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International Union of Geodesy and Geophysics



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

Organizer(s): F. Giorgi (ICTP, Italy), E. Coppola (ICTP, Italy), Xuejie Gao (CMA, China), S.K. Dash (IIT Delhi, India)
Trieste - Italy, 12 - 23 May 2014

Final programme

Monday - Registration and administrative issues (Room:Adriatico Guest House - Kastler Lecture Hall Area (Lower Level 1))

12 May 2014

08:30 - 09:30 --- Registration ---

Model Development (Room:Adriatico Guest House Kastler Lecture Hall)

12 May 2014

09:30 - 10:00 **F. Giorgi / ICTP**
Update on RegCM4 developments and CORDEX

10:00 - 10:30 **E. Coppola / ICTP**
The ICTP-CORDEX simulations. Overview of the CREMA ensemble results.

10:30 - 11:00 (Room: Adriatico Guest House (Terrace))
--- coffee break ---

11:00 - 11:20 **G. Tumolo / ICTP**
An accurate and efficient numerical framework for the new RegCM dynamical core

11:20 - 11:40 **U. Turuncoglu / Istanbul Technical University, Turkey**
Identifying the sensitivity of precipitation of Anatolian Peninsula to Mediterranean Sea Surface Temperature using coupled regional climate model

11:40 - 12:00 **R. Nogherotto / ICTP**
The New Microphysics Cloud Scheme Implemented in RegCM4

12:00 - 12:20 **A. Shalaby / ICTP**
Climate Chemistry Simulation using RegCM4.5

12:20 - 14:00 (Room: Adriatico Guest House Cafeteria)
--- lunch break ---

RegCM 4.5 Tutorial (Room:Adriatico Guest House Informatics Lab.)

12 May 2014

14:00 - 15:30 **G. Giuliani, L. Mariotti, C. Torma, R. Fuentes Franco, I. Diallo, E. Coppola / ICTP**
lab session

15:30 - 16:00 (Room: Adriatico Guest House (Terrace))
--- coffee break ---

16:00 - 18:00 **G. Giuliani, L. Mariotti, C. Torma, R. Fuentes Franco, I. Diallo, E. Coppola / ICTP**
lab session

18:00 - 19:00 (Room: Adriatico Guest House Cafeteria)
--- Ice Breaker reception ---

Tuesday - Europe (Room:Adriatico Guest House Kastler Lecture Hall)

13 May 2014

09:00 - 09:30 **P. Ruti / ENEA, Rome, Italy**
The Med-Cordex perspective for regional earth system modeling

09:30 - 10:00 **G. Sannino / ENEA, Rome, Italy**
The MITgcm, a versatile ocean regional model: the Mediterranean Sea case

10:00 - 10:30 **C. Torma**
Testing RegCM 4.4 over Europe and a possible application of the Factor Separation method

10:30 - 11:00 (Room: Adriatico Guest House (Terrace))
--- coffee break ---

11:00 - 11:30 **I. Guettler / DHMZ, Zagreb, Croatia**
Planetary boundary layer schemes in RegCM: evaluation and impact on the climate change signal over Europe and Mediterranean region

11:30 - 12:00 **A. Prein / Un. Graz, Austria**
The Euro-CORDEX Initiative: A new generation of regional climate scenarios for Europe

12:00 - 12:30 **L. Liu / ICTP**
Estimates of *Ambrosia artemisiifolia* L. pollen emission and dispersion in Europe using RegCM

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

CLM 4.5 Tutorial (Room:Adriatico Guest House Informatics Lab.)

13 May 2014

14:00 - 15:30 **G. Giuliani, L. Mariotti, C. Torma, R. Fuentes Franco, I. Diallo, E. Coppola / ICTP**
lab session

15:30 - 16:00 (Room: Adriatico Guest House Cafeteria)
--- coffee break ---

16:00 - 18:00 **G. Giuliani, L. Mariotti, C. Torma, R. Fuentes Franco, I. Diallo, E. Coppola / ICTP**
lab session

Wednesday - Asia (Room:Adriatico Guest House Kastler Lecture Hall)

14 May 2014

09:00 - 09:25 **X. Gao / CMA, Beijing, P.R. of China**
Performances of RegCM4.4 over CORDEX-EA (phase 2) Region

