The Abdus Salam International Centre for Theoretical Physics

Sixth ICTP Workshop on the Theory and Use of Regional Climate Models

Organizer(s): F. Giorgi, R. Anyah, R. Porfirio Da Rocha, P. Ruti.
Trieste - Italy, 07 - 18 May 2012

Final programme

Monday, May 7 (Room:Adriatico Guest House Kastler Lecture Hall)

7 May 2012

08:30 - 09:15 (Room: Adriatico Guest House - Kastler Lecture Hall Area (Lower Level 1))
--- On-line registration for ALL attendees ---
- 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. - Meal coupons: balance will be issued by the Guesthouse Receptions one day after the on-line registration is completed according to the following timetables: GALILEO Guesthouse: Tuesday to Friday 10.00-12.00 & 13.00-15.00 ADRIATICO Guesthouse: Tuesday To Friday 13.00-15.00

09:15 - 09:30 (Room: Adriatico Guest House - Kastler Lecture Hall Area (Lower Level 1))
F. Giorgi / *Head, ICTP-ESP Group*
Welcome & brief Introduction

09:30 - 12:30 (Room: Adriatico Guest House - Kastler Lecture Hall Area (Lower Level 1))
Session I:
RegCM4 developments

The road to RegCM4 and beyond (F. Giorgi) 30'

Coupling with the UW PBL scheme (I. Guettler* /T. O'Brien** - Meteorological and Hydrological Service of Croatia- Zagreb*/Lawrence Berkeley National Laboratory**) 30'

New radiation and aerosols (F. Solmon - ICTP-ESP group) 30'

Coffee Break (11:00-11:30) (AGH Cafeteria - near Cafe' area (upper level)) 30'

Atmospheric chemistry in RegCM4: Results and evaluation of chemistry-climate interactions over the Egypt and Nile River Basin (A. Steiner - University of Michigan - Ann Arbor) 30'

Coupling with the ocean model ROMS (U. Turuncoglu - Istanbul Technical University, Informatics Institute & ESP-ICTP group) 30'

Tiedtke scheme (A. Tompkins - ICTP-ESP group) 15'

12:45 - 14:15 (Room: Adriatico Guest House Cafeteria)
--- Lunch Break ---

14:15 - 18:15 (Room: Adriatico Guest House Informatics Lab.)
G. Giuliani, RegCM4 team / *Universita' degli Studi di L'Aquila, CETEMPS*
Lab session
Basic tutorial on RegCM4 model, pre and post processors (Giuliani, RegCM4 team)

Coffee Break (16:00 - 16:30 - area outside the Informatics Lab.) 30'

Tuesday, May 8 (Room:Adriatico Guest House Kastler Lecture Hall)

8 May 2012

09:00 - 12:30 (Room: Adriatico Guest House - Kastler Lecture Hall Area (Lower Level 1))
Session II: RegCM4 performance over different CORDEX domains

Africa domain (L. Mariotti - ICTP-ESP group) 30'

Central America domain (G. Tefera Diro - ICTP-ESP group) 30'

South America domain (R. Porfirio Da Rocha - Universidade de Sao Paulo) 30'

Coffee Break (10:30 - 11:00) (AGH Cafeteria - area near Cafe' (upper level)) 30'

South Asia domain (S.K. Dash*/L. Mariotti - *Centre For Atmospheric Sciences, IIT- Delhi) 30'

East Asia domain (X. Gao - National Climate Center, Chinese Meteorological Administration - Beijing) 30'

Europe domain (C.Z. Torma*/I. Guettler - *Eotvos Lorand University - Budapest & ICTP-ESP group) 30'

12:30 - 14:00 (Room: Adriatico Guest House Cafeteria)
--- Lunch Break ---

14:00 - 18:00 (Room: Adriatico Guest House Informatics Lab.)
U. Turuncoglu, RegCM4 team
Lab session
RegCM tutorial ? Coupled ROMS

