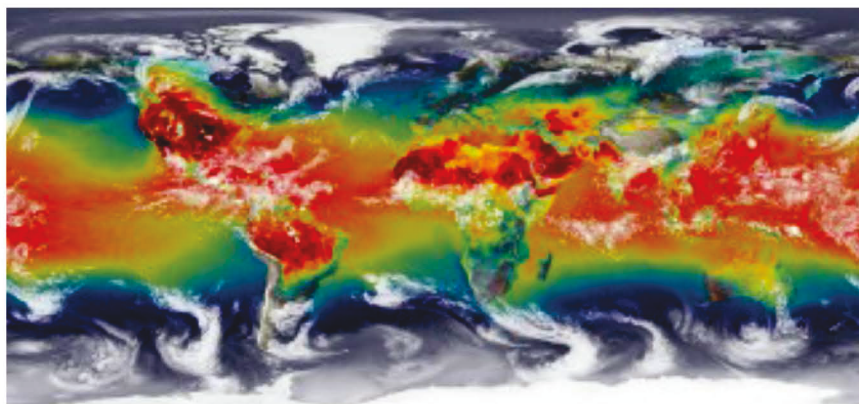




Uncertainty Quantification in Climate Modeling and Projection

13-17 July, 2015 ICTP Campus, Trieste, Italy

Assessing the reliability of climate change projections is one of the most important tasks facing the scientific community. Although scientists have made great strides to better understand and model climate system behavior, many of the dominant sources of uncertainty important to projecting future climate have not been reduced (e.g., from the IPCC 2007 to 2013). Moreover, the ability to assess impacts of projected changes on biological, social, and economic systems includes additional sources of uncertainty that need to be explored and quantified to appropriately assess risks.



Global Modeling and Assimilation Office, NASA's Goddard Space Flight Center

The workshop will provide both lectures and hands-on exercises that explore the fundamental concepts and practices of uncertainty quantification. There will also be group discussions on the difficulties that currently

exist to apply standard uncertainty quantification methodologies to large multi-scale systems such as climate where observations are limited and less directly relevant to the questions that need answering. Among the topics to be explored are sensitivity analyses, construction of surrogate models and response surfaces, input parameter calibration, forward propagation of uncertainties, and assessment of model discrepancies and structural uncertainties. Supervised by the directors and lecturers, participants will be encouraged to design, complete, and report on short research projects.

Who should attend?

Scientists and graduate students working in any area related to regional or global climate sciences including atmospheric physics, climate dynamics, oceanography, or mathematics from member countries of the United Nations, UNESCO, or IAEA. Activities will be conducted in English. Limited funding (including travel grants) will be available for scientists originating from developing countries. No registration fee.

Directors:

Y. Qian (PNNL, USA)
 C. Jackson (U Texas, USA)
 F. Giorgi (ICTP, Italy)

Invited Lecturers:

B. Booth (Met. Office, UK)
 Q. Duan (BNU, China)
 C. Forest (PSU, USA)
 D. Higdon (LANL, USA)
 Z. Hou (PNNL, USA)
 G. Huerta (UNM, USA)

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Apply now!

Application with step-by-step instructions available online at

<http://indico.ictp.it/event/a14268>

Please email file attachments in
 Word or PDF format.

APPLICATION DEADLINE

31 MARCH, 2015



ICTP Campus, Trieste, Italy