

Workshop HYMEX-TTM3 and MedCORDEX

28-29-30th of March , 2012
Toulouse, France

TTM3: task team modelling, Regional Climate Models
Med-CORDEX: Mediterranean domain of the WCRP CORDEX program

Venue: Météo-France main campus (also called Meteopole), at CNRM (Navier building) in the main conference room (Noilhan room)

For coming from the town center, check

<http://www.cnrn-game.fr/spip.php?article15#planCNRM>

it is 30 min from town centre

To come from downtown:

Take the underground line 1 (direction Basso Cambo) and stop at the terminus, then bus n° 8 (Lycée Polyvalent) and stop at “Météorologie”

To come from the airport:

Either go downtown with the Airport shuttle or bus 66 (to St Cyprien-République underground station) or take a taxi (asking for Météo-France)

The workshop web page :

<http://www.hymex.org/?page=private/workshops/TTM3/main>

1. Framework and main workshop objectives:

Since some years now, the Regional Climate Modelling task in HyMeX (TTM3, led by P. Ruti and S. Somot) and the MedCORDEX initiative try to define a common framework for high-resolution and multi-component Regional Climate Models dedicated to the Mediterranean study.

In 2012, the HyMeX project allocates some funds (CNRS/INSU-MISTRALS call) for a dedicated HyMeX-TTM3 and MedCORDEX workshop to be held in Toulouse end of March. The workshop is supported and endorsed by HyMeX, MedCLIVAR and CORDEX.

The workshop scientific committee includes Miguel Gaertner (UCLM, Spain), Gianmaria Sannino (ENEA, Italy) and Samuel Somot (CNRM, France)

The main workshop objectives are:

1. Reporting about the development of the TTM3 and MedCORDEX modelling platforms and runs by each modelling group
2. Finalizing the design of the multi-model intercomparison: model set-up, open issues, database, output list

3. Enhancing the discussion about the modelling exercise for the HyMeX observing period (HyMeX SOP starts in September 2012)
4. Sharing and interacting about the first scientific results from the model runs
5. Organizing the multi-model evaluation and analysis : first results and future plans
6. Enhancing the model improvement components of TTM3: first results and future plans

All the modelling, analysing and evaluating teams involved in HyMeX and MedCORDEX are welcome.

The workshop will consist in:

- A series of short talks on the model status and run status by each modelling team.
- A series of scientific talks (related to HyMeX and MedCORDEX scientific objectives) on the first results (invited talks + volunteer contributions)
- Working groups will be organised to finalize the multi-model run design as well as the multi-model analyse and evaluation

2. Recall of the overall HyMeX-TTM3 organisation:

[TTM3 is co-lead by P. Ruti (ENEA) and S. Somot (CNRM)]:

The task team modelling #3 is responsible for the Mediterranean Regional Climate System Models and their components in the HYMEX International Implementation Plan. It includes all the climate-scale modelling activities for the different components of the climate system (atmosphere-ocean-surface-hydrology) and at different temporal scales. The spatial scale is the whole Mediterranean region including the Mediterranean and Black Sea catchment basin. However TTM3 also includes the sub-basin ocean simulations.

The TTM3 sub-tasks are:

- TTM3a [led by K. Béranger (ENSTA), S. Bastin (LATMOS), S. Sarantis (Univ. of Athens)]: HyMeX field campaign / case study simulations (SOP/EOP/LOP)

LOP: 10 years from Sept 2010

EOP+: Sept 2012 – Nov 2013

SOP1: 5 Sept 2012 – 6 nov 2012, SOP2: 1 Fev 2013 – 15 mars 2013

- TTM3b [G. Sannino (ENEA), S. Somot (CNRM), J.-C. Calvet (CNRM)]: Long-term hindcast simulations: 1960-2010
- TTM3c [M. Gaertner (UCLM), P. Ruti (ENEA)]: Regional climate change scenarios (Med-CORDEX)
- TTM3d [D. Gomis (IMEDEA), A. Mariotti (UMD)]: Diagnostics, validation and integrated analysis
- TTM3e [S. Belamari (CNRM), B. Ahrens (Univ. of Frankfurt)]: Improvement of the Regional Climate Models parameterizations

