### **Scientific Committee**

Bodo Ahrens (GUF, Germany) Ole Bøssing Christensen (DMI, Denmark) Marilaure Gregoire (ULG, Belgium) Gabriel Jordà (UIB, Spain) Uwe Mikolajewicz (MPI Hamburg, Germany) Gianmaria Sannino (ENEA, Italy) Anna Rutgersson (University of Uppsala, Sweden) Samuel Somot (CNRM, France) Markus Meier (SMHI, Sweden)

# **Organising Committee**

Gianmaria Sannino (ENEA, Italy) Markus Meier (SMHI, Sweden) Marcus Reckermann (IBES, HZG, Germany)

# **Co-organizing Institutions**



Italian national agency for new technologies, energy and sustainable economic development

# Helmholtz-Zentrum Geesthacht

Centre for Materials and Coastal Research



### **Time Table**

Abstract Submission Deadline Registration Workshop 31 July 2015 5 October 2015 5-6 November 2015



Italian national agency for new technologies, energy and sustainable economic development ENEA Headquaters Lungotevere Thaon di Revel 76 00196 Rome, Italy



Venue and Travel

for New Technologies, Energy and Sustainable Economic Development, situated close to the city centre of Rome, and easily accessible by public transportation.

Rome's history spans more than two and a half thousand years. Today, Rome is the capital of Italy and the region of Lazio with 2.9 million residents living along the shores of the river Tiber. In ancient Roman culture, Rome is referred to as "The Eternal City" and "Capital of the World", and is regarded as one of the birthplaces of Western civilization.



For travel, Hotels and public transportation, see www.baltic-earth.eu/rome2015





# Joint regional climate system modelling for the European sea regions



# ENEA Rome, Italy 5-6 November 2015

Announcement and Call for Papers

www.baltic-earth.eu/rome2015

#### Objectives and expected outcome

This workshop aims to contribute to the understanding of regional energy, momentum, water, and matter fluxes and their effects on the regional climate using observations and Regional Climate System Models (RCSMs) encompassing processes in the atmosphere, land, sea, and anthroposphere. In this workshop, we will focus on European seas and their catchment areas like the Mediterranean Sea, Black Sea, North Sea, Baltic Sea and Arctic Ocean - highly sensitive areas where global models fail to give reliable information about changing climate because key processes are not properly resolved.



In recent years, coupled atmosphere – sea ice – ocean models have been elaborated further by using a hierarchy of sub-models for the Earth system, combining regional climate models with sub-models for surface waves, land vegetation, hydrology, land and marine biogeochemistry, the marine carbon cycle as well as marine biology and food webs. Hence, there is a tendency to develop socalled regional Earth system models with the aim to investigate the impact of climate change on the entire terrestrial and marine environment.

Studies on any of the session topics described below are invited to be presented at the workshop. Discussions on progress in the field and challenges will complement the oral and poster presentations.

#### Sessions

Session 1: Development and evaluation of regional climate system models. New coupled atmosphere – ice – ocean – land surface/vegetation – biogeochemical/ carbon – food web models are presented and the results of hindcast simulations are compared to observations. Further, model improvement, new data sets for model evaluation and bias correction methods are particularly welcomed.

Session 2: Regional process studies and studies on the added value of coupled models with high resolution. A special focus on land-atmosphere, ocean-atmosphere and land-ocean (rivers) interactions is expected. In particular, discussions of advantages and disadvantages of regional climate system models are encouraged.

**Session 3: Extreme and high impact events.** Studies of all kind of extremes using coupled models are welcome. The focus of the session will be on the basic scientific understanding of high impact events, and on assessing impacts on key areas with different adaptation potential.

Session 4: Climate change impact studies and uncertainty assessments of projections using coupled model simulations. Dynamical downscaling of Earth System Models, multi-model ensemble studies, and multi-stressor approaches are expected.



Map of SST warming at the end of the 21<sup>st</sup> century: minimum and maximum warming expected from an ensemble of scenario simulations (Adloff et al. 2015, Clim Dyn)

#### **Call for Papers**

Contributions in accordance with the workshop topics as outlined above, both oral or as poster, are welcome. Abstracts in English language, maximum of two pages, including figures, tables or diagrams, are invited to be submitted to the International Baltic Earth Secretariat electronically.

#### **Guidelines and deadlines**

Abstracts must be submitted electronically using e-mail. An electronic abstract template including all format definitions is available at the workshop website: www.baltic-earth.eu/rome2015.Thistemplateshallbe downloaded and used for the preparation of abstracts. Authors are advised to strictly follow the formats given in this template. Other formats or paper/fax copies will not be accepted. Abstracts must be submitted to the Baltic Earth Secretariat at balticearth@hzg.de by 31 July 2015. It should be noted that only a limited number of submitted abstracts can be accepted for oral presentations due to limited time. The workshop committee reserves the right to allocate orals to posters if necessary.

#### Abstract Deadline: 31 July 2015

#### **Registration Deadline: 5 October 2015**

Due to limited room capacity, registrations of authors (oral and poster) will be handled preferentially.

Authors will be notified before 14 September 2015. An abstract volume will be distributed at the workshop.

See website for further details at www.baltic-earth.eu/rome2015

#### Credits

Font cover plots: Sea surface height and circulation in the Mediterranean Sea at 15 meters depth as reproduced by a hindcast simulation 1958-2004 (Somot et al. 2014, Proceedings of the MedClivar Conference 2014 in Ankara, Turkey); Projected change in spring mean ensemble average sea surface height in the Baltic Sea by the end of the century (Meier et al. 2012, SMHI Report Oceanografi No112)

Back cover photo: The Colloseum at dusk (photo by David Iliff.; license CC-BY-SA 3.0)

Inner sleeve photo: The LION buoy, measuring air-sea exchanges in the Gulf of Lions, one of the deep water formation areas in the Mediterranean Sea (photo: Meteo-France)

Text source on Rome: Wikipedia

Printed at Helmholtz-Zentrum Geesthacht GmbH