Coffee break (16:00 - 16:30 - AGH Cafeteria - area near Cafe' (upper level)) 30'

Wednesday, May 9 (Room:Adriatico Guest House Kastler Lecture Hall)

9 May 2012

09:00 - 11:45 (Room: Adriatico Guest House - Kastler Lecture Hall Area (Lower Level 1))
Session III: Chemistry/aerosol-climate interactions

Climate-Chemistry Interactions: Soil Moisture Controls on Air Quality (A. Tawfik - University of Michigan - Ann Arbor) 30'

Fog variability over South-Asia and the role of aerosols (F. S. Syed - Pakistan Meteorological Department, Islamabad) 30'

Regional climate-air quality simulations for past and future climate with RegCM-CAMx (P. Zanis - Aristotelian University of Thessaloniki) 30'

Coffee break (10:30 - 11:00) (AGH Cafeteria - area near Cafe' (upper level)) 30'

Simulating and interpreting climatic effects of aerosols (F. Solmon) 15'

The signature of climate change on the budget of surface ozone using the Online integrated climate-chemistry model RegCM-CHEM4
(*K.A. Shalaby/A. Zakey** - *Egyptian Meteorological Authority - Cairo/**Danish Climate Center, Copenhagen & Egyptian Meteorolog) 30'

11:45 - 12:45 (Room: Adriatico Guest House - Kastler Lecture Hall Area (Lower Level 1))
Session IV: Coupled RegCM-Lakes

Heavy lake-effect snowstorms in the Great Lakes Basin (M. Notaro - University of Wisconsin Madison) 30'

Climate simulations over the Caspian Sea basin (N. Elguindi - ICTP-ESP group) 30'

12:45 - 14:15 (Room: Adriatico Guest House - Kastler Lecture Hall Area (Lower Level 1))
--- Lunch Break ---

14:15 - 18:00 (Room: Adriatico Guest House Informatics Lab.)
K.A. Shalaby/A. Tawfik/F. Solmon, RegCM4 team
Lab session
RegCM tutorial ? Coupled chemistry/aerosol

Coffee Break (16:00 - 16:30 - AGH Cafeteria - area near Cafe' (upper level)) 30'

19:15 - 21:45 (Room: Adriatico Guest House Cafeteria)
Adriatico Guesthouse Terrace (weather permitting) otherwise Indoors
--- WORKSHOP RECEPTION ---

Thursday, May 10 (Room:Adriatico Guest House Kastler Lecture Hall)

10 May 2012

09:00 - 12:30 (Room: Adriatico Guest House - Kastler Lecture Hall Area (Lower Level 1))
Session V: Other applications

Applications of the PROTHEUS regional coupled climate model to impact sectors, from agriculture to energy (P. Ruti - Enea Centro Ricerche della Casaccia - Rome) 30'

The RegT-Band (E. Coppola - ICTP-ESP) 30'

On the warm season land-atmosphere coupling strength in North America: Results from RegCM4-CLM3.5 (G. Wang - University of Connecticut) 30'

Coffee Break (10:30 - 11:00) (AGH Cafeteria - area near Cafe' (upper level)) 30'

Changes in California coastal dynamics over the last 100 years (T. O'Brien - Lawrence Berkeley National Laboratory) 30'

Evaluation of the 21st century simulations drven by multiple GCM scenarios over the eastern Mediterranean ? Black Sea region (B. Onol - Istanbul Technical University) 30'

Various aspects of the RegCM4 CORDEX experimentations at DHMZ (C. Brankovic - Croatian Meteorological and Hydrological Service - Zagreb) 30'

12:30 - 14:00 (Room: Adriatico Guest House Cafeteria)
--- Lunch Break ---

14:00 - 16:00 (Room: Adriatico Guest House - Kastler Lecture Hall Area (Lower Level 1))
Definition of groups and group projects

16:30 - 18:00 (Room: Adriatico Guest House Informatics Lab.)
Lab work on group projects

