atlantic have been explored by many scientists. The aims of the proposed five-day workshop are to review the current knowledge on the origins and consequences of variability in the WTP, and discuss the ability of the latest generation of coupled GCMs to simulate such variability and teleconnections.

#### Primary Workshop Topics:

The workshop will be organized in five daily sessions, addressing specific issues such as:

- 1. Interaction of the WTP with subseasonal atmospheric variability, especially the MJO
- 2. Interannual WTP anomalies as related to various ENSO 'flavours' and extratropical teleconnections
- 3. Impact of WTP anomalies on the variability of the East and South Asian monsoon systems
- 4. Connections with the Indian Ocean and extra-tropical Pacific: the role of variability in the Indonesian Through-Flow and the North-Pacific sub-tropical gyre
- 5. The role of WTP in tropical and extra-tropical interdecadal variability

#### Participation:

The workshop will be conducted in English. Limited funding (including travel grants) for participation is available for scientists from developing countries. No registration fee is required.

#### How to apply for Participation:

Applicants who would like to present a contributed paper to the conference should submit title and short abstract of their contribution.

The on-line application form can be accessed via the ICTP activity agenda page at:

#### http://agenda.ictp.it/smr.php?2341

Once in the website, comprehensive instructions will guide you step-by-step, on how to fill out and submit the application form. Please send all file attachments in PDF format. **Deadline for receipt of applications is 15 August 2012**.



### **ORGANIZERS**

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SPEAKERS to be announced

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#### **Call For Papers**

For those interested in making an oral or poster presentation during the Conference, a one-page abstract (size A4) should be uploaded <u>directly to the on-line application</u>. (Please upload file attachments in <u>.pdf</u>). The time available for contributed oral presentations will be very limited; some authors who submit abstracts for oral presentation may be asked to present a poster instead.

#### **Application Deadline**

### 15 August 2012

September 2011