3. Agenda:

Wednesday 28th March, afternoon

1.30-2 pm: coffee, welcome

1. Introduction [chairman: G. Sannino, M. Gaertner, S. Somot]:

2.00-2.15pm: Introduction: objectives of the meeting / practical details (S. Somot)

2.15-2.40pm: Presentation of HyMeX (V. Ducrocq)

2.40-3.05pm: Presentation of HyMeX/TTM3 (S. Somot)

3.05-3.30pm: Presentation of CORDEX (F. Giorgi)

3.30-3.55pm: Presentation of MedCORDEX (P. Ruti)

Coffee break : 4-4.30pm

2. Current Status of models, runs, database:

4.30-6pm: Status (18 short talks by each modelling groups **5min, 2-3 slides MAXIMUM**) of the various modelling platforms and simulations in TTM3abc

[chairman: G. Sannino, M. Gaertner, S. Somot]

- Gabriel Jordà (IMEDEA) : OCEAN
- Valerie Garnier (IFREMER) : OCEAN
- Yann Ourmières (MIO / USTV) : LOCEAN
- Claude Estournel (LA): OCEAN
- Thomas Arsouze (ENSTA, MERCATOR) : OCEAN
- Jean-Christophe Calvet (CNRM): LAND+RIVER
- Wolfgang Ludwig (CEFREM): RIVER
- Filippo Giorgi (ICTP): ATMO
- Piero Lionello (Univ. Lecce, CMCC): ATMO
- Gianmaria Sannino (ENEA): RCSM + individual components
- Alberto Elizalde (MPI): RCSM + components
- Samuel Somot (CNRM): RCSM + components
- Laurent Li (LMD): RCSM + components
- Vladimir Djurdjevic (Univ. Belgrade): RCSM + components
- Sylvain Mailler (MORCE-MED): RCSM + components
- Miguel Gaertner (UCLM): RCSM + components
- Ali Harzallah (INSTM): RCSM + components
- Jennifer Brauch (Univ Frankfurt + KIT): RCSM + components

Other TTM3 modelling groups not represented during the workshop: UAH, ITU, TAU, Eotvos Lorand Univ., Univ Athens, IC3

6-6.30pm: Status of the common databases (short talks + discussion):

[chairman: P. Ruti, V. Ducrocq]. Participation are expected from

HyMeX database at OMP and IPSL by L. Mastrorillo (V. Ducrocq)

MedCORDEX database at ENEA by P. Ruti (or E. Lombardi)

CORDEX database by F. Giorgi

MedCLIVAR database by P. Lionello

other options

6.30-7pm: Discussion on the “status” session, future plan, deadlines, list of actions

[chairman: G. Sannino, M. Gaertner, S. Somot, P. Ruti]:

Thursday, 29th March

3. Scientific talks on the first HyMeX-TTM3 and MedCORDEX results (targeting HyMeX scientific objectives) and working groups / discussions. The agenda is organised by TTM3 sub-tasks (without forgetting the various components of the Mediterranean climate system: ocean, land-hydrology, atmo, coupled).

Talk: 15min questions included

9.00-10.15am: TTM3b: Scientific talks (hindcast, past climate variability, all components) [chairman: G. Sannino]

- **15min:** Ali Harzallah (INSTM): Trends simulated by an ocean-alone model for the period 1958-2007 using two sets of atmospheric forcings.
- **15min:** Jean-Christophe Calvet (CNRM): Impact of precipitation and land biophysical variables on the simulated discharge of European and Mediterranean rivers
- **15 min:** Wolfgang Ludwig (CEFREM): river freshwater discharge to the Mediterranean and Black Sea
- **15min:** Sylvain Mailler (LMD): Topographic limitation of the inland propagation of the air-sea coupled effects
- **15min:** Blandine L'Heveder (LMD): Interannual variability of deep convection in the NorthWestern Mediterranean Sea

10.15-10.45am: coffee break

10.45-11.45am: TTM3b: Discussion/Working groups on finalizing the design/outputs of the multi-model intercomparison [prepared and chaired by G. Sannino, A. Elizalde, S. Somot, JC Calvet]

11.45-12.30am: TTM3c: Scientific talks (scenarios with priority to new RCP runs, MedCORDEX, all components) [chairman: P. Ruti, M. Gaertner]

- **15min:** Gianmaria Sannino (ENEA): Mediterranean Coupled Models: what we have learned from CIRCE ?
- **15min:** Miguel Gaertner (UCLM): Risk of tropical cyclones over the Mediterranean Sea in scenario runs: previous results and expected added value of MedCORDEX runs
- **15min:** Michel Déqué (CNRM): new RCP scenarios (CMIP5/CORDEX) for the South-East of France : extreme events analysis.

