



**8th international Med-CORDEX Workshop,
Roma, May 2024
AGENDA**

Tuesday 14th May

9.00h-10.00h INTRODUCTORY SESSION

Gianmaria Sannino, Gabriel Jordà - Welcome message, workshop objectives (15min)

Invited talk: *Online*- Daniela Jacob (CORDEX SAT) CORDEX overview talk (30min).

Samuel Somot - Med-CORDEX datasets : review, availability, how-to-access (15 min)

10.00h-11.00h BASELINE RUNS

Javier Soto-Navarro - Ocean criteria for global models selection in the Med-CORDEX-CMIP6 baseline runs (15 min)

Marco Chericoni - Future projections of Mediterranean cyclones with ENEA-REG-CMIP6 (15 min)

María Ortega - Evaluation and characterization of Levante and Poniente regional winds of the Iberian Peninsula through regional climate models in Med-CORDEX and other databases (15 min)

Elyakom Vadislavsky - IMS coupling ICON LAM NWP to NEMO-MED (15 min)

11.00h-11.30h Coffee Break

11.30h-13.00h IPCC ACTIVITIES

Invited talk: *Online*- Robert Vautard (IPCC-WGI co-chair, 20 min)

Invited Talk: *Online*- Bart van den Hurk (IPCC-WGII co-chair, 20 min)

Q/A IPCC - 50 mins



13.00h-15.00h Lunch Break

15.00h-17.00h BASELINE RUNS

Samuel Somot - Dynamic response of the Mediterranean Sea surface circulation at various global warming levels: A multi-model approach (15 min)

Nicolas Gonzalez - Decomposing regional sea level trends in a future high-emission scenario of the Mediterranean Sea (15 min)

Sofia Darmaraki - Drivers of Marine Heatwaves in the Mediterranean Sea in the 21st century (15 min)

Bodo Ahrens - A bit on evaluation and diversity (10 min)

Gabriel Jordà – Ocean spinup criteria (10 min)

Laurent Li - Preliminary analyses of LMDZ-NEMOMED8 driven by ERA-5 (10 min)

Romain Pennel - Med-CORDEX at LMD : ideas and plans for future developments (10 min)

Silvio Gualdi (10 mins) Short presentation about CMCC regional ESM development plan.

Marco Reale (10 mins) Status of the RegCM5 coupled system model

Discussion on Baseline runs (General view and deciding what to discuss in the side event) (S. Somot, G. Jordà) (30 min)

17.10-18.00 (side event)

Med-CORDEX baseline runs in practice



Wednesday 15th May

9.00h-11h IMPACT SESSION INCLUDING COASTAL RISKS AND COASTAL CITIES

Invited talk Jose Jimenez - On the relevance of compound events in the Western Mediterranean coast (30 min)

Vladimir Santos Da Costa - Climate Change Impacts on the Adriatic Sea: An Analysis from the AdriaClim Project. (15 min)

Alexandra Toimil - RCM-driven projections of waves and storm surges for coastal risk assessment and adaptation: approaches, applications and challenges (15 min)

Melisa Menendez- Regional climate projections of waves and storm surge over the western Mediterranean basin (15 min)

Kakha NADIRADZE - Black Sea Coastal Erosion and Prevention (15 min)

Discussion on coastal impacts 30min Linking MedCORDEX to coastal impacts (R. Ranasinghe, G. Sannino)

11.00h-11.30h Coffee Break

11.30h-13.00h IMPACT SESSION INCLUDING COASTAL RISKS AND COASTAL CITIES

Invited talk: *Online*- Gaby Langendijk Regional climate modeling for urban areas across scales - with an emphasis on coastal cities (30 min)

Erika Coppola - Urban effect on coastal vs inland cities : an example from CP simulations. (15 min)

Kwok P Chun - Building height and density effects related to winter and summer temperature and precipitation simulation based on Local Climate Zones in a coastal city: A case study of Istanbul (15 min)

Discussion on Med-CORDEX contribution to IPCC AR7 including the Special Report on Cities (30 min) (E. Coppola, S. Somot)



13.00h-15.00h Lunch Break

15.00h-17.00h IMPACT SESSION INCLUDING COASTAL RISKS AND COASTAL CITIES

Mohamed Hamitouche - Assessment of Hydrological Sensitivity and Discharge Simulation Performance: A Comparative Study of Noah-MP, HD Model, and WRF-Hydro in the Med-CORDEX Domain (15 min)

Christos Giannakopoulos - Using CORDEX simulations to create climate change impact tools for decision makers of various sectors (15 min)

Majid Mathlouthi - Longest dry spells phenomenon in Northern Tunisia: risk assessments using daily rainfall observations (15 min)

BEYOND THE MED-CORDEX STATE-OF-THE ART INCLUDING AI

Invited talk: Andrea Storto - The potential of AI/ML in ocean and climate model simulations (30 min Q&A included)

Christos Giannakopoulos - Statistical downscaled climate projections using CMIP5 and CMIP6 models for an Eastern Mediterranean environment (15 min)

Yassmin Mahmoud (H. Essa) - Climate indicators from GCM- to km-scale (15 min)

Erika Coppola – Advancements in Machine Learning Techniques for High resolution Climate Emulator (15 min)

17.00-18.00 Discussion - Beyond MedCORDEX state-of-the-art and new initiatives including impacts (B. Ahrens)



