

# **Workshop HYMEX / MedCORDEX**

**22-23-24-25<sup>th</sup> of September, 2015**  
**Mykonos, Greece**

\*\*\*

Med-CORDEX is at the same time the Regional Climate Modelling Science Team of HyMeX and Mediterranean domain of the WCRP CORDEX program

**Venue: 9<sup>th</sup> HyMeX Workshop, organized by the National Observatory of Athens, Mykonos Island -Saint-John hotel), Greece.**

**The workshop web page :**

<http://hymex.meteo.gr>

\*\*\*

## **1. Framework and main workshop objectives:**

After the meetings in Toulouse in September 2009, Toulouse in March 2012 and Palaiseau in May 2014, the 4<sup>th</sup> dedicated Med-CORDEX meeting will be held as a side event of the 9<sup>th</sup> HyMeX Workshop in Mykonos.

The main objectives of the workshop are:

- (1) to report on the model developed and simulations performed by the various participating groups in the frame of the Med-CORDEX initiative,
- (2) to finalize an overview of the phase 1 of Med-CORDEX underlining positive and negative aspects,
- (3) to present and discuss the main scientific results obtained in Med-CORDEX and in particular those in preparation for the Med-CORDEX special issue in Climate Dynamics,
- (4) to reinforce et develop the collaborations with the project ENVIMED MaHb,
- (5) to reinforce and develop the links with the other HyMeX Science Teams and
- (6) to define the main scientific axes and the new simulation exercises proposed by the Med-CORDEX community in CORDEX-2.

The agenda of the Med-CORDEX meeting follows the submission of abstracts and has been defined by the Med-CORDEX Steering Committee (Samuel Somot, Gianmaria Sannino, Bodo Ahrens, Erika Coppola, Gabriel Jordà) and the leader of the MaHb project (Karina Von Schuckmann).

The workshop will consist in:

- A talk of overview of the main activities of Med-CORDEX since 2010
- A series of scientific talks by the Med-CORDEX participants
- Working groups and discussions to discuss the activity overview and to prepare Med-CORDEX-2

## **2. Agenda:**

### **Tuesday, 22<sup>nd</sup> September**

*17.00-17.30 pm: coffee*

#### **1. Med-CORDEX activity overview for the period 2010-2015**

**[chairman: B. Ahrens]**

*17.30-18.00:* 5-year science review: Regional Climate Modelling and Med-CORDEX activity (S. Somot)

*18.00-19.00 (session T4.1 in the HyMeX workshop):* Regional climate modelling meeting: Med-CORDEX activities for the period 2010-2015

### **Wednesday, 23<sup>rd</sup> September**

#### **2. Regional Climate Modelling: Heavy precipitation at climate scale**

**[chairman: E. Coppola]**

*9.30-11.00 (W1.2 with the heavy precipitation Science Teams ): Scientific results (6 talks of 15' each questions included)*

Blanchet (LTHE): Extreme rainfall in Southern France: spatio-temporal features and trends  
Fosser/Roehrig (CNRM): Sensitivity of the representation of Heavy Precipitation Events over the western Mediterranean region to the new physical parameterizations in the Regional Climate Model ALADIN

Froidurot/Molinié (LTHE): How Regional climate models feature rainfall in Southern France  
Sanchez-Gomez (CERFACS): Investigating the effects of the internal variability of a regional climate model on the Mediterranean cyclones

Cavicchia (CMCC): Spatiotemporal characterisation of Mediterranean extreme precipitation events: a multi-model assessment

Pongracz (Eötvös Lorand University): Estimation of regional precipitation changes using RegCM experiments

*11.00-11.30: coffee break*

*12.00-13.00 (W2.2 with the heavy precipitation ST):*

Drobinski (LMD): Temperature-precipitation extremes relationship in the Mediterranean: past climate assessment and projection in anthropogenic scenarios

