



The Abdus Salam

**International Centre  
for Theoretical Physics**

[www.ictp.it](http://www.ictp.it)



# School on Climate System Prediction and Regional Climate Information

**21 - 25 November 2016**

Photo by Patrick Gonzalez

**ANACIM, Dakar, Senegal**

## Topics

From a societal perspective, many management decisions in agriculture and food security, water, disaster risk reduction and health fall into the sub-seasonal to seasonal time range, from two weeks and up to a season, while interest has also grown in the potential to provide multiannual predictions in an initialized decadal prediction framework.

Research has indicated important potential sources of predictability over sub-seasonal ranges through better representation of atmospheric phenomena such as the Madden-Julian Oscillation and improved coupling with, and initialization of, the land-ocean-cryosphere and stratosphere, leading to the promise that better understanding of these potential sources of predictability together with improvements in model development, observations, data assimilation and computing resources will translate into more accurate forecasts. Over longer timescales, research has started to document the current limits of initialized climate prediction. Recent advances in open data resources to aid research in this area include the new subseasonal to seasonal (S2S) databases that contain both forecasts and hindcasts from many global operational centres with lead times up to 2 months, as well as the US Multi-model ensemble (NMME) which presently provides operational real-time seasonal forecasts, and also has a higher resolution S2S extension planned.

**This one week school will include lectures by leading experts from the world Climate Research Programme (WCRP) Working Group on Seasonal to Interannual Prediction (WGSIP) on predictability over the sub-seasonal to decadal timescales, with concrete examples from some of the world's leading operational centers. Lab-based classes will introduce the participants to the new S2S Project subseasonal and CHFP seasonal forecast databases.**

Participants are expected to be working in a research or operational environment on the problem of sub-seasonal, seasonal or decadal prediction and/or their societal applications in health, agriculture, energy or water resource management, for example. As instruction will be in English, a working knowledge of the language is required. Familiarity with linux would be a benefit but is not mandatory as the data acquisition can also be performed in a Windows environment. Both linux and Windows users are expected, however, to be able to already perform rudimentary data analysis with a programming language (examples include R, python or NCL).

NOTE: You are strongly encouraged to bring a laptop to the school (preferably with linux installed) as this will allow us to install the relevant software to access the databases and facilitate your continued use of the tools after the event. Please indicate this on the application form if you are able to do so to allow us to plan required computing resources.

## HOW TO APPLY FOR PARTICIPATION

The online application form can be accessed at the **activity web page**  
<http://indico.ictp.it/event/a14270>

## GRANTS

A limited number of grants are available to support the travel and living expenses of participants, with priority given to participants working in a developing country and who are at the early stages of their career.



World Climate Research Programme



## DIRECTORS

**Adrian Tompkins**

(ICTP)

**Ousmane Ndiaye**

(ANACIM)

**Anna Pirani**

(ICTP; Université Paris Saclay)

## SPEAKERS

**Francisco Doblas-Reyes**

(BSC)

**Alessandra Giannini**

(IRI) To be confirmed

**Bill Merryfield**

(Environment Canada)

**Andrew W. Robertson**

(IRI, Columbia University)

**Ramiro Saurral**

(CIMA, Universidad de Buenos Aires,  
Argentina)

**Adrian Tompkins**

(ICTP)

## DEADLINE

**for submitting applications**

**15 August 2016**

**Telephone +39-040-2240623**

<http://indico.ictp.it/event/a14270>

**ACTIVITY SECRETARIAT**

**E-mail [smr2720@ictp.it](mailto:smr2720@ictp.it)**