Thursday 16th May

9.00h-11h SESSION ON BIOGEOCHEMICAL MODELLING

Invited talk: Cosimo Solidoro .- Review on the biogeochemical modelling of the Mediterranean Sea (30 min)

Invited talk: *Online* - Manuel Hidalgo - Climate model data for fisheries and biodiversity research (30 min)

Yutong Zhang - Analysis of the vertical variability and temporal frequency of the chlorophyll forcing field on temperature in the Mediterranean Sea and potential implications for regional climate projections (15 min)

Damiano Baldan - Projecting distributional shifts of mediterranean seagrasses under climate change scenarios using species distribution models (15 min)

Giovanni Galli- Detritus dynamics in the BFM in the Mediterranean Sea (15 min, TBC)

Gabriel Jordà - Uncertainties in Western Mediterranean biogeochemical variability from an ensemble of models (15 min)

Chiara Volta - ENEA BGC modelling plans (15 min)

11.00h-11.30h Coffee Break

11.30h-13.00h SESSION ON BIOGEOCHEMICAL MODELLING

Discussion on the common BCG protocol, next steps (M. Reale, G.Jordà)

13.00h-15.00h Lunch Break

MEETING ENDS

PARTICIPANT LIST

1. Ahrens, Bodo (Goethe University Frankfurt)
2. Anav, Alessandro (ENEA)
3. antonelli, marta (enea)
4. Aragão, Leonardo (CMCC)
5. Bahuet, Yseut Anne Cybele (Balearic Islands University)
6. Baldan, Damiano (National Institute of Oceanography and Geophysics (OGS))
7. Cegar, Nina (Faculty of Geography, University of Belgrade)
8. Chericoni, Marco (IUSS Pavia and ENEA)
9. Chun, Kwok (University of the West of England)
10. Ciarlo, James (University of Malta)
11. Coppola, Erika (ICTP)
12. Darmaraki, Sofia (Foundation for Research and Technology Hellas)
13. Dell'Aquila, Alessandro (ENEA)
14. Emenyonu, Uchenna (Centre for Blue Economy Research and Development Nigeria Ltd/Gte)
15. Fossier, Giorgia (IUSS Pavia)
16. Gallardo, Victoria (Regional Atmospheric Modelling Group, Department of Physics, University of Murcia)
17. Galli, Giovanni (OGS)
18. Giannakopoulos, Christos (National Observatory of Athens)
19. Gimeno, Luis (University of Vigo)
20. Gonzalez, Nicolas (CNRM)
21. Gualdi, Silvio (Centro Euro-Mediterraneo sui Cambiamenti Climatici)
22. Hamitouche, Mohamed (IUSS)
23. Hidalgo, José Manuel (Spanish Institute of Oceanography)
24. Jacob, Daniela (CORDEX SAT)
25. Jiménez, José A. (Universitat Politècnica de Catalunya·BarcelonaTech)
26. Jorda, Gabriel (Spanish Institute of Oceanography)
27. Keller, Douglas (Laboratoire de Météorologie Dynamique)
28. Li, Laurent (CNRS, Sorbonne Université)
29. Mahmoud (H. Essa), Yassmin (Goethe University Frankfurt)
30. Maslova, Veronika (Institute of Natural and Technical Systems)
31. Mathlouthi, Majid (LRSTE)
32. Menendez, Melisa (Universidad de Cantabria)
33. Michetti, Melania (ENEA)
34. Nadiradze, Dr. Kakha (Association for Farmers Rights Defense, AFRD)
35. Napolitano, Ernesto (ENEA)
36. Nieto, Raquel (University of Vigo)
37. Ortega, María (University of Castilla-La Mancha)
38. Palma, Massimiliano (ENEA)
39. Pennel, Romain (LMD-IPSL)
40. Pichelli, Emanuela (ENEA - Italian National Agency for New Technologies, Energy and Sustainable Economic Development)
41. Raffa, Mario (CMCC Foundation)
42. Ranasinghe, Roshanka (IHE Delft)



43. Reale, Marco (National Institute of Oceanography and Applied Geophysics-OGS)
44. Rosselló , Joan (UOC)
45. Saliha , Zerdoum Saliha (Expert SDG Algeria)
46. Salon, Stefano (OGS)
47. Samba Kani , Diakite (Ministère de l'environnement et du Développement Durable de la Guinée)
48. Sanchez, Enrique (UCLM (University of Castilla-La Mancha))
49. Sannino, Gianmaria (ENEA)
50. Scarpetta, Ilaria (WWF)
51. selmi, Rabeb (National institute of meteorology)
52. Sevault, Florence (Météo-France)
53. Solidoro, Cosimo (OGS)
54. Somot, Samuel (CNRM, Meteo-France)
55. Soto-Navarro, Javier (University of Málaga)
56. Storto, Andrea (CNR ISMAR)
57. Struglia, Maria Vittoria (ENEA)
58. Toimil, Alexandra (Universidad de Cantabria - IHCantabria)
59. Vadislavsky, Elyakom (Israel Meteorological Service)
60. Vandenhurk, Bart (IPCC)
61. Vautard, Robert (IPCC)
62. Volta, Chiara (ENEA)
63. Zhang, Yutong (Mediterranean Institute of Oceanography (MIO))