

Climate session

6th ACCORD All-Staff Workshop, 2026-04-14, Marrakech & online

Presentations (8-10 min each)

- Climate updates from CNRM/MeteoFrance - Pierre Nabat
- [Climate modelling with ALARO-Surfex at RMI, Belgium](#) - Kwinten Van Weverberg
- Latest progress and ongoing work in HCLIM - Oskar Landgren

Ongoing efforts on coupling

HCLIM consortium: river routing (TRIP), ocean+seaice (NEMO+SI3), to be started: vegetation (LPJ-Guess) Contact: Juan Carlos Sánchez Perrino, jsanchezp@aemet.es

CNRM/MeteoFrance: coupler (OASIS), river (CTRIP), ocean (NEMO), vegetation (no plan outside SURFEX), aerosols-chemistry (library included into ALADIN or AROME), wave (MFWAM), ocean biogeochemistry (PISCES), glaciers (no plan yet) contact: Samuel Somot, samuel.somot@meteo.fr

ALARO:TEB, vegetation (including interactive LAI within Surfex, and using Surfex-A-gs for more realistic vegetation response to heat and drought stress), FLAKE, no plans to couple to ocean or sea ice at this point.

Ongoing efforts on AI/ML based RCM emulation

HCLIM consortium: experience with SRGAN, CNN, and links to NWP activities with Anemoi, more efforts starting this year. Contact: Yi-Chi Wang, yi-chi.wang@smhi.se

CNRM/MeteoFrance: CNRM-UNET based on CNN, work now for pr/tas/daily for ALADIN and AROME configuration, first production of large-ensembles completed, various development works on-going. Contact: antoine.doury@meteo.fr

ALARO: Graph neural network (Anemoi framework) trained on 30-years of 4 km ALARO output over Western Europe; evaluated on precipitation return levels across hourly to multi-day timescales, with a tail-masked training variant to test generalization to unseen extreme. Contact: Wout.Dewettinck@UGent.be

Discussion topics

with focus on possible new or increased collaboration

- Tactus? (enabling ALARO, HARMONIE-AROME and MF-AROME in one system), use of gl software
- model output (e.g. FA to NetCDF takes too long, CMORization, XIOS...)
- aerosols (e.g. can we together make more use of ESM aerosols?)
- major issues (e.g. soil drying, HCLIM south hemisphere issue, Urban Heat Island representation and nocturnal warm bias over vegetation)
- tuning strategies
- Evaluation of new NWP cycles for climate (other priorities than NWP, e.g. land-atmosphere coupling; precipitation extremes)