



The Abdus Salam
**International Centre
for Theoretical Physics**
www.ictp.it



Summer School on Aerosol-Cloud Interactions and International CFMIP Conference on Clouds, Circulation and Climate Sensitivity

27 June - 7 July 2016

The Abdus Salam International Centre for Theoretical Physics, in collaboration with the Cloud Feedback Model Intercomparison Program (CFMIP) is organising two back-to-back events in 2016:

Summer school on Aerosol-Cloud Interactions (27 June - 1 July)

Aerosol-cloud radiative, microphysical and dynamical interactions are a key determinant of the weather and climate. As reported by the International Panel on Climate Change (IPCC), these processes represent a major source of uncertainty for climate models. Aerosol-cloud interactions represent a very active and fast moving research field.

The school will consist of basic and advanced lectures on the current knowledge of aerosol-cloud interactions physics and the representation of these processes in atmospheric models. Examples of aerosol-cloud interaction research using cloud resolving and global models will be shown. The afternoons will be occupied with laboratory studies, demonstrating some data sources for research in the area and using a simple toy model to investigate and understand cloud-aerosol feedbacks.

CFMIP/WCRP/ITCP Conference on Cloud Processes, Circulation and Climate Sensitivity (4 - 7 July 2016)

The Cloud Feedback Model Intercomparison Project (CFMIP) is an international WCRP endorsed research project working to improve assessments of climate change cloud feedbacks through improvements in the evaluation of clouds simulated by climate models and in the understanding of cloud-climate feedback processes. The CFMIP/ICTP international conference will focus on the theme of the WCRP [Grand Challenge on Clouds, Circulation and Climate Sensitivity](#) in addition to addressing other ongoing CFMIP activities.

The 4 day conference will contain oral/poster sessions on

- Modeling and observational constraints on cloud feedbacks, adjustments and climate sensitivity, including the role of moist convection in cloud feedbacks
- Cloud/circulation/precipitation coupling and its variability in present and future climates, including hydrological extremes and ITCZ and storm track changes.
- Process based evaluation of clouds and cloud controlling factors in climate models using fine scale models and observations, including satellite simulators.
- How will the organization of cloud systems interact with climate change ?
- Coordination of CFMIP and Grand Challenge activities with CMIP6

Further details of the conference are available at <http://cfmip.metoffice.com/>

PARTICIPATION

Scientists and students from all countries that are members of the United Nations, UNESCO or IAEA may attend the school and conference. Applicants will be evaluated in terms of their research experience and the strength of the accompanying recommendation letters. Note that all candidates supported by ICTP will be required to attend both the school and the CFMIP conference. Participants require a working knowledge of English. There is no registration fee. A limited number of grants are available to support the travel and living expenses of selected participants, with priority given to participants working in a developing country and who are at the early stages of their career.

HOW TO APPLY FOR PARTICIPATION:

Online Application Forms can be accessed through the School website:

<http://indico.ictp.it/event/7614/>

Activity Secretariat:

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ICTP Home Page: <http://www.ictp.it>

Co-Sponsors:



School Organizers:

Wojciech W. Grabowski
(NCAR)

Anna Pirani (IPCC WG1 TSU)

Fabien Solmon (ICTP)

Adrian Tompkins (ICTP)

School Speakers:

Chris Bretherton
(University of Washington)

Corinna Hoose (KIT)

Steve Klein (LLNL)

Anna Possner (ETH Zurich)

CFMIP Steering Committee:

Sandrine Bony (LMD)

Chris Bretherton
(University of Washington)

Jennifer Kay
(University of Colorado)

Steve Klein (LLNL)

Bjorn Stevens
(Max Planck Institute for Meteorology)

George Tselioudis
(GISS, NASA)

Masahiro Watanabe
(University of Tokyo)

Mark Webb
(The Met Office)

Application Deadline

27 March 2016

