

# ICTP Summer School on Theory, Mechanisms and Hierarchical Modelling of Climate Dynamics: Multiple Equilibria in the Climate System



**25 June - 5 July 2018**  
**Trieste, Italy**

Further information:  
<http://indico.ictp.it/event/8318/smr3214@ictp.it>

The activity combines a graduate-level summer school on climate dynamics and model hierarchies, with a special focus on multiple equilibria in the climate system, followed by a workshop with world-leading researchers on theory and models of tropical rain belts.

## Directors:

R. Farneti, ICTP, Italy  
F. Kucharski, ICTP, Italy  
A. Pirani, Université Paris-Saclay, France  
A. Tompkins, ICTP, Italy  
M. Biasutti, Columbia University, USA  
A. Voigt, KIT, Germany

## Description:

The school will be based on lectures on theoretical aspects of atmosphere, ocean and climate dynamics, with a focus on the present state of established knowledge and relevant mechanisms. The topic of the school, multiple equilibria in the climate system, will be the subject of afternoon lectures, giving an overview of the most recent progress and hypotheses suggesting the existence of multiple equilibrium states, and consequences for past and future climates. Afternoons will also be devoted to practical sessions, involving the use of simplified climate models and analysis of relevant data sets.

The school will be followed by the workshop:  
2nd WCRP Grand Challenge Meeting on Monsoons and Tropical Rain Belts, 2 - 5 July 2018

(<http://indico.ictp.it/event/8457/>)

## Topics:

- Ocean, atmosphere and climate dynamics;
- Dynamics of the tropics;
- Coupled ocean-atmosphere feedbacks;
- Predictability of weather and climate;
- Multiple equilibria in the coupled climate system;
- Monsoon transitions;
- Instabilities and multiple equilibria in radiative-convective equilibrium.

## Speakers:

Simona Bordoni, CalTech, USA  
Susanna Corti, ISAC CNR, Italy  
David Ferreira, Reading U., UK  
In-Sik Kang, SNU, Republic of Korea  
John Marshall, MIT, USA  
Franco Molteni, ECMWF, UK  
Brian Rose, U. Albany, USA  
Adrian M. Tompkins, ICTP, Italy  
Geoff K. Vallis, U. Exeter, UK  
Shang-Ping Xie, SCRIPPS, USA

## How to apply:

Online application:  
<http://indico.ictp.it/event/8318/>

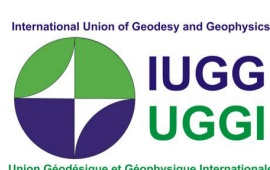
Female scientists are encouraged to apply.

## Grants:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries. There is no registration fee.

## Deadline:

**1 March 2018**



The Abdus Salam  
International Centre  
for Theoretical Physics  
[www.ictp.it](http://www.ictp.it)  
Trieste, Italy