Roehrig (CNRM): Improving convection parameterization in the context of Mediterranean heavy precipitating events over land

**then Discussions:**

Regional climate modelling meeting: heavy precipitation at climate scale

*13.00-15.00: Lunch break*

#### **3. Air-sea fluxes and ocean circulation**

**[chairman: G. Sannino]**

*15.00-15.45 (W3.2 with the air-sea coupling ST and the DWF ST): Scientific results (2 talks)*

Obermann (GUF): Mesoscale Winds in Regional Climate Models: Mistral and Tramontane

Gomis (UIB/IMEDEA): Heat and salt redistribution in the Mediterranean Sea in the Med-CORDEX model ensemble

Sannino (ENEA): Multi-model analysis of the inter-annual variability of the Mediterranean thermohaline circulation

*15.45-16.30 (W3.2 with the air-sea coupling ST and the DWF ST): Discussions*

Regional climate modelling meeting: air-sea fluxes and ocean circulation

*16.30-17.15: poster and coffee break*

*17.15-19.00: Overall discussion on the achievements and orientations of HyMeX*

*20.00: Gala dinner*

## **Thursday, 24<sup>th</sup> September**

### **3. Fully-coupled Regional Climate System Models in Med-CORDEX.**

**[chairman: B. Ahrens]**

*9.00-10.00 (TH1.1 with the air-sea coupling ST): Scientific results*

Cavicchia (CMCC): Simulations of the Mediterranean climate and climate change projections with the CMCC coupled regional model

Flaounas (NOA): Cyclone contribution to the Mediterranean Sea water budget

Gaertner (UCLM): Impact of ocean-atmosphere coupling and high resolution on the simulation of tropical-like cyclones over the Mediterranean Sea: multi-model analysis with Med-CORDEX and EURO-CORDEX simulations

Nabat (CNRM): Aerosol effects on water cycle and ocean convection in the Mediterranean basin: a regional coupled modelling approach

*10.00-10.30 (TH1.1 with the air-sea coupling ST): Discussions*

Regional climate modelling meeting: Fully-coupled regional climate system models in Med-CORDEX

*10.30-11.00: coffee break*

### **4. Project ENVIMED MED-MaHb**

**[chairman: K. Von Schuckmann]**

*11.00-12.00 (TH2.1): Scientific results*

Jordà (IMEDEA): A review of the Mediterranean Sea heat and mass budgets

Von Schuckmann (MIO): Regional ocean indicators in the Mediterranean Sea from in situ measurements during 2004-2014

Ben Ismail (INSTM): The monitoring of thermohaline variability in the Central Mediterranean combining continuous strait measurements and periodic basin scale surveys

Adloff (CNRM): On the representation of Mediterranean sea level in regional climate models

*12.00-13.00 (TH2.1): Discussions on MED-MaHb*

*13.00-15.00: Lunch break*

### **5. Climate change impacts in the Mediterranean**

**[chairman: E. Coppola]**

*15.00-15.30 (TH3.1 with heavy precipitation, drought, flash-flood ST): Scientific results*

Coppola (ICTP): Impact of climate change on runoff timing over the Alpine region

Tramblay (Hydrosciences Montpellier): Hydrological impacts of climate change in Morocco and Tunisia

*15.30-16.30 (TH3.1 with heavy precipitation, drought, flash-flood ST): Discussions*  
Regional climate modelling meeting: climate change impacts

*16.30-17.30pm: coffee break and poster*

**6. Working groups on preparing Med-CORDEX-2**

**[chairman: Med-CORDEX steering committee]**

*17.30-19.00 (TH4.1):* Regional climate modelling meeting: Working groups on preparing Med-CORDEX-2

***Friday, 25<sup>th</sup> September***

*10.45-11.15: coffee break*

**7. Session on preparing Med-CORDEX-2**

**[chairman: S. Somot]**

*11.15-13.00 (F2.2):* Regional climate modelling: final session on preparing Med-CORDEX-2