09:25 - 09:50 **H.-S. Kang / KMA, Seoul, R. of Korea**
CORDEX-East Asia

09:50 - 10:15 **F. Tangang / IKLIM National Un. of Malaysia**
The Southeast Asia Regional Climate Downscaling (SEACLID) / CORDEX Southeast Asia Project
and Highlights of Sensitivity Experiments of RegCM4 for Different Physical Parameterizations

10:15 - 10:40 **J. Sanjay / IITM, Pune, India**
CORDEX South Asia: Overview and performance of regional climate models

10:40 - 11:10 (Room: Adriatico Guest House Cafeteria)
--- coffee break ---

11:10 - 11:35 **S.K. Dash / IIT Delhi, India**
Evidence for Weakening of Indian summer monsoon and SA CORDEX results from RegCM

11:45 - 12:10 **F. Solmon / ICTP**
Interactions between Arabian dust emission and the Indian monsoon

CORDEX (Room:Adriatico Guest House Kastler Lecture Hall)

14 May 2014

12:10 - 12:40 **W. Gutowski / Iowa State Un., USA**
Metrics for CORDEX: RegCM in context

12:40 - 13:05 **M. Bukovsky / NCAR, USA**
Dealing with a Regional Climate Model Ensemble

13:05 - 14:00 (Room: Adriatico Guest House Cafeteria)
--- lunch break ---

RegCM-MITogcm coupled model Tutorial (Room:Adriatico Guest House Informatics Lab.)

14 May 2014

14:00 - 15:30 **U. Turuncoglu, G. Sannino, R. Farneti** / *ITU, Istanbul, Turkey, ENEA, Rome, Italy, ICTP*
lab session

15:30 - 16:00 (Room: Adriatico Guest House Cafeteria)
--- coffee break ---

Chemistry Tutorial (Room:Adriatico Guest House Informatics Lab.)

14 May 2014

16:00 - 18:00 **F. Solmon, A. Shalaby et al.** / *ICTP*
lab session

Thursday - CORDEX (Room:Adriatico Guest House Kastler Lecture Hall)

15 May 2014

09:00 - 09:30 **B. Timbal** / *BOM, Australia*
Downscaling a perspective from Australia

Africa (Room:Adriatico Guest House Kastler Lecture Hall)

15 May 2014

09:30 - 10:00 **C. Lennard** / *Un. of Cape Town, South Africa*
tbc

10:00 - 10:30 **G. Nikulin** / *SMHI, Sweden*
Publishing and Accessing CORDEX data via the Earth System Grid Federation - ESGF

10:30 - 10:50 **B. Sylla** / *WASCAL, Burkina Faso*
Projected climate change over West Africa: Intra-seasonal variability, Higher intensity precipitation events and Drought frequency and variability

10:50 - 11:20 (Room: Adriatico Guest House (Terrace))
--- coffee break ---

South & Central America (Room:Adriatico Guest House Kastler Lecture Hall)

15 May 2014

11:20 - 11:45 **S. Solman** / *CIMA Un. of Buenos Aires, Argentina*
CORDEX South America: Overview of on going activities and evaluation of regional climate change scenarios for South America

11:45 - 12:10 **R. Porfirio da Rocha** / *USP, Sao Paulo, Brazil*
Interannual variability associated with ENSO: present and future climate projections of RegCM4 for South America-CORDEX domain

12:10 - 12:35 **T. Cavazos / CICESE, Mexico**
CORDEX activities in Mexico, Central America, and the Caribbean

12:35 - 14:30 (Room: Adriatico Guest House Cafeteria)
--- lunch break ---

Microphysical scheme Tutorial (Room:Adriatico Guest House Informatics Lab.)