Lunch break: 12.30am-2pm

2-3pm: TTM3c: Discussion/Working groups on finalizing the design/outputs of the multi-model intercomparison [prepared and chaired by M. Gaertner, P. Ruti]

3-4.15pm: TTM3d: Scientific talks (innovative diagnostics, integrated analysis and/or multi-model evaluation, indicators) [chairman: G. Jordà, C. Dubois]

- **15min:** Gabriel Jordà (IMEDEA) : Can we trust Mediterranean hydrographic products (MEDAR, EN3, Ishii) for climate studies and model validation?
- **15min:** Vladimir Djurdjevic (Univ Belgrade): EBU-POM verification for past climate and ERA-Interim downscaling integration
- **15min:** Clotilde Dubois (CNRM): Evaluation of the CNRM Regional Climate System Model of the Mediterranean area for HyMeX and MedCORDEX
- **15 min:** Piero Lionello (Univ Lecce, CMCC) A comparison between regional and climate model in the Mediterranean region
- **15min:** Gabriel Jordà (IMEDEA): Modelling Mediterranean Sea Level. Conceptual and practical issues.

Coffee break : 4.15-4.45pm

4.45-5.45pm: Discussion/Working groups on coordinating the evaluation and analysis [prepared and chaired by G. Jordà, C. Dubois]

5.45-6.30pm: space for agenda shift

8.30pm: Workshop Dinner, Toulouse downtown
Restaurant Chez Navarre, 49 Grande rue Nazareth
(to register, email clotilde.dubois@cnrm.meteo.fr)

Friday, 30th March

9.00-10.00am: TTM3a: Scientific talks (Case study analysis, HyMeX field campaign LOP/EOP/SOP runs, all components) [chairman: V. Ducrocq, S. Somot]

- **15min:** Hiba Omrani (LMD): Sensitivity of the ocean circulation in the strait of Sicily to a high resolution atmospheric forcing
- **15min:** Loic Houpert (CEFREM) Observations of Deep Ocean Convection in the NW Mediterranean basin over the recent period 2007/2011 from in-situ measurements
- **15min:** Jonathan Beuvier (MERCATOR) : Spreading of the Western Mediterranean Deep Water after winter 2005: time scales and deep cyclone transport
- **15min:** xxx

10-10.30am: coffee break

10.30-11.30am: TTM3a: Discussion/Working groups on finalizing the design/outputs of the multi-model intercomparison, choice of the case study, link with TTM1 [prepared and chaired by V. Ducrocq, S. Somot]

11.30-12.30am: TTM3e: Scientific talks (Model improvement / parameterizations, case study, multi-model approach, all components) [chairman: B. Ahrens, S. Belamari]

- **15min:** Alberto Elizalde (MPI) Resolving the Black Sea in the Mediterranean Sea simulations using a fully coupled atmosphere-ocean model

- **15min:** Gianmaria Sannino (ENEA) Sensitivity of the MTHC on the resolution adopted at Gibraltar and tidal forcing.
- **15min:** Pierre Nabat (CNRM) Aerosol regional variability over the Mediterranean : modeling and impact on climate in ALADIN and RegCM.
- **15 min:** xxx

Lunch break: 12.30am-2pm

2-3pm: TTM3e: Discussion/Working groups on model improvement / parameterizations [prepared and chaired by B. Ahrens, S. Belamari]

3-4pm:

- **Discussion on TTM3 coordination** (TTM3abcde, sensitivity runs, common case study, runs and outputs to be stored in the database) [prepared and chaired by M. Gaertner]
- **Discussion on the links between TTM3 activities and HyMeX** (field campaign, process study, TTM1, regional reanalysis) **and between MedCORDEX and CORDEX** [prepared and chaired by S. Somot]