Friday, May 11 (Room:Adriatico Guest House Kastler Lecture Hall)

11 May 2012

09:00 - 12:45 **Session VI: Future developments**

Development of new non-hydrostatic dynamical core (G. Tumolo - Universita' degli Studi di Trieste & ESP group) 30'

From CLM3.5 to CLM4 in RegCM4: Updates and preliminary results (G. Wang) 30'

New microphysics scheme (*R. Nogherotto/A. Tompkins - *Universita' degli Studi di Trieste & ESP group) 30'

Coffee Break (10:30 - 11:00) (AGH Cafeteria - area near Cafe' (upper level)) 30'

Coupling with FOREST-SAGE - Population model (*L. Caporaso/A. Tompkins - *ARPA Emilia - Romagna, Bologna & ESP group) 30'

Inclusion of bio-geochemical cycles (F. Solmon) 15'

Discussion on model development needs (F. Giorgi (leads)) 01h00'

12:45 - 14:15 (Room: Adriatico Guest House Cafeteria)
--- Lunch Break ---

14:15 - 18:00 (Room: Adriatico Guest House Informatics Lab.)
Lab work on group projects

Monday, May 14 (Room:Adriatico Guest House Kastler Lecture Hall)

14 May 2012

09:15 - 10:30 **Participant presentations**

10:30 - 11:00 (Room: AGH Cafeteria - area near Cafe' (upper level))
--- Coffee break ---

11:00 - 12:30 (Room: Adriatico Guest House Informatics Lab.)
Lab work on group projects

12:30 - 14:00 (Room: Adriatico Guest House Cafeteria)
--- Lunch Break ---

14:00 - 18:00 (Room: Adriatico Guest House Informatics Lab.)
Lab work on group projects

Tuesday, May 15 (Room:Adriatico Guest House Kastler Lecture Hall)

15 May 2012

09:00 - 10:30 **Group projects progress reports**

10:30 - 11:00 (Room: AGH Cafeteria - area near Cafe' (upper level))
--- Coffee break ---

11:00 - 12:30 **Group projects progress reports**

12:30 - 14:00 (Room: Adriatico Guest House Cafeteria)
--- Lunch break ---

14:00 - 18:00 (Room: Adriatico Guest House Informatics Lab.)
Lab work on group projects

Wednesday, May 16 (Room:Adriatico Guest House Kastler Lecture Hall)

16 May 2012

09:00 - 10:30	**Participant presentations**
10:30 - 11:00	(Room: AGH Cafeteria - area near Cafe' (upper level)) --- Coffee break ---
11:00 - 12:30	(Room: Adriatico Guest House Informatics Lab.) **Lab work on group projects**
12:30 - 14:00	(Room: Adriatico Guest House Cafeteria) --- Lunch break ---
14:00 - 18:00	(Room: Adriatico Guest House Informatics Lab.) **Lab work on group projects**

Thursday, May 17 (Room:Adriatico Guest House Kastler Lecture Hall)

17 May 2012

09:00 - 10:30	**Participant presentations**
10:30 - 11:00	(Room: AGH Cafeteria - area near Cafe' (upper level)) --- Coffee Break ---
11:00 - 12:30	(Room: Adriatico Guest House Informatics Lab.) **Lab work on group projects**
12:30 - 14:00	(Room: Adriatico Guest House Cafeteria) --- Lunch Break ---
14:00 - 18:00	(Room: Adriatico Guest House Informatics Lab.) **Lab work on group projects**

Friday, May 18 (Room:Adriatico Guest House Kastler Lecture Hall)

18 May 2012

09:15 - 10:30	**Group projects - final presentations**
10:30 - 11:00	(Room: AGH Cafeteria - area near Cafe' (upper level)) --- Coffee break ---
11:00 - 12:30	**Group projects - final presentations**
12:30 - 14:00	(Room: Adriatico Guest House Cafeteria) --- Lunch break ---
14:00 - 17:00	**Group projects - final presentations & Closing/issuance of diplomas**