Model: REMO-MPIOM coupled model

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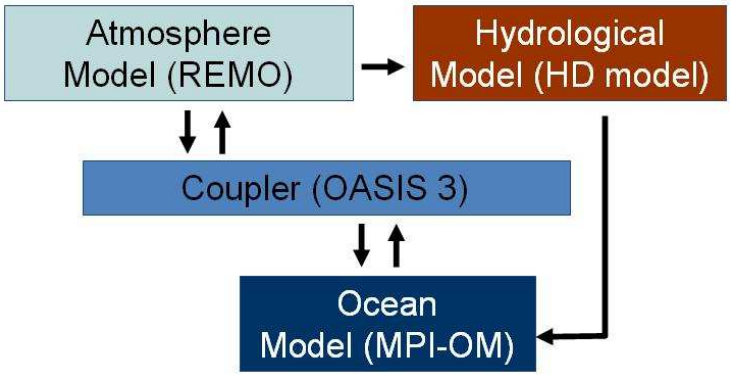
1. General Information	
Model name	REMO-MPIOM coupled model
Version	2010
Author(s) / First publication	
Contact person (name, email)	Uwe Mikolajewicz (uwe.mikolajewicz@zmaw.de)
Institute	Max Planck Institute for Meteorology
Web site	http://www.mpimet.mpg.de
General modelling objectives	Regional climate simulation using atmosphere-ocean coupled components
Domain of applicability	Regional scale areas
KLIWAS contact (authority, name, email)	Uwe Mikolajewicz (uwe.mikolajewicz@zmaw.de)
Model adaption in KLIWAS	Climate simulation for North and Baltic Sea regions
Model coupling in KLIWAS	No use of other model data from KLIWAS project
2. Model description	
Model type	Physically-based
Temporal discretization	Semi-implicite in ocean model, explicite in atmospheric model
Temporal resolution	daily for atmosphere, monthly for ocean.
Spatial discretization	Arakawa C grid
Spatial resolution	5-30 km²
Dimension	3D
Short description of model structure detailing main function	The coupling between the REMO atmosphere model and the MPI-OM ocean model was carried out using the OASIS coupler. OASIS is used for variables exchange and for coupling time synchronization only. A conservative bilinear interpolation routine is integrated in the MPIOM model to interpolate fields between REMO and MPIOM model grids. The HD model makes its own interpolation for REMO fields. REMO calculates heat, freshwater and momentum fluxes for each grid box and receives in turn SST, sea ice thickness and compactness from the ocean model. The atmosphere-ocean coupling frequency is set to 2 hours and the calculation of the river routing is every 24 hours.
Scheme of model structure	
Procedure of model parameter	Statistical

estimation	
3. Model inputs / Model outputs	
List and characteristics of input variables	3D air temperature, specific humidity, wind components, sea level pressure.
List and characteristics of output variables	Main climatic variables. air and water temperature, water salinitiy, precipitation, evaporation, wind speed, etc.
4. Examples of model applications	
Catchments, objectives etc.	
Results of existing comparisons with other models	
Application in the framework of KLIWAS	
5. List of 5 selected references	