Coffee break : 4-4.30pm

4.30-5.30pm: Future plan and meeting points: HyMeX workshop, CORDEX and Mediterranean, sessions at EGU, MedCLIVAR meeting in Madrid, visibility, publications, ... [prepared and chaired by G. Sannino, M. Gaertner, S. Somot]

4. Useful documents to prepare the workshop:

All available on the HyMeX-TTM3 web site:

http://www.hymex.org/?page=private/teams/show_team&team=TTM&steam=TTM3&ssteam=TTM3&pageteam=documents

report on TTM3 activities (May-Dec 2011):

report_HyMeX-TTM3_dec2011_somot.doc (December 09 2011 12:32)

updated list of HyMeX-TTM3 models and runs:

list_IIP_TTM3abc_simulations_7dec2011.xls (December 07 2011 19:15)

TTM3 status in Menorca (May 2011) and list of pending TTM3 actions:

somot_TTM3_PW1roundtable_Menorca_16-17june2011.ppt (August 02 2011 15:16)

somot_TTM3_PW1roundtable_rendering_Menorca2011_5august2011.pdf (August 05 2011 18:10)

MedCORDEX presentation:

somot_MEDCLIVAR_Lecce2011_MedCORDEX_v1.ppt (August 05 2011 14:05)

somot_MedCORDEX_WCRP2011_Denver_oct2011.pdf (December 09 2011 12:34)

giorgi_et_al_CORDEX_WMO.pdf (July 20 2011 11:58)

MedCORDEX and HyMeX-TTM3 archive specifications

cordex_archive_specifications_110628.pdf (August 02 2011 16:19)

HyMeX-TTM3 / MedCORDEX workshop in Toulouse - List of variables (From Miguel Angel Gaertner) 2012/01/19-17:40

For the last document, see:

http://www.hymex.org/?page=private/teams/show_team&team=TTM&steam=TTM3&ssteam=TTM3&pageteam=messages

5. List of participants:

updated: March, 27th, 2012

5.1 Participants already confirmed (50 pers.)

F. Adloff (CNRM)
B. Ahrens (Univ. Frankfurt, TTM3e co-leader)
A. Alias (CNRM)
T. Arsouze (ENSTA, invited)
S. Belamari (CNRM, TTM3e co-leader)
I. Beau (CNRM)
J. Beuvier (MERCATOR)
R. Bourdalle-Badie (MERCATOR)
J. Brauch (Univ. Frankfurt)
J.-C. Calvet (CNRM, TTM3b co-leader)
J. Colin (CNRM)
P. Damien (LA)
M. Déqué (CNRM)
V. Djurdjevic (Univ. Belgrade, invited)
P. Drobinski (LMD, HyMeX co-leader)
C. Dubois (CNRM)
V. Ducrocq (CNRM, HyMeX co-leader, invited)
A. Elizalde (MPI, invited)
C. Estournel (LA, Mermex representative)
M. Gaertner (UCLM, TTM3c co-leader, workshop scientific committee member, invited)
V. Garnier (IFREMER)
H. Giordani (CNRM)
F. Giorgi (ICTP, invited, CORDEX representative)
K. Goubanova (LEGOS, not in TTM3)
A. Harzallah (INSTM, invited)
L. Houpert (CEFREM, not in TTM3)
G. Jordà (IMEDEA, TTM3d co-leader, invited)
C. Lebeaupin-Brossier (CNRM)
J.-M. Lellouche (MERCATOR, not in TTM3)
B. L'Heveder (LMD)
L. Li (LMD, invited)
P. Lionello (Univ. Lecce, CMCC, invited, MedCLIVAR and HyMeX representative)
W. Ludwig (CEFREM, invited, WG1 co-leader)
S. Mailler (LMD, not in TTM3)
M. Mallet (LA, not in TTM3, Charmex representative)
P. Marsaleix (LA, not in TTM3)