15 May 2014

14:30 - 15:30 **R. Nogherotto et al. / ICTP**
lab session

15:30 - 16:00 (Room: Adriatico Guest House (Terrace))
--- coffee break ---

16:00 - 18:00 **R. Nogherotto et al. / ICTP**
lab session

19:30 - 21:30 (Room: Adriatico Guest House (Terrace))
all participants
--- Reception dinner ---

Friday - CREMA (Room:Adriatico Guest House Kastler Lecture Hall)

16 May 2014

09:00 - 09:30 **L. Mariotti / ICTP**
Seasonal and intraseasonal changes of African monsoon climates in 21st century CORDEX projections

09:30 - 10:00 **I. Diallo / ICTP**
Projections of extreme rainfall events in RegCM4 CORDEX simulations for west Africa

10:00 - 10:30 **G. Tefera Diro / UQAM, Canada**
Tropical cyclones in a regional climate change projection with RegCM4 over the CORDEX Central America domain

10:30 - 11:00 (Room: Adriatico Guest House (Terrace))
--- coffee break ---

11:00 - 11:20 **R. Fuentes Franco / ICTP**
Interannual variability of precipitation over the Central America CORDEX domain from a set of future projections from CMIP5 GCMs and RegCM4 simulations

11:20 - 11:40 **M. Llopart / USP, Sao Paulo, Brazil**
Climate change impact on precipitation for the Amazon and La Plata basins

11:40 - 12:00 **G. Giuliani / ICTP**
RegCM4.4rc Internal Variability What to expect

12:00 - 12:20 **F. Raffaele / ICTP**
Scale dependent impact of Climate Change in the Alpine Region: hydrological budget comparison between low, medium, high and very high resolution Regional Climate Model simulations.

12:20 - 14:00 (Room: Adriatico Guest House Cafeteria)
--- lunch break ---

Diagnostic Tools (Room:Adriatico Guest House Informatics Lab.)

16 May 2014

14:00 - 15:30 **F. Solmon, A. Shalaby et al. / ICTP**
lab session

15:30 - 16:00 (Room: Adriatico Guest House (Terrace))
--- coffee break ---

Satellite Simulation Software for Model Assessment (COSP) (Room:Adriatico Guest House Informatics Lab.)

16 May 2014

16:00 - 18:00 **R. Nogherotto et al. / ICTP**
lab session

CORDEX Science Advisory Team 1st session

8:30-17:00 (Room:Adriatico Guest House Lundqvist Lecture Hall) (**Saturday**)

17 May 2014

08:30 - 17:00 **CORDEX Science Advisory Team**

Monday - 2nd week (Room:Adriatico Guest House Kastler Lecture Hall)

19 May 2014

09:15 - 09:30 **T. Halenka / Charles University, Prague, Czech Republic**
Urban environment impact on climate

09:30 - 09:45 **M. Elizbarashvili / Ivane Javakhishvili Tbilisi State University, Georgia**
Modeling of Climate Indices for the Temperature Regimen in the Territory of Georgia by using RegCM4

09:45 - 10:00 **A. Zakey / Egyptian Meteorological Authority, Cairo, Egypt**
Cloud-Aerosol Interaction in RegCM4: Indirect effects of aerosols over Africa

10:00 - 10:15 **A. Ibrahim / American University in Cairo, Egypt**
Space- and Ground-Based Investigation of Atmospheric Aerosols and their Impact on Climate Over Egypt (A PEER NSF USAID NAS Project)

10:15 - 10:30 **B. J. Abiodun / University of Cape Town, South Africa**
Simulating the Characteristics of extreme rainfall events over Southern Africa using Regional Climate Models

10:30 - 11:00 (Room: Adriatico Guest House (Terrace))
--- coffee break ---

11:00 - 12:30 (Room: Adriatico Guest House Informatics Lab.)
lab session

12:30 - 14:00	(Room: Adriatico Guest House Cafeteria) --- lunch break ---
14:00 - 15:30	(Room: Adriatico Guest House Informatics Lab.) lab session
15:30 - 16:00	(Room: Adriatico Guest House (Terrace)) --- coffee break ---
16:00 - 18:00	(Room: Adriatico Guest House Informatics Lab.) lab session

Tuesday (Room:Adriatico Guest House Kastler Lecture Hall)

