The Abdus Salam International Centre for Theoretical Physics

Conference on the Role of e-Infrastructures for Climate Change Research

Organizer(s): Directors: Filippo Giorgi, Stefano Cozzini, Alberto Masoni, Federico Ruggieri
Trieste - Italy, 16 - 20 May 2011

Venue: Leonardo da Vinci Building Main Lecture Hall

Final programme

Monday, 16 May (Room:Leonardo da Vinci Building Main Lecture Hall)

16 May 2011

14:00 - 15:30	(Room: Leonardo da Vinci Building, Lobby) REGISTRATION --- After you have Registered: Administrative Formalities (daily living allowances/travel reimbursements, bank transactions, etc.) at the E. Fermi Building - just above the Leonardo Da Vinci Bldg. ---
17:30 - 18:00	(Room: Leonardo da Vinci Building, Lobby) REGISTRATION --- AAP-ICTP Trainees (smr2323) ---
18:00 - 20:00	WELCOME SESSION Ice-breaker: Leonardo Bldg. Terrace (weather permitting) 18h00' Brief conference presentation (Main Lecture Hall)

Tuesday, 17 May (Room:Leonardo da Vinci Building Main Lecture Hall)

17 May 2011

09:00 - 09:30	**Conference Opening** F. Quevedo, ICTP Director A. Vacchi, INFN Executive Board

F. Giorgi, Head Earth System Physics, ICTP

A. Masoni EU-IndiaGrid2 project manager

F. Ruggieri CHAIN & EUMEDGRID-Support project manager

09:30 - 11:00 e-infrastructures for Climate Change Research: The European Context
Keynote Introduction

K. Glinos, Head of Unit Head of Unit GÉANT and e-Infrastructures?, European Commission, DG Information and Society

e-Infrastructures for Climate Change in Europe: Climate Change Applications within the European Grid Initiative (EGI) (S. Newhouse - EGI Project Director)

e-Infrastructures for Climate Change in Europe:Climate Change Applications within the Partnership for Advanced Computing in Europe (PRACE) (Sergio Bernardi - Cineca)

11:00 - 11:30 (Room: Leonardo da Vinci Building, Lobby)
--- Coffee Break ---

11:30 - 13:00 **e-infrastructures for Climate Change Research: The Asian Perspective**

e-Infrastructures for Climate Change in Asia-Pacific (S. Lin - Academia Sinica Taipei, Taiwan)

e-Infrastructures for Climate Change in China (D. Qian - Beihang University and Principal Investigator of China National Grid (CNGrid))

e-Infrastructures for Climate Change in USA (V. Balaji - Cooperative Institute for Climate Change, Princeton University)

13:00 - 14:30 (Room: Leonardo da Vinci Building Cafeteria)
--- Lunch Break ---

14:30 - 15:30 **e-infrastructures for Climate Change Research: The Rest of the World**

e-Infrastructures for Climate Change in Latin America
(D. Carvalho - Centro Federal de Educação Tecnológica, Brasil)

e-Infrastructures for Climate Change in the Sub Saharan Africa

(Tiwonge Msulira Banda - UbuntuNet Alliance for Research and Education Networking)

e-Infrastructures for Climate Change in India

(S.K. Dash - IIT-Delhi)

15:30 - 16:00 (Room: Leonardo da Vinci Building, Lobby)
--- Coffee Break ---

16:00 - 18:00 **Data for Climate Modeling**

Common Metadata for Climate Modeling Digital Repositories, the Metafor Project

(B.Lawrence - Director of Environmental Data Curation at the UK Science and Technology Facilities Council)

Climate Challenges at Exascale
(G. Aloisio - University of Salento, Lecce, Italy & Euro-Mediterranean Centre for Climate Change (CMCC), Italy)

Climate Analytics for climate archive

(V.Balaji - Cooperative Institute for Climate Change, Princeton)

Discussion Session

18:00 - 19:00 Poster Session
Poster area, Right side of the Main Lecture Hall.

20:00 - 22:00 Conference Dinner (Castello di S.Giusto)
--- Coaches Leave from Grignano just below the Adriatico Guesthouse at 19:30 ---

Wednesday, 18 May (Room:Leonardo da Vinci Building Main Lecture Hall)

18 May 2011

09:00 - 11:00 **Global Policies in Climate Research: the role of e-Infrastructures**

Opening (F. Quevedo, ICTP Director)

The importance of global, comprehensive, and shared climate data for research and the IPCC work

(J.P. van Ypersele - Université catholique de Louvain (Belgium) & Vice-chair of the Intergovernmental Panel on Climate Ch)

A Nelson Mandela Approach to Climate Change: Disorienting and Discomforting, yet Rewarding and Effective