L. Mastrorillo (OMP, HyMeX database)
P. Nabat (CNRM)
H. Omrani (LMD, not in TTM3)
Y. Ourmières (MIO / USTV, not in TTM3)
S. Planton (CNRM, only Thursday)
E. Richard (LA, TTM1 leader)
O. Roussot (CNRM, HyMeX office)
P. Ruti (ENEA, TTM3c co-leader, Med-CORDEX and HyMeX-TTM3 representative)
G. Sannino (ENEA, workshop scientific committee member, invited)
F. Sevault (CNRM)
S. Somot (CNRM, TTM3b co-leader, TTM3 and MedCORDEX co-leader, workshop scientific committee member, workshop local organiser)
C. Szczypta (CNRM)
B. Zakardjian (MIO / USTV, not in TTM3)

To be confirmed :

M. Rixen (WMO in charge of CORDEX, not in TTM3)
J. Bartholy (Eotvos Lorand Univ.)
P. Fraunié (LSEET, MIO)
J. Mazon (Catalonia Tech. Univ.)
Pngracz Rita, (Eotvos Lorand Univ.)

TTM3 members that can not come :

Beranger Karine, ENSTA (France, invited, TTM3a co-leader)
Bastin Sophie, LATMOS (France, invited, TTM3a co-leader)
Doblaz-Reyes Francisco, IC3 (Spain)
Gomis Damia, IMEDEA (Spain)
Herrmann Marine (IRD/LEGOS)
Marcos Marta, IMEDEA (Spain)
Mariotti Annarita, ENEA (Italy, TTM3d co-leader)
Onol Baris, Istanbul Technical University (Turkey)
Polcher Jan, LMD (France)
Sanchez Emilia, CERFACS (France)
Ullmann Albin, CNRS (France, invited)
Bouffies-Cloche (ISPL)

Other members of TTM3:

Anquetin Sandrine, UJF (France)
Baldi Marina, CNR (Italy)
Bishop Craig, Naval Research Laboratory (USA)
Bongioannini Cerlini Paolina, University of Perugia (Italy)
Braud Isabelle, Cemagref (France)
Cabos William, Universidad de Alcala (Spain)
Calmanti Sandro, ENEA (Italy)
Chiacchio Marc, IAK (Germany)
Coquillat Sylvain, LA (France)
Dalu John-David, IBIMET-CNR (Italy)
Defer Eric, LERMA (France)
Delanoe Julien, LATMOS/IPSL/UVSQ (France)
Dell'Aquila Alessandro, ENEA (Italy)
Dobler Andreas, University of Frankfurt (Germany)
Dumas Patrice, CIRAD (France)

Gaetani Marco, CNR (Italy)
Gallardo Clemente, UCLM (Spain)
Garcia-Serrano Javier, IC3 (Spain)
Gozzini Bernardo, Consorzio LaMMA (Italy)
Halimi Lotfi, National Meteorological Office (Algeria)
Ivancan-Picek Branka, Meteorological and Hydrological Service (Croatia)
Khodayar Samiro, KIT (Germany)
Lambert Dominique, Laboratoire d'Aérodynamique (France)
Liguori Giovanni, Universidad de Alcala (Spain)
Losada Doval Teresa, Universidad Complutense de Madrid (Spain)
Maignan Fabienne, LSCE/IPSL (France)
Marcello Magaldi, CNR-ISMAR (Italy)
Martin Eric, CNRM (France)
Orain Françoise, Météo-France (France)
Ouali Ammar, Mediterranean cyclogenesis (Tunisia)
Paci Alexandre, Météo-France (France)
Pascual Ananda, IMEDEA(CSIC-UIB) (Spain)
Pasqui Massimiliano, Institute of Meteorology (Italy)
Pelon Jacques, IPSL (France)
Pettenuzzo Daniele, INGV (Italy)
Piani Claudio, ICTP (Italy)
Polo Irene, UCM (Spain)
Pujol Isabelle, CLS (France)
Sanchez Enrique, Universidad de Castilla-La Mancha (Spain)
Schaedler Gerd, KIT (Germany)
Sofianos Sarantis, University of Athens (Greece)
Struglia Maria Vittoria, ENEA (Italy)
Tsanis Ioannis, University of Crete (Greece)
Wirth Achim, LEGI (France)
Guo Weidong, Beijing Aviation Weather Center (China)