20 May 2014

09:15 - 09:30	Q. Fan / <i>Department of Atmospheric Science, Sun yat-sen University, China</i> A study of regional air pollution in spring using WRF/CMAQ model over Pearl River Delta, China
09:30 - 09:45	L. Wang / <i>Macquarie University, Sydney, Australia</i> Model validation of the Regional Climate Model (RegCM4.3) over the Loess Plateau, China
09:45 - 10:00	Gomboluudev Purevjav / <i>Institute of Meteorology, Hydrology and Environment, Mongolia</i> Use of Regional Climate Model (RegCM3/4) in Mongolia
10:00 - 10:15	Kadarsah / <i>Indonesian Agency for Meteorological Climatological and Geophysical Agency (BMKG)</i> Simulation of Indonesian Maritime Continent Rainfall using Regional Climate Model
10:15 - 10:30	Pampuch, Jang, Guendogdu, Patarci Poster presentations, 3 min each
10:30 - 11:00	(Room: Adriatico Guest House (Terrace)) --- coffee break ---
11:00 - 12:30	(Room: Adriatico Guest House Informatics Lab.) lab session
12:30 - 14:00	(Room: Adriatico Guest House Cafeteria) --- lunch break ---
14:00 - 15:30	(Room: Adriatico Guest House Informatics Lab.) lab session
15:30 - 16:00	(Room: Adriatico Guest House (Terrace)) --- coffee break ---
16:00 - 18:00	(Room: Adriatico Guest House Informatics Lab.) lab session

Wednesday (Room:Adriatico Guest House Kastler Lecture Hall)

21 May 2014

09:15 - 09:30	M. Adeniyi / <i>University of Ibadan, Nigeria</i> Application of the ICTP Regional Climate Model 4.3 (RegCM4.3) to grain production in Nigeria
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09:30 - 09:45	R. Cerezo Mota / <i>Universidad Veracruzana, Mexico</i> Evaluation of dry/wet spells of the North American Monsoon with CORDEX
09:45 - 10:00	M. Reboita / <i>Natural Resources Institute, Federal University of Itajubá, Brazil</i> Assessment of RegCM4.3 over the CORDEX South America Domain: Sensitivity Analysis to Physical Parameterization Schemes
10:00 - 10:15	P. Reyes Fernandez / <i>Center for Weather Forecasting and Climate Studies - CPTEC/INPE, Brazil</i> Surrogate Climate-Change Scenarios with a Regional Climate Model over South America
10:15 - 10:30	Han, Batibeniz, Klutse Browne, Valcheva Poster presentations, 3 min each
10:30 - 11:00	(Room: Adriatico Guest House (Terrace)) --- coffee break ---
11:00 - 12:30	(Room: Adriatico Guest House Informatics Lab.) Discussion
12:30 - 14:00	(Room: Adriatico Guest House Cafeteria) --- lunch break ---
14:00 - 15:30	(Room: Adriatico Guest House Informatics Lab.) lab session
15:30 - 16:00	(Room: Adriatico Guest House (Terrace)) --- coffee break ---
16:00 - 18:00	(Room: Adriatico Guest House Informatics Lab.) lab session

Thursday (Room:Adriatico Guest House Kastler Lecture Hall)

22 May 2014

09:15 - 09:30	S. Mishra / <i>IIT, Delhi, India</i> Performance of RegCM4.3 over the India Region
09:30 - 09:45	S. Das / <i>IIT, Delhi, India</i> Response of Atmospheric Circulations to Direct Radiative Forcing of Aerosols over Indian Subcontinent
09:45 - 10:00	A. Shaukat / <i>Chin. Academy of Sciences, Beijing, China</i> Future Climatic and Hydrological changes over Upper Indus basin of Himalayan region Pakistan
10:30 - 12:00	Discussion
10:30 - 11:00	(Room: Adriatico Guest House (Terrace)) --- coffee break ---
12:30 - 14:00	(Room: Adriatico Guest House Cafeteria) --- lunch break ---
14:00 - 15:30	(Room: Adriatico Guest House Informatics Lab.) lab session

- 15:30 - 16:00** (Room: Adriatico Guest House (Terrace))
--- coffee break ---
- 16:00 - 18:00** (Room: Adriatico Guest House Informatics Lab.)
lab session

Friday (Room:Adriatico Guest House Kastler Lecture Hall)

23 May 2014

- 09:00 - 10:30** **Project Presentations**
- 10:30 - 11:00** (Room: Adriatico Guest House (Terrace))
--- coffee break ---
- 11:00 - 12:30** **Project Presentations**