

The Abdus Salam International Centre for Theoretical Physics

SUMMER SCHOOL ON CLIMATE IMPACTS MODELLING FOR DEVELOPING COUNTRIES: WATER, AGRICULTURE AND HEALTH

5 - 16 September 2011 Miramare, Trieste, Italy



"QWeCI first project workshop 14-16 September 2011"

The Abdus Salam International Centre for Theoretical Physics (ICTP) is organizing an Summer School on Climate Impacts Modelling for Developing Countries: Water, Agriculture and Health to be held at ICTP, Trieste, Italy from 5 - 16 September 2011.

Severe weather and climate affect vulnerable communities through their impact on water resources, agriculture, energy and health. Currently in developing countries, weather observations and seasonal forecasts and climate-change projections are rarely converted to sector-specific projections. Impacts modelling, involving the use of dynamical or statistical models to convert climate information into sector-relevant guidance, is a relatively new but fast growing and important research field.

To aid scientists in developing countries achieve a working knowledge of impacts modelling, this workshop proposes to provide lectures and laboratory classes on:

- The use and uncertainty of the main observational datasets available from remote sensing to drive impacts models.
- The use and uncertainty of short-range to seasonal forecast products and climate model data from major numerical weather prediction and climate centres including the IPCC assessment climate integrations.
- Impacts modelling in the <u>three target sectors</u> of agriculture, water and health including classes using open-source models in each sector.

Agriculture	Water	Health
The modelling will centre on the	Differences in modelling small and	The health modelling lectures will
General large-scale model for	large hydrological basins will be	focus on malaria. The lab will
crops (GLAM, Challinor et al. 2005)	illustrated. The hydrological model	introduce the Liverpool Malaria
for ground nut, wheat, maize and	CHyM (Coppola et al., 2006) will be	Model (LMM), a dynamical vector
sorghum that has been used for	demonstrated, a grid-based	borne disease model described in
research in Africa and Asia.	distributed hydrological model.	Hoshen and Morse (2004). In
100 Percent 100 Pe	Contraction of the second second second	addition, statistical-based
		modelling techniques will be
		introduced.



Joint SUMMER SCHOOL/QWeCI/CLIVAR session: On the 14th September there will be a joint session "Sectorial Seasonal to Decadal Prediction in Africa" with invited contributions from the summer school lecturers and scientists attending the QWeCI workshop and the CLI-VAR 14th session of the working group on seasonal





Directors:

Soroosh Sorooshian (University of California, Irvine, USA)

Andrew Challinor (University of Leeds, UK)

Erika Coppola (ICTP, Italy)

Adrian Tompkins (ICTP, Italy)

<u>Lecturers</u> to be confirmed:

David DeWitt (IRI, Columbia University, USA) Francesca di Giuseppe (ECMWF, UK) **Volker Ermert** (University of Cologne, Germany) **James Famiglietti** (University of California, Irvine, USA) Andreas Fink, (University of Cologne, Germany) **Filippo Giorgi** (ICTP, Italy) Willem Landman (CSIR NRE, South Africa) Sanai Li (ICTP, Italy) **Rachel Lowe** (ICTP, Italy)

Participation: The Summer School will be conducted in English. Limited funding (including travel grants) for participation in the conference is available for scientists from developing countries. No registration fee is required.

to decadal prediction (WGSIP)."

How to apply for Participation:

The on-line application form can be accessed via the ICTP activity agenda page at: <u>http://agenda.ictp.it/smr.php?2262</u>. Once in the website, comprehensive instructions will guide you step-by-step, on how to fill out and submit the application form. Kindly send all file attachments in Word or PDF format. **Deadline for receipt of applications is <u>31 May 2011</u>.**

Contact Information:

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QWeCI:

The QWeCl science meeting will take place **14-16 September**, however, **QWeCl** participants are also invited to join the school lecture series and are asked to email directly <u>smr2262@ictp.it</u> to register the dates of arrival and departure. QWeCl participants are expected to use their own project funds to support attendance.

Laura Mariotti (ICTP, Italy) Franco Molteni (ECMWF, UK) Andrew Morse (University of Liverpool, UK) Adam Scaife (Met Office, UK) David Taylor (Trinity College Dublin, Ireland) Gulilat Tefera-Diro (ICTP, Italy)

APPLICATION DEADLINE