(G.H. Philander - Princeton University, USA, Director of African Centre for Climate and Earth System Science)

11:00 - 11:30 (Room: Leonardo da Vinci Building, Lobby)
--- Coffee Break ---

11:30 - 13:00 **Global Policies in Climate Research: the role of e-Infrastructures**

The role of of e-Infrastructures for Climate Research applications in India

(G. Beig - Indian Institute of Tropical Meteorology (Ministry of Earth Sciences, Govt. of India))

IS-ENES, InfraStructure for the European Network for the Earth System Modelling
(S. Joussaume - Director of the National Institute of Sciences of the Universe (INSU /CNRS), IS.ENES Project coordin)

13:00 - 14:30 (Room: Leonardo da Vinci Building Cafeteria)
--- Lunch Break ---

14:30 - 16:00 **"External Contributions" - Part 1**

ICTP project for HPC infrastructures for Climate research in Africa
(Clement Onime - ICST section, ICTP)

The Africa Adaptation Program for Africa (I. Rector/ J. Intsiful - Africa Adaptation Program, United Nation Development Program, Dakar Senegal)

E-infrastructures for the operational forecast of the biogeochemical state of Mediterranean sea: experiences from DORI and Myocean projects. (Stefano Salon - OGS Trieste) 20'

Chemistry in the Unified Model: Climate-Chemistry Studies with UKCA
(Maria Russo - University of Cambridge) 20'

16:00 - 16:30 --- Coffee Break ---

16:30 - 17:30 **?External contributions? - Part II**

TWAS Euro-Africa Cooperation on ICT Research

(Peter McGrath - TWAS) 20'

e-Infrastructures for Climate Change in the Mediterranean Area (Salem Al-Agtash - ASREN Arab States Research & Education Network)

Why do we need large computing resources in Climate Change? & Wrap-up (F. Giorgi - Head, ICTP-Earth Systems Physics Section)

RegCM 4.1 training session I (Room:Adriatico Guest House Informatics Lab.)

19 May 2011

09:00 - 09:45	**Gulilat Tefera / Stefano Cozzini** **Introduction to RegCM 4.1**
09:45 - 10:30	**Graziano Giuliani** **Hands-on session: installing RegCM4.1**
10:30 - 11:00	--- Coffee Break ---
11:00 - 11:45	**RegCM team** **Hands-on session: setting up and running RegCM4.1 Simulation 4**
11:45 - 12:30	**RegCM team** **Hands-on session: Postprocessing RegCM4.1 data**

RegCM/ Data joint session (Room:Adriatico Guest House Informatics Lab.)

19 May 2011

14:00 - 15:30	**Don Murray** / *University of Colorado-Boulder/Cooperative Institute for Research in Environmental Sciences (CU/CIRE* **IDV Visualization tool**
15:30 - 16:00	--- Coffee Break ---
16:00 - 17:00	**Don Murray** **Hands-on sessions on IDV tool**
17:00 - 17:45	**Hands-on session: submit your own RegCM simulation** Participants are supposed to prepare and submit their own simulations to produce at least 1 year of simulation during the night. Data produced will be then analyzed the day after

RegCM 4.1 training session II (Room:Adriatico Guest House Informatics Lab.)

20 May 2011

09:00 - 09:45	**Andrea Bassi** **System Dynamics Modeling for Policy Analysis**
09:50 - 10:10	**Chandan Maheshwari** **The e-infrastructure at C-DAC for Climate and Weather Research**
10:10 - 10:30	**Sridhara Nayak** / *IIT Kharagpur* **Impact of Land Use and Land Cover Changes on Climate over Indian Region**
10:30 - 11:00	--- Coffee Break ---
11:00 - 11:45	**RegCM team** **Advanced Postprocessing/Visualization of RegCM data**
11:45 - 12:30	**RegCM team** **Advanced usage of RegCM: CLM Band Chemistry..**

RegCM/Data joint session (Room:Adriatico Guest House Informatics Lab.)

20 May 2011

14:00 - 14:30	**Tamirat Jimma** / *ICTP tril fellow* **RegCM4 benchmarks**
14:30 - 15:00	**Stefano Cozzini /Martin Scarcia** / *CNR/IOM democritos* **Using RegCM4.1 on different computational infrastructure**
15:00 - 15:30	(Room: Leonardo da Vinci Building Main Lecture Hall) **Don Murray** **Introduction to THREDDS server**
15:30 - 16:00	(Room: Leonardo da Vinci Building Main Lecture Hall) --- Coffee Break ---
16:00 - 17:00	(Room: Leonardo da Vinci Building Main Lecture Hall) **Don Murray** **Hands-on session: how to use THREDDS server**
17:00 - 18:30	**Hands-on session: free exercise**